CHAPTER 18

Financial Crisis 2020: Problems and Elements of Forecasting

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Introduction

One of the urgent problems of the whole financial market at present is the situation of the financial crisis of 2020, caused by the pandemic financial crisis, the consequences of which a large number of experts are trying to determine. According to the majority of them, the global financial crisis will slowly spread and spread over 2–3 years, while others forecast the possibility of transition to a new financial system in the world.

The global financial market is now undergoing significant changes, as is the spread of COVID-19.

As the Secretary General of the Organization for Economic Cooperation and Development (OECD) J.A. Gurria says, "losses connected with the pandemic coronavirus infection COVID-19 as of January 1, 2020, exceed the losses from the financial crisis of 2008 and the September terrorist attacks of 2001". Despite the fact that in early 2021 the global

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recession (decrease of the production decline rate or slowdown of negative factors of economic growth) began, the economic growth is still either zero or negative in different countries. Thus, in general, the global growth will not only remain at a low level, but will recover for a long time (Aslam et al., 2021; Itani et al., 2020).

Globalization of the world economy should be grateful for digitalization; and the last one accelerated precisely because of the pandemic. Digitalization of financial market was in the focus of researches of Bobkov (2020), Shashkova et al. (2020), Inozemtsev (2021), Yukhno and Osipov (2021), and Osipov et al. (2021).

Methodology

Statistical methods are used to address the problem situation, modeling economic processes to introduce and attenuate preventive measures. The field of modeling is also the most appropriate calculations in the context of financial analytics, where in this study we can talk about, for example, the further spread of the disease.

In order to achieve the goal of the study, large amounts of global statistical data on COVID-19 were used, including data showing the main demographic trends in different countries 2019–2020. In order to assess the impact of the pandemic on oil-dependent countries, statistical information was also analyzed, showing the dynamics of world oil prices, the main indices showing the real state of the world stock markets. These data were subsequently used to determine the impact of COVID-19 on global financial markets. In addition, data from the World Customs Organization was also used to analyze the impact of coronavirus infection on world trade.

Under the global financial crisis should be understood the disruption of the financial and credit systems of a number of countries, which is a consequence of the international monetary system (Santos-Arteaga et al., 2020).

In general, financial crises cover various problems of the global financial system. Monetary capital is considered to be the center of financial crises, and the sphere of manifestation—the relevant credit institutions, as well as public finances.

The following characteristic features of financial crises are distinguished (Santos-Arteaga et al., 2020):

1. severe inflation;
2. an increase in the level of unemployment;
3. stagnant wages;
4. an increase in credit-financed investments;
5. prolonged volatility on the stock markets.

At the same time, we can also identify the main causes of financial crises:

1. an increase in the key rate of the Central Bank;
2. significant movements of monetary volumes;
3. individual behavior of investors;
4. low demand for food products.
5. interest rates due to changes in monetary policy are low, due to which additional growth of money supply cannot provide additional investment incentives;
6. production capacity increases the demand for foodstuffs.

Naturally, of current interest to us is the global financial crisis of 2020 triggered by the coronavirus pandemic and, more precisely, the possible measures to overcome it.

Discussions

At present, many countries in Europe are closed to reduce the spread of the coronavirus—an attempt to stop the financial chaos that is now present. Undoubtedly, the main leaders of the European Union point out that there are appropriate mechanisms at their disposal that can connect the member states of the European Union and help develop a certain flow of goods and services.

The COVID-19 coronavirus pandemic led to a decline in the financial performance of most countries. The closure of China's borders in 2020 had a corresponding effect on the drop in demand for oil, which eventually led to the breakdown of the OPEC deal to reduce oil production, further leading to a drop in oil prices. For example, as of March 6, 2020, the price of a futures contract for Brent crude oil (MOEX, USD per barrel) was just over $45. On March 10, the price dropped to $37.77, and already on March 27 it was $25.89. Analyzing Chinese customs data, exports for 2020 decreased by 17.0% compared to 2019 and amounted to $292.4 billion. Meanwhile, also exports to the U.S. fell to 27.7% in January and February to $43 billion, leading to a 12.5% deterioration in December. China's global trade balance for the first quarter of 2021 fell to $8.1 billion. In early February 2021, the People's Bank of China announced that it would provide banks with 300 billion yuan in cheap loans to lend to businesses triggered by the pandemic. Falling oil prices are considered the main channel through which COVID-19 affects major oil-producing countries. Of course, there are a number of other factors, but still COVID-19 is the most important of them, since the pandemic has reduced demand and limited the Chinese economy in the first place. Since China accounts for about 14% of the world's demand for oil and, accordingly, more than 75% of the increase in demand for oil (Kwon et al., 2020).

