

Study on the Relationship Between Economic Development, Environment and Real Estate in China

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Abstract: From the beginning of the reform and opening up, China's economy has experienced rapid growth. Real estate has always been a steady source of kinetic energy during this period, constantly supporting the economy's development. In the common belief of Chinese people, acquiring a house means the basic security of a stable life. At the same time, speculation fever has led people to consider the acquisition of equity as a wise investment option. The supply has not well matched the rising demand for real estate, and as a result, the environmental problems brought about by real estate in recent years have increased the pressure on life. At the same time, a series of problems, for example, the lack of circulation of resources during the epidemic, have aggravated the problems of the real estate industry, causing it to go downhill continuously. Therefore, this article will examine real estate development and its relationship with the environment.

Keywords: real estate market, environment, epidemic

1. Introduction

1.1. Research Background

Since the introduction of housing reform policies across the country in 1998, housing purchases peaked in 1998 and 2000. With the improving of the CPF policy, bank mortgage loans, and second-hand housing market, China's residential housing market has seen good growth in recent years. Since 2001, the construction and sales area of commercial housing has maintained a steady growth of about 20% year-on-year. In the same period, the national land transaction price index, the housing sales price index, and the housing rental price index have been growing steadily at about 20% year-on-year. The national land transaction price index, home sale price index and home rental price index remained stable within the 3 percent annual growth range. The real estate industry during this period was growing as fast as it could, and almost everyone was willing to put their money into the investment of houses. New developers were constantly joining the real estate industry, and most people who participated during this period also had more or fewer dividends from real estate. However, as of January 1, 2021, the state began to impose restrictions on real estate. The release of the three-red-line policy has decreased consumer confidence in real estate greatly. At the same time, real estate development is accompanied by environmental problems such as water pollution, noise pollution, and misuse of resources. Therefore, how to achieve the development of the whole economy without

too much restriction obstruction and not too much irreversible damage to the environment is what the government and relevant departments are doing now.

1.2. Literature Review

Along with such phenomenon, however, real estate growth seems to have created many problems.

Liang argues that the health and stability of the real estate market are not only a matter of the development of the industry but also the welfare of the country and the people [1].

Yuan argues that while promoting the sustainable development of the real estate market, it is necessary to prevent the real estate from overheating as well, especially to prevent the emergence of a worse real estate bubble [2].

Lv pointed out that in recent years, there has been a bubble in China's urban housing market in general, and some cities have large bubbles, and some first-tier cities have amazing bubbles, which contain huge financial risks [3].

Additionally, the impact of real estate development on the environment cannot be ignored at the same time, and the construction sector contributes up to 30% of carbon emissions, with the energy consumption of construction accounting for 19.93%.

1.3. Research Gap

Most scholars have collected data and discussed the developing of real estate in recent years and the reasons of bubble formation, etc., but few scholars have discussed the relationship and game between environment and real estate market development.

1.4. Research Framework

Therefore, it is important and essential for the development of society as a whole to discuss the impact of these factors on real estate. This paper will discuss real estate development in the last two decades, including the reasons for the dramatic growth and gradual decline and the game between real estate development and the environment.

This article will be separated into three parts. The first will be discussed is the overall development of China in the last two decades, using indicators like GDP, per capita income, and so on. It will also discuss whether the real estate industry's development trend corresponds to the domestic economy's direction by looking at real estate sales volume and average sales price. The second part will focus on the impact of real estate development on the environment and how these impacts have changed the real estate industry. The third section will discuss how real estate has evolved in recent years, especially during the epidemic, how policies have supported and restricted the real estate market, also how the future development pattern of real estate will be better balanced with environmental protection.

2. Methodology

Since this article analyzes existing data, there is little use of primary research data. Most data use is focused on secondary data [4-5].

2.1. Literature Research

By collecting information on some authoritative websites, such as China Knowledge Network, this paper will have a general understanding and knowledge of the analysis of the development of the domestic real estate market. This paper will collect articles and journals about the development of real estate in the last twenty years and the damaging effects of real estate on the environment so that

this paper can use them in my thesis. At the same time, this paper collected some available data on websites such as the National Bureau of Statistics to make the paper more authoritative.

