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Bulletin of Confucius Institute and VSFS Research Centre for Development of Czech-China Relations
Published by University of Finance and Administration,
Estonska 500, 101 00 Prague 10.
Editor: Ing. Petr Mach, PhD.,
Contact: mach@mail.vsfs.cz.

The Impact of Coronavirus on the University of Finance and Administration

Bohuslava Šenkýřová



The infectious disease COVID-19, the cause of which is a new type of virus marked generally as coronavirus, that results in strong pneumonia in people with weaker immunity, had an impact on China, Czech Republic, Czech-Chinese relations and the University of Finance and Administration. There are a hundred Chinese students from the Chinese university Changchun University of Finance and Economics, a few thousand students from the Czech Republic and a few tens of those from other countries who attend our university. Luckily, there are no victims of COVID-19 among our employees or students. Despite of that the pandemic affected the operation of our school in a significant way.

The disease broke out in the Chinese town Wu-chan at the time when a part of our Chinese students went home during their exam pe-

"Czech Government closed down schools on March 10, 2020 and VSFS had to react."

riod to celebrate a New Chinese Year (January 25 2020). On January 23 Wu-chan was put in quarantine, which gradually spread onto other areas of China. Some of our Chinese

students managed to get back to Prague, despite of the fact that on February 9 the Czech government, in its effort to prevent the virus from spreading onto our territory, cancelled all the direct flights from China. Thus the students who arrived had to stay in a two week quarantine and could not physically attend the lectures. VSFS managed to allocate some rooms in its own campus which were suitable for the quarantine. They have their own kitchen, toilet and shower. We highly appreciate the cooperation of other





Chinese students including their teacher who were very disciplined and willing to help each other. Our school ensured cleaning, desinfection,

“The school building is open for employees only; however most of them have chosen to work from home.”

thermometers, etc. Not all the Chinese students managed to get back to their studies by the beginning of the summer semester. In February, 38 out of a total number of 98 students were still in China.

On March 10 the government of the CR decided on closing down schools. VSFS had to react. On

Picture: Online teaching session at the University of Finance and Administration



March 12 and 13 the school had rector’s days during which the whole building and facilities were disinfected. The government declared a state of emergency and as of March 14, it closed down the borders. From March 16 the government announced a ban on going outside, except for going to work or for necessary shopping. It also closed down restaurants, shops, except for essentials. The school building is open only for employees, most of them chose to work from home.

The students are not allowed into the building, thus VSFS started teaching on-line. The teachers record their lectures through videos, students get self-study materials and credit tests are taken on-line. There are three rooms used for virtual lectures. They are recorded and most of them will be available for the students on the school intranet. Many foreign students left the Czech Republic. Our management decided on postponement of some dates related to studies, eg. the

“Teachers video-record their lectures and credit tests are taken online.”

exam period will last till July. The planned visits of teachers at partner universities have been cancelled. There are still restrictions at the time of writing this text although they are gradually being ceased. However, since April 20, special preparation of final year students for their state final exams have started, mostly online.

Based on the governmental decision, it has been possible to move outside only with a mask on your face. It wasn’t possible to buy masks at the beginning, since the whole world demand for them increased and they became goods in short supply. People started making them on their own. VSFS obtained a few thousands of masks from its partner universities in China (China Jiliang University and Changchun University of Finance and Economics) as a gift. It is an expression of friendship and we really appreciate it.

It proved that schools of the Czech Republic, including VSFS, are able to function in an emergency online regime. It is impossible to replace fully personal contacts with other students and teachers though. VSFS is a school with a lot of international students and it is within its own interest to get rid of the infection and stop the quarantine as soon as possible so that students and teachers can fully study, work and travel. VSFS is prepared to provide, apart from high quality teaching, also above standard accommodation thanks to its modern university campus, and if needed, to ensure the quarantine. Everything bad is good for something else. For example, our university will now keep looking for and applying new forms of digital communication and teaching.

Bohuslava Šenkýřová is the Rector of University of Finance and Administration and presides over the Board of Confucius Institute at VSFS



Impact of COVID-19 Epidemic on World Economy

Jiang Hui



Downward pressure on the world economy in the short term

Since March 2020, the epidemic of COVID-19 has been spreading rapidly

around the world, which will bring downward pressure on global economic growth. The epidemic prevention and control measures adopted by many countries will inevitably limit market liquidity, which will have a negative impact on global employment growth, consumption growth and foreign investment growth in the short term, and the flow of factors such as global personnel, commodities and technology will slow down. The global transportation, catering, tourism and other service industries will suffer the greatest loss. The international commodity markets, global capital markets, futures markets, and financial markets will suffer a chain shock, then the global economy will face the risk of recession.

