
9 Saving China from the coronavirus and economic meltdown: Experiences and lessons

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With the COVID-19 outbreak having officially become a pandemic, we must consider not just how to prevent further public health crises but also economic and financial ones. In both cases, recent lessons from China are instructive. To stop the spread of the virus, China enacted aggressive public health policies such as lockdowns of heavily affected regions, suspensions of public gatherings, mass isolations of infected patients, extensions of public holidays, prohibitions on travel, and home-quarantines. These policies appear to have been effective, at least in the short term. The country's new cases of COVID-19 and fatality rates have both declined significantly. However, the measures taken to stem the public health crisis may still lead to a domestic economic meltdown² that could infect international trade, global production networks and value chains – and potentially trigger global turbulence and a catastrophe in the financial markets.

To avoid an economic meltdown, the Chinese government has adopted a package of policies to support the resumption of work and production, including fiscal, monetary, financial and trade policies. To maintain market liquidity and meet the needs for working capital and other financing, the People's Bank of China (PBC) eased the credit

1 We would like to thank Richard Baldwin, Long Chen, Tao Chen, Bengt Holmström, Wenlan Qian, Beatrice Weder di Mauro, Lin Peng, Richard Portes, Hélène Rey, Nathan Sussman, Neng Wang, Michael Weber, Wei Xiong, Liyan Yang, Tao Zhang, and Feng Zhu for thoughtful discussions and suggestions..

2 The National Bureau of Statistics reported on 16 March that due to the coronavirus outbreak, Chinese manufacturing decreased by 15.7 percent in the first two months of 2020. It also reported that private sector output declined by 20.2% and fixed-asset investments fell by 24.5%, compared to a year earlier.

market through conventional policy instruments, including open market operations,³ the reserve requirement ratio, loan facilities, refinancing, and rediscount policies. Chinese financial institutions also implemented a series of financial support measures, especially for small and medium-sized enterprises (SMEs), including reducing interest rates, increasing debt rollovers and renewal loans, and providing specific credit lines for the resumption of production. The central bank encouraged online financial companies such as Ant Financial to ease financing for small and micro businesses.

The central government also launched a package of policies to stabilise international trade and foreign investment and continues to open the market. By 4 March, the Ministry of Finance arranged a total of 110.48 billion yuan of special funds for epidemic prevention and control, 71.43 billion yuan of which has been used. The fiscal authority also increases the 1.85 trillion yuan of the quota of newly issued local government bonds to mitigate the adverse impact of the epidemic. From January to February, nearly 70% of the quota (approximately 1.2 trillion yuan) of local government bonds had been issued.⁴ On 13 March, in response to the global financial panic, the central bank cut the targeted reserve requirement ratio by 0.5 to 1 percentage points, which released 550 billion yuan of long-term funds.

What lessons could we learn from China's responses to both the public health emergency and the subsequent potential economic and financial crises? In this chapter, we chart a timeline of the coronavirus outbreak in China and the government's responses. We also offer a case study of how the outbreak has affected SMEs to illustrate the economic policy implications of the COVID-19 crisis.

Timeline

As Figure 1 illustrates, there have been several important milestones in China's COVID-19 outbreak and slowdown.

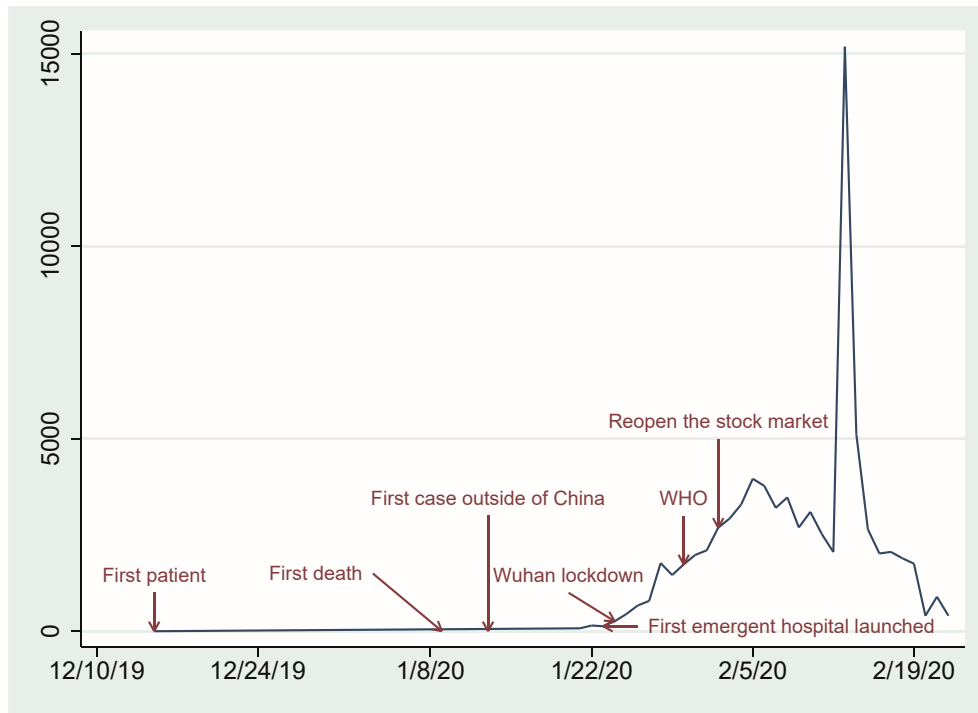
In December 2019, a series of pneumonia cases, later to become known as COVID-19, emerged in Wuhan, the capital of Hubei province. According to an article in *The Lancet* (Huang et al. 2020), the earliest known patient became ill on 15 December 2019. The report found that no epidemiological link was made between the first patient and later cases. On 9 January 2020, a 61 year-old man who had contracted COVID-19 died of a