2.2. Case Study

This paper uses the Chinese real estate market as a case study for a more focused analysis to make the analysis more specific. At the same time, this paper has taken Beijing, the richest city in China and the economic center, as a more specific city in the country. Having a specific case study will make the paper more reliable.

3. Result

Although house prices have shown an upward trend in all regions since 1994, the immovability of real estate and the

The immovability of real estate and the differences in economic development, population, and financial market sophistication of each region make their fluctuations still large. The real estate industry has grown to unprecedented proportions in China, with annual sales of nearly 16 trillion yuan, accounting for 16% of the country's total GDP of 100 trillion last year. For one thing, such a huge market is near the top. It needs to plan for other alternative growth points, which requires resources to be directed to reduce the real estate industry's occupation of society's overall resources. Second, in such a large market, how to divert a large annual surplus is also the focus. All the money back into the real estate market is bound to cause land prices, housing prices, and earnings of the constant mutual push effect. To a certain extent, this mutual promotion will cause a "vicious circle". Therefore, it is necessary to control the house price and corporate debt ratio.

During 2014-2020, the asset size of China's real estate development enterprises showed a trend of year-on-year increase, exceeding 80 trillion yuan in 2018, while at the same time, the asset-liability ratio was also in the midst of a continuous rise, from 77% in 2014 to 80.7% in 2020 [6-8].

There are several main types of problems, such as pre-approval construction, post-analysis construction, and process simplification. In the future, simplification and other issues need to be resolved in the real estate development EIA work.

3.1. Pre-Approval Construction

In the development and construction of real estate projects, the project report always runs through the whole process of the project's development. Any aspect of the real estate project should be registered by the relevant government departments (or agencies) for the preparation or approval shall be carried out in strict accordance with the procedural requirements of relevant laws, regulations and policy documents. However, pre-approval construction happens from time to time [9].

In some cities and counties, the "image project" and "results of the project", in the absence of approval, the phenomenon of pre-build. Designated as the core business needs progress and performance, the screening and approval process requires related requirements. With the power in their hands, the companies concerned gave the green light to the authorities, especially in the EIA process, resulting in a large number of pre-approved constructions.

The following measures should be taken for the common problems of planning approval and construction work: Firstly. Real estate enterprises in the planning and approval stage should communicate well between the external and internal front work so that the various aspects of health care work seamlessly. Second, after the end of the detailed planning approval should immediately start the approval procedures for human defense, the work of the human defense approval link for a reasonable lap forward, such as the human defense area calculation and expansion of the initial review of the map at the same time, the process work will be greatly compressed. Third, in strict accord-

ance with the design requirements and relevant mapping standards, planning and calculation of the area, usually, the difference between the planning area and the completed area shall not exceed 1%, and the rest of the mapping area shall not exceed 3% [10].

3.2. Construct First and Review Later

In addition to the above two types of projects, there are other reasons for "building first and assessing later". On the one hand, relevant leaders and functional departments give the green light. On the other hand, employees and bosses who specialize in managing environmental impact assessment are bribed to provide "facilitation". These two aspects have led to "build first, review later".

3.3. Simplified Procedures

At present, some cities and counties do not have environmental protection and EIA as their responsibilities. Instead, they mainly charge fees, and if real estate developers pay for environmental assessments, they can perform environmental assessment tasks through simplified procedures.

4. Discussion

The three red lines in real estate refer to the three relatively clear standards that regulators have tightened for real estate enterprises' financing. They are required to control the growth of interest-bearing debt in the real estate sector and set three red lines. Red line one is that the gearing ratio excluding pre-receipts shall not be greater than 70%, red line two is that the net debt ratio shall not be greater than 100%, and red line three is that the cash to short-term debt ratio shall not be less than 1 times.

