A Report of CCDC R&D Center | Analysis on the Economic Impact of the Novel Coronavirus Outbreak and the Policy Response

R&D Center, China Central Depository & Clearing Co., Ltd. (CCDC)

Feb 2020

Executive Summary

The peak of the novel coronavirus (COVID-19)[1] outbreak is yet to be determined. It is estimated that the outbreak will take a toll on macro-economy and financial markets in the first two quarters of 2020, through the channels such as structural impairment of the secondary and tertiary industries, dent to consumption, investment postponement, and export supply disruption, as well as higher CPI and structural impact on PPI. In financial markets, the risk of equity markets is expected to further manifest itself, the long-term yields of the bond market will further shift downward, and RMB exchange rate may experience larger fluctuations in the near term. The ultimate economic consequences of the epidemic, however, will depend on how long it will last.

Active macro policies are needed to respond to current situation, focusing on ensuring the "Six Stabilities" --- stability of employment, the financial sector, foreign trade, foreign and domestic investments, and expectations. China needs to implement countercyclical fiscal and monetary policies, carry out credit policies well targeted for supporting the growth of private small and micro business, appropriately expand government fiscal spending, maintain a reasonable and adequate liquidity level in the short term, ensure access to finance in hard-hit regions and industries, and calibrate social policies to support employment and people's well-being. We believe China will win the battle against the outbreak and secure a decisive victory in building a moderately prosperous society in all respects.

During the course, macro policies shall remain flexible, avoiding pushing too hard while leaving adequate leeway so as to give confidence to market players. Meanwhile, epidemic prevention should avoid over-reacting and the production should be resumed in a precise and orderly manner.

Content

●*Macro-economy*

· Impact on macro-economy concentrates in the first two quarters, and the full-year economic consequences depend on how long the epidemic will last

[1] The virus COVID-19 stands for Corona (CO) Virus (VI) Disease (D) and 2019 (19), the year the virus broke out in Wuhan City, Hubei Province China. It was previously referred to as 2019-nCoV, which basically means a novel coronavirus discovered in 2019.

· Industries, especially the secondary and tertiary industries, will suffer structural impact

· Consumption slump, investment postponement, and export supply disruption

· Upward pressure on CPI emerges, and the impact on PPI varies across sectors

●*Financial Markets*

· Inevitable short-term impact on capital markets

· Mid-term risks and performance of capital markets after short-term shock need to be closely monitored

· Decline in prices of some commodities lead to adjustment of commodity markets

· RMB short-term exchange rate under adjustment pressure

●*Policy Suggestions*

· Adopt countercyclical policies and the policies targeted for private small and micro businesses

· Appropriately expand government fiscal spending to make more maneuver room for epidemic prevention and economic recovery

· Adopt accommodate monetary and credit policies in the short term

· Continue to strengthen targeted financial policies

· Adopt social policies with a focus on stabilizing employment and expectations and ensuring people's well-being

----

Currently, the number of confirmed cases of novel coronavirus (COVID-19) is still increasing and there seems no clear end to the epidemic yet. China initiated first-level public health emergency response, and the World Health Organization (WHO) also declared that the COVID-19 outbreak in China a Public Health Emergency of International Concern. As this epidemic will inevitably weigh on macro-economy and financial markets, China's macro regulators are expected to quickly launch countercyclical measures to effectively smooth short-term fluctuations and keep economic activity on a sound trajectory.

01

Macro-economy

i. Impact on macro-economy concentrates in the first two quarters, and the full-year economic consequences depend on how long the epidemic will last

