

The Impact of COVID-19 on the Real Estate Market Based on Case and Data Analysis

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Abstract: In the previous two years, COVID-19 has been one of the pressing social issues, and empirical studies have shown that COVID-19 has a significant impact on the growth of the economy. However, more research and an analysis of the effects of COVID-19 on the global real estate market may be required. In order to better explore the effects of COVID-19 on the real estate market and the changes it has brought about, this study analyzes the real estate markets in China, the United States, and Europe together with pertinent real estate market statistics. According to the analysis, COVID-19 has caused a reduction in some office real estate deals, a rise in the market for luxury homes, a shift in consumer preferences from renting to buying. In addition, a significant uptick in the adoption of cutting-edge digital technologies by service providers. Therefore, it is advised that the real estate market performs sound market research, records changes in consumer demand, and promptly modifies its business plans. These results shed light on guiding further exploration of the impact of COVID-19 on the real estate market in the study area and the resulting changes.

Keywords: case and data analysis, COVID-19, real estate market

1. Introduction

Since the advent of COVID-19, economic development around the world has been affected to some extent and has brought about some changes. COVID-19 not only caused an increase in population mortality in the short term but also had several negative impacts on the economy, such as a fall in share and oil prices and a drop in profits for producers and operators. People were urged to maintain a safe social distance in this situation, which resulted in a short-term fall in real estate sales and a pause in the increase in home prices in many nations [1]. In such economic conditions, the development of the real estate market has also been affected. Due to COVID-19, there is an increase in demand for high-quality homes. However, there is a short-term shortage of these homes, which has led to a decline in real estate inventories as home prices continue to rise. Additionally, average mortgage rates are currently cheaper, which is advantageous for individuals who are truly interested in purchasing a home. Furthermore, owing to social distance, real estate brokers are now providing more effective online services [2]. Therefore, the impact of COVID-19 on the real estate market requires the market to prepare new strategies and make timely adjustments to changes in demand.

The real estate market is a crucial component of economic growth and is also being impacted by COVID-19, which could cause some changes in the market. People are increasingly embracing a telecommuting model and are constrained by COVID-19, which has decreased the market for renting

and purchasing office space [3], in which case there is instead a rise in demand for high-quality residential accommodation. As people spend more time at home, the demand for private space is increasing, and some people who do not have a permanent home are becoming eager to own their own homes. Besides, some retail businesses are gradually switching to online operations and their demand for housing is gradually shifting from shops to storage space [4]. In this case, operators will be focused on transport premises and storage land, such as warehouses and fresh and cold storage. Meanwhile, some real estate brokers have also shifted from offline transactions to online operations using digital technology. According to previous research, this new online operation may improve the potential for growth in the real estate market [5]. In this way, the digital not only solves the problem of social distance limitations posed by COVID-19 but also increases the convenience of the service and is less limiting for time and space. Additionally, the rise in unemployment in some areas as a result of COVID-19 has led to banks being more cautious in granting loans, the cessation of some existing real estate loan services and a drop in the success rate of home loan applications [6]. This expressed that a decline in the success rate of applications for mortgages which are an important tool for financing the real estate market could have a negative impact on home sales.

Therefore, the real estate market has been affected by COVID-19 in many ways, which may require some case studies and data analysis to explore the challenges that the real estate market may have to face and the changes that need to be made. In this case, it will help to promote the better development of the real estate market. This research focuses on the development of the real estate market in representative countries and regions, such as the United States, China and Europe, as well as comparing some data on the real estate market before and after COVID-19, summarizing the characteristics of the changes and analyzing future trends. This article aims to examine the changes in the real estate market in different countries and regions under COVID-19 and tries to identify the current trends in the real estate market by combining relevant data analysis.

2. Cases Analysis

The study is based on a collection of literature and reports from the COVID-19 period, analyzing information on changes in the real estate market in representative countries and regions, such as China, the USA and Europe. The data is used to summarize the impact of COVID-19 on the real estate market, which will focus on the services offered by suppliers and the supply of real estate, as well as changes in the direction of demand on the consumer side. Then, speculating on future trends in real estate based on the results of the study.