The Republic of China has become the global center of the supply chain in recent years, and certain disruptions in the financial economy will have a negative impact on the economies of other countries as well. As a result of the COVID-19 pandemic, of course, the actual closure of China's borders led to a sharp decline in demand for oil. The movement of people internationally was also suspended. Airports and borders, factories and other industrial facilities were closed. In the end, such factors led to a worsening of the oil crisis. First of all, oil-dependent countries such as Russia had to adjust the budget, because initially the planning was carried out taking into account the higher level of oil prices. This situation is also reflected in the balance of payments accounts (Rashid & McGrath, 2020).

Countries such as Nigeria, for example, began to turn to foreign trade loans to fill their current account deficits. Because the pandemic is associated with the need for a large amount of investment, primarily in the health care system, which requires funds, equipment, and personnel to develop. In addition, the energy crisis during the pandemic saw the market decline to almost 1973 levels. As a result, the economies of oil-dependent countries were threatened by a decline in foreign exchange, which accounted for the volume of oil.

As a consequence, the full implementation of budget expenditures has become increasingly difficult. It is believed that the financial crisis is most dangerous for oil-dependent countries with small foreign exchange reserves, such as Nigeria.

Thus, a large number of European countries during the pandemic are forced to resort to external borrowing in order to cover their budget deficits. At the international level the main global stock indexes started to decline noticeably provoked by the beginning of the COVID-19 pandemic. These losses were enormous and amounted to trillions of dollars.

Stock markets around the world demonstrated enormous volatility never seen before. The result was a cumulative loss of about 12.35% of the value from January to May 2020, or more than $9 trillion since the pandemic began. It is projected that by the end of 2020–2021, the decline in world trade will be 20–32%, as the pandemic COVID-19 causes disharmony of normal economic activity throughout the world.

Naturally, according to experts of the World Customs Organization, the decline has already exceeded the decline in trade caused by the global financial crisis of 2008–2009.

Estimates of the projected global trade recovery in 2022 are uncertain, and the outcome depends more on the occurrence of coronavirus outbreaks as well as the effectiveness of national responses.

Looking at global trade trends, we can say that there was a slowdown in 2019—before the pandemic began—as trade tensions began to rise, thereby slowing economic growth. In 2019, global merchandise trade declined slightly by 0.1%, after rising 2.9% in 2018. Consequently, the dollar value of global merchandise exports in 2019 fell by 3% to $18.89 trillion (Ji et al., 2020).

Other governments have also begun to adopt measures to support people and businesses. For example, on March 26, the U.S. Senate voted unanimously to approve an emergency aid package to the U.S. economy related to the effects of the coronavirus epidemic. Such aid would provide a certain amount of money to the U.S. economy in the amount of two trillion dollars. For example, individuals with annual incomes up to $75,000 received $1,200 each, and families with children received an additional $500 for each child. Those who lost their jobs because of closures due to the coronavirus temporarily increased their unemployment benefits. And individuals who had their wages cut were assigned special payments. There is also support for small businesses—367 billion dollars will be given to micro-business loans. An additional $130 billion was given to possible medical needs of eligible institutions. The remaining funds go to support businesses that have lost their customer base due to the spread of the COVID-19 coronavirus infection (Ji et al., 2020).

Italy, in turn, provided 25 billion euros worth of support to the economy. This so-called emergency decree provided €3.5 billion needed to help health care institutions and €10 billion to support doctors and their families. The decree also increases parental leave, offers families help with babysitting costs and prohibits any layoffs after February 23, 2020.

The main Bank of Canada has reduced interest rates to support economic activity and keep inflation low and stable. For example, the Bank of Canada's overnight lending rate is 1 p.p. at the end of 2020 and beginning of 2021, while its deposit rate is 0.5 p.p. (Jacobs, 2020).

The Bank of England, following a similar example, went to reduce the rate to 0.1%.

The European Central Bank began buying bonds as part of an emergency program of 750 billion euros. Taken together, this amounted to 7.3% of the EU's GDP volume. Naturally, this program is temporary in nature and will operate only until the end of the phase of the coronavirus crisis. In addition, about 3 trillion euros of liquidity at a rate of -0.75% has been allocated as part of the refinancing. European banking supervisors have allocated more than 120 billion euros of additional bank capital from their reserves, which will also significantly support the sufficient lending capacity of Eurozone banks.

The UK government has formed a revamped Coronavirus Business Interrupt Loan model. This model allows every active business with a turnover of less than £45 million to obtain a loan with a government guarantee of up to £5 million. Interest payments and any fees from organizations that the lender pays will be covered by the government for up to 1 year. In addition, the government provides lenders with a guarantee of more than 80% on each line of credit to give lenders the added stability of being able to provide financing to small and medium-sized businesses (Gupta et al., 2020).