3 Bloomberg Economics estimated that China's back-to-work rate has reached at between 80-85% for the week ending March 13.

4 Source: official website of Ministry of Finance http://www.mof.gov.cn/zhengwuxinxi/caijingshidian/jjrb/202003/t20200310_3480302.htm

heart attack, becoming the first known death from the virus. On 13 January, the World Health Organization (WHO) reported the first known case outside China – a woman who had arrived in Thailand from Wuhan.

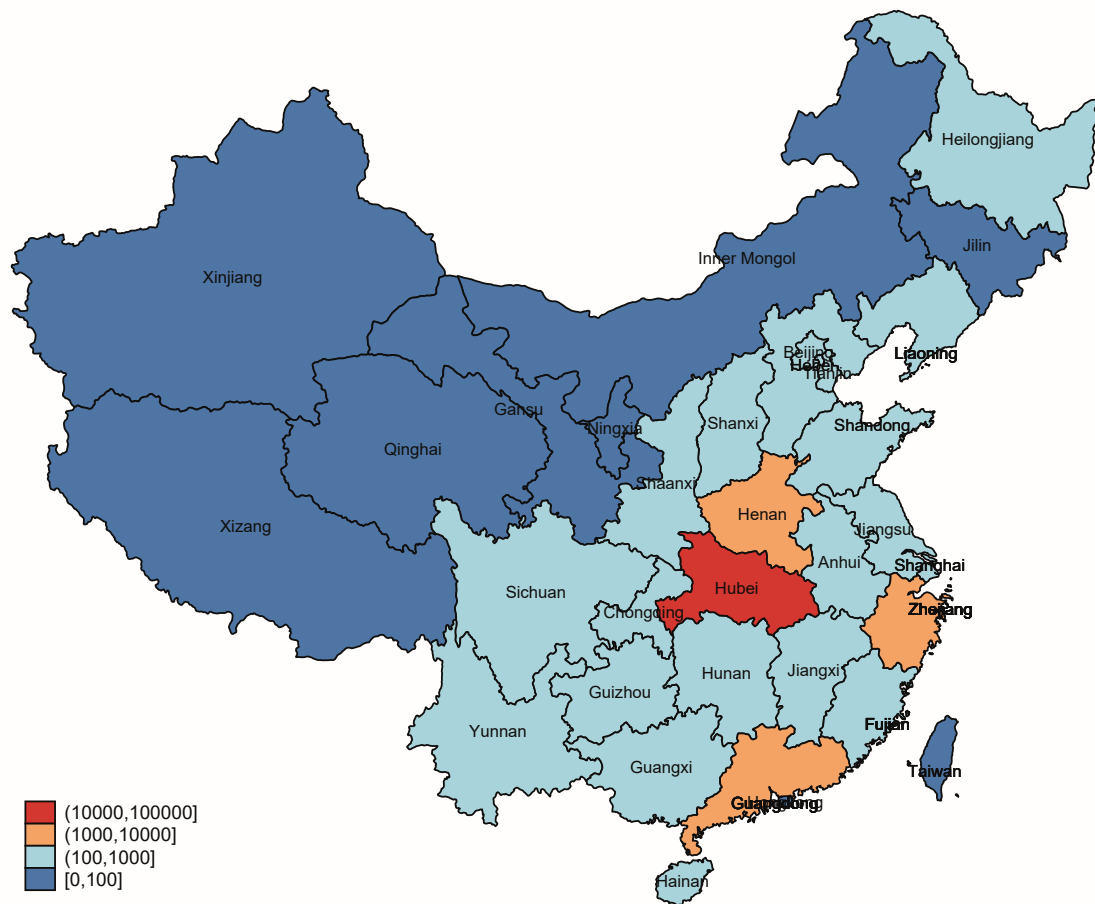
Figure 1 COVID-19 outbreak in China (number of newly confirmed cases)



