

Topic: Impacts of the COVID-19 Pandemic on Financial-Related Industries in China

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ABSTRACT

This paper aims to find out the impact of COVID-19 on various financial-related businesses, investigate the mechanism of its influence, and offer recommendations for regaining financial stability following the outbreak. It was found that the financial-related industries and commerce in China were immensely affected by the pandemic. This study majorly talks about the negative impacts of the COVID pandemic on three different financial-related industries: the insurance industry, the stock industry and the real estate industry. The technology of big data portrait is also being utilized to offer a map of COVID-19's influence on a range of financial-related businesses in detail, so that policymakers of macroeconomics may assess the significance of COVID-19 on the industries by analyzing the consequences that COVID-19 has brought about on three different financial-related industries and the way to strengthen China's financial recovery after the outbreak.

Keywords: COVID-19, Financial-related industries, Insurance, Stock, Housing price.

1. INTRODUCTION

1.1. Background

In the second half of 2019, COVID-19 propagated fast and became a pandemic globally, it also affected the world economy greatly. COVID-19 has been brought under the control of China so that the bulk of industries have been put back into production. Finding a mechanism to measure COVID-19's impact on financial-related companies, on the other hand, remains a serious issue.

This article aims to determine the impact of COVID-19 on various financial-related businesses, investigate the mechanism of its influence, and offer recommendations for regaining financial stability following the outbreak. It was found that the financial-related industries and commerce in China were vastly affected by the pandemic.

The article's significance is as follows. For one thing, the impact of COVID-19 on financial-related industries in China is divided into three parts and discussed: the insurance industry, the stock industry and the real estate industry. For another, the technology of big data portrait is being utilized to offer a map of COVID-19's influence on a range of financial-related businesses in detail, so

that policymakers of macroeconomic may assess the significance of COVID-19 on the industries and the way to strengthen China's financial recovery after the outbreak.

1.2. Related Research

Wong et al. suggest that the risk of infection for the players was not low. The lab-made experiments to examine the effect of wearing a face mask physiologically discovered that it remarkably increased heart rate and detected exertion. Exercisers should be aware that wearing a face mask increases the psychological strain on the body, especially in individuals with a variety of possible comorbidities. Elite athletes, particularly those preparing for the forthcoming Olympics, must balance and rearrange their training to strike a balance between the danger of illness and the risk of conditioning. To assist achieve this balance, the Hong Kong national team training center's numerous infection-control procedures were highlighted. It's important to keep active in the face of a pandemic that's harming millions of people throughout the world, but it's even more important to stay safe [1]. Ashraf investigates the projected economic effects of government measures by examining the influence of COVID 19 Pandemic-related policies on the returns of

the stock market. Utilizing data from 77 countries from January 22 to April 17, 2020, they discovered that government distance statements have an immediate negative impact on the returns of the stock market on economic activity as a result of their adverse effect, whereas an oblique positive impact via the decline in COVID-19 verified cases. Their findings have major policy implications, indicating that government distance tactics have both good and bad consequences economically [2]. Al-Awadhi et al. investigate whether epidemic diseases affect the outcomes of the stock market. They employ regression analysis of faceplate data to assess the influence of the COVID-19 pandemic, on China's stock market as a natural experiment. The data reveal that the increase in total established cases per day, as well as the deaths, resulting from COVID-19 in total, has a negative influence on the returns of stock for all firms dramatically [3].

Baek et al. apply an MS AR model to analyze the polity's transition from volatility low to high. Machine learning characteristic approaches to options are used to choose economic indices that best describe variations in volatility. Volatility is driven by certain economic indexes and is sensitive to COVID-19 news, according to the findings. Both good and bad aspects are present. COVID-19 data is relevant, even though the bad news is more influential, implying a negative preference. Across all industries, there are remarkable increases in general and idiosyncratic risk, as well as systematic risk shifts [4]. Agosto et al. exhibit a statistical model that may be used to comprehend the COVID-19's contagion dynamics, allowing its financial impact to be forecast and tracked digitally. The model is based on a Poisson autoregression of newly detected cases each day, and it accounts for both short and long period dependencies when counting infections. The model's consequences are exhibited for the first afflicted nation, China, but they may simply be replicated for all countries [5]. Shen et al. examine the impact of COVID-19 on conjunct manifestation by applying economic data from publicly traded firms in China. They discovered that COVID-19 had a detrimental impact on company performance. When a company's scale of investment or sales revenue is less, COVID-19 has a more catastrophic effect on its manifestation. COVID-19 has a catastrophic effect on business manifestation, according to Shen et al., which is particularly pronounced in locations and industries that are heavily affected. These studies are among the first to show a link between a pandemic and business performance [6].

