

# The Impact of the New Global Epidemic on China's Macro Economy and the Analysis of Regulatory Policies

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**Abstract:** In 2020, human life and economic development faced an unprecedented threat with the global spread of the COVID-19 epidemic. As a world economic power, China in the first place in the national alarm and uphold the concept of human destiny community, bear the responsibility power, timely and strict epidemic prevention measures, to set up the epidemic prevention station line, together with other Chinese people, in the face of the outbreak, no compromise common fight against the disease. The blow for the global economy could be called a devastating epidemic, at the same time, The first-level response to major emergencies has been launched throughout the country. The state has halted activities other than basic living security and health care, shut down factories, shut down students, shut down public transport, and hit the national and even global economy hard. China has taken the lead in the global economic recovery by making full use of the "invisible hand" of macro-control policies to cope with the potential economic slowdown, supply-demand imbalance and employment decline caused by the new pandemic.

**Keywords:** Covid-19 Macroeconomic Regulation Economic Growth Recovery Economic Fiscal Policy Monetary Policy

## 1. Introduction

Under the background that the global economy is affected by the epidemic, this paper mainly analyzes the influence of the epidemic situation on China's social economy from the trend of GDP change, inflation rate, employment rate, total social supply and total social demand, and analyzes the macroeconomic regulation and control policies adopted by the Chinese

## 2. Literature Review

Jia Wenqin, by comparing the COVID - 19 with SARS in 2003, found that due to the characteristics of the spread of the COVID - 19, there were deviations in the severity and economic structure of different regions. The impact of the epidemic on China's social economy is obviously more serious than that of SARS in 2003. Liu Wei put forward that in the face of the impact of the COVID - 19, the state should use macroeconomic policies such as monetary policy to carry out macroeconomic regulation and control. He stressed that supply-side reform should be deepened and a clear direction for monetary policy was put forward. Guo Wei, Zeng Xinxin and Yang Hongye believe that more targeted policies should be provided to vulnerable groups, microenterprises, and seriously affected industries such as tourism, entertainment and so on through the use of monetary policy.

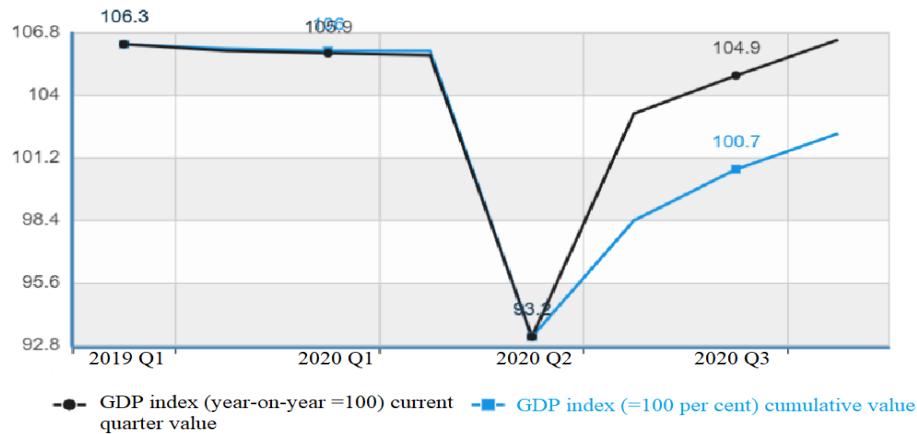
## 3. The Impact of the COVID - 19 on China's Macroeconomic Economy

### 3.1. Impact of the COVID - 19 on China's Economic Growth

Table 1 shows that China's overall economic growth trend in 2019 is good, about 6.1%. And if China's economic growth rate remains stable in 2020. Experts forecast at least overall growth greater than 2019. Price growth is within 3.5%, furthermore, GDP current price growth is expected to reach around 8.5 per cent. The rate of investment growth is conservatively estimated at 6%. With regard to investment in infrastructure in the range of 6-7 per cent, investment in real estate grew to around 7%

and the overall revenue growth is estimated at 5 per cent. As can be seen clearly in the first quarter of 2020, The outbreak period, GDP the rate of growth varies considerably from the estimate, not only is there no growth, it also decreased by 6.8 per cent. This shows that the impact of the new crown epidemic on China's economy is very serious. Then, Due to the strict control of the epidemic in China, Growth recovered rapidly in the second quarter. Growth in the third quarter returned to the same level as in the first quarter of 2019.

