

The Impact of COVID-19 on China's Real Estate Industry and the Outlook for Industry Trends

Yini Li

Department of Economics, The University of Melbourne, Melbourne, Australia

yinil4@student.unimelb.edu.au

Abstract. Contemporarily, the worldwide spread of COVID-19 has had a negative impact on economic activities globally, and the property sector in China has inevitably been affected. This paper focuses on three main areas of analysis: firstly, the impact of COVID-19 on housing transactions, secondly, the impact of COVID-19 on house prices and thirdly, the impact of the COVID-19 outbreak on property supply. According to the analysis, the outbreak definitely has some negative impact on housing transactions, house prices and supply in the Chinese real estate market in the short term. However, the property market in China is currently relatively stable. For China's super tier 1 cities and new tier 1 cities, the real estate market will recover relatively quickly. With regard to the second-tier cities, owing to their own disadvantage of being relatively backward economically, the real estate market will have some difficulty in recovering through their own efforts, i.e., policy support and assistance are required. Overall, these results shed light on guiding policy implementation for real estate industry in China.

Keywords: China, real estate, COVID-19.

1. Introduction

The real estate industry has been existed in China for over 30 years. Prior to 1988, under China's highly centralised planned economic system, Chinese housing had been part of a distribution system where urban housing was built by the state and then distributed to urban residents according to standards. As a result, a real estate market did not exist in China at this time. It was not until the 1988 constitutional amendment that the right to use land was split from land ownership and land could be traded on the open market [1]. It meant the beginning for development of a market for real estate in China.

Contemporarily, China's real estate sector has grown rapidly and has become an important part of the Chinese economy. According to research, real estate consumption currently accounts for approximately 7% of expenditure GDP and contributes approximately 7% to 8% to expenditure GDP growth. As the real estate industry spans three major sectors, production, distribution and consumption, which has a long industrial chain. In this case, real estate development and investment also has an indirect pulling effect on other sectors. In 2020, for example, real estate development investment indirectly pulls about 750 million GDP in 2020, accounting for about 7.4% of the total annual GDP [2]. However, with the development of urbanisation, the contradiction of unbalanced regional development in China is growing, which has led to the problem of unbalanced regional supply in the Chinese real estate market [3]. Moreover, there is a serious problem of property bubbles in the real estate industry due to the high housing prices and huge return on investment [3].

At the end of 2019, a sudden pandemic (i.e., COVID-19) increased the difficulties currently faced by the development of China's real estate industry. China's property transactions, house prices and housing supply have all fallen to varying degrees, which has also drawn the attention of many scholars. Some scholars have pointed out that the negative impact of the epidemic on the real estate industry is mainly on the supply side rather than the demand side. Hence, the demand in the real estate market still exists, but is only delayed [4]. This study endorses this view, but unfortunately, no detailed data is provided in the previous studies. Therefore, this paper will discuss and prove this point in detail below. It has also been suggested that the negative impact of COVID-19 on house prices lasts for about 3 months [5]. It endorses this view and will continue to build on the previous work in the following section. Other scholars note a significant decline in the value of transactions in the Chinese

real estate market in 2020 compared to the same period in 2019 [6]. This paper acknowledges this change, but unfortunately, this scholar does not discuss housing transactions in the latter part of the epidemic. In fact, this study argues that this change in transaction value is only temporary.

Specifically, this study will focus on three areas, the impact of the COVID-19 on housing transactions, the impact of the COVID-19 on house prices and the impact of the COVID-19 on property supply to specifically analyse the impact of COVID-19 on China's real estate sector. This study will use linear regression models to analyse the relationship between the epidemic on the local housing transactions, housing prices and housing supply in super tier 1 cities (Beijing), new tier 1 cities (Hangzhou), and tier 2 cities (Ningbo) respectively. This study argues that in the short term, housing transactions, house prices and housing supply will fall in all Chinese cities, however, these shocks will only be temporary and the Chinese real estate market will remain highly stable.