By 20 January 2020, the virus had spread to Shanghai, Beijing, and Guangdong, some of the most important economic zones in China, and the number of confirmed cases in the country increased to 218. China's national health commission officially confirmed the public's worst fear that the virus could be transmitted between humans. On the same day, Premier Li Keqiang urged decisive action to curb the spread of the virus at a state council executive meeting, which marked a dramatic change in how the evolving pandemic was managed. By 21 January, the US had confirmed its first case, which was also the first known case outside Asia. On 30 January, WHO declared the COVID-19 outbreak a "public health emergency of international concern". By then, the virus had spread to all provinces in mainland China. By 1 February, the total number of confirmed cases had reached 10,000. Newly confirmed cases rose to 15,177 before declining to 5,110 after 13 February 2020.

Figure 2 illustrates newly confirmed cases across China on 14 February. Clearly, Hubei province, its neighbours and its economically connected regions were more heavily affected by the crisis than inland China and more distant provinces.

Figure 2 Newly confirmed cases across Chinese regions



Source: Authors' calculations based on National Health Commission of the PRC: <http://www.nhc.gov.cn/xcs/yqtb/202002/50994e4df10c49c199ce6db07e196b61.shtml>

Pandemic control policies: Public health crisis

In retrospect, the Wuhan municipal government made serious mistakes in its early response, including delayed reporting, lack of communication with the public and failure to undertake any precautionary actions for more than three weeks. These were the main reasons for the COVID-19 outbreak in China. Chinese scientists completed genome sequencing of the COVID-19 virus by late December, about two weeks after the hospitalisation of the first patient. On 31 December 2020, the Wuhan Municipal Health Centre issued an urgent notice of 27 cases of pneumonia from an unknown cause, but concluded there was no evidence of person-to-person transmission. The National Health Commission sent a team of experts to Wuhan on 31 December 2019 and they also failed to recognise that the virus could be transmitted between humans. Consequently, the Wuhan Municipal Health Centre issued several statements to reassure the public there was no evidence it was contagious, possibly in an attempt

to avoid disrupting the merry atmosphere of the incoming Chinese Lunar New Year. In addition, despite knowing the virus was spreading, the Wuhan government did not take sufficiently urgent precautionary actions, such as issuing guidance on social distancing and self-quarantining.

Facing a rising number of new cases, hospital visits and fatality rates, on 18 January the National Health Commission sent a team of experts to Wuhan led by Professor Zhong Nanshan, a highly respected epidemiologist who became a household name during China's battle with SARS in 2003. Two days later, Professor Zhong disclosed there had clearly been person-to-person transmissions. The Chinese government adopted its unprecedented containment measurements shortly afterwards.

A national public health emergency

On 23 January, the Chinese government ordered a complete lockdown of several cities in Hubei province, including Wuhan, Huanggang and Ezhou, after its total number of cases rose to 444. Wuhan suspended all public transportation, including all buses, metros and ferry lines. All outgoing flights and trains were halted. By 25 January, all provinces in mainland China except Tibet had declared a Level 1 public health emergency, all public gatherings had been prohibited, and cinemas and tourist sites were closed until further notice. The Chinese Lunar New Year holiday was extended by a week so people would stay home, and the government advised the public to self-quarantine for two weeks. Communities across China started to ban visitors. All schools stayed closed after the Chinese New Year holiday. The online delivery sector that has sprung up over the past decade made large-scale self-quarantines possible. Governments issued daily updates on the number of confirmed and suspected cases and patients being monitored. People were also required to wear masks in public spaces. It is widely believed these measures helped curb the spread of the virus. By 13 March, the number of newly confirmed cases had dropped to 11. In several provinces, all existing cases had been cleared. Except in Hubei, the mortality rate from the virus in other parts of China was less than 1%, based on current statistics.