In the Russian Federation in the context of the pandemic coronavirus infection and a sharp decline in oil prices the Bank of Russia decided to implement a set of measures that can support the ability of the financial sector to provide critical economic resources that protect the interests of those affected by the pandemic and the availability of payments to the public, as well as to adapt the financial sector to the action of restrictive measures to combat the epidemic (Gallego et al., 2020). The main measure implemented by the Bank of Russia—granting credit institutions a special right until September 30, 2020 not to change the provisions on loans to borrowers, i.e. individuals in case of a sharp deterioration of their financial condition and/or debt service quality in the presence of official confirmation of the presence of coronavirus infection in such a borrower.

The Bank of Russia further expanded the loan refinancing program for small and medium-sized enterprises (SMEs). In addition to this instrument, related to the limitation of interest rates on loans to borrowers, a new instrument is introduced with a refinancing limit of 500 billion rubles to maintain the volume of lending to SMEs. Under each of these instruments, starting from March 23, 2020 the interest rate of the Bank of Russia is set at 4%.

The Bank of Russia also reduced the values of premiums to risk ratios on mortgage loans and loans for financing under the agreement on shared participation in construction, provided from April 1, 2020.

The peculiarity of the current crisis in Russia is that at its beginning the financial system of the country and its main component—the banking system—were in a good condition, which was characterized by low inflation in general, a large volume of profit in the banking system, good indices of stability and liquidity in most financial and credit institutions. This time the clients of the banking system, representing practically all spheres and segments of the domestic business, faced difficulties. The main problem now is the stoppage of work by a significant number of business entities, while maintaining the current level of costs (rent payments, wages, payments on loans, etc.). This inevitably leads to a decrease in working capital in the business, especially in its small and medium segments (Arestis et al., 2021).

It is worth noting that the Russian Federation has become the only country in which a new tax has been introduced as part of economic measures to combat COVID-19. Income from bank deposits, i.e. interest accruals, will be subject to personal income tax (13%) if the deposit itself exceeds 1 million rubles. This will also apply to investments in securities, income from which is not currently subject to income tax.

Conclusion on the outbreak of the coronavirus pandemic has formed a certain imbalance in the global economy, disruption of supply chains by suspending Chinese production in China. With the further spread of coronavirus around the world, especially in the United States, where the largest number of cases and deaths of the disease have been recorded. The coronavirus pandemic has begun to cause a rather serious decline in oil prices, which can be compared to the biggest tragedy since the 1991 Gulf War. All this jeopardizes the economic activity of oil-dependent countries.

A number of quarantine measures imposed by countries to smooth out and contain the coronavirus pandemic, such as quarantine, self-isolation regime, restrictive measures on international and local travel and trade, etc., continue to have a negative impact on the entire global economic situation at present.

The impact of the pandemic on countries' economies is most likely to be the smaller the impact of the harsh policy environment that is currently in place to reduce the spread of the coronavirus. As a result of the spread of the coronavirus pandemic, all global stock markets have revealed their biggest and sharpest decline since the global financial crisis in 2008.

It is worth saying that it will take some time before financial analysts estimate the economic losses from COVID-19, make predictions for the resolution of the crisis situation and later for future generations, based on the invention of a vaccine against this virus and saving all mankind from the pandemic (Abdelsalam & Abdel-Latif, 2020).

It can now be said that the coronavirus pandemic has had a negative impact on all sectors of the economy, primarily health, tourism, trade, industry and the global (world) economy as a whole. The financial banking mechanism is trying to somehow reduce the negative effects of this situation. Central banks of different countries have joined and coordinated their efforts. Now, because of COVID-19, most countries periodically (at the height of the "waves") introduce quarantine measures, businesses suffer losses and are in bankruptcy, many are forced to stop their activities. In the United States, the Federal Reserve System has stopped forecasting the situation on a quarterly basis, as the market situation is very uncertain and financial analysts are not ready with a high degree of accuracy to determine exactly how many people are sick and what the duration of closure of certain events will be (Bodnár et al., 2021).

Thus, we can talk only about the first results of the crisis so far, primarily about economic and financial losses at the global level.

Results

We would like to hope that the pandemic and all restrictions associated with it will ever end; now it is difficult to talk about the economic consequences of organizations that have completely exhausted all their reserves, used up their working capital and quite possibly started selling their fixed assets. The activities of such enterprises, primarily socially important ones, indicate that they will no longer be able to return to their usual work, i.e. it is likely that after the removal of all restrictive measures we will see a large number of bankrupt enterprises and a significant jump in inflation and unemployment. The current economic crisis and, in particular, the financial crisis will begin to manifest itself fully immediately after the end of the pandemic, having a significant impact in the banking sector, especially on the large customers of banks, but which will later have a dramatic effect on the serious problems in the entire national and global banking system (Palma-Ruiz et al., 2020).

