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Impact of Covid-19 on the US Real Estate

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ABSTRACT

In recent years, the economy of the United States has developed rapidly, but with the outbreak of COVID-19 in 2019, it has greatly affected the economy and the real estate market in the United States. In such a complex, variable and crisis prone period, the United States must attach importance to and work out effective solutions to deal with the epidemic. This article expounds all aspects of COVID-19's influence on the real estate market economy in the United States. The novel coronavirus pneumonia novel coronavirus pneumonia has reduced the demand for the real estate market in the US market, and changed the real estate sales situation in various regions. For the relevant practitioners, it is necessary to carefully analyze the impact of the new crown pneumonia on the economy and the US policy toward the real estate market.

Keywords: *real estate market, USA, epidemic situation*

1. INTRODUCTION

In the past few weeks, the novel coronavirus (COVID-19) epidemic has spread rapidly in the United States. It will not only bring about an ordinary economic recession-its severity may exceed any one we have experienced after World War II. In addition to the tragedies brought to mankind, the economy and society will certainly undergo great changes in the coming weeks, months, and even years. This paper focuses on the market changes and the various aspects of the real estate economy in the United States. At the same time, through the model analysis, it shows American real estate sales are declining, but with the influence of COVID-19, market sales in different regions are also changing.

2. AMERICA REAL ESTATE BACKGROUND

Before COVID-19, American real estate sales have been on the rise, and the real estate market has seen a strong growth in most of the relevant qualifications. Even under the influence of COVID-19, the US real estate economy is still in the government. Under control, the trend of rapid decline was stopped. As a result, there is no reason to expect a sharp fall in house prices at the moment. In fact, the new crown pneumonia is the driving force of the 2020 recession, not real estate. Therefore, the impact on the real estate market will be moderate, far from the disaster of the great depression in 2008.Economic uncertainty leads to housing market depression

Due to the economic and financial market uncertainty caused by the coronavirus crisis, mortgage interest rates and applications continue to experience significant fluctuations. After two weeks of substantial growth, mortgage interest rates fell to the lowest level in the MBA survey, resulting in a 25% drop in interest rates(Galletta,2020). The bleak economic outlook and the first wave of realized unemployment increases may cause potential home buyers to fall back. The number of mortgage applications has dropped by more than 10%. The foreclosure of US houses has reached a record low. A total of 48,004 US houses have been submitted for foreclosure applications-default notice, scheduled auction or bank repossession. This is the lowest total number of foreclosure applications since April 2005. Foreclosure activity hit a new low in 2014 another sign of the United States' long-term real estate boom.

3. THE ECONOMIC IMPACT CONTINUES TO SPREAD

However, due to the ever-increasing COVID-19, the current housing market foreclosure is now completely changing, and many lenders have temporarily suspended the foreclosure process, so this number is likely to continue to decline. But after that, due to the huge economic impact, such as more homeowners losing their jobs and defaulting on mortgages, we may see an increase

in foreclosures. In the second quarter of 2019, Manhattan housing transaction volume hit a new high. A large part of the reason was the luxury property tax that was implemented on July 1, 2019. Many buyers wanted to complete the transfer procedures before the implementation of the new luxury property tax. Compared with the second quarter data, it is really dismal. Manhattan's trading volume fell by 54%, the largest decline in 30 years. The median price was $1 million, a drop of 18%, the biggest drop in 10 years. Because of the lag of real estate, more than 90% of the transfers in the second quarter were purchase agreements signed before the epidemic. [6]It will not be until the third quarter that we can truly see the impact of the new crown epidemic and New York's "closure" on the real estate market. The number of newly signed co-op contracts in June 2020 was 78% lower than that in June last year. Co-ops with asking prices ranging from $2 million to $4 million were the hardest hit, with transaction volumes falling by 86%. The number of contracts signed for condominiums has dropped by 74%. The areas with the lowest economic risks during the 2020 COVID-19 period are low-indebted housing cities.The median house price of $252,500 in the United States in the first quarter of 2020 will consume 31.1% of the national average salary. This is down from 31.4% in the fourth quarter of 2019 and 31.6% in the first quarter of 2019. It is also the lowest level since the fourth quarter of 2017, when an average of 30.8% of wages were spent on housing. According to the American Housing Affordability Survey in the first quarter of 2020, 66% of the 483 counties (319 counties) have an average salary income that cannot afford the median housing price in the first quarter [5]. But this figure is lower than the 70.4% in the fourth quarter of 2019 and 69.8% in the first quarter of 2019.[6] Many cities are expected to survive the 2020 economic downturn, but some cities will be hit harder. As the new crown pneumonia may have a very large impact on employment in the region, certain urban areas are facing the risk of real estate decline during the 2020 economic recession. In some cities, with the rapid increase in the number of unemployed people, it will be particularly difficult to sell houses. Sellers postpone the listing, which puts the housing market in a stagnant state, so buyers have very limited choices of housing. [8]The support of the federal government will help alleviate this decline, but it will take longer to recover in these areas. The cities most likely to face economic risks are often those with high housing prices, high levels of personal debt, and workers in the service industry. These cities are usually large cities on the west coast. During this coronavirus recession, the metropolitan area with the highest risk of economic loss was Los Angeles, with an overall score of 77.6%, followed by Miami (76.8%) and San Diego (75.2%). Unlike most other cities on the list, Chicago and Denver are different among the ten most risky cities. These two cities have relatively high population densities, a broad base of employment for air transportation, and a high number of existing coronavirus cases. The percentage is high, which has pushed up their overall risk score.

