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The Impact and Opportunities of COVID-19 in China

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Abstract

Recently, the coronavirus, COVID-19 has been abstracting the most impressive attention of the whole world. Until the mid-March, the number of confirmed cases achieves more than 150,000 in 152 countries around the world. This paper will introduce the impact of the virus in China and overseas. As the first outbreak place, China has suffered seriously from the outbreak of COVID-19. The impact on Chinese economy is profound and complex because of both domestic and oversea factors. However, the author suggests that the risk is also an opportunity for China. It is positive to promote some sectors in both economy and society such as the Internet industry and the response to a public health emergency.

Keywords

COVID-19, Breakout, Impact Globally and Domestically, Opportunity

1. Background

In the beginning of the year of 2020, the planet is focusing on the globalized co*Co-first author.

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ronavirus, COVID-19. According to WHO (2020), until March 17th, the number of confirmed cases is approaching at 173,344 including 7019 death, spreading in 152 countries and regions. In order to fight against it, many countries have practiced strict policies, such as city lockdown, travel ban, lockout industries. Therefore, the economy has suffered extremely negative impact which would be lasting for a long time. It can be predicted that global real GDP may reduce by 0.8% in the first quarter and 0.5% in the second quarter. In this context, the coronavirus epidemic and its associated measures reduce global real GDP by 0.4 percent by 2020 (Li, 2020). The Asian Development Bank (ADB, 2020) forecasts that the severity of the economic damage will depend on the course of the outbreak, which remains uncertain. The global economic impact ranges from \$77 bn to \$347 bn, or between 0.1 and 0.4 percent of global gross domestic product.

As the first outbreak country, China has already been fighting against the coronavirus for more than 2 months. The government locks down Wuhan, an 11 million population city, and lockouts the most of industries and all schools in the whole country. The whole industrial chain such as manufacturing, traveling, restaurants, and other industries have suffered great damages. Therefore, the negative impact is inevitable. However, facing the precipitate impact, people ought to pay more attention to the positive side.

This paper will show both the overseas and domestic impact by the virus and analyze where the opportunity is caused by the outbreak.

2. The Global Impact of the COVID-19

The COVID-19 outbreak globally in March, the loss cannot be estimated easily and accurately. Outside China, the rest of the world does not prepare for the COVID-19 well. When the outbreak becomes internationalized, the global economy gains huge damages, especially in financial market. On March 12th, the U.S. stocks suffered a "black Thursday", the three major indexes all tumbles more than 9%. Both the Dow index and the S & P 500 index create the record of the biggest one-day percentage drop since the 1987 crash (360Kuai.com, 2020).

Although some policies already announced by the U.S. government, the financial market still keeps declining tendency. Refer to Xu (2020), until March 16th, the U.S. stock market experiences the third "circuit breakers" in the recent 2 years since Marth 9th, which is the fourth "circuit breakers" in the history of the country establishment. According to CNN Business (2020) since the beginning of the year of 2020, the major America stock index, Dow, Nasdaq and S & P have already declined by 25.58%, 18.25% and 21.72% respectively, until March 18th which can be shown in **Table 1**.

It can be concluded by Tu et al. (2020) that the U.S is suffering one of the most serious damage, compared with the historical drop which can be shown in Table 2.

In Europe, the situation is also awful. The DAX index in Frankfurt, Germany, falls 12.24% to 9161.13. In Paris, France the CAC40 index closes down 12.28% at 4044.26. In London, the FTSE 100 decreases 10.8% at 5237.48.

Table 1. Performance of 3 index since 2020.

How stocks are doing in 2020		
DOW	-25.58%	
NASDAQ	-18.25%	
S & P	-21.72%	

Table 2. The biggest drop in the US history.

Ranking	Date	Weekly drop %
1	1914/12/18	22.86
2	2008/10/10	18.15
3	1922/7/21	15.55
4	2001/9/21	14.26
5	1940/5/17	14.21
6	1929/11/8	13.52
7	1987/10/23	13.17
8	1932/4/8	12.86

The day of March 12th is a memorable day for the global stock market. According to incomplete statistics, besides the U.S., at least 10 countries, including Brazil, Canada, Thailand, Philippines, Pakistan, South Korea, Indonesia, Mexico, Colombia and Sri Lanka, experienced "circuit breakers" due to the sharp falls (Xinhuanet, 2020).

Besides stock market, the prices of other commodities also experience a lot of fluctuation such as gold, oil, Bitcoin etc.

3. The Impact on China

3.1. The Impact on Macro Economy

In China, the secondary industry and tertiary industry accounting for the majority part of the domestic economy, the impact would be shown respectively.

