COVID-19's short-term local influence on China's external economy and its overall controllability

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Abstract: The COVID-19 outbreak in the special period near the end of 2019 in the special period of the new year, this paper estimates the impact of the epidemic on the foreign economic trend in the short and long term from the structural level of China's current statistics, and puts forward new ideas through analyzing the risk management of transaction. Finally, the paper puts forward the measures that should be taken in the face of the epidemic, and strive to make due contributions to the realization of the national anti epidemic.

1. Introduction

In the past three decades, economic globalization has been a booming era. In essence, economic globalization not only is an integration of the international economy but also is a transnational flow of production factors, which makes the world economy increasingly a closely linked whole. Economic globalization is not only the symbol of the development of the economic world, but also an irresistible trend.

COVID-19 has swept the world in 2020. China, as the world's second largest economy, will inevitably suffer the impact of the epidemic. Next I will make an in-depth analysis of the short-term local influence and overall controllability of the COVID-19 on China's external economy.

2. The influence of the epidemic on China's import and export trade

2.1 Analysis from export structure

In terms of export structure, the main export products of our country are industrial products, accounting for 94%. Due to the spread of the epidemic to all parts of the country during the Spring Festival, affected by it, the time for industrial enterprises to return to work during the Spring Festival is delayed, the supporting industries such as transportation, logistics, storage are limited, and the inspection and quarantine work is more strict. These factors will reduce the production efficiency of export enterprises and increase transaction costs and risks in the short term [1].

For the import of fossil fuels, take petroleum products as an example. China is the world's largest crude oil importer, and its demand for oil is growing at a rate of about 5.5% per year. Affected by the epidemic, China's demand for petroleum products will be significantly reduced. The COVID-19 is
equivalent to SARS, which may reduce China's oil demand by about 400 thousand barrels a day, according to Capital Economics's report. The recent decline in international oil prices also confirms the judgment of the international market on the decline of China's oil demand. So export deliveries of energy sources such as oil will rise.

![Figure 1: Export delivery value of oil and gas exploitation industry during the epidemic](image)

### 2.2 Analysis from import structure

From the perspective of import structure, the main import products of our country are mechanical and electrical equipment, audio-visual equipment and its accessories, mineral products. Among them, the main products are raw materials, spare parts, semi-finished products and fossil fuels needed in manufacturing [2]. For the former, due to China's relatively stable position in the global industrial chain, as a large manufacturing country, if the export market shrinks, the domestic import demand for raw materials, parts, semi-finished products, etc. will certainly shrink. However, with the control of the epidemic and the recovery of manufacturing production in China, the import volume of such products will rise accordingly [3].

As shown in the figure, according to the analysis of relevant data, during the epidemic period, the throughput of foreign trade goods in ports across the country has a significant downward trend, and the growth rate has slowed down.

![Figure 2: Throughput of foreign trade goods of ports in China during the epidemic period](image)
Figure 3: Growth chart of national port foreign trade cargo throughput during the epidemic

2.3 Using the theory of balance of payments

Figure 4: Growth chart of total import and export value

Figure 5: Growth chart of total export value and total import value
Figure 6: Import and export balance

Import and export data from December 2019 to April 2020 are extracted from the website database of the National Bureau of statistics. As shown in the figure, the impact of China's epidemic will have spillover effect, but it will not exist for a long time. China is the second largest economy in the world and plays an important role in the international industrial chain. In the global production cooperation network, the temporary stagnation of industrial production caused by the epidemic may extend to other chains and links of Global trade and production division, directly or indirectly affect the normal operation of related industries in other countries, and further affect the development of global international trade.

Combining the current account balance with the external economy, the current account balance is equal to the net foreign investment; combining the current account balance with the internal economy, the current account balance is equal to the national savings minus the internal investment. The COVID-19 has a temporary and temporary impact on China's external economy, because of the imbalance between import and export volume and current account balance [4].