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It is worth noting, however, that the sudden increase in confirmed cases and widespread media reports caused some initial panic among the general public. Many people rushed to the supermarkets and hoarded masks and hand sanitizers. The panic may have also exacerbated the overburdening of hospitals, leaving many more severe illnesses

untreated. Hospitals in Wuhan were quickly flooded with patients and soon ran out of essential supplies and equipment. The Chinese New Year holidays further exacerbated the issue of shortages as factories were closed for the holidays. To overcome the shortage, Chinese government launched a package of policies, which helped expand production of medical equipment while maintaining stable prices. Take mask production, for example. Daily production of medical masks was only 16 million per day in early February, but that increased to 150 million per day in March, according to the National Development and Reform Commission.

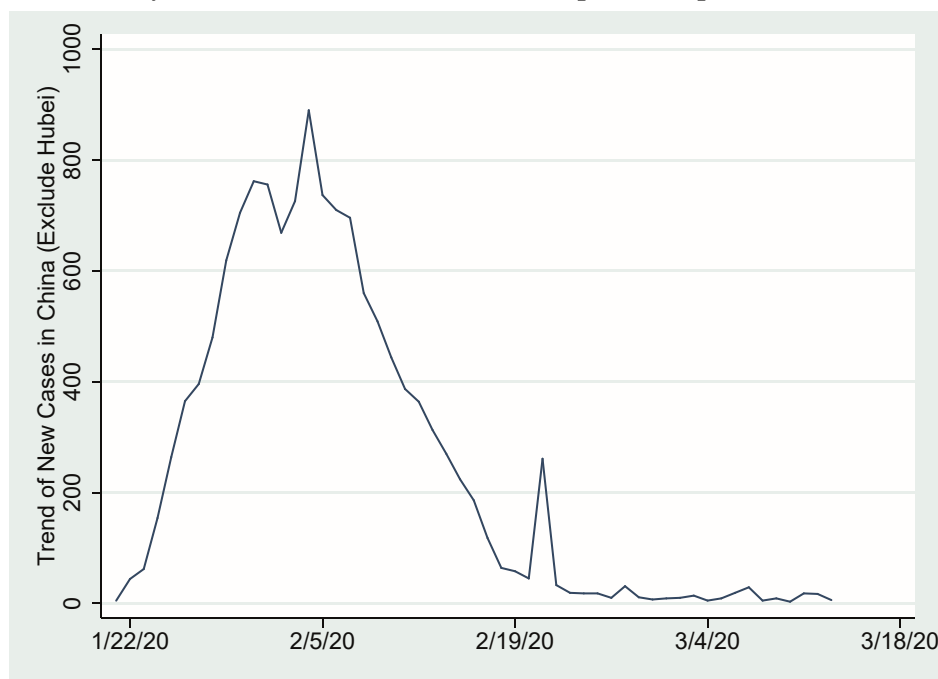
Hospital facilities and human resources support

China also started building temporary hospitals almost immediately. Wuhan went into lockdown on 23 January, and its first temporary hospital – the Huoshenshan facility with 1,000 beds – was completed on 2 February. On 25 January, the Wuhan municipal government started to build a second temporary hospital – the Leishenshan facility with 1,600 beds – which was completed on 6 February and started to operate two days later. On 1 February, the number of confirmed COVID-19 cases in China surpassed the total cases of SARS in 2003.

It became apparent that many people with mild symptoms were spreading the virus in their communities. The Wuhan municipal government decided to build a mobile hospital on 2 February and eventually built 14 such mobile hospitals. These facilities started to admit patients on 5 February, with more than 20,000 beds in operation during peak times. Many other cities also built similar hospitals as a precautionary measure. By 10 March, the last group of patients were discharged.

To solve the issue of a shortage of doctors and nurses, other provinces quickly extended their aid by sending medical teams as early as 24 January, the second day after the lockdown in Wuhan. By 9 March, other provinces in China had sent a total of 426,000 doctors and nurses to Hubei province. Among them were 19,000 ICU-related medical staff. As we now know, timing is crucial to stemming the spread of the virus. As Dr Zhong Nanshan noted in a recent article, if China had taken these measures even five days earlier, it is estimated the impact of the virus would have been reduced by two-thirds. Figure 3 shows the massive decline in newly confirmed cases in China, except for Hubei province, which indicates that China successfully stemmed its outbreak.

Figure 3 Newly confirmed cases in China (except Hubei province)



Source: Authors' calculations based on National Health Commission of the PRC: http://www.nhc.gov.cn/xcs/yqtb/list_gzbd.shtml

Economic meltdown and financial risk: Macro policy tools

During China's initial COVID-19 outbreak, it was still the Lunar New Year. The government extended the holiday to help stem infections, so few industries were working at the time. When the epidemic was under control, the government continued its strict policies to control the virus but started to allow the resumption of work and stimulated production.