Compared with the other two industries, the primary industry only accounting for 7.1% of the GPD in 2019, suffers small impact from the COVID-19. In recent years, the primary industry keeps slow but stable increasing, and is not an absolute factor in GDP growth (Eastmoney, 2020).

National Bureau of Statistics (2020) announces that the secondary industry is obviously affected, which means industrial production declines but the prices increases. To be specific, the added value of state-owned enterprises decreases by 7.9%. Joint-stock enterprises decline by 14.2%, and foreign-funded enterprises and Hong Kong, Macao Taiwan enterprises decrease by 21.4%. Private businesses fall 20.2 %. The added value of the mining sector the manufacturing sector and the electricity, heat, gas and water production and supply sectors falls by 6.5%, 15.7%, 7.1% respectively.

However, some production of important materials and supplies still keep growing. The output of medical protection and living necessities increases rapidly, masks and alcohol increasing by 127.5% and 15.6% respectively, and the output of frozen meat and instant noodles climbing by 13.5% and 11.4% respectively. The growth of high-tech products also keeps raising. The output of smart watches, smart bracelets, semiconductor discrete devices and integrated circuits increased by 119.7%, 45.1%, 31.4% and 8.5%, respectively. In addition, the production of basic raw materials is stable, and the output of pig iron, crude steel, plate glass and ten non-ferrous metals increases by 3.1%, 3.1%, 2.3% and 2.2%, respectively. Until February 25th, 85.6% of large and medium-sized manufacturing enterprises has returned to work, and production and business activities are resuming in an orderly manner, according to the PMI (National Bureau of Statistics, 2020).

National Bureau of Statistics (2020) points out that the tertiary industry has been negatively hit hard. In the first 2 months of this year, the national index of service sector production falls 13.0% year on year. In terms of major industries, except the financial sector and the information sector grow by 4.5% and 3.8% respectively, other sectors experience declining. The total retail sales of consumer goods are 5213 billion yuan, declining by 20.5%. By location, the statistics in cities and towns reach 4.4881 trillion yuan, decreasing 20.7%. The statistics in rural areas reach 724.9 billion yuan, decreasing 19.0%. Retail sales of commodities reached 4.7936 trillion yuan, cutting down 17.6% (Mofcom, 2020). The revenue of catering industry is 419.4 billion yuan, cutting down 43.1%.

3.2. The Impact on China's Exports

Although China utlizes effective policies to control the COVID-19, the negative impact of the global situation cannot be avoided, because of the global value chain. As the Coronavirus spreading around the world, global financial markets slump, and the global GDP growth is much more possible to slow down. Based on historical experience, the external demand will decline in the short term. As the world's largest exporter, the export contraction is negative to China.

Europe, the United States, Japan and South Korea, which have been hit hard by the outbreak, are all major trading partners for China. In 2019, China's exports to the U.S., the European Union, Japan and Korea accounting for about 17%, 4.4%, 5.7% and 17.2% respectively, totally 44.3% of China's exports values (Xinhuanet, 2020). Therefore, the global evolution of the Coronavirus is bound to impact on China's export economy.

As the most powerful country in the world, the situation of U.S. has closed related to China's economy. The U.S is one of the most important trade object of China, the biggest output country US\$478.42 billion and the sixth biggest imput market US\$155.10 billion, in 2018 (Jiang et al., 2020).

In addition, China, Japan and the South Korea are important economic and trade partners of each other. In 2018, the total trade between the three countries

exceed 720 billion US dollars, mutual investment exceeds 11 billion US dollars, and personnel exchanges exceed 31 million. According to the statistics, Japan and the South Korea are China's second and third largest trading partners and the third and second largest source of new foreign investment in 2018, respectively. The South Korea and Japan are respectively the third and fourth largest source of tourists for China, and China is also the largest source of tourists for Japan and South Korea (Sina, 2019).

OCN (2019) shows that in 2018, bilateral trade between China and the EU arrives a new peak, with imports and exports totaling US \$682.2 billion, increasing by 10.6% year-on-year. The EU has been China's largest trading partner for consecutive 15 years, and China is the EU's second largest trading partner.

Therefore, it can be concluded that because of the important trade partners' damages of the Covid-19, China's economy is facing a big challenge besides the serious domestic situation.

However, China's economy cannot be estimated so gloomy, because exporting is playing a weaker role in the share of GDP. It can be presented in **Figure 1** that the exporting share of GDP becomes weaker, decreasing from 32.6% to 19.51% between the year of 2008 to 2018 (Globaleconomy, 2020).