2.1. The Impact on Chinese Market

China was first affected by COVID-19 and the static closure control management adopted by the Chinese government which requires the reduction or avoidance of gatherings of people in public places had a negative impact on the development of the economy. People kept a safe social distance from others and went out less out of concern for their own lives and health and safety. As a result, during this period, people were more likely to stay at home or be placed in fixed locations for isolation and observation. The lives of people also began to shift from offline to online, such as working from home, taking online classes and shopping online. Digital technology was also widely used during this period. Meanwhile, the impact of COVID-19 forced the closed of offline sales centers, hindered property development and construction, and made it difficult for property-related companies to raise finance. Ascribed to the reduced supply of housing, the government introduced several purchase restrictions, which might contribute to stabilizing the price of housing, helped to meet the purchasing needs of those residents who were in genuine need of housing. Besides, it helped to maintain the stability of the real estate market, reducing the risk of soaring prices due to speculation.

According to the research, in the early term of COVID-19, the security of people's lives and wealth was threatened by the rising mortality and unemployment rates, forcing a reduction in sales and business activities in the real estate market during this period. The figures show that in the first quarter of 2020, China had a decrease in the area of commercial properties sold of 26.3%, pre-sales of commercial properties of 24.8%, and sales of existing residences of 34.23%. Residential sales declined by 25.9%, while commercial real estate and office space fell by 35.1% and 36.1%, respectively. Investment in commercial, office, and residential real estate all decreased as a result of COVID-19, by a combined 14.8%, 10.8%, and 8.2%. In addition, there was pressure on the real estate market to build and supply additional houses. Despite this, domestic residential prices in China increased by 4.1% year over year at the end of the first quarter of 2020, while prices for office and commercial property declined by 1% and 3.2%, respectively, according to statistics [7]. However, experts predicted that these short-term social changes may not have much impact on the real estate market, as more and more operators are offering diversified online services to customers and homeowners through WeChat or official websites [8]. This exemplifies the positive effect that digital science and technology have had on the development of the real estate market during this crisis. It has minimized the constraints of time and space, and people could choose to see the full picture of a property from the comfort of their homes on the internet. Furthermore, some operators offered their customers 24-hour online customer service in order to be able to help people solve their problems in time.

In addition, COVID-19 has brought about changes to the Chinese real estate market not only on the supply side in terms of service delivery, but also on the demand side. People were renting less office space as they work and live at home during COVID-19, and as people started to move around less in crowded public places such as shopping centers and companies, there was a shift towards a combination of online and offline retailing for major brands. During this period, the demand for warehouse space and logistics space was relatively stable and research suggested that some manufacturers may have an increased demand for cold chain logistics. Similarly, academics predict that investment in the hotel market and some capital markets will slowly recover in the latter stages of the epidemic [9]. Besides, COVID-19 has had a greater impact on China's real estate sales, particularly in third-tier cities. Figure 1 shows that the cumulative number of commercial property transactions in the 30 third-tier cities surveyed fell by 96.26% year-on-year from 2 to 9 February 2020, which would put greater pressure on China's real estate market [10]. Therefore, during COVID-19, there was a reduction in demand for rental of public areas and a gradual shift to demand for private space. Furthermore, it was the Chinese New Year period when most people were back home or living at home, led to even less demand for rentals other than housing. Meanwhile, some retailers will have a greater need for warehouses to store their products rather than shopfronts to display them than they did before COVID-19.

