

Resuming Full Operations: Challenges and Countermeasures

Academic Center for China's Economic Practice and Thinking

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Research Group on the COVID-19 Outbreak

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Abstract

This article puts forward the following six points of view based on related research:

First, according to the model-based prediction of the Academic Center for China's Economic Practice and Thinking (ACCEPT), **if appropriate policies are introduced, the economic impact of the COVID-19 outbreak will be limited and controllable. If the outbreak is controlled and operations are fully resumed by the end of Q1 or by the end of the first half, the national economic growth will be dragged down by 0.17 or 0.36 percentage point respectively**, and the original economic development goal can be achieved.

Second, COVID-19 is different in several ways from SARS, and China's economy is also at different growth stages when these two viruses hit the country. In the fight against COVID-19, **the top priority is to resume operations safely and smoothly, which is more important than any financial and monetary stimulus.**

Third, **regulations and standards for preventing infection during economic activities must be promulgated, to strictly prevent the large-scale resurgence of the epidemic after resuming operations.**

Fourth, it should be **made clear that local authorities and enterprises will not be held accountable for any new COVID-19 case as long as they have strictly followed the scientific specifications for epidemic prevention and control after**

resuming operations. In this way, the local authorities may focus more attention on resuming operations, other than cutting the number of COVID-19 cases.

Fifth, the key industry chains should be reviewed, and the excessive capacity of the critical and deficit links should be subsidized, to prevent interruption of other enterprises due to the failure of key enterprises to resume operations.

Sixth, the government should update in detail the mortality rates of patients based on their ages and health status, to prevent panic in the society.

I. Impact of COVID-19 on China's Economic Growth

According to the model-based prediction of the Academic Center for China's Economic Practice and Thinking (ACCEPT), if appropriate policies are introduced (For example, to tackle the SARS outbreak in 2003, appropriate policies were introduced to control the outbreak and stabilize the economy.), the epidemic is controlled in Q1 2020, and all enterprises then resume operations, the national economic growth will be dragged down by 0.17 percentage point; if the epidemic sustains to Q2, Q3 or Q4, the negative impact will be 0.36, 0.55 and 0.77 percentage point respectively. Before the COVID-19 outbreak, the ACCEPT predicted that China's economic growth will stay at 6.1% in 2020; after the COVID-19 outbreak, **the growth forecast is down to 5.3-5.9% depending on the time the epidemic is over.**

According to the ACCEPT, **if appropriate policies are introduced, the economic impact of the COVID-19 outbreak will be limited and controllable, and the original policy goals can be met as expected.** First, although in the short term, the total amounts of consumption-related indicators might decrease significantly, the added value might not see a sharp reduction. Second, different from SARS, COVID-19 broke out in Q1, a period with the least economic activities throughout the year. Third, with the rapid development of logistics, transportation, e-commerce and virtual collaboration over the past few years, some economical activities can still be carried out during the COVID-19 outbreak. Fourth, the government introduced countermeasures for stabilizing economic operation much earlier than that in the SARS period. In short, compared with the 2003 SARS epidemic, the 2020 COVID-19 epidemic has less impact on national economy. However, it should be noted that China's economy was on the upside with an accelerated globalization pace during the 2003 SARS epidemic, while currently China's economy is in a downward and stable

trend amid a complicated de-globalization wave. Therefore, **to win the battle against COVID-19, the top priority is to resume operations safely and smoothly, which is more important than any financial and monetary stimulus.**

COVID-19 has two major characteristics: **First, it is highly infectious and has a longer incubation period.** Researchers found that the basic reproduction number of COVID-19 (R_0) is 2.2 (95% confidence interval, 1.4-3.9). By contrast, the basic production numbers of SARS and HIV are 3 and 2-5 respectively. Moreover, COVID-19 has a relatively short doubling time, as the number of confirmed cases doubles every 6.4 days. In comparison, the doubling time of SARS is 14.2 days, more than twice the figure for COVID-19. Meanwhile, **as COVID-19 has a very long incubation period, we should realize that the epidemic might last for a long time and might recur repeatedly.** **Second, the mortality rate of COVID-19 is lower than other severe epidemics.** Currently, the mortality rate of COVID-19 is 2-3%, and the elderly and people with chronic diseases are most susceptible to death. In contrast, the mortality rates of SARS and MERS are 9.6% and 34.5% respectively, while the mortality rate of the influenza is lower (about 0.1%) with a wider spread. According to the WHO, about 250,000-500,000 people worldwide die from influenza each year.