This is the first time that regulators have clarified the standards for housing enterprises to borrow. In the past, the tightening of financing for real estate enterprises was vague and had loopholes to drill; But with these three clear red lines, the loophole is almost completely closed. Not only is the control of credit debt but also trusts, capital management products, and overseas financing, a full range of regulations. Because of the strict regulation of the real estate industry by the state, the growth rate of the development investment scale during 2010-2015, the growth rate generally showed a continuous downward trend; in 2016, the growth rate of real estate development investment began to rebound, and during 2016-2019, the growth rate picked up; due to the epidemic and the overall downward trend of the real estate industry, etc., the growth rate in 2020 and 2021 began to decline. As of August 2022, the real estate industry development investment scale 2022 is 9.1 trillion yuan.

Since 2022, the average and median total price of new housing transactions in representative cities have generally seen an upward trend, mainly due to two factors: 1) this year, China's residents' income expectations have significantly weakened, the lack of confidence in homeownership, including the heavy wait-and-see sentiment of rigid home buyers, while the overall expectations of improvement customers better than rigid customers, while some new homes are affected by the price limit factors, and the price inversion of second-hand homes, attracting improvement customers to the market 2) in recent years, the supply of new housing gradually to improve the product shift, driving the supply of new housing high-end, the area of a certain trend to increase, while the land market in the past two years continued to sluggish, the local government tends to push land in the central area of land, but also drive the price of new housing projects have a structural increase.

Due to the continuous adjustment of the real estate market and the pressure on the funds of real estate enterprises, the government's willingness to push land and real estate enterprises to take land is insufficient, and the supply and demand of residential land in 300 cities across the country are shrinking significantly on both ends. According to preliminary statistics, in 2022, the launch and

transaction area of residential land in 300 cities nationwide fell by 35.9% and 31.5% year-on-year, respectively, and the absolute scale was at the lowest level in the same period of the past decade [5]. In the overall sluggish performance of the national land auction market, the government tends to push land to the main urban areas, mainly high-quality land, to improve the enthusiasm of real estate enterprises to participate in the auction, residential land transaction floor area price structural small increase, while local governments continue to optimize the rules of land auction, reduce the allotment and self-sustaining area, but the mood of the land auction still hovers low, the premium rate is only 3.0%.

Since the concept of "housing is not for speculation" was first put forward in 2016, the national level and various provinces and cities have substantially introduced relevant real estate regulation and control policies to promote the healthy and sustainable development of the real estate market. The Outline of the 14th Five-Year Plan and 2035 Vision for National Economic and Social Development of the People's Republic of China proposes to adhere to ensure that housing is for people to live in, not for speculation, and will speed up the establishment of a housing system featuring supply from multiple entities, support from multiple channels, and both rental and purchase, so that everyone has enough housing, and a balance between employment and housing is achieved. The state has also introduced many relevant policies, restrictions, and controls in managing real estate and the environment.

4.1. Change and Development of Evaluation Content

The content of China's environmental assessment is gradually strengthening, at first only focusing on the end of pollution emissions, and then gradually expanded to the total amount of management, public participation, and other areas, which is developed in accordance with the core tasks of China's environmental protection projects and the development of the guiding ideology of gradual change.

4.2. The Changes and Progress of EIA Management

China's environmental management is also improving in terms of the approval of environmental documents and management of evaluation agencies. This improvement process aligns with the focus and guiding ideology of EIA and environmental protection work. Regarding the management of EIA agencies, there were no specialized EIA agencies in China initially, and most of them were carried out by environmental experts and technicians. In order to promote the healthy development of the EIA industry, the Ministry of Environmental Resources of China issued the Opinions on Promoting the Healthy Development of the EIA Industry on January 1, 2012. The pilot reform of the environmental impact assessment system of institutions, requiring and encouraging the establishment of environmental impact assessment agencies with independent legal personality, restructuring the establishment of legal persons in departments engaged in environmental assessment business as a separate entity.