3.1. People's Housing Demand has Changed

Because of the outbreak of COVID-19, people's demand for housing and the location of housing are changing. Housing sales have decreased, the share of commuting work in the neighborhood has increased, the use of facilities has become more consumption, the price of housing has increased and the inventory of nearby communities has increased. Even if these observations remain unchanged, home sales will grow. Due to infectious diseases, it is low in areas with high residual density(Laurie,2020). This means that home buyers may worry about the density itself, because they worry about spreading the virus in crowded places. A possible alternative explanation for the disproportionate decline in home sales and increased inventory in urban and densely populated areas is that medical record rates may be higher in these areas. Some people may be more vulnerable to containment policies or more cautious (Alexander and Karger, 2020). As a result, the larger decline in home sales may reflect a freeze on buyers. The willingness to buy from cowid-19 does not represent a fundamental change in location needs. If the possibility of closure is related to the following location characteristics: the relationship between city distance and density, the correlation between house sales and inventory changes, these location characteristics can simply reflect the overall market

According to preliminary statistics from Johns Hopkins University in the United States, as of March 31, 2020, the number of new confirmed cases of Covid-9 in the United States has exceeded 10,000 for six consecutive days, and the cumulative number of confirmed cases has exceeded 160,000 [2]. The U.S. government is currently adopting a number of measures to prevent and control the virus, including controlling the spread of the virus, ensuring the basic living conditions of the people, deploying and mobilizing medical resources across the country, and promulgating a number of supporting policies to stimulate economic development. The US government has declared a state of emergency. Some state governments require people to self-isolate at home. The current home ownership rate in the US is about 65%, and nearly 35% of residents live in long-term rental apartments [3]. Renting is a rigid demand, and it is less affected by black swan incidents such as the new crown virus. Most tenants in high-quality long-term rental apartments have a certain financial foundation, and it is not difficult to pay rent on time. However, the recent market considers low-quality long-term rental apartments May be impacted. Many Americans have no habit of saving [6]. Once they lose their jobs, they are likely to lose their source of livelihood. Before the outbreak, the

unemployment rate in the United States was 3.5%, almost the lowest in history. However, after the outbreak, some companies had to lay off employees in order to reduce costs. According to statistics from the US Department of Labor, in the third week of March (March 16-21), there were 3.28 million newly unemployed people in the United States, setting a historical record for this data since 1967 [4]. The previous record was held on October 1982 695,000 people on the 2nd. These hourly workers, contract workers, blue-collar workers, and freelancers who have lost their jobs will lose their financial resources due to the impact of the epidemic and will find it difficult to pay the rent of their houses. At present, the US$2 trillion economic stimulus plan jointly drafted by the two parties in the United States has passed a vote in the Senate, and it will take effect after the House of Representatives votes and the president signs it. The content includes measures to help the unemployed, such as a universal subsidy of $1,200 per person, and an additional $600 a week for unemployment insurance [5]. I believe that with the development of the epidemic, the U.S. government will introduce other related policies to help people in difficulties tide over the difficulties and stabilize the market order.