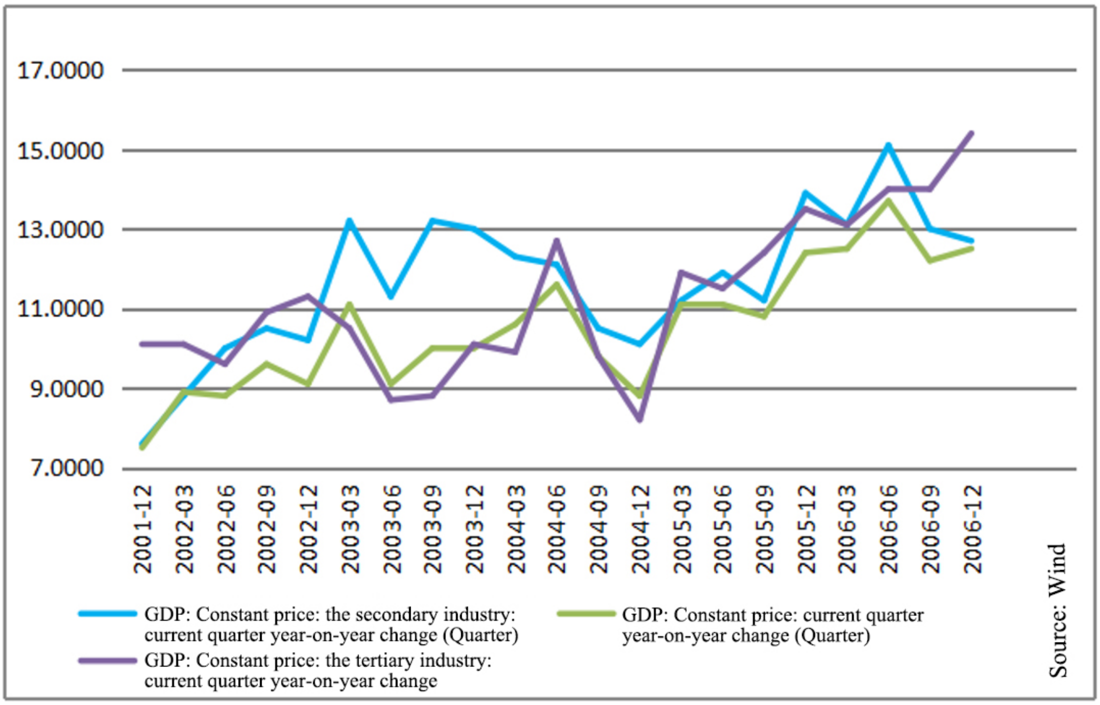
China's economic fundamentals were in line with strong endogenous momentum before the outbreak. In terms of economic cycle, China's economy is in the midst of short-term upturn, with most indicators performing well. In December 2019, China's year-on-year growth of export volumes (in RMB, the same below) increased by 8.2 percentage points compared to November, and by 4.7 percentage points versus the cumulative growth of the previous 11 months; the year-on-year growth of import volumes climbed to 17.8%, a marked rise of 14.8 percentage points from November. Although the low base of the same period of the last year partly contributed to the increase, the year-on-year growth of import volumes of some important industrial raw materials, such as iron ore, iron and steel plates, and integrated circuits, was much higher than the average growth of import volumes, indicating the possibility of industrial restocking. Purchasing Managers' Index (PMI) has performed well for three consecutive months since November 2019, and the production and operation expectations index showed a marked rise and a twenty-month high reading of 57.9 in January 2020.

The epidemic impact on macro-economy is not long lasting. The growth of macro-economy is determined by trend factors, cyclical position and exogenous variables. This epidemic is by nature a short-term external shock variable with only temporary impact. The outbreak has the most severe consequences in the first and the second quarters of 2020. However, as the epidemic prevention and control measures, as well as countercyclical policies take effect, coupled with the upward trend and cyclical stabilizing momentum, the impact of the outbreak is expected to fade off and the economic recovery will take ground. Based on historical data, GDP of the first quarter usually accounts for the least amount of the whole year GDP, thus the impact of the epidemic, which takes place in the first quarter of this year, is relatively controllable. However, should the epidemic last longer, its impact on the macro-economy needs to be reassessed.

ii. Industries, especially the secondary and tertiary industries, will suffer structural impact