With the expansion of the global market mechanism and the innovative development of science and technology, globalization and open-up development are still the basic laws and objective trends of world economic development. Especially in the new era when globalization has entered the division of labor in global value chain and integrated development of global supply chain,

no country or region can exist independently, especially for the common problems and challenges faced by mankind. All countries need to work together to address the problems of human development and globalization. Only by strengthening

“From the point of economic growth the current epidemic is a short-term variable that will affect the economic growth for a short period of time.”

cooperation on a global scale can countries strive to minimize the impact of the epidemic on world economic development.

No change for the long-term growth trend of the world economy

COVID-19 is a short-term exogenous impact factor, which will not change the internal mechanism of global economic growth, will

not fundamentally affect the global value chain and supply chain system, or the basic direction and trend of development of the world economy and globalization. World economy growth is a long-term issue. The development path and trend are mainly determined by the internal variables such as labor, capital, technology, institutions and their internal mechanisms of interaction. This epidemic, as an event in the field of public health and an exogenous short-term variable in terms of economic growth, will only affect economy in the short term but will not change the established factor input and resource allocation pattern of world economy in the long term. Once this exogenous short-term variable disappears, the world economy will continue to grow along its own path.

Jinag Hui, Ph.D. is the Chinese director at Confucius Institute in Prague. He is associate professor at China Jiliang University in Hangzhou, China.



Coronavirus as a short-term supply shock

Petr Mach



Economic growth is influenced by shocks. An example of a demand shock caused by a sudden drop in the money supply was the Czech or

South Korean recession in 1997. An example of a supply shock was the Gulf War in 1991, which led to a steep growth in oil prices. Supply shocks are often caused by wars and natural disasters such as earthquakes, floods, droughts, tsunami, etc. The current coronavirus crisis is a supply shock as well.

“Coronavirus, similarly to war, is a short-term negative supply shock.”

In this article, the coronavirus crisis will be set into a standard model of aggregate supply and demand, and its impact on the economy and inflation will be shown.

Negative supply shock

Demand shocks move the aggregate demand curve, and supply shocks move the aggregate supply curve. The result of these shocks is not only a change in the real GDP but also in the price level.

A negative supply shock is caused by a sudden and abrupt

decrease in resource accessibility, that is the accessibility of the factors of production – land, labour, and capital. In the model of aggregate demand and supply, a negative supply shock is demonstrated by a shift of the aggregate supply curve to the left.

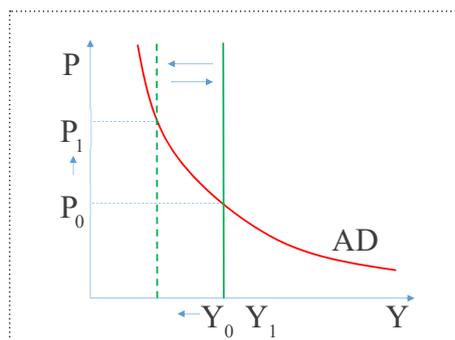
The current coronavirus crisis and the quarantines are also a negative supply shock. The factor of production, which is diminishing due to quarantines is labour.

“Unlike war or earthquakes the coronavirus does not destroy roads or buildings.”

There is, however, a fundamental difference between the coronavirus supply shock on the one hand and a negative supply shock caused by war, an earthquake, etc. on the other hand.

Wars and earthquakes destroy capital goods (buildings, factories, equipment, roads, bridges) and kill people and thus have a long-term character. A typical sign of such a negative supply shock is that after a disaster itself there is a sharp rise in investments and a rapid

Picture:
Negative supply shock affects price levels



and later a gradually decreasing economic growth (called a post-war economic miracle). Large post-war investments and abrupt economic growth come from the fact that technologies are already known; it is sufficient to invest in technologies and capital goods of which we already know that they are profitable.

On the other hand, in the current crisis, the coronavirus kills only small numbers of people compared to wars, it does not destroy capital goods, and its main effect on the factors of production is a temporary labour stoppage. Because the coronavirus does not destroy capital goods, economic growth will recover quickly again as people come back to work. A sharp drop in one year will be followed by a sharp rise in the next year, and then it will come back onto a normal growth trajectory. Coronavirus is a short-term supply shock.

Of course, it is possible to expect that as a consequence of a drop in people’s incomes, the supply shock will spill into the demand. With a decrease in consumer expenditures, the aggregate demand curve will decrease as well, in the same way as it happened during the global financial crisis in 2008. We will be experiencing a combined negative supply-demand shock.