Mazur et al. look into the behavior of the stock market in America in the period of the COVID-19-caused March 2020 downturn. They discover that equities in the natural gas, food, medical treatment, and software sectors do well, while those in the petroleum, property, recreation and hotel sectors fare poorly. Furthermore, losers exhibit ultimate asymmetric

volatility, which has a negative relationship with stock returns. Firms respond to COVID-19's income shock in a variety of ways. The study of the lowest performers' 8K and DEF14A forms reveals senior management exits, pay reduction, and (most interestingly) new cash incentives and salary rise [7]. Brown et al. illustrate how the access of the capital of the sources of enterprise for small businesses is influenced by chronic uncertainty produced by crisis occurrences (SMEs). Brown et al. investigate Crunch base data evaluating finance investments of China's enterprise in the period of the developing Covid-19 conjuncture to further this line of thinking. Brown et al. exhibit that these equity investments plummeted as a result of the Covid-19 virus, with the overall volume of investment funded falling by 60% year over year between quarter 1 of 2019 and quarter 1 of 2020. Significantly, the report revealed that seed investments in the early stage are declining to the greatest, implying that young start-ups are the most severely impacted by the conjuncture. Finally, enterprise policymakers must pay closer attention to the sources of data to reduce the uncertainty of enterprise chronically through deliberate policy replies [8].

He et al. adopt financial data from Chinese listed firms and the composite indicator way to compile to create an accounting indicator that catches the time before and following the outbreak of COVID-19. This metric is based on a big data picture analysis and assesses the COVID-19's impact on a variety of sectors in China. He et al. discovered that except for the basic industry, the COVID-19 outbreak had a remarkable effect on the rest of the economy. Furthermore, a range of sectors' expenses has grown to different extents. Airlines, tourism, and other industries of service have all been influenced considerably. Significant progress has been made in the areas of newly appeared infrastructure, Chinese exclusive medicine, and the Internet industry [9]. Yue et al. examine the effect of the COVID-19 pandemic on family decision makings of investment using original research-led. It was discovered that families that are aware of someone afflicted with COVID-19 lose heart in the economy while using probability models to examine the consequences of COVID-19 at the family degree. The probability of them changing their risky action and becoming risk-averse is higher. Besides, the likelihood that a family will alter its investment decision becomes higher due to COVID-19 [10].

1.3. Objective

This article aims to determine the impact of COVID-19 on various financial-related businesses, investigate the mechanism of its influence, and offer recommendations for regaining financial stability following the outbreak. It was found that the financial-

related industries and commerce in China were seriously affected by the pandemic.

The structure of this article is to divide financial-related industries into three parts and discuss the impacts that COVID-19 has imposed on them. The three financial-related industries are listed as follows: the insurance industry, the stock industry and the real estate industry.

2. IMPACT ON THE INSURANCE INDUSTRY

First and foremost, the insurance industry has been significantly influenced by the COVID-19. In most cases, the insurance industry and governments worldwide have become the lighthouse of hope to which individuals seek salvation from total elimination. However, the pandemic has struck many governments and mitigated some insurance companies financially due to the sharp increase in infection cases surpassing the recovery of people infected. The influence of the COVID-19 illness on the Chinese insurance industry is yet to be estimated and planned to offer government and insurers a guide for the simulation of future events.

Particularly, China's insurance market has been seriously influenced. In the first quarter of 2019, the year-on-year (YOY) growth rate of total premium was 15.8%, whereas it was 6.27 percent in the first quarter of 2020, indicating a 9.53 percentage point decrease in growth rate. Furthermore, the YOY growth rates of premium in each of the first three months of 2020 were 12.53 percent, 21.35 percent, and 1.93 percent, respectively, demonstrating a dramatic downward trend when compared to the rates of 23.97 percent, 10.19 percent, and 6.76 percent during the previous year.

Accident insurance premiums are much lower after the outbreak than before. It coincides just as we expected after all. Starting from the outbreak, an adverse impact has been cast on the entire insurance industry, and the YOY growth rates every month of all products of insurance have been reduced by changing extents. COVID-19 also sparked consumers' underlying desire for medical treatment, resulting in a continuous increase in health insurance premiums following the epidemic.

The COVID-19 epidemic has created an unpredictable and shocking shock in the Chinese insurance business. First and foremost, COVID-19 could be terrible for the insurance business in China since it restrains insurance sales outlets. Individual agencies' businesses were badly delayed as a result of the epidemic, banking channels were limited, telemarketing businesses were postponed due to their intense office business style, and instant sales activity was greatly constrained.

Overall, COVID-19 imposed a remarkable negative influence on the insurance market in a brief period owing to the restraint of insurance marketing sources and the restraint of home insurance requests, according to the findings. COVID-19's disastrous impact on the insurance sector is also expected to be mitigated by the growth of public security and data insurance. This is because social security enables households to cope with the impact of the pandemic on their employment and wages, while digital insurance assists address the shortcomings of offline insurance marketing confronting COVID-19.