The tertiary industry suffers the most and needs time to recover. Since the epidemic started during the Chinese New Year holiday, the festive consumption of goods and services has been severely affected. Historical data shows that, the tertiary industry, especially those with stronger festive effect and those that depend on gathering of consumers, such as wholesale and retail, accommodation and catering, and transportation and postal industries, often registers the highest y-o-y growth during the period from December to February every year. Moreover, China's tertiary industry is highly labor-intensive, with nearly 50% of China's employment. And as this large proportion of labor force postpone their time of resuming work due to the outbreak, China's tertiary industry will be particularly affected. Historically, the SARS epidemic, which peaked around May 2003, was gradually under control in the middle of the year, and came to an end in the third quarter of 2003. However, the year-on-year growth of the tertiary industry started plummeting in March, fell to the lowest point in June, and remained low for half of year and showed no obvious recovery until the end of 2003 (see Table 1). Considering that the current proportion of the tertiary industry in GDP has increased from less than 40% during the SARS epidemic in 2003 to 59.4% at the end of 2019, the slowdown of the tertiary industry may significantly weigh on China's overall GDP.

Table 1. Performance of the Secondary and the Tertiary Industries before and after the SARS Epidemic



The secondary industry will restore relatively fast. On the one hand, the secondary industry cannot be immune to the COVID-19 outbreak: the postponement of work and stagnation of business will take a toll on the secondary industry, particularly the manufacturing and the building industry. In addition, as Wuhan leads in the production of optical fibers and cables, optoelectronic devices, biopharmaceuticals and commercial aerospace, the impact of impairment of Wuhan's local industries on China's manufacturing chain should be taken into consideration. As cities are on lockdown, stagnation of logistics and production as well as insufficient labor force will damage the added value of relevant industries, and the enterprises in the supply-chain downstream may have to stop production because of inadequate or zero supply. On the other hand, however, the impact of outbreak is more likely a postponement of the production and the secondary industry is expected to rebound fast after this epidemic due to the following reasons: Firstly, the production capacity of the secondary industry will restore to normal as soon as people return to work. Therefore, the production capacity impaired due to the epidemic can be made up for by accelerating production. Secondly, referring to the SARS episode, the year-on-year growth of the secondary industry plummeted to a whole-year low in June, but quickly recovered to the level of the first quarter in September as the outbreak ended (see Table 1). Thirdly, Chinese enterprises usually have days off during the Lunar New Year holidays, and most of them resume production after the Lantern Festival. Therefore, should the production resumes in mid-February, the negative impact on the secondary industry would be significantly limited.

iii. Consumption slump, investment postponement, and export supply disruption

Consumption suffers the most and the current consumption gap cannot be easily closed up. Due to the disease control quarantine measures, catering, culture, education, entertainment, sports, tourism, transportation and other industries related to people's gathering and travelling are among the first to bear the brunt, with such industries' year-on-year growth in the first quarter estimated to hit the year's low. Notably, the current consumption, as curbed by the epidemic, can hardly be compensated for when the epidemic is over. For instance, a large amount of people who choose to stay at home because of the outbreak will not significantly increase their dining spending in the remaining months of the year. However, consumption of medical and healthcare products such as medicines and protective equipment will witness an upward trend, and will make up for a part of the above-mentioned consumption gap. Relatively rigid expenditures on food, edible oil, daily necessities and clothing will remain stable. Furthermore, "staying at home" will create more favorable conditions for emerging internet-related business, such as internet consumption, to thrive.

The pace and structure of investment will be affected, but the total investment amount of the year is expected to be relatively stable. On the one hand, the overall investment pace is forced to postponed. Amid the epidemic, large-scale delay in production will mute both the supply and demand, and directly lower enterprises' investment expectations and scale, with the extent of consequences depending on how long the epidemic will last. The central government has recently convened several important meetings, affirming that epidemic prevention and control is the primary task of all sectors of society in the current stage. The meetings noticed that investment in fixed assets may have to be put off, thus bringing short-term impact on real estate sector. But taking actions later does not mean taking no actions at all. As soon as the epidemic is under control, actions such as working overtime to meet the deadline will likely result in a faster-than-expected rebound of investment in infrastructure, as the case of secondary industry analyzed above. On the other hand, impact on enterprise investment has structural features, with envisaged accelerating investment in medical projects and basic necessities. During the fight against this epidemic, Hubei's investment in emergency medical treatment facilities, quarantine facilities and other infectious disease prevention and treatment projects has witnessed a marked increase. Suppliers of important medical products such as masks, protective suits and protective face screen, disinfectant products and infrared thermometers have moved on to all-out efforts. Suppliers of instant noodles, bottled water and other daily necessities have resumed production early than other enterprises. Increase in investment in such industries will foster a positive force, which will ensure the overall stability of this year's investment. The COVID-19 outbreak has further revealed many areas where we fall short, such as medical treatment, living environments and infrastructure in rural areas. Guided by the principles of the No. 1 central document, investment to "shore up points of weakness in rural areas" is expected to pick up pace.