The rest part of the study is organized as follows. The Sec. 2 will talk about the linear relation between housing price and cumulative COVID-19 cases. The Sec. 3 will talk about the housing price of Chinese market. The Sec. 4 will talk about the housing turnover of Chinese market. The Sec. 5 will talk about the housing supply of Chinese market. The Sec. 6 will talk about the significance and shortcomings of the study. Eventually, a brief summary will be given in the last section.

2. Linear relation between housing price and cumulative COVID-19 cases

According to Fig.1~3, there is no clear linear relationship between the cumulative number of people infected by COVID-19 in each city and the house prices in that city. Except for Hangzhou, the R square of Beijing and Ningbo smaller than 0.5, which means that the goodness of fit are poor. Nevertheless, this paper still argues that the cooling of the property market after COVID-19 was due to the blowback from COVID-19. Although not directly affected by the number of people infected by the epidemic, it is also ascribed to the COVID-19-related policies that local governments had to introduce as a result of the epidemic.

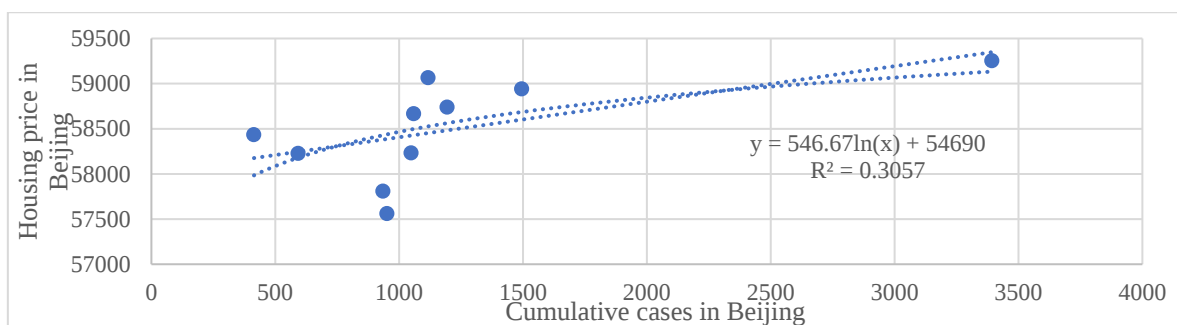


Fig. 1 The linear regression for cumulative cases in Beijing as a function of housing price in Beijing with data sourced from Sina News

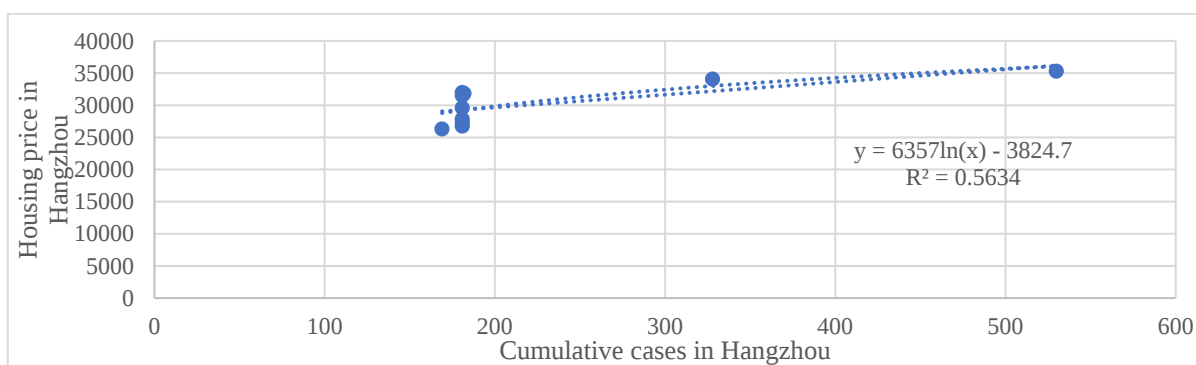


Fig. 2 The linear regression for cumulative cases in Hangzhou as a function of housing price in Hangzhou with data sourced from Sina News