3.3. The Impact on Particular Industries

For mechanical and electronic industry, China's dependence on Japanese and South Korean products is especially huge. According to the statistics of Japanese and South Korean customs, in 2018, Japan's and South Korea's exports of mechanical and electronic products to China accounted for 43.1% and 54.3%, of the whole exports, respectively, mainly including raw materials, machinery and equipment (Xinhuanet, 2020). Panasonic, SONY, Samsung and other Japanese and Korean enterprises still have an obvious impact on China's electromechanical industry chain.

In addition, the impact on the domestic investment of fixed assets is serious, National Bureau of Statistics (2020) shows that decreasing is 24.5%, just achieving

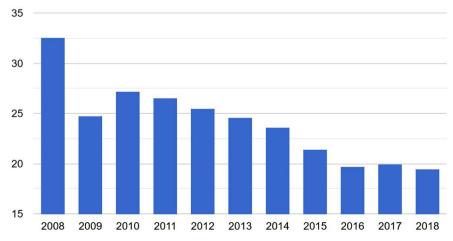


Figure 1. Exporting share of GDP from 2008-2018 (%)

almost 3.3 trillion yuan in the first 2 months of 2020. The investment in real estate, the most popular concern in China, falls 16.3%. The saleable area of commodity housing in China totals 84.75 million square meters, decreasing by 39.9%. Total sales of commodity housing are 820.3 billion yuan, cutting down 35.9%.

In addition, China's tourism industry has been hit hardest by the outbreak, which plays an important role in the national economy. Not only because of the ongoing uncertainty over the outbreak, but also its potential and increasing contribution. According to the National Bureau of Statistics, the comprehensive contribution of tourism to GDP from 2015 to 2018 is 10.2%, 11.0% and 11.04% respectively. The overall contribution of tourism to China's GDP in 2018 is 9.94 trillion yuan (Sina Finance, 2020). According to previous forecasts by major market research institutions, the number of trips made during the Spring Festival will exceed 450 million in 2020, an increase of 8% from the 2019 Spring Festival, and a consumption scale of about 555 billion yuan will be created. As a result of the sudden outbreak, the prediction lost its value. According to the data, by February 18, 210 million trips were made by railway in 2020, cutting down 47.3% year on year. The road transport is 1.21 billion, decreasing by 50.8% year on year. There are 16.89 million passengers take ships, declining by 58.6%. Air flight sends 38.39 million passengers, falls by 47.5% year on year (Suning Finance, 2020).

Therefore, it can be concluded that the impact on China is widespread, which is a huge risk.

4. Analysis—Where the Opportunity Is

Now, the whole world is facing a great chenllage, but we need to establish the willing to beat this no-fire war and realize the opportunity. Some positive signal cannot be ignored. In February, the index of business activity in the service sector is 30.1%, in the financial sector is 50.1%, remaining in the expansion range. The index of business activity in the telecom and Internet software sectors is 43.3% and 41.4%, respectively, which is a positive signal (News Sina, 2020).

Therefore, it can be concluded that the outbreak may be positive for some of China's advantage industries. Industries such as communications, big data, cloud computing, the Internet and medicine have played an obvious role during the epidemic. The changes in user behavior are expected to continue after the outbreak ends, which may promote the further development of the relevant advantageous industries.

The positive role of the Internet industry has been fully reflected. For example, the online video industry has partly replaced the consumption of films in cinemas, while e-commerce has offset the shortage of offline consumption. Online education has replaced offline classes, and teleconferencing and telecommuting systems have helped companies get back to work.

In addition, right now, the domestic situation of the COVID-19 has been basically controlled, the resumption of work and production has been completed.

While in Europe, the U. S. and other developed countries are showing an outbreak trend. From the perspective of global production, it may cause the capital of relevant countries to seek a safer haven destination. China is one of the major choices for international capital and related industries in terms of market capacity, industrial maturity, human resources, and epidemic prevention and control situation. Therefore, the current situation of epidemic development may lead to further international industry to our country.

Furthermore, a great amount of medical supplies is generated by the global outbreak. Based on China's advanced manufacturing, the increasing number of medical supplies are exporting to the rest of world such as breathing machine, facial mask, protection suits. At the same time, it is a good chance to improve the globalization of RMB.

It is also a good opportunity for China to update industrial structure, artificial intelligence (AI) will play more important role in various industries. Obviously, AI combined with medical treatment will be a trend in recent years. AI medical imaging technology has been able to complete the preliminary CT screening work well, greatly reducing the working pressure of first-line doctors. So that medical resources have been more effective, accurate used.

The big data has played an important role in the prevention and control of the COVID-19. A shared platform has established by governments at all levels to collect, gather and analyze data through the big data. In the shortest time, it helps transportation, disease control, medical supplies, assistance, supervision, logistics and other departments to fight against the epidemic. At the same time, by big data analysis, the changing trend and internal evolution of the epidemic can be grasped. The government can strengthen the epidemiological investigation work, form risk prevention and control, effectively prevent the spread of the coronavirus.