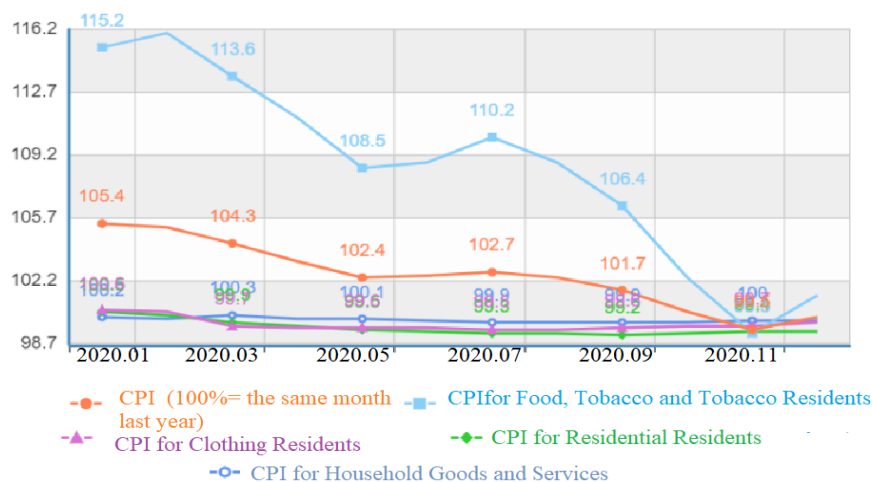
Table 1: Trends in China's GDP Index from 2019 to 2020



Data from National Statistical Office

### 3.2. Impact of the COVID - 19 on Inflation in China

Table 2: Trends of Consumer Price Index for Chinese Residents in 2020



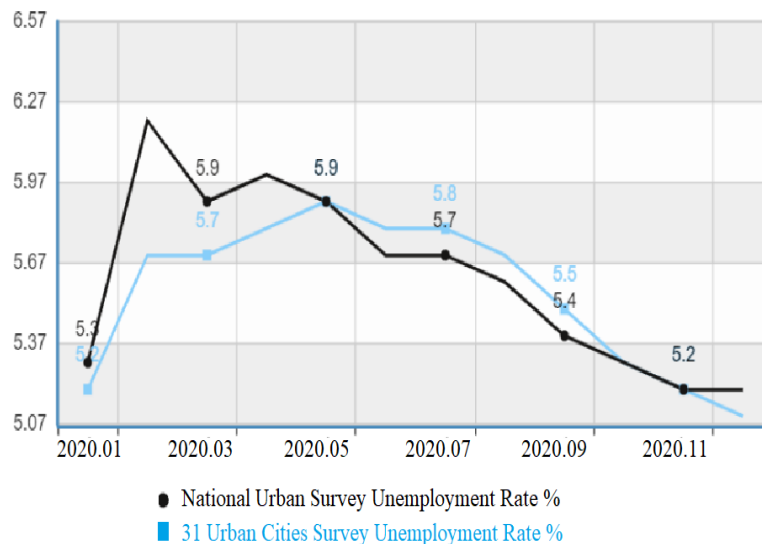
Data from National Statistical Office

As can be seen from Table 2, compared with January, the potential impact of the epidemic on prices in February may be greater, and the CPI in January has increased significantly, mainly due to the superposition of many factors, such as Spring Festival, epidemic situation, tail warping, etc, rather than currency depreciation and a sharp rise in commodity prices. Once these factors disappear, prices will stabilize. Therefore, the January price volatility is not sustainable or representative. In February of the same year, the consumer price index of food, alcohol and tobacco residents rose slightly, mainly due to the following two reasons: firstly, because of the isolation of the epidemic at home, the rise in demand for such consumer goods led to a small increase in prices. Secondly, because of the epidemic, residents panic, fear that the epidemic will lead to temporary shortage of goods, thus hoarding a large amount of food. It can be seen that the situation has eased in March of the same year, and the consumer price index of residents has declined, mainly because the epidemic situation has been initially controlled. Secondly, the state has issued relevant policies to control the price of basic daily necessities during the epidemic situation. According to the relationship between consumer price index and inflation rate, there