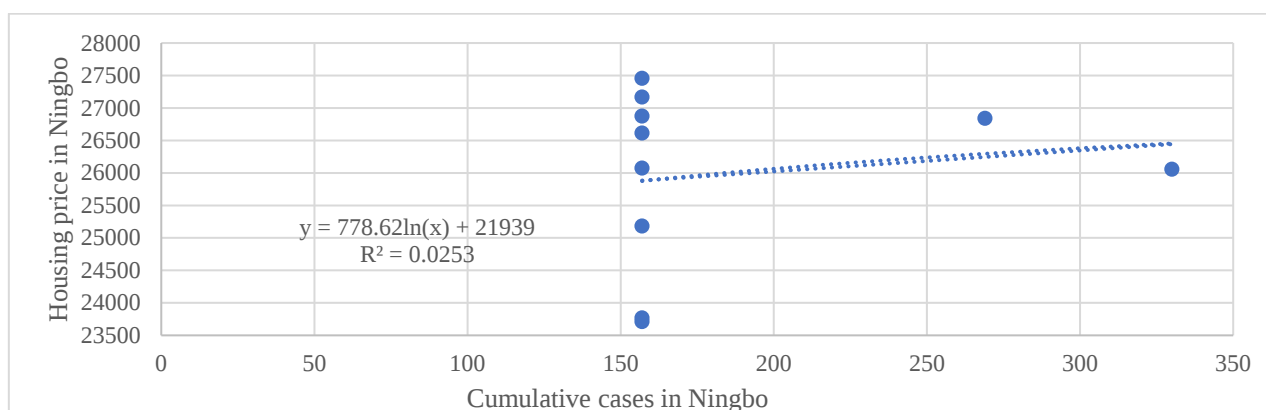


Fig. 3 The linear regression for cumulative cases in Ningbo as a function of housing price in Ningbo with data sourced from Sina News

3. Housing price

As illustrated in Fig. 4, Beijing house prices are less volatile during the epidemic. From the second quarter of 2019 onwards, there is a slight downward trend in Beijing house prices. However, from the four quarter of 2020 onwards, Beijing house prices have gradually returned to a stable state. Hangzhou house prices were hit the hardest by the epidemic, with a more severe decline in house prices. However, since the first quarter of 2020, house prices have shown a continuous trend of growth. By the second quarter of 2022, house prices had not only fully recovered but even far exceeded their pre-epidemic prices. As a second-tier city, Ningbo is also less affected by the epidemic. From the start of the epidemic until the first quarter of 2021, prices in Ningbo were on the rise, and after peaking in the first quarter of 2021, prices in Ningbo began to stabilise.

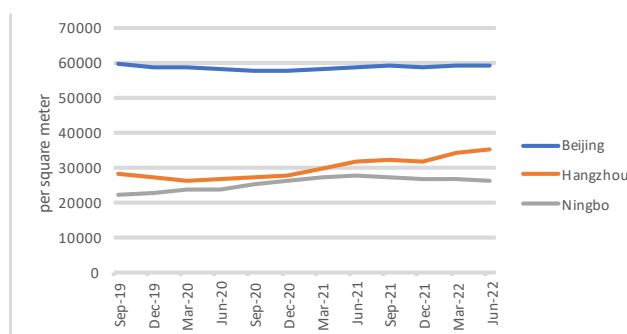


Fig. 4 The Housing price chart for Sep 2019 to Jun 2022 as a function of housing price in Beijing, Hangzhou and Ningbo with data sourced from Anjuke

In fact, the sealing policy has led to a small drop in house prices in Beijing, but after the epidemic, house prices have rebounded with the economy. Beijing, a core super tier 1 city, has maintained high property prices for many years. However, the new crown pneumonia epidemic has put the start and construction schedule of real estate projects on hold and delayed due to the epidemic, with developers closing their sales offices and intermediaries suspending their operations, and with strict quarantine controls also in place for residents, resulting in a temporary failure to release demand for homes. As demand determines prices, the reduction in demand also brings about a consequent downward adjustment in house prices. As a result, from the start of the epidemic to the third quarter of 2020, the Beijing property market experienced a small decline in prices. Although the epidemic will bring economic and financial shocks in the short term, it will not change the long-term trend of China from high growth to high quality development. Following the end of the epidemic, house prices in Beijing rose again as the economy rebounded.