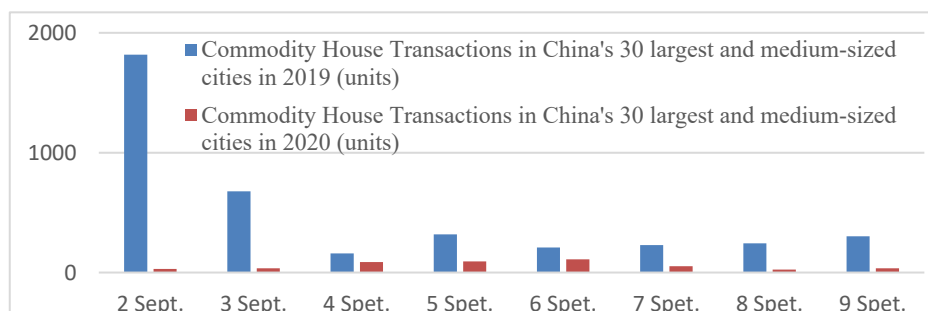


Figure 1: Changes in the volume of commercial housing transactions in China's 30 largest cities from February 2-9, 2019-2020.

Overall, the influences of COVID-19 on the Chinese real estate market are reflected in the supply side and the demand side. The supply side has changed its original operating strategy in response to market changes and has made strategic adjustments in line with policy and demand. The demand side has also gradually changed from commercial and office space to demand for residential and warehouse space.

2.2. The Impact on the U.S.'s Market

As COVID-19 spreads globally, which impact reached more countries and regions. The real estate market in the United States, a representative of a developed country, has also been affected by COVID-19. It is also analyzed mainly from two different perspectives, i.e., the supply side and the demand side. According to reports, during the period of COVID-19, the US federal government requested a temporary halt to evictions in order to mitigate the negative impact on society, and major mortgage lenders, including JP Morgan Chase, allowed mortgage payments to be suspended [9]. Because of the impact of COVID-19, the US also experienced an increase in population mortality and unemployment during this period, which led to a crisis in the financial and physical condition of some people, and the government and banks did this to alleviate the immediate crisis.

Analysis from the supply side shows that the construction of properties has been delayed due to the impact of COVID-19 and the original stock is gradually decreasing. According to the results, sales of pending home completions in the US metropolitan region decreased by 30% in April 2020 compared to last year's sales and then increased by 30% in August of the same year. In addition, according to the study, during the COVID-19 period, home prices increased significantly, by more than 30% in some areas, due to an increase in demand but a lack of supply in most US counties. The increase in house prices occurred mainly in areas surrounding some of the major cities in the US, while the decline was mainly in some rural areas [11]. Due to social distance limits, operators were adopting digital technology to provide clients remote viewing of homes and the number of viewings is increasing. Pre-sales increased as a result of this modification in March and April, and they quickly returned to prior levels. Nevertheless, the housing stock is still limited and there is a lack of available housing on the market [12]. On the one hand, the supplier has provided online service to solve the problem of customers not being able to view the houses offline, on the other hand, the limitations of COVID-19 cannot be restored to the previous efficiency of house building in a short time, which has led to the problem of short-term oversupply.

Similarly, there have also been some changes on the demand side of the US real estate market. Originally, people were looking for homes close to their workplace or in areas with good transport links, and some people prefer rental properties. However, according to research, COVID-19 has caused a shift in demand for more roomy and comfortable living spaces, which has increased prices and demand in the suburbs during this time, although not at the same rate as flats in major US city centers [13]. In detail, many families in the US were forced to live in more confined spaces during COVID-19 for their own safety, which also led to an increased risk of contracting the virus, there was a greater desire for larger, spacious homes such as single-family homes. Table 1 demonstrates that the number of single-family houses represents 70.5% of the total number of new housing starts [14].

Meanwhile, the option to work remotely online during this period meant that people could not need to consider the distance from their workplace, and most preferred to buy a home in a lower-cost suburban area. Overall, although COVID-19 had some negative effects on the United States, such as threatening people's health and hampering economic development, it also led to an increase in suburban real estate sales during this period, even though the housing stock was still insufficient. It is undeniable that the rapid recovery of the US real estate market was also made possible by the operators' timely change of business strategy to provide an efficient online viewing service to meet the needs of their customers in a timely manner.