The above analysis shows that compared with SARS, COVID-19 might be undermined but difficult to be eradicated. Although it might recur from time to time, its lethality can be effectively controlled. It will take more than 18 months to develop an effective vaccine against COVID-19 and put into use. Regarding this, it is unrealistic to cut the number of new cases down to zero in a short time.

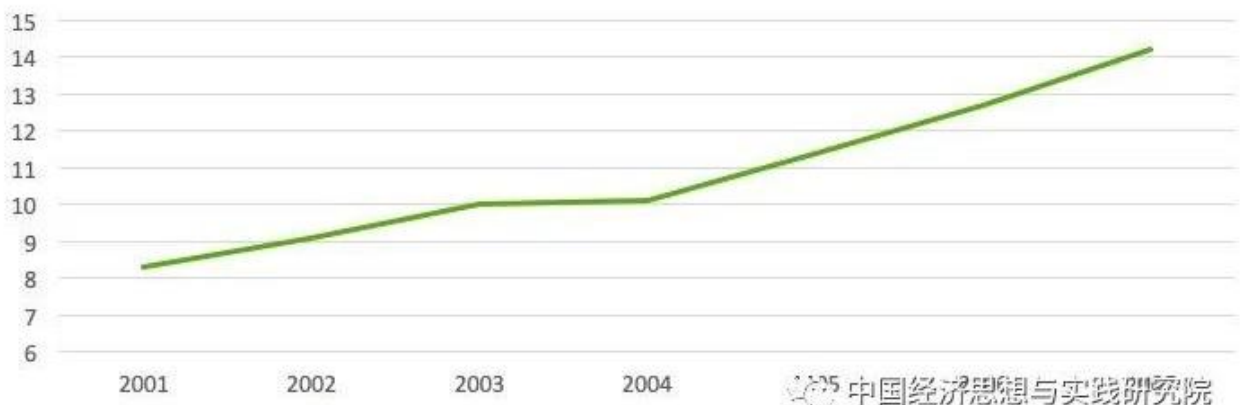
The ACCEPT predicted the impact of COVID-19 on China's economic growth under the following three preconditions:

First, the actual impact of COVID-19 is basically controlled by the end of Q1 2020, and operations are fully resumed in all regions across China except for Hubei province.

Second, the actual impact of COVID-19 is basically controlled by the end of June 2020, and operations are fully resumed nationwide.

Third, the actual impact of COVID-19 is controlled by the end of 2020, and operations are fully resumed nationwide.

With the economic impact of SARS under the active response of the government as the baseline, the ACCEPT predicted the impact of COVID-19 on China's economic growth. Figure 1 depicts China's GDP growth during 2001-2007, and the impact of SARS on the national economy can be barely found based on data, indicating that SARS just caused short-term impacts on the economy. To observe such short-term impacts, we used quarterly data in 2003. Figure 2 shows the relative changes in the growth of various industries in Q2 2003 (the worst period of SARS) compared with the previous quarter. The impact of SARS varied significantly with industries: Compared with manufacturing, the service industry was hit harder; the transportation, warehousing and postal service industries saw the biggest drop (The growth decreased from 7.7% in Q1 to 2.3% in Q2 2003.), followed by accommodation and catering (from 11% to 7.4%).



资料来源：中国国家统计局。

Translation of the text in the graphic:

图表 1 2001-2007 年中国 GDP 增长 (%)
 Figure 1 China's GDP growth (%) during 2001-2007
 资料来源：中国国家统计局

Source: National Bureau of Statistics

图表 2 2003 年第 2 季度分行业增加值的相对变化

Figure 2 Relative changes in the value-added growth of various industries in Q2 2003