This study attributes the rapid growth of house prices in Hangzhou to the city's own geographical location and the economic policies of the Hangzhou government in the face of the epidemic. Hangzhou is an emerging first-tier city located in China's Yangtze River Delta, characterised by an affluent population and a strong foundation. It is strategically placed at the forefront of economic development. Firstly, in terms of finance, after the epidemic, Hangzhou City and Hangzhou United Bank jointly granted 50 billion yuan of credit to Hangzhou's small and medium-sized enterprises to inject capital and boost their confidence [7]. In addition to this, according to statistics at the end of 2020, the RMB deposit to loan ratio for the household sector in Hangzhou exceeded 1.5, reflecting that Hangzhou residents still have plenty of room for credit in the future [8]. Secondly, combined with the real estate sector, the house price to income ratio of urban residents in the major cities of the Yangtze River Delta is at a relatively reasonable value. Therefore, after the Hangzhou property market was halted for a time due to the epidemic, as the city began to resume work and production, the pent-up demand for housing was released centrally, leading to a rapid rise in house prices in Hangzhou, even well beyond the pre-epidemic period.

Besides, it is also attributed that the short-term rise in house prices in Ningbo to the large number of people who returned to the city during the early stages of the epidemic. Ningbo is adjacent to Hangzhou, a second-tier city on China's Yangtze River Delta economic belt. As a result, many Ningbo people working in Hangzhou returned to their hometown with the idea of buying a home in Ningbo after the 2019 Xin Guan epidemic swept through various large cities with high footfall. House prices in Ningbo have also been soaring. It was not until the fourth quarter of 2020 that house prices in Ningbo stabilised as the epidemic gradually improved in Hangzhou.

4. Housing turnover

Seen from Fig. 5, Beijing's property transaction volume in 2021 far exceeds that of 2019 after a one-year recovery period in 2020. Hangzhou's commercial property transaction volume has been on a steady growth path. Ningbo's commercial property transactions in 2019 are essentially the same as in 2020, but show a decline in 2021.

According to the results, the epidemic sealing policy and government property policy led to a small decline in property sales in Beijing, but sales recovered quickly due to the city's own investment properties. In 2020, it is seen that the epidemic force a moratorium on offline property sales in Beijing, which had a huge impact on sales of commercial properties. Meanwhile, the central government insisted on the strength of real estate regulation and the stance of "no speculation" and not using real estate as a short-term economic stimulus. As a result, the volume of commercial property sales in Beijing in 2020 declined compared to the previous year. However, it is worth noting that Beijing's real estate is not only residential in nature, but also investment in nature, and there has been overheated demand. With this in mind, it has not been significantly affected by the epidemic and remains well organised and robust. After a recovery in 2020, Beijing real estate transactions continue to rise in 2021.

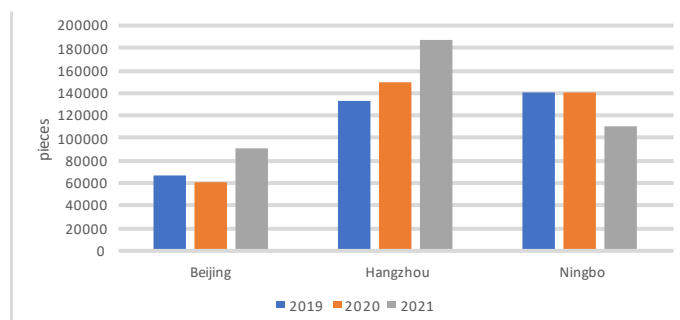


Figure 5. The Housing turnover chart for 2019 to Jun 2021 as a function of housing turnover in Beijing, Hangzhou and Ningbo with data sourced from the people's government of Zhejiang province and the people's government of Beijing municipality