The outbreak period

During the outbreak period, the government's economic policies were primarily aimed at supporting virus-related manufacturing, services, and retail sectors, including through fiscal, monetary, and social insurance tools. These measures primarily consisted of:

- **Fiscal policies, including tax deductions and subsidies.**

The central government issued a stimulus package for the expansion of production capacity for virus-related goods and services. Tax deduction and fee-waiving policies were issued for enterprises and taxpayers in relevant industries, including medical services, public transportation and the delivery of daily necessities. Industries severely

hit by the epidemic, including transportation, catering, accommodation and tourism, as well as enterprises and individuals who donated critical medical products, were also eligible for tax deductions. The central government provided subsidies in the form of loan payments for producers of virus-related products and for startups that were severely affected. The central government required local governments to guarantee and facilitate the delivery of critical medical products and daily necessities. Municipal governments also issued their own measures, including offering funds and credits for antiviral-related industries and businesses, reducing rental payments, and deducting taxes and fees for severely affected industries and individuals.

- **Monetary policies, including credit easing, loan rate cuts and debt rollovers.**

The PBC eased market credit through conventional policy instruments, including open market operations, reserve requirement ratios, loan facilities, refinancing and rediscount policies. Financial institutions cut the loan rate and provided additional credit to virus-related manufacturers and the daily necessity retail and delivery sectors, as well as producers of critical medical products. For SMEs, the commercial banks were required to roll over debt contingencies. The central bank also required commercial banks to improve the quality of services, including establishing a 'green channel' for COVID-19-related businesses, and increasing e-payments and online services. Financial institutions offered additional credit to the trading industry for the importation of medical products from abroad. The China Banking Regulatory Commission (CBRC) required commercial banks to adjust personal loan repayment arrangements for housing mortgages and credit cards and delayed repayment periods.

- **Social insurance policies, including the delay or deduction of insurance payments.**

Local governments implemented policies with the goal of stabilizing employment and helping SMEs overcome threats during the epidemic. These policies included the deferment and refunding of social insurance payments. In some cities, such as Shanghai, those enterprises that did not lay off employees could enjoy the deduction of social insurance payments and receive subsidies for employee on-the-job training.

The post-outbreak period

When China's epidemic started to subside, the government focused on restarting the economy. The central government required local government to simplify business approvals and optimise services to encourage enterprises and workers to restart work and resume production. It issued a package of policies to support the resumption of work and production, including fiscal, monetary, industry, trade policies.

Stock market reopening. The central government reopened the stock market on 2 February. The regulatory authority said the decision was based on a careful assessment of the trade-offs; the reopening could send a positive signal to the market regarding economic conditions and facilitate market liquidity. Meanwhile, the government was fully aware of the risks. The regulatory authority continues to closely monitor the market and has prepared hedging tools to stabilise it, if necessary.

Fiscal policies, including tax cuts, fee exemptions, cost reductions and subsidies. VAT for small businesses will be exempted for a period; some social insurance contributions by employees will be exempted or halved for a time; and local governments have been encouraged to waive urban land-use taxes to encourage landowners to reduce or waive rents. The central government has required utilities to lower the price of electricity to reduce the cost associated with resuming production. The government is also subsidising domestic and foreign airlines to support the resumption of international flights.

Monetary and financial policies. By 12 March, the banking sector had provided 1.4 trillion yuan of credit to the economy. Financial institutions had implemented a series of financial support measures, especially for SMEs, including reducing interest rates, increasing debt rollovers and renewal loans, and providing specific credit lines for the resumption of production. The central bank encouraged internet-based financial companies to ease financing access for small and micro businesses. In response to the global financial panic, on 13 March the central bank cut its targeted reserve requirement ratio by 0.5 to 1 percentage points, which released 550 billion yuan of long-term funds.