In the short term, exports are expected to be negatively affected, but imports of products related to epidemic prevention will expand. As mentioned earlier, some of the industries have not yet resumed production, curbing drastically the export capacity of a large number of enterprises, with private businesses and small and medium-sized enterprises (SMEs) particularly affected. Lawrence Alan Kudlow, a White House advisor, said that the trade boom promised under phase-one of the U.S.-China trade deal would come later due to the outbreak, but the impact of COVID-19 on the commercial supply chain would not be catastrophic. Taking into account the high base effect of January (14.1%) and March (21%) in 2019, the year-on-year growth of exports in the same period of this year will be less optimistic. Moreover, giving the possibility that some of the exported goods can be redirected back to China for epidemic prevention purpose, the Ministry of Industry and Information Technology, together with the National Health Commission and the National Medical Products Administration, is working on solutions to ensure the compatibility of domestic and international standards so that the goods originally produced for export to the EU, Japan and U.S. can be now used in domestic markets in an ad-hoc manner. On the other hand, the epidemic is estimated to boost imports of medical supplies, raw materials, meat and other agricultural products. The Ministry of Commerce, the National Development and Reform Commission and other ministries have recently declared that, in order to fill the gap of domestic supplies, they have organized international procurement activities and have purchased a large amount of medical supplies from other countries. They also called for importing agricultural products to expand supplies in domestic markets.

iv. Upward pressure on CPI emerges, and the impact on PPI varies across sectors

CPI is likely to rise due to logistic limitations. The epidemic occurs during the Chinese New Year holiday, which compounds the problem of limited logistics services and transportation of food such as vegetables, fruits and eggs, fueling upward pressure on food prices. Transportation constraints also result in the shortage of feed supply and reserves, thereby blocking the livestock breeding industrial chain and making it harder to relieve the already elevated pork price pressure. Currently, food prices account for nearly 30% of China's CPI. Coupled with the low base effect of the first quarter of 2019 and other factors, CPI of this year's first quarter is likely to rise, but within a reasonable range.

The epidemic impact on elements of PPI varies, and the overall impact remains dependent on how long enterprises will resume production. Influenced by CPI transmission, PPI of living necessity materials is estimated to pick up. PPI of production materials, which mainly depends on supplies and demands of enterprises, is unlikely to continue the slightly upward trend since the end of last year as production postponement will negatively impact industrial production and domestic consumption needs. The overall impact of the outbreak on PPI mainly depends on the oil prices. Giving China is the second largest consumer and the largest importer of crude oil, markets are now more concerned about production stagnation and demand shrinking due to the epidemic. China and OPEC+ members have hold talks on accessing potential demand cuts of crude oil and measures. Sentiment has already triggered a slump in international oil prices, with Brent crude oil and WTI crude oil prices witnessing a continuous fall since late January. Based on above analysis, PPI in the first quarter largely depends on the extent of work resumption.

02

Financial Markets

i. Inevitable short-term impact on capital markets

Market sentiment is an important variable in financial markets. On the first day of trading after the extended Chinese New Year break, A Shares underwent a "Dark Moment", with the Shanghai Composite Index dropped sharply, registering the steepest one-day decline since mid-2015. Major foreign markets were less influenced, and the Dow Jones Industrial Average index has almost rebounded to its historic high before the epidemic.