was a small short-term inflation during the epidemic, but because of the decline in labor demand and supply during the epidemic, the unemployment rate rose. According to the Phillips curve principle, when the social unemployment rate is high, the wage growth rate is low and the inflation rate should fall during the epidemic. Considering synthetically, the inflation rate during the epidemic period is uncertain because of many aspects, so it cannot be judged only according to the consumer price index and unemployment rate.

### 3.3. Impact of the COVID - 19 on Employment in China

Table 3: Trends of Urban Unemployment Rate in China in 2020



Data from National Statistical Office

According to table 3, the unemployment rate in the national urban survey in February 2020 was 6.1 percent, up 0.8 percent from January and 5.9 percent from February. It shows that many companies and enterprises suffered heavy losses during the epidemic due to home isolation, shutdown and so on, and the unemployment rate increased due to heavy layoffs to reduce costs. Furthermore, according to surveys from various employment platforms, another reason for the increase in unemployment is a significant decrease in the number of new jobs compared with the same period in 2019.

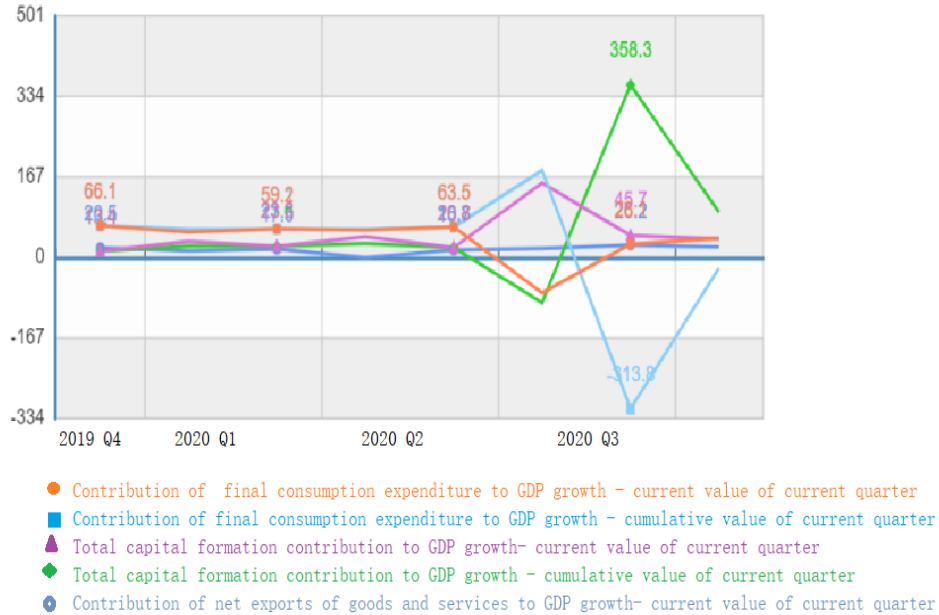
### 3.4. Effects of the COVID - 19 on Total Demand Supply in China

In order to effectively control the spread of the epidemic and prevent deterioration, the policy of blocking, isolating and stopping production is a dramatic change in China's economy in a month. During the epidemic, most of the production lines were paralyzed and the social economy was pressed to stop. At this time, the total supply end and the total demand end of Chinese society had an impact on China's social economy at the same time in a short period of time. On the supply side, the pauses in various economic activities and the majority of people's demands for home isolation have reduced the total number of products and services, while the total demand of various sectors of society has been greatly reduced because of the reduction of income and services. The combined effect of supply and demand has reduced the total supply and output of society.