However, the IMF believes that the spillover effect of the current epidemic on other countries will still be relatively small and short-lived, which is mainly caused by temporary supply chain disruption in international trade. In the medium and long term, the global supply chain, industrial chain and value chain are resilient. As an important intermediate link and key link of the global supply chain, China's production activities and foreign trade will gradually recover with the control of the epidemic, and the global supply chain will be quickly restored in the second quarter.

3. Devaluation pressure on RMB exchange rate caused by the epidemic

3.1 "Black swan incident"

Black swan event is a very unpredictable and unusual event, which usually causes the negative reaction of market chain and even subverts the existence of black swan in various fields. No matter in financial market, business, economy or personal life, it cannot escape its control. The truth of black swan is that no matter how sophisticated technical analysis or risk management model is, it can't reduce the possibility that investors will lose their hands and feet in the super stock disaster.

The emergence of COVID-19 is a black swan event that exceeds the expectation of financial market in 2020, and it is also the main reason that the exchange rate of RMB against the US dollar
changes from previous appreciation to depreciation. I think the impact will increase the devaluation pressure of RMB from two dimensions of short-term and medium-term.

3.2 Short term analysis of RMB devaluation pressure

In the short term, the epidemic mainly affects the RMB exchange rate through the following two channels: first, the epidemic will reduce the risk preference of market participants; second, the interest rate gap between China and the United States is expected to narrow. In the face of the impact of the epidemic, the Central Bank of China is still expected to continue to take the operation of reducing standards and interest rates to increase the intensity of counter cyclical regulation, while the Federal Reserve is relatively cautious about future interest rate cuts. The difference in the easing degree of monetary policy between China and the United States will narrow the interest rate gap between China and the United States, which will bring devaluation pressure on the RMB.

3.3 Medium term analysis of RMB devaluation pressure

In the medium term, the change of current account may bring devaluation pressure to RMB. The epidemic is listed as a "public health emergency of international concern", which will have a certain negative impact on China's trade in goods and services, and the export situation in 2020 is not optimistic. The signing of the Sino US trade agreement requires China to expand its imports from the United States. The narrowing of the trade surplus will reduce China's current account surplus, which does not exclude the possibility of the current account deficit. Once there is a current account deficit, it is basically a devaluation pressure on the RMB.

![Figure 7: Closing value of money supply](image)
During the epidemic period, the growth of money supply slowed down. The team of Evergrande Research Institute pointed out that since the reform and opening up, China's money growth has soared. From 2000 to 2018, China was basically in the state of money over development, with five rounds of money over developed to the peak. The excessive development of money eventually flows into finance and real estate, breaks away from the real economy and destroys the industrial foundation of macro economy. Under the background of general slowdown in growth rate of major economies in the world, interest rate reduction and acceleration of negative interest rate expectation, the spillover effect of quantitative easing policy will lead to capital outflow, and the sustained strong dollar and rising oil price will greatly weaken the growth potential of emerging market economies.

However, it is not hard to see that in terms of the epidemic, the ministries and commissions of the State Council responded quickly and issued supporting policies to hedge the impact of the epidemic. On February 1, the central bank, the Ministry of finance, the China Banking and Insurance Regulatory Commission, the China Securities Regulatory Commission, and the foreign exchange bureau issued financial support policies, requiring that relevant enterprises should be supported to overcome the impact of the epidemic by appropriately reducing loan interest rates, increasing credit loans and medium - and long-term loans; for wholesale and retail, accommodation and catering, logistics and transportation, cultural tourism and other industries greatly affected by the epidemic, as well as development Enterprises, especially small and micro enterprises, that are temporarily facing difficulties due to the impact of the epidemic, shall not blindly withdraw, cut off or suppress loans. On February 2, the Ministry of Finance issued a notice, requiring financial discount support for loans of key enterprises for epidemic prevention and control, increasing discount support for entrepreneurial guarantee loans for individuals and enterprises affected by the epidemic, and optimizing financing guarantee services for enterprises affected by the epidemic. In the afternoon, the people's Bank of China announced that on the first day of the opening of the market on February 3, 1.2 trillion yuan of open market reverse repo funds were put in to ensure sufficient liquidity supply.
3.4 Overall evaluation of the impact of the epidemic on the exchange rate