Based on the analysis, there are three main reasons for the high turnover of housing in Hangzhou. Firstly, the population base is large. Secondly, residents' willingness to buy houses is high. Third, the market has high investment enthusiasm. Firstly, Hangzhou, as a hotspot city in the Yangtze River Delta region, with a developed economy and is full of optimistic forecasts for economic development, strong government capacity to manage urban society and crises, and a strong sense of security and access for the people. As a result, Hangzhou has become a recognised quality city and a cost-effective city with a strong overall attraction to the population. By 2022, Hangzhou will have a resident population of over 10 million. The 14th Five-Year Plan also identifies livability as one of Hangzhou's overall goals, which will determine the city's future development direction and will certainly attract more population inflows [9]. Secondly, Hangzhou is the birthplace of e-commerce in China and the first city in the country's digital economy. With the popularity of mobile internet, Hangzhou's live online economy has seen explosive growth. In particular, online consumption surged during the epidemic, and live-streaming brought about counter-trend growth at a time when the national economy was going downhill. As a result, in terms of home-buying sentiment, Hangzhou residents were highly enthusiastic about purchasing homes. The policy loosening in the latter stages of the epidemic unleashed a wave of potential demand for home ownership in Hangzhou. Finally, in response to the economic and social impact of the epidemic, officials had to implement an accommodative monetary policy. Owing to the excellent performance of Hangzhou's real estate market, Hangzhou was among the premium cities identified by investment capital. As a result, more money entered the Hangzhou real estate market and the market rolled with huge investment enthusiasm.

It is suggested that there are two reasons for the decline in commercial residential sales in Ningbo. The first is the disruption of offline sales and the second is the reduced purchasing power of residents. Firstly, on account of the epidemic prevention and control, many properties closed their sales offices and suspended customer reception. Although some real estate companies started to carry out online viewing activities, buying a house is a low-frequency consumption behavior, and most of the sales still have to be driven offline. Secondly, market demand and purchasing power were significantly overdrawn due to the epidemic, employment rate and income of residents declined, and pressure on residents to pay down payment and monthly mortgage repayment rose. According to statistics, more than 45 cities were affected by the epidemic in 2021, with the Yangtze River Delta city region having the largest number of people and the widest geographical area affected by the epidemic [10]. Ningbo, as a second-tier city in the Yangtze River Delta region, has seen the most significant drop in market demand and purchasing power due to the relative backwardness of the economy itself.

5. Housing supply

As depicted in Fig. 6, Beijing housing supply has been rising since the epidemic. Housing supply has also been on the rise and rising even faster in Hangzhou, which doubles its housing supply from 2020 to 2021. Ningbo has seen a slight increase in housing supply from 2019 to 2020, but a 45% decrease in supply in 2021. In reality, Beijing's property supply has been less affected by the epidemic and has been on a steady rise. This is ascribed to the fact that Beijing's property market has always had strong investment attributes, and as a result the city's land supply has had many high priced plots, producing many high priced properties and overall driving up Beijing's property prices. With the impact of the epidemic on the national economy, Beijing's steadily upwardly revised land supply plan for the property market has a strong guarantee implication, which implies an essential adjustment in the structure of land supply. Thus, the financial and investment attributes of property have been drastically reduced, with an emphasis on the social attributes of housing, so that people's livelihoods can be safeguarded in the face of the epidemic.

In fact, it can be attributed to the rapid growth of the attack on Hangzhou to the rapid growth in sales of commercial properties in Hangzhou. Hence, there is sufficient public confidence in home ownership in Hangzhou. Considering that supply and demand is the basis of real estate, the supply of

real estate will only recover rapidly in the short term, in cities where there is strong popular demand and sufficient confidence in home ownership.

Two reasons are accounted for the sharp fall in housing supply in Ningbo. Firstly, market sales have not picked up as much as expected and companies have been slow to recoup their funds. Secondly, the enthusiasm of real estate enterprises to invest has been slow to recover. Although the epidemic policy regulation in 2021 is significantly relaxed compared to the previous two years, the current pressure on property sales is still high for a second-tier city (e.g., Ningbo), where economic development is not outstanding. From 2020 to 2021, residential sales of commercial properties in Ningbo are lower by nearly 25%. Secondly, the property market sales pressure has also led to a continued lack of confidence and motivation in land acquisition by private enterprises in Ningbo, with land acquisition strategies remaining on the cautious side. As a result, it will take some time for the property supply in Ningbo to fully recover.