At the same time, we can see from Table 4 the trend of export, consumption and investment trioka affecting the demand side. From the perspective of consumption, the contribution rate of final consumption expenditure to GDP growth in 2020 decreased directly from 63.5% in the first quarter to negative. Affected by the epidemic, the catering industry, tourism and entertainment industry cannot run normally, resulting in reduced consumption and thus reduce the total demand of society. It can be seen in the table that the contribution of total capital formation to GDP growth rate increased in the current quarter, but its cumulative value did decline. From an economic point of view, the epidemic will delay investment, but will not inhibit investment, affected by the epidemic, investment may be delayed, but investment will not be canceled because of the epidemic. In addition, during the epidemic, investment in medical infrastructure increased significantly due to the need for epidemic prevention, such as temporary hospitals and medical preparedness workshops such as masks throughout the country.

From the point of view of import and export, the influence of epidemic situation on import and export is not significant. The most serious cause of the epidemic is mainly inland cities, such as Hubei Province.. Hubei Province's import and export volume accounts for less than 1.5% of the total. However, in coastal cities, such as Guangzhou, Shenzhen and other cities, by increasing epidemic prevention materials and strict control, the overall impact on the overall import and export is not serious.

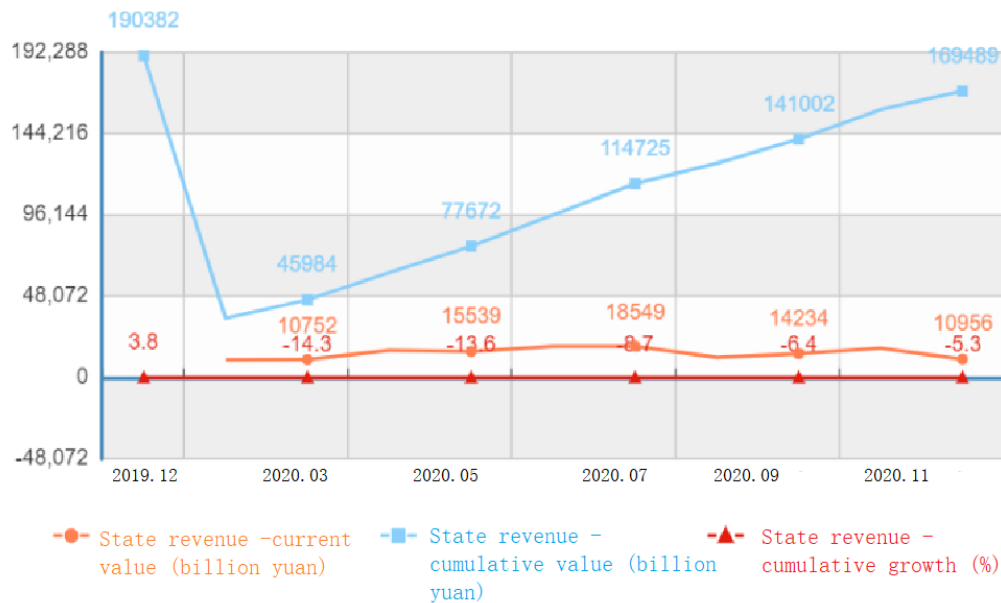
Table 4: Contribution of China's Three Major Needs to GDP Growth in 2020