As for bond market, the long-term yield witnessed a one-off steep decline. Specifically, the ChinaBond 10-year Treasury bond yield dropped below 3%, at around 2.82%, and ChinaBond 10-year CDB bond yield fell below 3.22%. Although the rate of OMO only decreased by 10 bps, the yield curves, which capture market projections, shifted downward by more than 25 bps.

ii. Mid-term risks and performance of capital markets after short-term shock need to be closely monitored

A Shares rebounded quickly following the sharp slump. However, as the turning point of the epidemic is yet to be confirmed and referring to the performance of A Shares in the SARS case, which plunged for over an month during peak period and stayed flatted for a month after the epidemic was under control, it is now hard to say that stock market risks have been fully manifested after the current "down and up" developments. The full impact on A Shares still depends heavily on how serious the current epidemic will be. Meanwhile, liquidity and other favorable factors brought by monetary actions and the sentiment resulted from the epidemic may compound the problem of mid-term market fluctuations. Risks herein deserve close attention.

For bond market, the use of price instruments by monetary authorities needs to be noticed. Should OMO and MLF rates drop by another 15bps to 2.25% and 3%, respectively, the long-term yields of the bond market may be similar to those in the third quarter of 2016. Back then, ChinaBond 10-year Treasury Bond yield and ChinaBond 10-year CDB bond yield reached as low as around 2.65% and 3.04%, respectively. This comparison suggests that the long-term yields of the bond market may further decline.

iii. Decline in prices of some commodities lead to adjustment of commodity markets

Prices of crude oil, ferrous metal and non-ferrous metal are most affected during the epidemic. As mentioned earlier, crude oil price has already undergone a substantial adjustment as a result of both downward price cycle and fears over the epidemic. The outbreak of COVID-19 brought disruptions to all links along the industrial chain, resulting in reduced or delayed demand of ferrous metal and non-ferrous metal. Moreover, stocks of relevant industries were relatively adequate before the outbreak, which also contributed to the drop in the price. As the inflection point of this outbreak has not been confirmed, it is expected that in the short run, commodity market will further soften until the epidemic fades off and the production and demand resumes.

iv. RMB short-term exchange rate under adjustment pressure

Epidemic emergency fuels financial market concerns and anxiety, driving the USD/RMB exchange rate to soar beyond 7. But since then RMB exchange rate regained the loss quickly, thanks to the prevention and control measures by the government and the now-well-weathered market confidence. Current forecast suggests that, RMB sees no serious and continuous depreciation expectations, but what is worth noting is that, before a turning point appears, the foreign exchange market is vulnerable to the overshooting adjustment due to fears over the epidemic, and close attention should be paid to avoid drastic foreign exchange rate fluctuations in the short term.

03

Policy Measures

i. Adopt countercyclical policies and the policies targeted for private small and micro businesses

Firstly, countercyclical adjustment is the key. If the spread of virus cannot be effectively controlled in the short term, the endogenous momentum of growth will be damaged temporarily. Such damage needs to be offset by countercyclical macro policies, and ensuring the stability of employment, the financial sector, foreign trade, foreign and domestic investments, and expectations.

Secondly, structural support is the most needed. Private business as well as micro, small, and medium-sized enterprises in the secondary and tertiary industries are major market players of consumer services and labor-intensive manufacturing. They are also those who suffer the most during this epidemic. Should the virus continue to spread at the end of the second quarter, the above-mentioned enterprises are likely to face the risk of financing chain rupture, which, in return, will increase unemployment and dent people's living standards. Therefore, the government should offer them with more favorable policies to escort them through this tough period of time.

ii. Appropriately expand government fiscal spending to make more maneuver room for epidemic prevention and economic recovery

The first is to issue special treasury bonds, and use the funds raised to reduce taxes and fees of private small and micro businesses and key sectors, supplement fiscal subsidies, and expand fiscal spending on epidemic prevention, such as investment in vaccine and medicine research and financial assistance to frontline health workers.