Table 1: Real time trend of US dollar to RMB exchange rate on January 16, 2020

<table>
<thead>
<tr>
<th></th>
<th>Middle Price</th>
<th>Foreign Currency Bid Rate</th>
<th>Foreign Currency Offered Rate</th>
<th>Foreign Exchange Bid Rate</th>
<th>Foreign Exchange Offered Rate</th>
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<td>686.80</td>
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<td>681.82</td>
<td>689.58</td>
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<td>ASC</td>
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<td>681.32</td>
<td>689.90</td>
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<tr>
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</tr>
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<td>681.59</td>
<td>689.85</td>
<td>687.09</td>
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</tr>
</tbody>
</table>

Source: National Bureau of Statistics

During the epidemic period, fiscal and monetary policy regulation was in place and strengthened. Under the dual background of economic "war epidemic" and epidemic prevention and control, it is particularly urgent to deal with the internal and external risks of economic downturn and epidemic impact. Under the new LPR mechanism, interest rate reduction and standard reduction provide help for credit support enterprises to return to work and resume production. With the increase of counter cyclical adjustment, many measures such as industrial chain repair, capital market improvement and "new infrastructure" are playing a role.

In 2020, the RMB exchange rate may face certain depreciation pressure. But the range will also be relatively controllable, mainly due to: on the one hand, China US economic and trade agreement requires that the RMB should not be devalued competitively. On the other hand, once the devaluation of RMB is too much, it is easy to trigger the expectation of continuous devaluation. The expectation of continuous devaluation and capital outflow are easy to strengthen each other, which leads to a larger devaluation, which is not conducive to the stability of RMB assets. The central bank will also have the power to maintain stability.

4. Transaction risk management and innovation under epidemic situation

4.1 Transaction risk management

Transaction risk refers to sensitivity of “realized” domestic currency values of the firm’s contractual cash flows denominated in foreign currencies to unexpected changes in the exchange rate.

In recent years, under the guidance of the people's Bank of China and the State Administration of foreign exchange, China's foreign exchange market continues to innovate and develop, and diversified foreign exchange hedging products have been able to better meet the needs of enterprise exchange rate hedging. At present, exchange rate hedging products include forward, swap, currency swap, option and option portfolio. The specific operation technologies are as follows:

Firstly, choice of commercial invoice currency. China can shift, share and diversify exchange exposure by appropriately choosing invoice currency. For instance, shifted from the exporter to the importer by using exporter’s domestic currency or vice versa. Shared by exporter with the importer by invoicing the bill in both domestic currency and foreign currency. Diversified by using a currency basket unit such as SDRs.
Secondly, implementation of lead/lag strategy. If it is accounts receivable, we need to lead soft currency and to lag hard currency. But if it is accounts payable, we need to lag soft currency and to lead hard currency.

Thirdly, usage of exposure netting.

### 4.2 Innovative thinking

External uncertainty impacts macroeconomic fundamentals. At present, the international monetary fund still expects the global economic growth rate to be 3.3% in 2020, but it lowered its forecast for China to 5.6%, and worries that the impact of the new crown epidemic may last longer than previously expected. If the epidemic continues to disrupt economic activity, it will amplify the negative impact on global economic growth. Economists at Bank of America now expect the global economy to grow 2.8% this year, the worst performance since 2009. According to Bloomberg survey, economists expect Caixin PMI to fall to 46.3 in February from 51.1 in January. The situation of overseas spread of the epidemic is obvious, the global industrial chain is damaged, and the possibility of economic friction is increased.