Inflation will rise

As the picture below shows, a negative supply shock also affects the price level.

In principle, the aggregate demand is given by the equation of exchange $P=MxV/Y$. The price



level equals the money stock times the velocity of circulation of money, divided with output. In other words, if the money stock and the

“A sharp economic drop in one year will be followed by a sharp rise in the following year”

velocity of money do not change, a drop in the real GDP by 10% will mean a rise in the price level by about 9%.

The current crisis will, therefore, likely lead to a rise in the rate of inflation. But this increase should be temporary, and with the return

of economic growth, the price level should go down to the original level. Of course, a lot of countries will not avoid large budget deficits. If subsequently, central banks buy the bonds issued by governments to pay for the deficits, the money stocks and the price levels will continue to rise. On the other hand, it is also possible that people will

“As a consequence of a drop in people’s incomes, the supply shock will spill into the demand.”

hoard large amounts of cash because of the fears of future economic

development. This would cause a drop in the velocity of circulation of money, which would push prices down. However, factors driving the prices up will dominate.

Conclusion

In this year, we can expect a sharp drop in GDP followed by a rise in output to the original level in 2021. During the next years, we can also expect higher levels of inflation.

Ing. Petr Mach, Ph.D. lectures on economics and lobbying at University of Finance and Administration and is an editor of this Bulletin



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China Promotes Epidemic Prevention and Control of Novel Coronavirus Pneumonia by "Health Code"

Huang Lefu



Faced with the unexpected Novel Coronavirus at the end of January 2020, Hangzhou gave full play to the advantages of digital economy and techno-

logy, and actively explored the use of big data to prevent and control the epidemic based on the accumulated practical experience of city AI network development. Hangzhou took the lead in developing and implementing „Health Code“ to prevent and control the epidemic and restore production and life. More than 15 million people in Hangzhou have applied for health code and the measure of using health code for epidemic prevention and control has been adopted and promoted by more than 200 cities in China, which has played an important role in precise and intelligent control of epidemic in China.

Operation management mode of „Health Code“

According to the Law of the People's Republic of China on Prevention and Control of Infectious Diseases and Contingency Rules of Paroxysmal Public Health Events, the administrative departments have made use of big data, mobile communication

technology and internet technology during the period of epidemic prevention and control to conduct risk classification and generate color QR code namely „Health Code“ based on the data of the health status in specific scenes.

Health code is applied voluntarily by individuals through various platforms such as personal terminals and websites. After application, it can only be used by the applicant. According to laws and regulations, the government takes the lead in establishing the health code information confidentiality system to protect sensitive information and privacy data in all aspects of health code use.

According to the epidemic risk assessment, the health code platform assigns red code, yellow code and green code to the persons respectively who are in high-risk state, medium-risk state, normal and low-risk state. For example, the confirmed patients, suspected patients and people who have a close contact with a confirmed patient or a suspected patient will be given a red code. Those who are given a red code or a yellow code need to clock in online for a specified number of days before they can change to a green health code.

The function of health code in precise and intelligent epidemic prevention and control

Fig.: health codes in three different colors



The holders of health code are managed according to laws, regulations, emergency response levels and epidemic prevention and control requirements during the period of epidemic prevention and control. Those who hold the red code and yellow code need to carry out epidemic prevention management following the relevant laws and regulations, while people with green code can enter and exit relevant places and take public transportations through scanning code, showing code and other ways.

During the period of epidemic prevention and control, the use of „Health Code“ isolates the living space of the infected people and the healthy people to the maximum extent. With the support of the big data of the health code platform, both the social production and life order are gradually restored under the intelligent control.

Standardization promotes health code management and development

At present, China Jiliang University and relevant departments are working together to formulate the standard of Health Code Management and Service Guide, through which good practices in the exploration and operation of health code will be sorted, summarized and refined so as to realize the publicization and implementation of health code in a wider range of regions and fields and play a leading role.