3. IMPACT ON THE STOCK INDUSTRY

Additionally, the COVID-19 affects China's stock industry greatly. Serious events could affect stock market returns significantly. COVID-19 has imposed an influence on China's an investment and business climate. The study's main novelty at the moment is its investigation of the impact of communicable contagious illnesses, namely the COVID-19 virus, on the returns of the stock market. The epidemic began on December 31, 2019, and the amount of infected patients has been reported.

Further testing revealed that some departments, notably IT and pharmaceutical production, behaved better than others in the period of the COVID-19 epidemic. For instance, stocks with a large market size have a far greater negative influence on returns than equities with a small market size [3].

During such epidemic diseases, distinct sectors to be affected distinctly would be naturally expected. Finance, real estates, enterprise groups, public facility, and transactions are among the categories evaluated for equities in the Shanghai Stock Exchange Composite Index. If stock is shown in that individual part, faceplate data tests with sector dummy variables with the value one were used, and if stock is not shown in that individual part, panel data tests with the value zero were used. Following this classification, it is indicated that there is little difference in returns between sectors. However, studies beforehand suggest that a tiny particular sector may be influenced differently in such infectious illness, such as hospitality, medicine, and biotechnological sections. IT, pharmaceutical manufacture, medical treatment, food production, drinks, public transportation, as well as hospitality. During the outbreak of COVID-19, stock returns in the IT and medicine processing sections behaved much better than the market, whereas the returns of stock in the drinks, food processing and public transportation sections behaved remarkably worse.

A-shares were transacted in Chinese Yuan and could only be transacted by Chinese people due to Chinese government laws, whilst B-shares were meant for global

investors and transacted in US dollars. As a result, stocks held by foreign investors are confronted with a sharper drop in prices compared with the stocks held by local investors.

Last but not least, the impact of the COVID-19 epidemic on small and big market capitalization returns of stock was investigated. All stocks were rated on account of their market capitalization, with the 50th percentile serving as a dividing line between small and large stocks [3].

Using data from all Hang Seng Indicators and Shanghai Stock Exchange Composite Indicator equities in the period of the outbreak of the COVID-19 pandemic, it was determined that the epidemic disease had a negative mutual influence on the stock market performance. Stock returns, in particular, are strongly associated with both the gross rise in affirmed cases daily and the gross growth in instances of mortality daily resulting from COVID-19.

4. IMPACT ON THE REAL ESTATE INDUSTRY

Ultimately, the COVID-19 posed a significant impact on China's real estate industry. Since March 2020, COVID-19 has been a pandemic that spread all over the world and will influence real estate prices significantly.

Up to September 30, 2020, a total of 33.71 million verified COVID-19 cases have been discovered throughout the world, with over 1,009,000 persons killed. Because of COVID-19's high infection rate and fatality, individuals may become aware of the virus's high danger and even death, especially when cases are verified locally. Individuals will be fearful of the infection's risk if proven COVID-19 cases are found in a residential neighborhood since the message in the places where the verified COVID-19 cases are situated is swiftly released by local governments in China. Speculation could be made that the expected risk may lower the housing price in the community which leads to a decrease in real estate prices. Furthermore, infectious diseases' risks are majorly associated with the degree of infection locally and health services, and individuals would be more aware of their risk when the degree of infection locally rises or the health services deteriorate. A more complete hypothesis is that the influence of COVID-19 on real estate pricing is significantly prominent in areas with greater degrees of infection or poor health services.

After that, the impact of COVID-19 on real estate prices in China may be investigated using data from each residential community's pricing and verified COVID-19 instances in China. On account of the distinct territorial degrees of infection and conditions of medical treatment, the impact of COVID-19 on real

estate prices in distinct districts can also be found heterogeneously.

In conclusion, by the time there are verified COVID-19 instances in the neighborhood, the real estate price would drop by 2.47 percent, and the negative effect will last a quarter of a year, with the severity of the effect increasing as time passes. Even though real estate prices in the community will be reduced by the time there are affirmed COVID-19 cases, the impact will simply be felt in districts which has a greater COVID-19 infection rate and poor health services, while not in districts that have a lower COVID-19 infection rate and fine health services. The negative impact is following the investigation of the influence of COVID-19 and other contagious illnesses on real estate value, both of which emphasize the influence of contagious illnesses on real estate value in general. Furthermore, COVID-19 imposed a detrimental influence on real estate value only in areas which exists a greater degree of COVID-19 infection and poor medical care.