5. Conclusion and Suggestion

The impact of the outbreak of COVID-19 on China's economy is profound and complex. From the whole industrial chain is negatively affected. Affected by the strict policy, the whole social and economic activities were basically "frozen" and "shut down". So that, the real income level of the majority of residents decreases, and the prices of production and consumer goods rise up.

However, at the same time, the epidemic has also stimulated the creativity of the whole people to respond to emergencies. The transformation and upgrading of consumer services, Internet industry and other related industries have been accelerated. E-commerce, e-government, home office, virtual business, online teaching and other new forms of business will usher in a new round of development opportunities. The application of cutting-edge technologies based on the Internet, artificial intelligence and big data will further penetrate and expand into the fields of public life, business operation, government management, education and training, and become one of the new drivers of China's economic

growth.

From the global perspective, the government's effective outbreak control provides an opportunity for China to demonstrate its governance to the international community, which helps to improve the country's image. It has demonstrated the superiority of China's political and economic system through promptly control the spread of the epidemic in China and restoring the order of production and operation. Under the circumstances of the outbreak of the international epidemic, China has successively provided assistance to dozens of countries and organizations, showing China's humanitarian spirit and showing the image of a responsible power country.

The outbreak has also highlighted the significance of the human destiny community. It can be said that the global spread of this outbreak provides a rare showcase and opportunity for China to become a promoter of the next stage of globalization.

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Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

360Kuai.com (2020).

https://www.360kuai.com/pc/detail?url=http%3A%2F%2Fzm.news.so.com%2F703f6707c25a37e9a619dada328905eb&check=39a662dd000b421f&sign=360_57c3bbd1&uid=g1584242435980492084&djsource=&tj_url=9f217d2bc4ec3dbb8

ADB (2020). COVID-19 Outbreak to Have Significant Economic Impact on Developing Asia.

 $\underline{\text{https://www.adb.org/news/covid-19-outbreak-have-significant-economic-impact-devel}} \\ \underline{\text{oping-asia}}$

CNN Business (2020). Markets Data. https://money.cnn.com/data/markets/

Eastmoney (2020). GDP Data in China. http://data.eastmoney.com/cjsj/gdp.html

Globaleconomy (2020). *China: Exports, Percent of GDP*. https://www.theglobaleconomy.com/China/Exports/

Jiang, Z. C., Gong, X., & Cheng, H. P. (2020). Research on Trading Friction between China and the US from Game Theory Perspective. American Journal of Industrial and Business Management, 10, 19-29. https://doi.org/10.4236/ajjbm.2020.101002

Li, J. (2020). The Annual Growth Rate of Global GDP in 2020 Will Be Reduced by about

0.2% Due to the COVID-19. INEWSWEEK. (In Chinese) http://news.inewsweek.cn/finance/2020-03-06/8647.shtml

Mofcom (2020). *Brief Introduction of International Trade in 2019 December*. http://www.mofcom.gov.cn/article/tongjiziliao/cf/202001/20200102931150.shtml

National Bureau of Statistics (2020).

http://www.stats.gov.cn/tjsj/zxfb/202003/t20200316_1732232.html

News Sina (2020). *How the Covid-19 Influence China's Economy*. http://news.sina.com.cn/c/2020-03-16/doc-iimxxstf9442181.shtml

OCN (2019). http://www.ocn.com.cn/shujuzhongxin/201904/pitgy05095928.shtml

Sina (2019). *Trade between China, Japan and the South Korea Exceeded 720 Billion US Dollars in 2018.* http://news.sina.com.cn/o/2019-12-19/doc-iihnzahi8686146.shtml

Sina Finance (2020). *COVID-19's Impact on Various Industries*. https://finance.sina.com.cn/review/jcgc/2020-02-08/doc-iimxyqvz1258307.shtml

Suning Finance (2020). *The Impact of the COVID-19 on Traveling*. https://www.sohu.com/a/378707090_371463

Team of Tu, G. S (2020). Analysis of the Impact of the Global Spread of the COVID-19 on the Chinese Economy.

http://news.sina.com.cn/o/2020-03-10/doc-iimxyqvz9266795.shtml

WHO (2020). *Novel Coronavirus (COVID-19) Situation*. https://experience.arcgis.com/experience/685d0ace521648f8a5beeeee1b9125cd

Xinhuanet (2020). http://www.xinhuanet.com/fortune/2020-03/13/c_1125707126.htm

Xu, X. F. (2020). *The Three "Circuit Breakers" of the America Stock Market*. http://guancha.gmw.cn/2020-03/18/content_33660593.htm