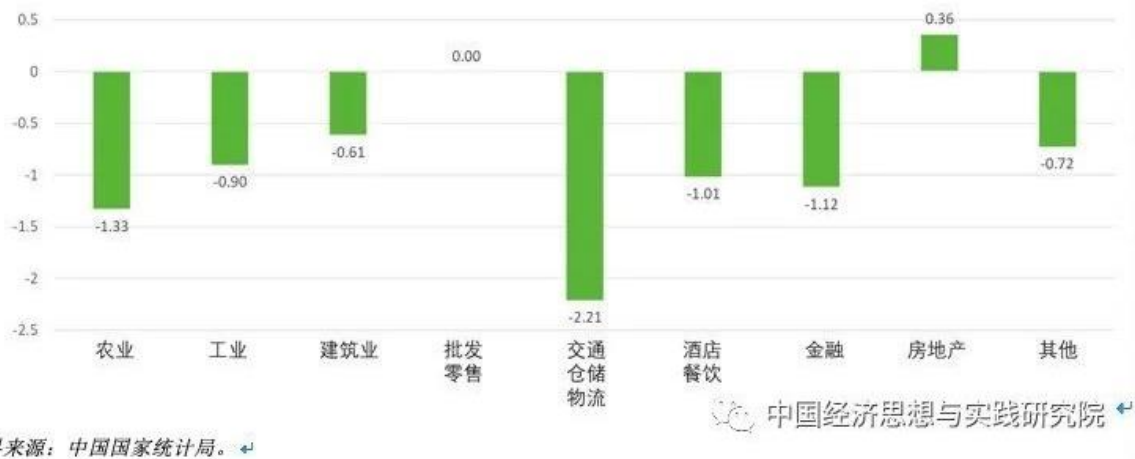
农业—Agriculture 工业—Industry 建筑业—Construction 批发---Wholesale 零售--Retail
 交通—Transportation 仓储—Warehousing 物流—Logistics 酒店—Hospitality 餐饮--Catering
 金融—Finance 房地产--Real estate 其他--Others

注：相对变化=（2003 年第二季度的同比增长-2003 年第一季度的同比增长）/2003 年第一季度的同比增长
 Note: Relative change = (YoY growth in Q2 - YoY growth in Q1 2003) ÷ YoY growth in Q1 2003

资料来源：中国国家统计局
 Source: National Bureau of Statistics

The ACCEPT predicted impacts caused by COVID-2019 based on those posed by the SARS outbreak on the added-value growth of different industries in 2003. Moreover, we made two adjustments to reflect changes in the current economic climate. First, **with the rapid development of logistics, transportation, e-commerce**

and network infrastructure, some economic activities can still be carried out during the COVID-19 outbreak, and therefore we believe that the impact of COVID-2019 on the service industry is smaller than that of SARS. Second, as the government actively urges residents to stay at home and refrain from going out unless necessary, the wholesale and retail industries are severely impacted.



Translation of the text in the graphic:

图表 3 预计疫情对分行业增加值的季度同比增速的绝对影响 (%)

Figure 3 The predicted absolute impacts of COVID-19 on the QoQ value-added growth of sub-industries (%)

农业—Agriculture 工业—Industry 建筑业—Construction 批发—Wholesale 零售--Retail

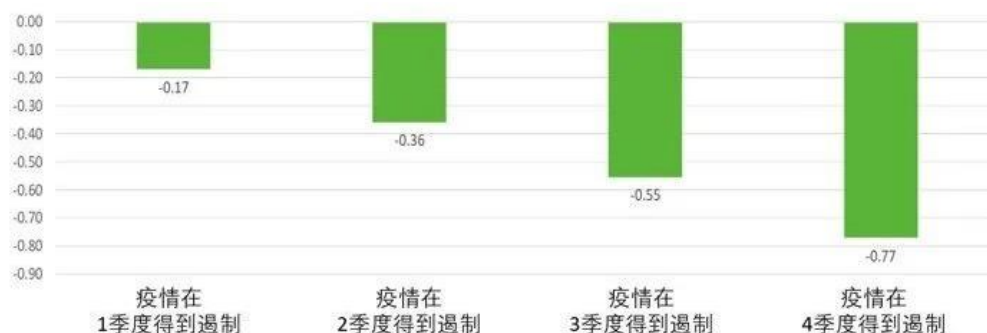
交通—Transportation 仓储—Warehousing 物流—Logistics 酒店—Hospitality 餐饮--Catering

金融—Finance 房地产--Real estate 其他--Others

资料来源：中国国家统计局。

Source: National Bureau of Statistics

Based on the abovementioned analysis, the ACCEPT calculated the absolute impacts of COVID-19 (Figure 3) on the QoQ growth of different industries, and then calculated the impact of COVID-19 on the quarterly growth of China's overall GDP based on the weighted average reflecting the impacts on QoQ growth across different industries. Finally, we estimated the impact of COVID-19 on China's economic growth throughout 2020 by multiplying the weighted average by the quarterly output ratio.