Data from National Statistical Office

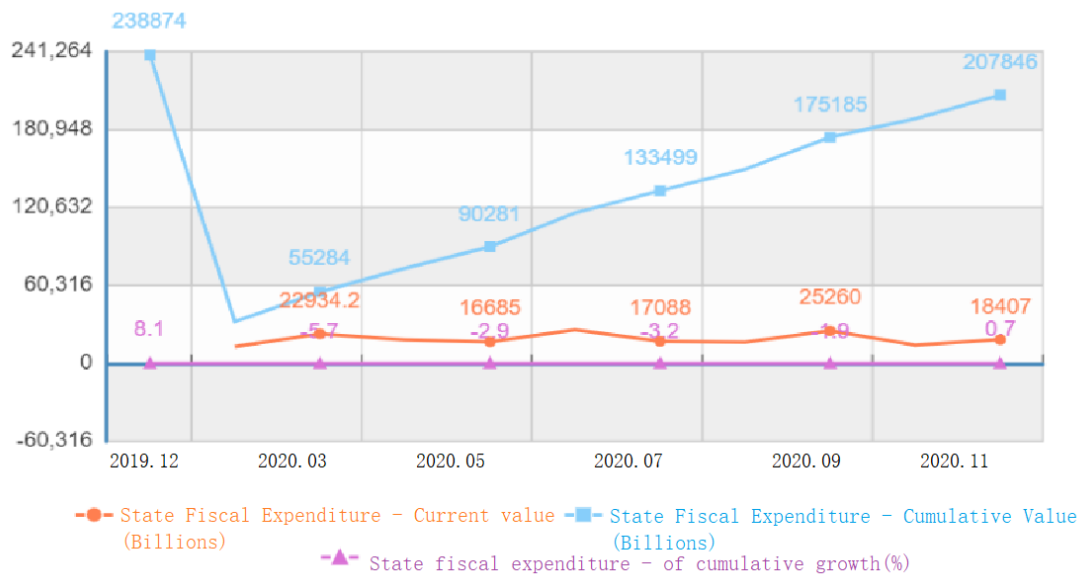
3.5. Impact of the New Crown Epidemic on National Finance

Table 5: Trends in fiscal revenue in China in 2020



Data from National Statistical Office

Table 6: Trends in China's Fiscal Expenditure in 2020



Data from National Statistical Office

Under the impact of the epidemic, China's fiscal revenue in 2020 has an inevitable decline, the main source of national revenue is tax. Due to the impact of the epidemic, most enterprises stopped production, staff stopped working, and their inability to pay taxes normally led to a significant reduction in enterprise income tax, consumption tax, personal income tax and other tax revenues. In addition, the implementation of tax reduction and fee reduction policy is another reason for the reduction of revenue in 2020. Secondly, the state's financial expenditure also increased accordingly. During the epidemic period, the state's expenditure on health care, R & D and social security employment increased significantly in order to cope with the epidemic situation and stabilize employment.

Table 5 shows that in the first half of 2020, the cumulative growth rate of fiscal revenue in each month was -3.8%, -14.3%, -13.6%, -8.7%, -6.4%, -5.3% respectively. February and March were the worst affected by the epidemic, with a cumulative growth rate of about 14 per cent. In the first quarter, with a sharp decline in revenue, due to the control of the epidemic and the introduction of corresponding national policies, the fiscal revenue in the second quarter appeared a good trend, and many tax revenues began to recover. In 2020, the national tax revenue totaled 15431 billion yuan, down 2.3 percent from 2019, mainly due to the combined impact of China's tax cuts and fee cuts and the epidemic. Enterprise income tax fell 2.4, mainly due to the second half of the profit recovery growth led to income growth, resulting in a narrow decline. Personal income tax increased by 11.4 percent, mainly due to the increase in household income as the economy recovered.

According to the official data of the Ministry of Finance, in 2020, the national general public budget expenditure was 245.588 billion yuan, and the national health expenditure increased by 15.2 percent, of which the expenditure related to epidemic prevention and control increased by 74.9 percent compared with 2019; social security and employment expenditure increased by 10.9 percent during the epidemic; housing security expenditure increased by 10.5 percent; education expenditure increased by 4.4 percent; and transportation expenditure increased by 3.2 percent.