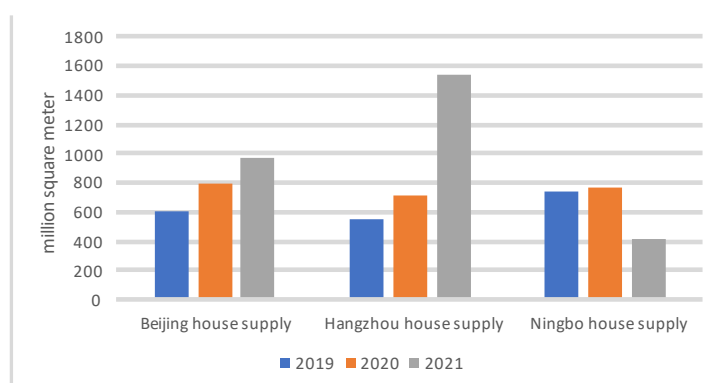


Fig. 6 The Housing supply chart for 2019 to Jun 2021 as a function of housing supply in Beijing, Hangzhou and Ningbo with data sourced from the people's government of Zhejiang province and the people's government of Beijing municipality

6. The significance and shortcomings of the study

This research is to demonstrate that the negative impact of the epidemic on the real estate industry is only temporary for economically developed regions in China. Thus, it can increase the confidence of both supply and demand in the real estate market and stimulating the real estate economy to form a virtuous cycle. For the less economically developed regions of China, they face greater difficulties in the real estate market than the economically developed regions. Therefore, this study argues that more policy support and assistance should be given to the less economically developed regions.

Unfortunately, as China is a country made up of several regions, this study was limited to Beijing, Hangzhou and Ningbo. Therefore, the results of this study may differ from the actual situation in individual areas and can only be of reference value.

7. Summary

In conclusion, this paper investigates the impact of COVID-19 on Beijing, Hangzhou and Ningbo's real estate industry in terms of house price, house turnover and house supply. To be specific, the epidemic did have some negative impact on housing transactions, house prices and supply in the Chinese real estate market in the short term. However, the current real estate market in China is relatively stable. For China's super tier 1 cities and new tier 1 cities, the real estate market will recover relatively quickly. For second-tier cities, due to their own disadvantage of being more economically backward, the real estate market will have some difficulty in recovering through itself and will need policy support and assistance. Nevertheless, this study was limited to three cities, i.e., Beijing, Hangzhou and Ningbo. Therefore, it may differ from the actual situation in individual areas. Overall, these results offer a guideline for Chinese real estate industry. For economically developed regions,

they should increase the confidence of both supply and demand in the real estate market and stimulating the real estate economy to form a virtuous cycle. For the less economically developed regions, they face greater difficulties in the real estate market than the economically developed regions. In this case, more policy and assistance should be proposed to support for them.

References

- [1] H J Feng, G M Huang, Q F Liu, et al. The development of China's real estate industry. *China's economy*, 2006, 39: 1, 84-102.
- [2] J T Huang, Y D Ye. Measuring the impact of China's property market on economic growth and employment. Bank of China research institute, 2021, 37.
- [3] Y Liu. The historical path, current situation and future outlook of China's real estate industry development. *China development*, 2018, 18(6), 4-12.
- [4] W Zhong. The impact of the new crown epidemic on China's real estate sector. *New Financial Review*, 2020.
- [5] X Qian, S Qiu, G Zhang. The impact of COVID-19 on housing price: Evidence from China. *Finance Research Letters*, 2021, 43: 101944.
- [6] M F Kan. The impact of the COVID-19 on the Chinese real estate market. *CEIC Insight*.
- [7] B Y Shi. 50 billion yuan credit line to support the development of small and micro enterprises in Shangcheng District, Hangzhou. *China Consumer News*.
- [8] Which cities in the Yangtze River Delta will be the first to "rebound" after the epidemic is controlled and stimulated by policies. *CRIC research*.
- [9] X F Wu. 2020 Hangzhou property market research and analysis report is out. *ZZHZ*.
- [10] K W Yang, P H Bo. Only 29% of projects in 50 cities opened for sale during the epidemic period. *China real estate association*.