注：对第 X 季度对中国经济增长的影响计算方式为各部门的加权影响之和乘以 X 季度的产出比重（即 2019QX 的产出除以 2019 年的总产出）；如果爆发被包含在 X 季度中，则对 2020 年中国经济增长的影响是第一季度到 X 季度的影响之和。

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数据来源：中国国家统计局。

Translation of the text in the graphic:

图表 4 冠状病毒爆发对 2020 年中国经济整体增长的估计影响（百分比）

Figure 4 Estimated impacts of COVID-19 on China's overall economic growth in 2020 (%)

疫情在 1 季度得到遏制--The epidemic is controlled in Q1.

疫情在 2 季度得到遏制--The epidemic is controlled in Q2.

疫情在 3 季度得到遏制--The epidemic is controlled in Q3.

疫情在 4 季度得到遏制--The epidemic is controlled in Q4.

注：对第 X 季度对中国经济增长的影响计算方式为各部门的加权影响之和乘以 X 季度的产出比重（即 2019 QX 的产出除以 2019 年的总产出）；如爆发被包含在 X 季度中，则对 2020 年中国经济增长的影响是第一季度到 X 季度的影响之和。

Note: The formula for calculating the impacts of COVID-19 on China's economic growth in Qx: Sum of weighted impacts on various industries X Output ratio of Qx (i.e. Output of Qx 2019 ÷ Total output of 2019); If the COVID-19 outbreak is included into Qx, the impacts on China's economic growth in 2020 are the overall impacts from Q1 to Qx.

数据来源：中国国家统计局

Source: National Bureau of Statistics

The ACCEPT predicted that **if the actual impact of COVID-19 is controlled in Q1 2020 and operations are resumed in all regions across China except for Hubei province, China's economic growth will be dragged down by 0.17 percentage point.** If the epidemic sustains to Q2, Q3 or Q4 2020, China's economic growth will be dragged down by 0.36, 0.55 and 0.77 percentage point respectively (Figure 4). Such predictions are basically consistent with those made by other research institutes at home and abroad.

II. Challenges and Countermeasures for Resuming Operations

The above analysis shows that compared with other epidemics such as SARS, COVID-19 is highly infectious with a longer incubation period and a lower mortality

rate among groups in good health. To this end, all sectors of the society should realize that the virus might be undermined but difficult to be eradicated and might recur from time to time, and therefore preventative measures should be in place after resuming operations. It is inadvisable to resume operations after COVID-19 is completely eradicated. On the contrary, we should carefully consider how to tackle the outbreak while resuming operations across the board, to shift from emergency response to regular and all-round response. If the operations cannot be resumed gradually, it will be difficult to effectively control the epidemic, as the production, transportation and appropriate allocation of medical products and even the supply of daily necessities are interrupted. **With the development of the epidemic, resuming normal operation of the national economy is becoming critical for winning the tough "battle", since it is closely related to our capability to prevent and control the epidemic. Failure to fully resume operations will not only compromise the capability to fight against the epidemic and lead to subsequent hazards, but also cause negative impacts on multiple economic sectors, including unemployment, debts and industry chain migration.**

The following four major challenges may arise when resuming operations, and the stakeholder communities should consider to take targeted countermeasures:

Challenge 1: The epidemic may rebound at a large scale after resuming operations.

Regulations and standards for preventing infection during economic activities must be promulgated, to prevent the large-scale resurgence of the epidemic. Scientific management methods should be taken by every industry and region according to actualities. Currently, it is important to resume production, especially manufacturing and construction. **We suggest the grid management approach in local communities should be promoted to workplaces, to facilitate unified management of the work and life of employees.**

Such a management approach mainly involves three steps. First, implement stringent production and operation protocols for epidemic prevention and control in workplaces. Second, improve the conditions of accommodation, catering and sanitation for employees, and build the temporary prefabricated houses to reduce residential density. Furthermore, rent guest rooms in budget hotels to address the accommodation issue of employees on the one hand, and to help hotels resume

operations during the epidemic period on the other hand. Third, keep monitoring the health status of employees. During this process, local governments should introduce related policies to encourage enterprises to resume operations and share their costs incurred in epidemic prevention and control. The competent authorities should commit to bearing all costs generated by the resurgence of the epidemic for the enterprises which have strictly follow the prevention and control processes when resuming operations.