4.3. Strengthen Public Participation in Environmental Impact Assessment

Public participation in environmental impact assessment refers to the construction units, environmental protection agencies, environmental assessment units, and the public, experts, and scholars in related fields, interest groups, media, etc., affected by the project environment during construction or may be affected by the project environment to evaluate the development of urban construction projects. Public participation has become an important part of the environmental impact assessment system in many countries, and public participation is the embodiment of modern democratic concepts in the concept of green environmental protection. Only with effective public participation can

the precautionary principle of the Environmental Impact Assessment Law be truly implemented. Comprehensive exploitation of the environment and minimization of damage Under the current social situation and political system, how to express and reflect people's opinions in environmental decision-making is a question worth considering and exploring.

5. Conclusion

Real estate has greatly contributed to domestic economic development, continuously advancing economic growth through a large multiplier effect. However, in the later stages of development, due to the excessive willingness of residents to acquire properties, real estate gradually emerged as a bubble and had an irreversible impact on the natural environment. The three red lines introduced by the government to control the excessive bubble, but also at the same time broken the capital chain, and corporate liabilities rose sharply, producing a large number of rotten buildings, making the development of real estate more precarious. The epidemic that began in 2020 has further worsened the real estate market by depressing the overall consumer appetite of the country.

In 2022, the annual accumulation of second-hand house prices fell, and in the second half of the year, prices continued to fall on a monthly basis, with downward pressure on house prices prominent. New home transactions in the top one hundred cities fell nearly forty percent annually, the lowest level since 2015.

Supply and demand scales both fell to the lowest level in the same period of nearly ten years, the market performance differentiation, local state assets support phenomenon is obvious.

In the short term, the local government to stabilize the land market, land auction rules continue to maintain a lenient trend, "centralized land supply" batch around or continue to adjust according to their own actual situation, but the government pushes land, and corporate investment layout strength are dependent on the recovery of the sales end of the market, the short-term land market downturn or difficult to change.

References

- [1] Yuan, X. G. *Research on Existing Problems and Countermeasures of Real Estate Project Management*. Central China Normal University, 2015.
- [2] General Office of the Ministry of Environmental Protection, *Notice on Strengthening the Management of Environmental Impact Assessment of Construction Projects "Built before Approval"*, February 24, 2018, https://www.mee.gov.cn/gkml/hbb/bgt/201802/t20180228_431888.htm
- [3] Wang, W. *Environmental impact analysis of real estate development projects*. *Shanxi Science and Technology*, 20, 35(05): 105-107+110.
- [4] Foresight Industry Research Institute, 2023: *In-depth understanding of the market status quo, competition pattern and development trend of China's real estate industry in 2023*, December 5, 2022, <https://bg.qianzhan.com/trends/detail/506/221205-8fa04912.html>
- [5] Liang, Y. F., Gao, T. M. *An empirical analysis of regional differences of real estate price fluctuations in China*. *Economic Research*, 2007, No. 472(08): 133-142.
- [6] Duan, A. D., Zeng, L. H. *Macroeconomic fundamentals to real estate prices affect the empirical test*. *Journal of statistics and decision*, 2010, No. 315 (15): 110-114. The DOI: 10.13546/j.carol carroll nki tjyjc. 2010.15.051.
- [7] Lv, J. L. *Measurement of Bubble level of Chinese urban housing market*. *Economic Research*, 2010, 45(06): 28-41.
- [8] Chen, Z. S., Zhu, L. B., Chen, X. *Economic Environment, macro policy and Dynamic Adjustment of Enterprise capital structure: Based on Panel data analysis of listed real estate Enterprises*. *Economic issues*, 2016, No. 438 (02): 117-120. The DOI: 10.16011/j.carol carroll nki JJWT. 2016.02.021.
- [9] Li, Z. Y. *Study on the Influence of Real Estate Project Application Process on Development Link [J]*. *Real Estate World*, 2022, No.358(02): 9-11.
- [10] Xu, J. Z. *Construction projects built before batch" research of legal regulation*. Suzhou university, 2021. The DOI: 10.27351 /, dc nki. Gszhu. 2021.004078.