3.2. School Rental Housing is Affected

The new crown pneumonia has had a huge impact on the US market, and student apartments have also been severely affected. In recent weeks, US universities have closed their campuses due to the epidemic and switched to online teaching. The Washington Post article "Coronavirus Creates College Uncertainty, Admission Get Easier" survey shows that in order to reduce the uncertain impact of the epidemic on admissions, American colleges and universities ensure the normal start of the fall semester and lower the threshold for college admissions. Reed University changed 60 waiting period students to admission, increasing the acceptance rate by 3%; Kalamazoo University increased the number of admitted students by 200 this year; Franklin & Marshall College not only increased the admission rate by 2%, but also promised to reduce the need for families Of tuition [7]. In addition, the uncertain macroeconomic environment also encourages students to return to campus to continue their studies, and undergraduates who have just graduated to continue to study for a master's degree. The new crown virus has taught everyone to keep a distance and communicate (Social Distancing). For students, a single room with a separate bathroom in the student apartment is the most ideal apartment. The new crown pneumonia at the beginning of 2020 caused a decline in the number of Chinese overseas home purchases, which has a certain impact on the overseas real estate market, but what I did not expect is that the student apartment market is actually falling.

At present, Chinese students are trapped in the country and cannot return to the United States. Many student apartments in the central and southern United States are still vacant. According to reports, the rental market in the central and southern United States has felt the impact of the outbreak of the new crown virus. Student apartments are now vacant, while potential tenants are still staying in China, waiting for the United States to lift the travel ban. Industry insiders worry that if Chinese students cannot reach the United States soon, these apartments may be vacant in the next few months of this year. An agent said that the buildings were previously rented out as student apartments. Among them, 20 to 30 houses were rented out to Chinese students before the new crown epidemic, and they are still waiting for these students to move in [8]. Now it is not just the rental market, but home sales in the central and southern United States are also slowing down, especially in urban areas that are popular with local Chinese buyers.

3.3. Different Regions are Affected Differently

U.S. states have formulated different epidemic prevention plans based on their different epidemic developments. San Francisco, the first city to implement the Stay-at-home order, stipulated housing construction as an Essential Service during the lockdown period [4]. The construction can be continued without affecting the construction period. Of course, it does not rule out the implementation of stricter epidemic prevention measures in the future, such as all shutdowns and production shutdowns, but based on the current situation, it can be determined that short-term delays in the construction period of real estate projects under construction are possible. Delays in construction schedules usually increase development costs. The Fed's emergency rate cut by 1.5% can greatly reduce project financing costs [11]. At the same time, construction material costs and labor costs will be reduced during the epidemic due to supply and demand. Comprehensive consideration, the total development cost of the project has not changed much, and the risk of the project is controllable.

4. DATA RESEARCH

In the real estate industry, there is a clear sign that data analysis is playing a more important role. For example, American real estate enterprises use data mining technology to understand people's housing needs from different strata, and make changes to adapt to different housing needs. Transaction price, listing price, quantity and other key indicators can help consultants give relatively accurate price estimates.

5. DATA DESCRIPTION

In order to clarify the extent of the real estate market affected by COVID-19 in the United States and to clarify

the specific factors affecting the real estate industry in the United States, we carried out data research and discussion. In particular, housing data comes from a monthly panel database at the postcode level published by real estate agents. Com library, including most zip codes in the United States from July 2017 to August 2020 [12]. Two databases are used, including“ realtor.com Residential list database "and“ realtor.com ” To get the average price per square foot and above. 7) Especially housing demand.The "popularity" used in this article is a "demand score" measured by the number of online views through attributes. This is a reliable and useful way to separate requirements from many other drivers. This data is first combined with other sources: monthly mortgage rate data [1]. From the mortgage market survey, which is commonly used by Freddie Mac. To be more representative, we use the existing interest rate to check the 30-year fixed rate. Considering that this is the most common commodity type in the United States, mortgage, second and daily (National) New York Federal Reserve's effective federal funds rate (effr) data, monthly frequency of the latest American community survey (ACS),. Third, the postcode level, which is the median of income (partial) data, is a five-year estimate for 2014-18. The five-year ACS estimates of the US Census Bureau represent the "duration" estimates of the data. The greatest advantage of using multi-year estimates. In view of the sparsely populated and sparsely populated data, the statistical reliability is improved. These five-year estimates apply to all geographic areas down to the block group level. In total, it covers more than 578000 geographical areas. Chetty and others (2020) used this data to track economic activity during the period of covid-19 on paper and real-time economic trackers [2].