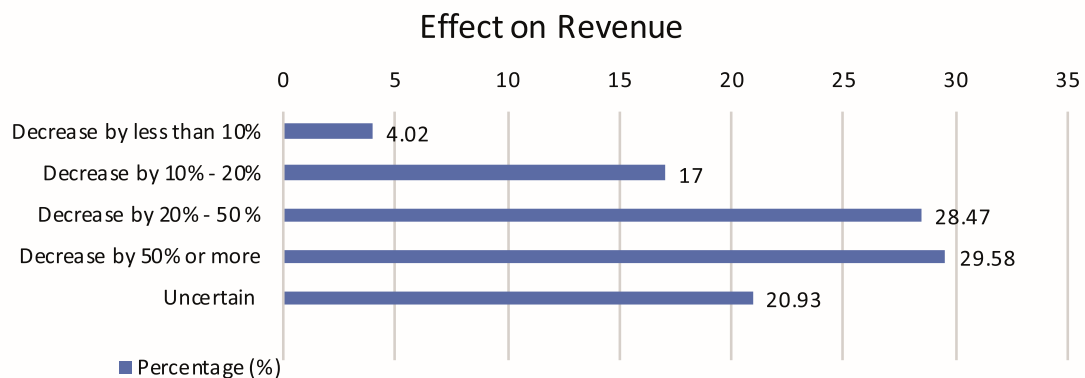
Industry policies focusing on large infrastructure investment projects and supply chains. Several ministries coordinated to effectively expand domestic demand by stimulating infrastructure investment. A number of key projects related to the energy, transportation and IT (5G) industries have been launched and financed by special local government bonds. The central government aims to strengthen international coordination and cooperation and provide more credit to core companies in relevant industries to maintain international and domestic supply chains.

Trade policies focusing on the stabilisation of foreign trade and investment. The central government has launched a package of policies to stabilise international trade and foreign investment and continues to further open the market. For example, all export tax rebates must be made in full without delay except for energy-intensive, polluting or resource-heavy products. Financial institutions have been encouraged to increase foreign trade credits, defer loan payments and extend debt rollovers for those small trading firms severely affected by the epidemic. Commercial insurance companies have been encouraged to offer short-term trade credit insurance and lower fees for trading firms.

Saving small businesses

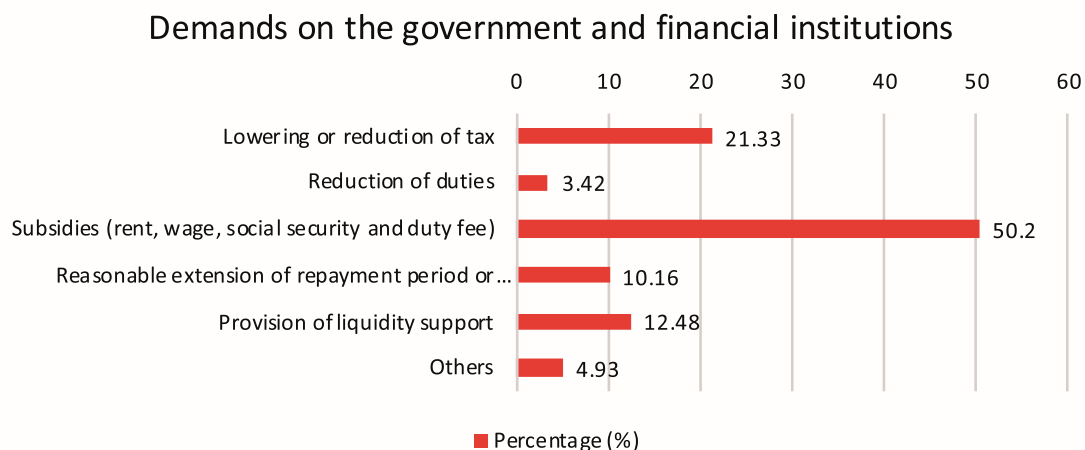
Due to their lower resilience, SMEs in China have been more severely affected by the epidemic. A recent survey by Tsinghua University and Peking University of 995 SMEs found that 85% could not survive more than three months due to the epidemic. Figure 4 shows that more than 70% of such firms expect significant negative impacts on their revenues.

Figure 4 Effects of coronavirus on firms' performance



Sources: Authors' calculations based on SMEs Survey by Tsinghua University and Peking University (2020)

Figure 5 Expectations of government support due to coronavirus shocks



Sources: Authors' calculations based on SMEs Survey by Tsinghua University and Peking University (2020)

This expected crisis among SMEs would not be due to their own operational deficiencies, but is rather a result of force majeure. Therefore, it is necessary that the government, financial institutions, private capital and other parties come together to help them overcome their difficulties. As Figure 5 indicates, SMEs have high expectations of substantial government support, including tax relief and subsidies.

Since February, the central and local governments have undertaken a number of targeted policies aimed at supporting the development of SMEs. These have included allowances for deferred payments of social security premiums and certain taxes, rent reductions, loan extensions, loan interest rate reductions, and subsidy increases, among other things. Such measures provide robust institutional assurances for SMEs and may help safeguard the health and stable development of China's economy.