Table 1: Annual Housing Starts by Building Type for the U.S.

| YEAR | BUILDING TYPE | STARTS |
|------|-----------------|---------|
| 2021 | Single Family | 1127200 |
| | 2-4 Units | 11700 |
| | 5-or-more Units | 462100 |
| 2020 | Single Family | 990500 |
| | 2-4 Units | 12300 |
| | 5-or-more Units | 376800 |
| 2019 | Single Family | 887700 |
| | 2-4 Units | 13400 |
| | 5-or-more Units | 388900 |
| 2018 | Single Family | 875800 |
| | 2-4 Units | 13900 |
| | 5-or-more Units | 360300 |
| 2017 | Single Family | 848900 |
| | 2-4 Units | 11400 |
| | 5-or-more Units | 342700 |
| 2016 | Single Family | 781500 |
| | 2-4 Units | 11500 |
| | 5-or-more Units | 380800 |

2.3. The Impact on European Market

The European region, one of the regions affected by COVID-19, has also seen its real estate market change as a result of this crisis. The impact and changes received by the European real estate market could be seen in terms of policies and housing values. Similar to the United States, some European countries also sought to mitigate the negative economic and social impact of COVID-19 by relaxing some of their existing policies. According to the report, during the COVID-19 period, some European countries also requested a temporary halt to deportations.

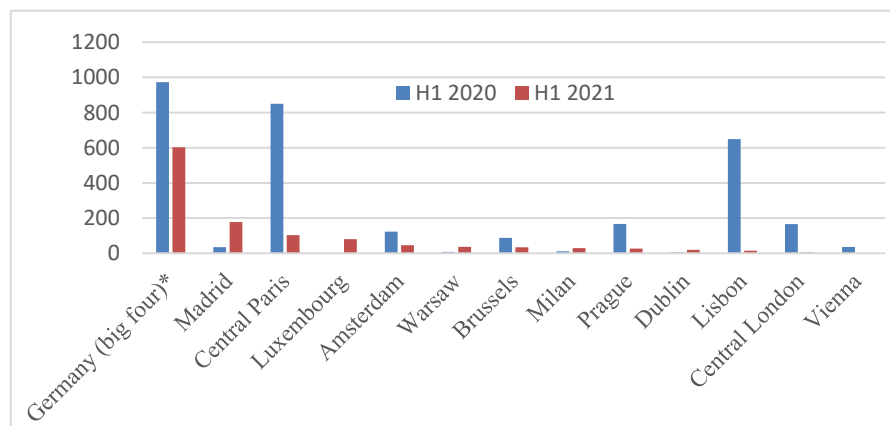


Figure 2: Total value of retail real estate investment in Europe in the 1st half 2020 and 2021, by city (in million euros).

On the economic front, countries such as the UK and Italy allowed mortgage relief during this period. Furthermore, European banks were also asked to ease repayment deadlines. Meanwhile,

governments offered tax breaks to retailers [9]. This series of measures may have helped to ease the financial pressure on people, especially as unemployment rose during this period and the lack of income threatened the survival of some people. As COVID-19 has changed many people's housing demands that people will prefer to buy residential property rather than commercial property. According to data, detached dwellings in the UK increased at a 4% annual rate throughout this time. When compared to flats, its growth rate is only 0.9%. During this time, property prices have increased in the majority of wealthy nations [13]. In addition, research revealed that the value of investments in European retail real estate decreased dramatically between the first half of 2020 and the first half of 2021 (seen in Fig. 2) [15].