With the deterioration of the external development environment of domestic economy, especially after the "stop" of WTO rules and the "right wing" of geo economy, uncertain factors are destroying market confidence, especially the increasingly "white hot" competition in the high-tech field, showing the long-term and complex characteristics of economic friction. According to the latest research report of Oxford Economic Research Institute, the outbreak of COVID-19 may reduce the global economic growth to a new low, and it is expected that the growth rate of global GDP in the first quarter of this year will slow down to 1.9% year-on-year. Reducing the shock wave of epidemic situation and improving the operation of epidemic enterprises will be the main policy orientation in the post epidemic period.

Since the aggravation of Sino US economic and trade frictions in March 2018, China's position in the global supply chain has experienced three rounds of shocks. The first round is from March 2018 to mid January 2020. To some extent, the trade friction between China and the United States has affected the production layout of some enterprises in China, and a small number of enterprises began to move production out of China.

The second round is from the last ten days of January to the first ten days of March 2020. Due to the strict isolation measures adopted in China, the consumption, production and logistics are blocked, which seriously affects the domestic economic growth from the two aspects of demand and supply. Foreign trade enterprises are greatly impacted on the production side and the global supply chain, prompting some multinational enterprises to consider diversifying the supply chain from China.

The third round of impact began in early March and is expected to end by the end of June. With the rapid spread of the epidemic in the world, consumption, production and logistics are also slowing down in all countries, which has seriously affected the global economy in terms of demand and supply. For China, a number of overseas orders have been cancelled, which further impacts on Chinese enterprises in the global supply chain. In addition, some countries attach importance to the localization of medical material production, which will also have an impact on the relevant Chinese enterprises in the global supply chain.

In the medium and long term, in addition to trade frictions and epidemics, China's core position in the global supply chain is expected to continue to be impacted, considering factors such as anti globalization and labor costs.
5. How to effectively minimize the impact of the epidemic?

5.1 Consolidate the core position of China in the global supply chain

First, as China controls the epidemic first and leads the world in prevention, control and production for two months, China should make every effort to deliver a large number of qualified medical materials and equipment to the world, highlighting China's strong and reliable production capacity in medical materials and its irreplaceable position in the global supply chain. Second, in the face of global supply chain disruption, China should take the initiative to strengthen cooperation with relevant countries and regions in the supply chain, coordinate and promote the normal connection of all parties in spare parts, logistics and customs clearance, and jointly ensure the stability of the current global supply chain.

Third, take the lead to launch the global online import and Export Fair, respond to the interruption of offline exhibitions, build and strengthen the global online supply chain system, and support each other with the offline supply chain system.

Fourth, seize the opportunity of explosive growth of global demand for online business and digital transformation, and accelerate the extension of 5G and digital economy industrial chain to the world. This can not only help all parties to effectively respond to the epidemic and develop the digital economy, but also form and consolidate China's global leading position in 5G and digital related industrial chain.

5.2 Adjusts the one belt, one road country and the relationship between the two parties

"One belt, one road" is a priority and important strategic hinterland for China's foreign economic development. China unfinished the epidemic one belt, one road, one belt, one road, and the other. The epidemic will be more important in the area. After the outbreak, the medical, 5G, online businesses and basic livelihood projects will be the direction of the governments. They should take the initiative to coordinate with the "one way" project, and strive for support and grace in the areas of capital, recovery and taxation. Order. Accelerate the formation of one new advantage in one belt, one road. China's enterprises are one belt, one road to the 5G industry, and the other is to encourage the Chinese enterprises to seize the opportunity of the explosive growth of online business demand during the post epidemic period. We should further increase one's financial cooperation with one belt, one road and other related countries and speed up the process of RMB internationalization.