Small businesses, fintech and the digital economy

Thoroughly digitalise the economy, mobilise private capital and utilise internet financing to provide targeted credit support to SMEs. Compared with traditional commercial bank loans, internet fintech platforms have the following advantages regarding SME credit:

- Relatively complete credit rating systems specifically for SMEs and individual e-commerce sellers through the use of big data;
- Real-time monitoring of debtors with the help of big data, blockchain finance, supply chain financing and other technologies;
- Lending practices that are free from geographical restrictions that can provide SME credit on a larger scale; and
- The ability to complete credit transactions remotely online, which helps prevent and control the epidemic.

Researchers, including Chen et al. (2019), have suggested that fintech applications can significantly reduce the operational volatility and improve the survival rate of SMEs, particularly after natural disasters. Therefore, we recommend that in the context of this epidemic, we leverage internet fintech platforms – such as e-commerce finance platforms, blockchain finance platforms, and supply chain finance platforms – to provide loans to SMEs.

Major internet-based fintech platforms that have the advantage of accessing the operational data of SMEs should particularly be encouraged to deploy big data in providing precise credit support for SMEs, and take various measures to effectively lower credit costs, such as reducing both requirements and interest rates in SME lending,

extending loan maturities and increasing loan amounts. At the same time, SMEs should also be incentivised and supported to improve their digitalisation so they can better take advantage of internet-based financial platforms to resolve their financing difficulties.

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Importantly, the digital giant Alibaba Group is leveraging its technology and experience with the 2003 SARs crisis to support SMEs amid the current crisis, including through its advances in cloud computing, IT and QR health coding systems, as well as AI virus diagnosis and communications. The company's Ant Financial and its virtual bank MYbank are also providing financial support to SMEs.⁵ They are working with other financial institutions in China to provide financial support to around 10 million micro-and-small enterprises around the country to assist with the resumption of work and production, as well as efforts to expand production.

According to a recent study by the Alibaba-affiliated Luohan Academy research institute (Luohan Report 2020), Alibaba has unveiled a total of 20 measures across six major areas to help SMEs recover. Among these measures, MYbank has announced interest-free and low-interest loans to Taobao and Tmall merchants registered in Hubei province. The one-year loans will total 10 billion yuan and be interest-free for three months, after which the interest rate will be reduced by 20% from current levels. Another 10 billion yuan in one-year loans will be available to merchants outside Hubei province with interest rates 20% below current levels. Payments will also be issued to merchants free of charge as soon as an order has been fulfilled. Through MYbank, Ant Financial is further lowering interest rates by 20% for 8.5 million online and offline businesses. In addition, Alipay has launched new features to offer insurance, online recruiting and sourcing for affected small and medium-sized online stores.