#### 4. China's Macroeconomic Control Policy under the COVID-19 Epidemic

##### 4.1 Fiscal Policy

In the face of the impact of the epidemic on the economy, the Chinese government has given full play to the role of the "invisible hand". In order to restore the economy and promote consumption, government departments have not only continuously promoted the policy of reducing taxes and fees. It also issued a series of tax preferential policies for the epidemic. Although the implementation of a stronger tax reduction and fee reduction policy cannot solve the urgent problems such as inventory

accumulation and capital shortage in enterprises in essence, however, it can improve the business situation and tide over the difficulties by reducing the operating cost to a certain extent. In addition, government departments also issue treasury bonds, increase transfer payments and financial subsidies to use the multiplier effect to promote social and economic growth.

#### ***4.1.1 Adjust Tax Policy and Increase Tax Preference***

The state mainly adjusts the preferential tax policy from the personal income theory and the enterprise income tax, in addition, the administrative enterprise charge has also carried on the relief.

The tax relief policy on enterprise income tax is mainly manifested in the following five aspects: first, the production enterprises that belong to the guarantee materials during the epidemic period are allowed to deduct the cost before tax in order to increase the production and purchase equipment. Second, the production enterprises belonging to the guarantee materials may apply to the local tax authorities for full refund or retention of VAT every month. Third, transport enterprises transport epidemic prevention materials obtained income exempt from value-added tax. Fourth, the losses incurred by enterprises seriously affected by the epidemic in 2020 can be extended to 8 years. Enterprises include transportation, entertainment and catering, tourism hotel enterprises and so on. Fifth enterprise taxpayers in order to provide epidemic prevention services and related transportation, necessities and other materials obtained income can be exempted from value-added tax.

The preferential policies of personal income tax on epidemic situation are embodied in the following two aspects: first, the subsidies and bonuses obtained by all medical and nursing personnel and staff engaged in epidemic prevention are exempted from personal income tax. Secondly, all epidemic prevention materials issued by the unit are not included in salary and bonus income, and personal income tax is waived.

During the period of epidemic prevention and control, the preferential policies on administrative fees are roughly divided into two parts. First, the registration fee of medical devices is waived for the drugs related to the prevention and control of the new crown virus in the examination and approval, treatment and prevention stages. Second, Civil Aviation Development Fund due from airlines exempt from levy

#### ***4.1.2 Issuance of Treasury Bonds***

In order to reinvigorate confidence, stabilize the economy, China has adopted an active fiscal policy and issued treasury bonds. At the 13th National people's Congress, special government bonds and local government bonds were issued to combat the epidemic, including a trillion yuan special national debt issued to promote the effective operation of fiscal policy. Mainly used for public health expenditure and protest related infrastructure construction, such as the construction of Vulcan Mountain Hospital. In addition, the planned issuance of 375 million yuan of local government bonds increased by 160 million yuan compared with 2019.

#### ***4.1.3 Increased Financial Subsidies and Transfers***

While making every effort to ensure funds for prevention and control of the epidemic situation, the central government has further accelerated the progress of issuing the transfer payment budget, pre-allocated 183.9 billion yuan to the local authorities in the areas of medical and health care, stable employment, steady investment and financial subsidies, and supported the local authorities in doing a good job in preventing and controlling the epidemic situation, resuming work and resuming production, and 'three guarantees' and so on. So far, the central government has issued 6.28 trillion yuan in local transfer payments, an increase of 1.26 trillion yuan over the same period last year. Through financial subsidies, direct tax rebates, financial special funds, to give financial support to the main body of epidemic prevention and control. The first is to give financial support to key enterprises in preventing and controlling the epidemic situation. The main measures include refund of value-added tax, customs duties on imported materials, consumption tax, and so on, and support enterprises in purchasing epidemic prevention equipment and producing epidemic prevention materials. The second is to give financial support to the personnel involved in the prevention and control of the epidemic, including medical and nursing personnel, cleaning personnel, security personnel, and personnel involved in anti-epidemic work in various industries, to give subsidies and bonuses, and to purchase epidemic prevention materials free of charge. Third, financial support should be given to major projects to combat the epidemic, and financial funds should be earmarked for more similar anti-epidemic projects. Fourth, give financial support to the affected people and set up an epidemic prevention fund, which is mainly used for free detection and treatment of pneumonia patients in urban and rural residents.