The second is to raise the annual ceilings of special bond issuance in hard-hit regions, with emphasis on weak-point areas such as healthcare infrastructure and public wellbeing.

The third is to improve public services and infrastructure. We should build more infrastructure related to the Internet, public health, public services and tiered diagnosis and treatment, improve city administration, and control the odds of future public health emergencies in a precautious manner.

Taking into account the national objectives of epidemic prevention, poverty alleviation and individual income doubling, the fiscal deficits should be set at or slightly over 3%. Notably, macro policies shall remain flexible, retaining the room for additional issuance during special situations, avoiding pushing too hard, leaving adequate leeway, and giving confidence to market players.

iii. Adopt accommodate monetary and credit policies in the short term

The first is to use monetary policy tools to provide sufficient liquidity. As the developments of the epidemic is of much uncertainty, it is recommended to use short-term liquidity operations with a tenor of 7 days, and to further lower OMO rate after a 10bp decrease at the beginning of February. Meanwhile, in order to meet the need of the epidemic prevention, we should roll over the MLF operations before February 20. Moreover, it is suggested that we should increase monetary support targeted for regional enterprises and small and micro businesses, with one targeted RRR cut envisaged in the first quarter of 2020.

The second is to guide the market rates onto a declining trajectory. Lowering the rates of MLF roll-overs would guide LPR rates downward, thereby directly and effectively reducing the financing cost of the real economy. In case that the epidemic lasts longer than expected, we may directly use interest rate cut tools after the end of transition for LPR being recognized as the benchmark rate for outstanding loans on March 1.

The third is to ensure medium and long-term monetary policies are prudent and neutral. In effect, the epidemic only poses structural and short-term impact on the economy, and when the impact weakens, the monetary policies should be, step by step and in advance, adjusted back to neutrality in a timely manner. Otherwise macro leverage stability and inflation expectation management will be compromised.

iv. Continue to strengthen targeted financial policies

The five ministries, including the People's Bank of China, jointly introduced 30 financial measures for epidemic prevention. Going forward, we should make concrete and meticulous efforts in implementing these measures and provide structural financial services to enterprises hit by the epidemic. For enterprises most vulnerable to the epidemic, in addition to giving them favorable credit policies, we should strengthen their direct financing capability by supporting their bond issuance, such as assisting policy banks in issuing bonds related to epidemic prevention and control, and assisting suppliers of epidemic prevention supplies and R&D enterprises engaged in epidemic prevention in issuing special bonds.

v. Adopt social policies with a focus on stabilizing employment and expectations and ensuring people's well-being

China's small and medium-sized enterprises provide more than 80% of urban employment. The labor-intensive private micro, small, and medium-sized enterprises are the most vulnerable to the epidemic. Absence of policies in favor of such enterprises may result in higher unemployment rate, lower living standards and even social instability.

The first is to avoid over-reacting. On the premise of effectively keeping the epidemic under control, we suggest to restoring logistics and transportation services as soon as possible, resuming work and production in an orderly manner, and ensuring supply of goods and services related to people's well-being. Resumption of work and production should be well planned and sequenced, taking into consideration specific differences across industries and regions, with the aim of guiding production and consumption to get on the right track.

The second is to make flexible arrangements. For migrant rural workers who are not able to return to their workplace as scheduled, local governments may arrange local works for them. Governments need to adopt more policies supporting enterprises' efforts in maintaining employment. For instance, for those enterprises that participate in unemployment insurance schemes and refrain from massive lay off during the epidemic, their unemployment insurance contributions paid in the previous year can be refunded to them.

The third is to leverage both market and administrative approaches. The epidemic occurred during the Chinese New Year holidays, which will likely result in temporary shortage of daily necessities and medical supplies. The "visible hand" therefore is much needed to actively guide suppliers of masks and protective suits in improving capacity, stabilize prices and supplies, provide support for storage of relevant goods, and give market players the confidence. When implementing administrative measures, governments should timely guide the shift of market expectations in accordance with changes in epidemic, production and daily necessity, calibrate the extent and pace of administrative interventions, and ensure that the economy and society are in good order. #