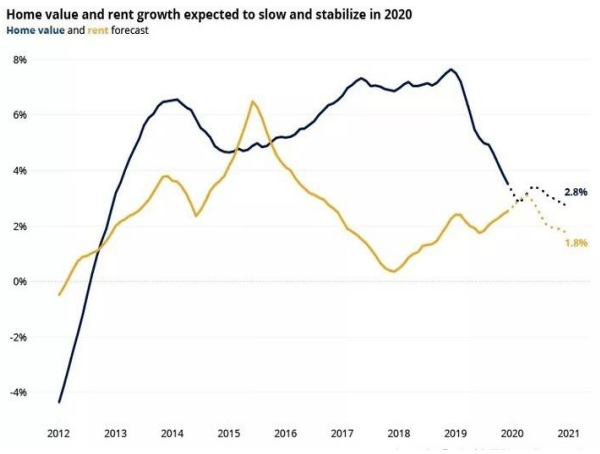

Figure 1 Home value and rent growth expected to slow and stabilize in 2020 [10]

6. RESULTS

In 2020, the growth of housing value and rent will be more slow and stable. According to the survey of more than 100 housing experts and economists, the growth of housing value is expected to reach 2.8% from December 2019 to December 2020.From the above picture, we can see that the real estate in the US is not going down, and there will be new progress after COVID-19 in 2020.

The U.S. economy remains resilient in the face of expected adverse factors such as continued trade volatility and stock market correction. Consumer spending has rebounded, reflecting healthy consumer confidence and steady growth in job creation. Since October 2018, the annual wage growth rate has been maintained at 3% or more [9]. Growth in the economy and housing values will continue at least until 2021.

Mortgage rates fell significantly in 2019 and are expected to remain low for most of 2020. This will maintain strong demand and continue to drive substantial price growth in the most generally affordable markets in the United States.

7. CONCLUSION

In 2020, covid-19 growth rate in the world hit a new high after the financial crisis in 2008, especially after the new crown epidemic. The rally is still continuing in early 2020, and is expected to break through the century high point of the 2005 global real estate boom. To be sure, with the recovery of the economy and the past of the epidemic, the best investment opportunity in the future must be in real estate, so there must be a lot of money making opportunities in real estate investment.

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REFERENCES

[1] Deb, Pragyan, D. Furceri, J. D. Ostry, N. Tawk, “The Economic Effects of Covid-19 Containment Measures,” Covid Economics, 2020, 4: 32–75.

[2] D’Lima, Walter, L. A. Lopez, A. Pradhan, “COVID-19 and Housing Market Effects: Evidence from U.S. Shutdown Orders,” SSRN Working Paper No. 3647252, 2020.

[3] Dokko, Jane, B. M. Doyle, M. T. Kiley, J. Kim, S. Sherlund, J. Sim, S. V. D. Heuvel, “Monetary policy and the global housing bubble,” Economic Policy, 2011, Volume 26, Issue 66(1): 237–287.

[4] Domanski, Dietrich, Scatigna, Michela, A. Zabai. "Wealth Inequality and Monetary Policy," BIS Quarterly Review. 2016.

[5] Elenev, Vadim, T. Landvoigt, S. V. Nieuwerburgh, "Can The Covid Bailouts Save The Economy?" NBER Working, 2020, Paper No. 27207.

[6] Francke, Marc, and M. Korevaar, "Housing Markets in a COVID-19: Evidence from Historical Outbreaks," 2020, Working Paper.

[7] D. Furceri, P. Loungani, J. D. Ostry and P. Pizzuto, "Will Covid-19 Affect Inequality? Evidence from Past COVID-19s," COVID Economics, 2020. 12: 138–157.

[8] Furceri, Davide, P. Loungani, A. Zdzienicka. "The Effects of Monetary
Policy Shocks on Inequality," Journal of International Money and Finance, 2018, 85: 168–186.

[9] Galletta, Sergio, T. Giommoni, "The Effect of the 1918 Influenza COVID-19 on Income Inequality: Evidence from Italy," COVID Economics, 2020. 33: 73–109.

[10] Gerardi, Kristopher, L. Loewenstein, and Paul Willen. "Evaluating the Benefits of a Streamlined Refinance Program," Federal Reserve Bank of Atlanta Policy Hub, 2020, No. 08-2020.

[11] Glover, Andrew, J. Heathcote, D. Krueger, J. Rull, "Health versus Wealth: On the Distributional Effects of Controlling A COVID-19," COVID Economics, 2020, 6: 22–64.

[12] Goodman, Laurie, D. Magder, "Avoiding a COVID-19 Disaster for Renters and the Housing Market," Washington, DC: Urban Institute, 2020.