A set of rigid management processes must be implemented after resuming operations, to prevent loss of vigilance among communities and families after the epidemic is curbed to some extent, especially that a great number of workers engaged in manufacturing and construction live in the underdeveloped regions with poor healthcare infrastructure and weak epidemic prevention awareness. Therefore, resuming operations under scientific guidance is actually more favorable for infection control in the longer term.

Challenge 2: Local governments focus more on curbing the number of COVID-19 cases than resuming operations.

During the epidemic period, infection control is the emergency measures, and therefore controlling the number of infected cases is the top priority for local governments. Currently, as the healthcare community and scientific research community have reached consensuses on the transmission characteristics and the mortality rate of COVID-19, and the emergency measures have taken effect, the priority of local governments should be adjusted accordingly. Local governments should focus more on the number of new cases for every CNY 100 million in GDP, rather than the pure number of new cases, and take a two-pronged approach to prevent the epidemic and resume operations. **If we overemphasize "zero tolerance" to new cases, local governments will be reluctant to resume operations, thus generating extremely high economic costs, and may cover up the real data about new cases, which is not conducive to the fight against COVID-19.** For these reasons, **it should be made clear that local governments and enterprises will not be held accountable for any new COVID-19 case as long as they have strictly followed the epidemic prevention and control protocols when resuming operations, and the higher-level financial authorities should subsidize the enterprises for their costs incurred by isolation measures.**

Challenge 3: The services of enterprises are interrupted due to failure of key enterprises in resuming operations.

China is a manufacturing powerhouse, and every industry sector has a very long industry chain. With the rapid development of the Internet and logistics over the past few years, upstream enterprises connect closely with downstream enterprises, and Chinese enterprises also work closely with their foreign partners. If suppliers along the industry chain have any problem, they will not only pose a big impact on the whole industry chain, but might also knock off the future competitiveness of China's economy on the international stage. At present, on one hand, some enterprises capable of resuming operations fail to meet certain production targets or even get interrupted again without the support of upstream and downstream suppliers; on the other hand, many enterprises are taking a wait-and-see attitude depending on how their partners along the industry chain can resume operations. Therefore, business resumption can not only influence the normal operations of the whole industry chain, but also generate positive externalities.

Regarding this, the government **should review the key industry chains and subsidize the surplus capacity of the critical and deficit links, i.e. the government is committed to subsidizing the excessive capacity that cannot be used eventually.** The government should pay high attention to the insufficient supply of components and parts for large enterprises, maintain close communication with them, and introduce favorable policies for them to seek alternatives. **Preferential support should be given to enterprises of two types: enterprises holding export orders and under fulfillment pressure; and enterprises involving in the world's major industry chains and supply chains and manufacturing related products for foreign-funded enterprises.** Resuming operations and fulfilling orders as scheduled for the abovementioned enterprises is critical to maintain the credit of Chinese enterprises. Fulfilling orders by the Chinese export enterprises during the epidemic will strengthen the confidence of foreign partners in China's economic development in the long run, and will fully demonstrate the resilience of Chinese enterprises and the great strengths of China in responding to crises. As a result, **the safety of supply chains can be guaranteed to the greatest extent, to prevent some Western countries from migrating their manufacturing businesses on the excuse of supply chain disruption.**

Challenge 4: The society worries about business resumption.

In addition to continuously promoting patient treatment and drug development, the government should strengthen efforts in boosting social sentiment. Although closely correlated with each other, these two aspects follow different rules. For social sentiment, currently the public are mainly focusing on the numbers of new cases, patients in ICUs and deaths and the experience of some individual cases. Considering this, we suggest that the related authorities should disclosure more specific data to help the public gain a more comprehensive, rational and objective understanding of the virus. For example, the government may **publish more details about the mortality rates of patients based on their ages and health status: As the mortality rate is lower among young and middle-aged groups in good health, reporting related data can comfort numerous employees who have returned to work.** Meanwhile, the government should disclose the outcomes of some therapies and schemes among the infected patients based on scientific knowledge and data. The public will be soothed if they are convinced that after receiving proper treatment, the mortality rate of patients without chronic diseases is comparable to that of the influenza.

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