Huang Lefu is a professor at China Jiliang University, Hangzhou, China, he teaches at the Faculty of Economics and Management

COVID and Anti-Epidemic Measures

Jan Mertl



COVID is a highly-spreading virus infection in a population that has not yet encountered it. The current situation differs from influenza and other seasonal viruses by, in particular:

- Long incubation and associated complications treatment periods
- High spread in retirement homes and other enclosed spaces
- Occupational infections of medical workers, sometimes also with severe course
- Unavailability of vaccine and antivirals (for now)

Incidence reduction measures are subjectively unpleasant and very restrictive for the economy. Perhaps that is why, less than a month after their introduction, the dilemma of “protecting the weaker and scattering the epidemic incidence as much as possible” versus “freedom and impact on the economy” has appeared. There has even occurred an opinion that in order to maintain the performance of healthcare for other diagnoses

“COVID will probably stay with us and the population will have no other option but to eventually meet the virus.”

and prevent our economic decline it is necessary to start relaxing the imposed restrictions as soon as possible. In addition, there are still people who compare the COVID

with influenza, ignore the above-mentioned differences and thereby accentuate the economic dimension of the problem. Relying on the psychological thesis “we do not collapse and forbid group actions because of the influenza” they propose to treat this epidemic similarly and protect only those at high risk.

It is necessary to point out that arguing against present measures is generally based on the assumption that COVID will probably stay with us and the population will have no other option but to eventually meet with the virus. However, it does matter when and in what intensity we encounter the disease and how many of us will suffer more or less severe symptoms. It is also necessary to increase the chances that at least some of us will meet it only when at least partially effective and proven treatment for serious conditions is available, or, in the longer term, even a vaccine, i.e. an effective specific prevention. It may not be possible to wait that long, but every week by which we come closer to the goal counts. In addition, the arrival of spring and summer may also play in our favor, as susceptibility to respiratory diseases will be lower and their course easier.

It is obvious that in many sad cases the COVID infection has a protracted course that sometimes ends fatally without a possibility to improve the patient’s condition. For people with chronic diseases (which pose as the principal criterion affecting the severity of the course of the infection and age is





only secondary to it) the protection against infection is crucial. As it is not possible to prevent the virus carriers from spreading the virus (face masks are a big benefit but they won't prevent the transmission of the virus in prolonged per-

"When we realize the peak of the epidemic is over we can afford more controversial steps."

sonal contact with the infected) it is only possible to control the epidemic as a whole in order to protect the vulnerable. Some applied measures are clear and safe, other may be somewhat doubtful or even seemingly illogical (e.g. why stores selling electric appliance remain closed but shopping in supermarkets is allowed); apparently the epidemiological as well as social and economic aspects are being taken into account. However, some might be mistaken or only half-baked.

Advocates of relaxing the restrictions often provide good ideas and suggest reasonable compromises, but they have brought them up too early. We can gradually loosen some restrictive measures in the coming weeks (considering the impact on the quality of life and the risk of spread of the epidemic) but predominantly as a result of actual statistical data of incidence, complications and case fatality rate. This will also be helped by broader testing of the population and by estimates of the penetration of the population that are being prepared.

In other words, when we see that the peak of the epidemic is over, we can afford more controversial steps while monitoring their subsequent effects. The virus does not have a brain and it is not interested in discussions of freedom or state debt.

Even from the economic point of view there applies that one's health is above all. Opinions claiming that it is better to let the population get infected as soon as possible and build a collective immunity on those who will cope well with the infection is, given the situation, both

"Opinions claiming that it is better to let the population get infected as soon as possible and build a collective immunity is, given the situation, unethical."

unethical and economically debatable. Because of the currently low birth rates, the victims of the virus (fatal or chronic) will be missed in the economy as both the workforce and consumers. The current crisis does indeed highlight some issues that have been recurring in the economy, such as the issue of self-employed people where we will need to consider making sickness insurance mandatory for them, the issue of housing policy, where depopulation of AirB'nBs showed how many flats in bigger cities are effectively free and how the housing prices have been speculatively exaggerated, and also the issue of loan and debt traps that have been dragging

people down for a long time and so on. It will not be easy, but once we recover, the economy may start to grow even more than before the crisis as it will be driven by deferred demand. The fiscal implications and their solutions deserve a separate article, so I will confine myself to the statement that an increase in relative debt of 10-15 percentage points, even if it does happen, is not a fundamental or unsolvable problem.

The goal now is to reduce the incidence of the disease and keep it under control, make every effort to find the optimum treatment for patients serious conditions, gradually shift the health care system to its usual operation in respect of other diagnoses (with increased capacity for COVID patients) and in the coming weeks and months cancel those measures where, depending on the situation, the level of risk is tolerable, or where it is feasible to introduce temporarily alternative (contactless) forms of running businesses and institutions. We need to tame the virus in order to make room for the recovery of the economy. The opposite way of starting the economy with a hope that the population will „somehow“ deal with it and will not grow poorer is incorrect, unethical to patients and health care professionals; those who would unnecessarily lose their health or even life due to such actions would have never forgiven us.

Ing. Jan Mertl, PhD teaches economics, public finance and social security at the VSFS Department of Finance