5.3 Encourage and strengthen regionalization

Although the epidemic has strengthened the trend of anti globalization to some extent, anti globalization does not mean that all countries are self closed. In fact, the interruption of global supply chain, logistics and personnel caused by the epidemic will accelerate the regionalization of the supply chain to a certain extent; at the same time, from the perspective of supply chain security caused by the epidemic, the global supply chain will also shrink. Considering China's important position in the economic volume, consumption scale, development potential, digital economy and financial market of East Asia, China's core position in East Asia cooperation will be further enhanced. Therefore, with the further rise of anti globalization, China's support and acceleration of East Asia's regionalization will win the support of the region and further increase China's influence and leadership in the region.
5.4 Further prepare domestic macro policy adjustment and reserve to deal with the possible extreme turbulence or crisis in the US and global financial markets

First, enhance global confidence in China's economy. China must always strictly control the epidemic, avoid a rebound, fully resume normal production and economic activities as soon as possible, and accelerate the implementation of stable growth measures such as new infrastructure, so as to make China a "green economic island" in the world and accelerate the inflow of foreign capital.

Second, we should further take measures to reduce interest rates and standards and increase liquidity to the real economy.

Third, we will issue anti epidemic government bonds, set the fiscal deficit at about 5% this year, and leave enough fiscal space for economic recovery.

Fourth, we should provide low threshold liquidity support to the private enterprises in trouble, provide tax reduction support in the second and third quarters, and directly distribute consumer coupons to help the unemployed and the poor.

Fifthly, in view of the trend of US financial policy and the pressure faced by the financial market, we should track and predict the interest rate trend of the Federal Reserve, adjust the interest rate gap between China and the United States at an appropriate level, and carry out pre judgment and allocation adjustment on US financial assets.

5.5 Timely promote the internationalization of RMB

Considering that China is at the forefront of global epidemic control, taking the lead in driving economic recovery, there is a strong economic support for the RMB, which creates a favorable opportunity for further internationalization of the RMB.

For example, we should actively implement bilateral currency swap agreements and expand the scope of signing with foreign countries to further enhance the international status of RMB; support countries with more economic and trade exchanges with China to optimize the structure of foreign exchange reserves and appropriately increase the proportion of RMB; expand the use of RMB in international trade, bulk commodity trading, contracting projects and other fields, especially in the near future to encourage the export of anti epidemic relief materials To further facilitate the arrangement of RMB in international settlement and settlement and smooth the RMB return mechanism.

5.6 A more flexible and moderate monetary policy

Grasp the strength, pace and key points of the policy, deal with the relationship between stable growth, employment protection, structural adjustment, risk prevention and inflation control, keep the growth rate of M2 and social financing scale basically matched and slightly higher than the growth rate of nominal GDP, and support high-quality economic development with moderate monetary growth. We will continue to maintain the two-way floating flexibility of the RMB exchange rate and do a good job in stabilizing expectations through multiple channels. We will strengthen international policy coordination and effectively prevent and control the impact of international epidemics. At the same time, we should adhere to the bottom line thinking, keep a high degree of vigilance against possible external risks, make policy reserves in a forward-looking way, and promote the steady operation of the national economy.

6. Conclusion

To sum up, COVID-19's short-term local influence on China's external economy and its overall
controllability.

Nowadays, China's GDP accounts for about 16% of the world's GDP, and its contribution rate to the world's economic growth has exceeded 30%. If China's economy is impacted, it will inevitably affect other countries and the world economy. China's anti epidemic struggle is not only for itself, but also for the world. To support and help China is also to safeguard the common interests of the international community.

In the face of public health crisis, beggar thy neighbor can not protect themselves, and overreaction will only backfire. It is imperative for the international community to work together to overcome the epidemic and resume normal economic exchanges and cooperation among countries as soon as possible. Only in this way can we provide strong support for stable growth of the world economy and release positive expectations.

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Finally, I hope that each of us can cherish the sense of security brought by our motherland. You should try to be a person who can walk freely in the world.

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