#### 4.2. Monetary Policy

The complex impact of the COVID-19 epidemic on the real economy and financial system has brought great challenges to the formulation of monetary policy in China. By reducing the reserve ratio of banks, simplifying the medium-term lending procedures and setting up special reloans to prevent and control the epidemic, the central bank combine flexibly and apply various monetary policies in order to maintain the stability and liquidity of the financial and stock markets. In 2020, the central bank repeatedly lowered the reserve ratio of financial institutions and released a large amount of long-term funds to the market, releasing more than 800 billion yuan in January, 550 billion yuan in March and 400 billion yuan in April, respectively. The main objectives are to support inclusive finance and SME financing, increase credit supply and reduce financing costs for SMEs.

The main goal of the medium-term loan facilitation policy is to help SMEs to finance better, especially for village banks and small and medium-sized banks to reduce the target by 1 percentage point, in order to enhance loan supply and loan willingness, reduce financing costs and so on.

Finally, for enterprises engaged in the production, transportation and sale of prevention and control materials, special reloans were set up, rediscount reloans were increased by 500 billion, and small and medium-sized banks were increased. And through the financial discount to further reduce the financing costs of epidemic prevention and control materials production enterprises, rediscount quota as high as 1 trillion yuan.

#### 4.3. Industrial Policy

At present, China calculates a "double cycle" market, that is, domestic consumption is the main market, international supply chain and industrial chain are auxiliary, complement each other, enhance China's great power responsibility and responsibility. Therefore, in order to quickly restore the impact of the epidemic on China's industry, China has launched the construction of China's digital economy industry by strengthening its support for the 5G of technology and infrastructure construction. China encourage and support enterprises to develop and strengthen the construction of digital industry, to promote the development and transformation of enterprises, especially to promote the reform and upgrading of digital finance, to build a digital Silk Road, and to create a new digital China.

The second aspect of industrial policy is to strengthen the construction of medical and health infrastructure and to increase support for the protection of public health and emergency equipment. The state not only increases the special subsidy of public health, but also invests a large number of outstanding talents in medical and health care. In a few months, it has developed a variety of covid-19 vaccine, which has achieved remarkable results. China's proportion of medical and health investment has gradually increased, in addition, China also pays attention to R & D investment, in 2020, the proportion of national R & D investment accounted for more than 2% of GDP. At the same time, paying attention to the reform of the medical supply side and reforming the medical insurance system should not only give doctors high quality safety and security, but also strengthen the professional level of doctors, break the deadlock in the relationship between doctors and patients, and build a community of doctors and patients. Finally, in order to prevent the disease, take the covid-19 as the experience, perfect the rapid response mechanism of public health, and create a more perfect health care system.

#### 5. Conclusion

At present, human security is threatened and economic development is hit unprecedentedly. During the epidemic period, China GDP experienced a serious decline. With the soaring unemployment rate, the supply and demand sides of different industries were also seriously affected, resulting in a decline in total social supply and total demand. At the same time, China's fiscal revenue also declined. Overall, affected by the epidemic, China's overall economic decline. But the people of the whole country fought side by side, took the most severe epidemic prevention measures and achieved remarkable results. Government departments mainly through the rational combination and flexible use of fiscal and monetary policies to macro-control the national economy. In the aspect of fiscal policy and law, the government mainly helps enterprises tide over difficulties and stabilize employment and economy from three aspects: adjusting tax policy, issuing treasury bonds and increasing government expenditure. In the aspect of monetary policy, the government uses steady monetary policy, adopts the way of lowering the standard, cutting interest rate and refinancing. As far as industrial policy is concerned, China

promotes a "double cycle" to build a digital economy, strengthen technical and infrastructure support in five G, and encourage the development of the digital economy. In addition, China has strengthened the supply-side reform of medical infrastructure, improved the medical insurance system and the public health response mechanism, and made good plans ahead of time. Finally, the virus is ruthless and human, thanks to the medical staff, soldiers, party members, volunteers and every overseas Chinese compatriots who contributed to the fight against the epidemic.

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