5. CONCLUSION

In conclusion, this article mainly talks about the influence of the COVID-19 disease on China's financial-related industries. Three different industries are emphasized: the insurance industry, the stock industry and the real estate industry. Firstly, COVID-19 imposed a dramatic influence on the insurance industry adversely during a brief period on account of the restriction of insurance sales channels and the restraint of family insurance requests. In addition, the negative effect of COVID-19 on the insurance industry could be mitigated owing to the development of public security and digital insurance. Secondly, the COVID epidemic disease had a negative mutual impact on the returns of the stock market. Stock returns, in particular, are significantly associated with both the gross rise in verified cases daily and the gross growth in instances of mortality daily. By the time confirmed COVID-19 cases appear, the real estate value in the community will be reduced; however, the impact is limited to districts that have a greater degree of infection of COVID-19 and poor health services. Nonetheless, the impact is not common in districts which has a lower degree of infection of COVID-19 and fine health services. Therefore, the authorities are supposed to attach more importance to the influence of COVID-19 on China's finance and apply policies related to the financial-related industries to improve the current situation. It is significant to put these measures into effect to improve the downward trend of China's finance during the period of the COVID-19 epidemic.

REFERENCES

- [1] A. Y. Y. Wong, S. K. K. Ling, L. H. T. Louie, G. Y.

- K. Law, R. C. H. So, D. C. W. Lee, ... & P. S. H. Yung. Impact of the COVID-19 pandemic on sports and exercise. *Asia-Pacific journal of sports medicine, arthroscopy, rehabilitation and technology*, vol.22, 2020, pp.39-44. DOI: <http://doi.org/10.1016/j.asmart.2020.07.006>
- [2] B.N. Ashraf, Economic impact of government interventions during the COVID-19 pandemic: International evidence from financial markets. *Journal of Behavioral and Experimental Finance*, 2020, DOI: <https://doi.org/10.1016/j.jbef.2020.100371>.
- [3] A.M. Al-Awadhi, K. Al-Saifi, A. Al-Awadhi, et al., Death and contagious infectious diseases: Impact of the COVID-19 virus on stock market returns. *Journal of Behavioral and Experimental Finance*, 2020, DOI: <https://doi.org/10.1016/j.jbef.2020.100326>.
- [4] S. Baek, S. K. Mohanty, & M. Glambosky. COVID-19 and stock market volatility: An industry level analysis. *Finance research letters*, 2020, pp.37. DOI: <http://doi.org/10.1016/j.frl.2020.101748>.
- [5] A. Agosto, & P. Giudici. COVID-19 contagion and digital finance. *Digital finance*, vol.2, no.1, 2020, pp.159-167. DOI: <http://doi.org/10.1007/s42521-020-00021-3>.
- [6] H.Y. Shen, M.Y. Fu , H.Y. Pan , Zh.F. Yu & Y.Q. Chen. The Impact of the COVID-19 Pandemic on Firm Performance, *Emerging Markets Finance and Trade*, vol.56, no.10, 2020, pp.2213-2230. DOI: <http://doi.org/10.1080/1540496X.2020.1785863>.
- [7] M. Mazur, M. Dang , M. Vega , COVID-19 and the March 2020 Stock Market Crash. Evidence from S&P1500, *Finance Research Letters*, 2020. DOI: <https://doi.org/10.1016/j.frl.2020.101690>.
- [8] R. Brown, & A. Rocha. Entrepreneurial uncertainty during the Covid-19 crisis: Mapping the temporal dynamics of entrepreneurial finance. *Journal of Business Venturing Insights*, 2020, pp.14. DOI: <https://doi.org/10.1016/j.jbvi.2020.e00174>.
- [9] P. He, H. Niu, Z. Sun, & T. Li. Accounting index of COVID-19 impact on Chinese industries: A case study using big data portrait analysis. *Emerging Markets Finance and Trade*, vol.56, no.10, 2020, pp.2332-2349. DOI: <https://doi.org/10.1080/1540496X.2020.1785866>.
- [10] P. P. Yue, A. G. Korkmaz & H. G. Zhou. Household Financial Decision Making Amidst the COVID-19 Pandemic, *Emerging Markets Finance and Trade*, vol.56, no.10, 2020, pp.2363-2377. DOI: <https://doi.org/10.1080/1540496X.2020.1784717>.
- [11] Y.T. Wang, D.H. Zhang, X.Q. Wang, & Q.Y. Fu. How Does COVID-19 Affect China's Insurance Market?, *Emerging Markets Finance and Trade*, vol.56, no.10, 2020, pp.2350-2362. DOI: <https://doi.org/10.1080/1540496X.2020.1791074>.
- [12] X. Qian, S. Qiu, & G. Zhang. The impact of COVID-19 on housing price: Evidence from China. *Finance Research Letters*, vol.43, 2021, pp.101944, DOI: <https://doi.org/10.1016/j.frl.2021.101944>.