3. Comparison

The above literature and a comparative study of the changes in the real estate market in China, the USA and Europe over the COVID-19 period lead to the following results. Firstly, the intuitive performance of the real estate market during the COVID-19 period will be described in terms of both the consumer side and the supply side. There was a general reduction in demand for commercial real estate. The demand for single-family, high-quality residential properties increased in those developed countries and among people in first-tier cities in China. Unusually, house price changes in China were more stable during COVID-19, which may benefit from national macroeconomic regulation. However, some residential prices in the US have risen, probably attributed to a rise in demand for single-family homes and a lack of supply. In the three regions studied, demand for commercial property such as office space and retail space has fallen, and rental prices and values have declined. The profit growth rate of real estate operators also slowed down during this period. There are several reasons for these phenomena. Firstly, the government and some of the major depository and lending institutions slowed down the recovery of loans already taken out in order to ease the crisis and became more stringent in taking out new loans, which made people less successful in taking out loans during this period. Secondly, people were more likely to choose to work online due to the constraints of social distance. Meanwhile, unemployment and mortality rates also increased during this period. Inventories on the supply side of the real estate market were tight, with some countries and regions experiencing an overdemand. Nevertheless, the real estate market is meeting new market demands through the use of digital technology, which will increase the efficiency of the real estate market services. According to the analysis, the real estate market is also linked to many other sectors. For example, the retail sector will have a greater demand for storage space and transport space during this period than the shop counters that were previously available.

It is also possible to make general predictions about the property market's future tendencies based on these effects and changes to the industry. Primarily, the new co-working model, which is an integrated office model combining online and offline and may lessen the time and space limits on people's work, is expected to be employed by many people. The future rent and value of office space may be impacted by this sharing notion. Second, COVID-19 also had an impact on people's propensity to purchase homes. Consumers are also more inclined to purchase and maintain their own homes because having a home of one's own might increase a person's sense of security. This has also alerted property providers to increase the development of quality housing and develop diversified properties to meet different needs, e.g., cultural tourism, entrepreneurship, and retirement. Furthermore, the real estate market has been more digitalized as a result of COVID-19. The employment of electronic technology in the real estate sector could increase operational effectiveness and openness. Based on the 2,144 questionnaires, researchers examined this new technology and discovered that most respondents believed that real estate websites could be updated to better respond to market changes (e.g., the visualization tools offered by some websites and the online property system), which will be tailored to the needs of buyers and sellers and ensure the real estate market's fundamental operation

[16]. On account of the changes in demand brought on by this crisis, the real estate industry may need to adjust its business strategy and direction and use new technologies to solve more problems.

4. Conclusion

In summary, this study claimed that COVID-19 has had some negative effects on the global real estate market, but has also driven changes in the real estate market. The research analyses the development of the real estate market in China, the USA and Europe during the epidemic and summarizes the changes in the real estate market during this period. In China, there was a tightening of property sales and development, while the demand for rental and purchase of public commercial space decreased and the demand for storage and logistics space increased. Residential prices and demand in the United States have risen during this period due to an increase in demand for quality housing and larger living spaces. The European real estate market also saw similar changes to the US, mainly in the form of stable fluctuations in residential values and demand, which means no major fall in the impact of COVID-19 and a gradual recovery in the latter part of COVID-19. The common change in all three regions was the use of digital technology in real estate operations to provide efficient and transparent online services to clients, which somewhat mitigated the negative effects of the crisis.

It could be concluded from these studies that the current demand side of the real estate market favors high-quality homes, which may lead to an increasing trend in the value of homes. Furthermore, the real estate market may need to improve the quality of digital services, which requires developing new technologies or applying procedures that will expand home sales and guarantee the quality of services. Meanwhile, real estate companies should keep up with the times and focus on working with different industries. The states also need to implement proactive fiscal and monetary policies to help the property market recover. Finally, this study does not fully consider the development of the real estate market in all countries and regions, but only selects three representative countries and regions for the study, which may be incomplete and not representative of the characteristics of the real estate market in global. However, after this crisis, the real estate market should always pay attention to the changes in real estate demand and adjust its own operation strategy in time to ensure the efficient operation of the real estate market. Overall, these results offer a guideline for the deployment of real estate policy and new ideas for the real estate market.

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