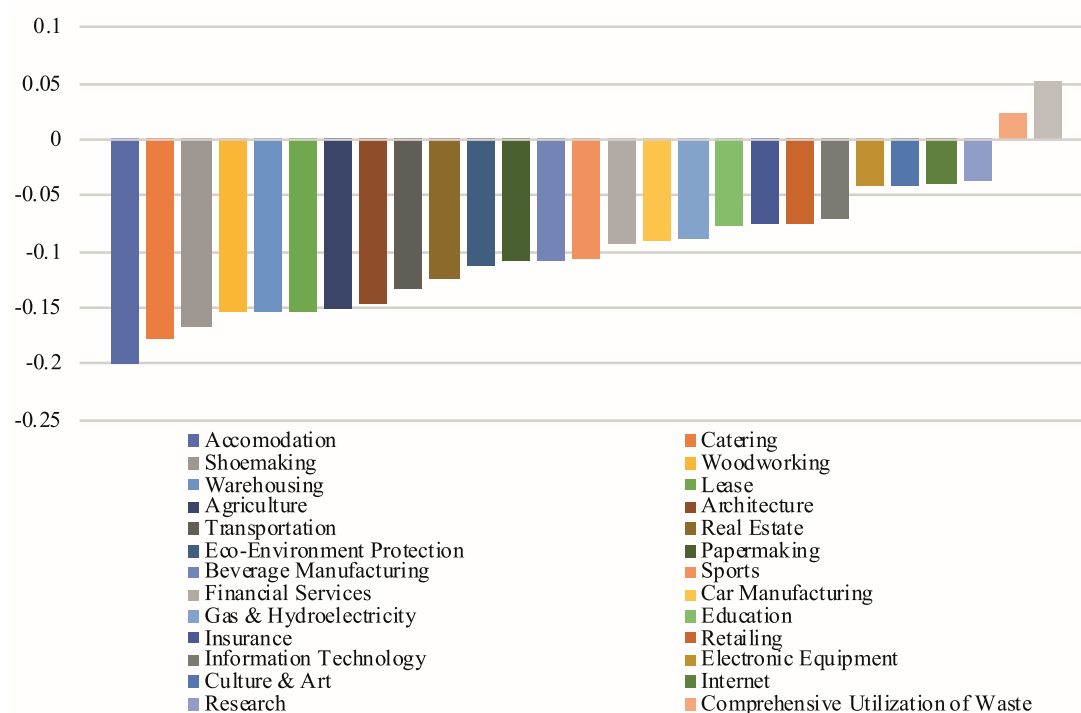
Supporting small businesses by sector

Due to movement restrictions during the crisis, service industries such as hotels and restaurants and labour-intensive manufacturing industries have been severely affected. Capital markets have become wary of these industries since the start of the crisis. Figure 6 illustrates the Chinese stock market's movements for various industries

⁵ Source: <http://www.chinabankingnews.com/2020/03/08/100-chinese-banks-sign-up-for-mybanks-non-contact-micro-loan-plan-to-help-mitigate-coronavirus-impacts/>

from 20 January to 5 February. As can be seen, the stock prices of service industries such as accommodation and catering, as well as manufacturing industries, including shoemaking and woodworking, have experienced large declines. Therefore, to support SMEs, the characteristics of the industry should warrant particular consideration, and support should be strengthened for SMEs in the service and manufacturing industries where the impact from the epidemic has been severe.

Figure 6 Stock market responses to coronavirus shocks by sector



Sources: Authors' calculations based on SMEs Survey by Tsinghua University and Peking University (2020)

Buying more time for small businesses

It is not the case that the longer a support policy lasts, the better it is. A policy that drags on for too long is likely to jeopardise market efficiency and obstruct the market, which plays a decisive role in resource allocation. The SARS epidemic serves as a guide for the implementation of support policies during this crisis. At the end of 2002, SARS first appeared in Guangdong province. In March 2003, an atypical pneumonia began to invade Beijing. The epidemic situation then gained widespread attention and the central government began to prevent and control the epidemic. In June 2003, the World Health Organization removed mainland China from the list of epidemic areas, which marked the end of the SARS epidemic in China. Therefore, the duration of the epidemic

was estimated to be about five to six months, and the recovery period was about three months (after September 2003, the gravity of the situation gradually recovered to the previous year's level, or that before the epidemic).

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To the government's credit, the prevention and control of the new coronavirus pneumonia epidemic has been quicker. According to an analysis by Professor Zhang Wenhong, leader of the Shanghai medical expert team for epidemic prevention and control, on 30 January, the best scenario would be for the national epidemic to be contained within two to three months. We expect that if the COVID-19 epidemic dies down in March, the accommodation, catering and transportation industries will be able to resume normal operations in April, and that after three to four months – i.e. in July – the turnover of these industries will return to their normal levels, in which case the duration of the support schemes should be set at about six months. If the epidemic is not well-contained, it may last into May or even longer. In this case, the adverse impacts on companies would be more severe, and it is expected that it would take four to six months for them to resume generating normal levels of turnover. That is to say, it is optimal to maintain the credit support schemes for about a year.

Policy implications

The economic costs, the uncertainty and anti-globalisation trends induced by the COVID-19 crisis might result in a new great recession in the global economy. Based on the policy responses by the Chinese government, we would like to summarise the main lessons and experiences for policymakers in Europe particularly, and the rest of the world, as follows:

- **Time is crucial.** The first-order policy is to stop the outbreak and prevent its spread across regions using any and all emergency public health measures. Governments should enact isolation policies to ensure social distancing and utilise strict quarantines.
- **Information transparency is necessary.** The Wuhan government lost three precious weeks that could have been spent preventing the outbreak due to faulty public health crisis measures and information reporting systems. Utilising digital technology, big data and cloud computing technologies could be very helpful in providing real-time and precise information to overcome misinformation, lack of communication and misreporting or reporting delays.

- **‘Whatever it takes’ macroeconomic policies are fundamental.** To prevent a potential economic meltdown after this public health crisis, the Chinese government not only provided fiscal support, but also created monetary and financial policies to prevent a macroeconomic recession due to unexpected demand and supply shocks. Saving SMEs has proved to be a very strategic step in boosting domestic demand, the production networks and the global value chain.

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