The main danger for the global financial system is the growth of non-payments, primarily on issued loans, also tax payments and other budget revenues will sharply decrease, turnovers in trade (primarily in non-food products) will significantly fall, it will happen against the background of worsening low prices for raw materials and energy resources and a sharp decline in the ruble exchange rate.

The only possible way to reduce the growth of overdue credit debts is the introduction of the so-called credit vacations for physical and legal bank clients. Besides, another possible anti-crisis measure would be the introduction of the mechanism of interest-free loans or loans at a significantly reduced interest rate to replenish working capital, especially for small and medium-sized businesses, which are more affected by the restrictions of the coronavirus pandemic.

The Russian banking system, so far slightly affected by this financial crisis and coronavirus infection, now has the ability and opportunity to execute such measures. Since the credit vacations have already been announced, the very mechanism of issuing loans on favorable terms aimed at increasing working capital is becoming a very popular measure and is beginning to rapidly gain momentum, but reaching the limit here can be expected only after all quarantine measures are canceled.

Of course, many financial possibilities of the national banking system are of restrictive character, and it will not be able to function for a long time after the introduction of the special regime of credit vacations and interest-free credits.

In such conditions banks can initially lose their liquidity, and further many enterprises will become unprofitable because of low perspective of these measures, thus joining the rest of the national business (Akram et al., 2020).

The activities of the Central Bank, which has already begun to comprehend the process of almost completely interest-free lending to the national banking system in order to support its liquidity and solvency, can mitigate the crisis situation a little. Similar measures were taken in 2008, although not all banks received such loans, primarily the largest of them, with the help of which, there is a re-lending of smaller banks.

Considering these measures of the Central Bank in the medium term, we can predict an increase in inflation, which generally becomes inevitable in the post-COVID period.

As a result of the cumulative summation of all the above factors, we can plan that the entire national banking system in 2021 will see a drop in turnover, a significant decline in financial results, huge problems related to liquidity and the loss of a huge number of customers and client base.

As a result, most banks will most likely have their licenses revoked, and the entire system will experience a rise in unemployment of about 20–30%. After the full end of the crisis situation (most likely in the next 2022), the recovery process of Russia's GDP volume will continue for some time, but the modern financial system will be a mitigating factor that guides and corrects the global economic development (Mahenthiran et al., 2020).

In such circumstances, it is necessary to forecast the financial performance of global trade in the world in terms of two different scenarios (Cristian & García, 2020):

1. the extremely optimistic scenario, which describes a sharp decline in trade, followed by a recovery phase at the end of 2021;
2. the most pessimistic scenario, which expects a longer initial decline and, correspondingly, a longer-lasting (until 2025) and still incomplete economic recovery.

Based on the optimistic scenario, the economic recovery will be very rapid, to bring the volume of trade closer to its initial stage, while the pessimistic scenario aims at only a partial recovery.

For example, after the previous financial crisis in 2008–2009, the global economy has come to a certain previous state, with the main role aimed at restoring global finances and global trade, the behavioral aspect of producers and consumers, in addition to their attitude to the pandemic will be important (He & Choi, 2020).

For example, if organizations and consumers view a pandemic as only a time-limited, one-time shock, then spending in investment activities on durable consumer goods may resume at close to previous levels after a decline in economic indicators occurs.

On the other hand, if pandemic outbreaks occur periodically and the process drags on, then household and institutional spending are likely to fall very much as well.

If we control the pandemic process, the volume of world trade will grow again, on this basis, economic growth in most regions could be fixed at about 21% by the end of 2021, considering the optimistic scenario, and at 24% by the end of 2025, considering the pessimistic forecast. In this case, the level of uncertainty is very high, and a possible situation where both for 2021, and for 2025, the results may be very different from the projected figures (Gabbi et al., 2020).

Conclusions

It is necessary to highlight the existence of three main channels through which a coronavirus pandemic can affect global finance: demand, supply and confidence.

The restrictive measures that had to be taken in accordance to prevent the spread of the coronavirus, mainly related to travel restrictions, the closure of international borders, the suspension of public enterprises and service companies, led to the disruption of the global supply chain (Jucá & Fishlow, 2021). The decline in demand is inevitably associated with the self-isolation of the population, a succession of layoffs, restrictions on movement, school closures and a sharp decline in the tourism and entertainment sector. Such measures create an unfavorable atmosphere of risky situations of uncertainty, adversely affecting the process of consumer and producer confidence. As a result, consumers have either postponed or reduced their consumption of goods and services. In turn, producers in the same way began to postpone or reduce the volume of production and investment, or refuse new investments (El-Hodiri et al., 2020).

Overall, the analysis of the impact of the coronavirus pandemic on the global economy helps to draw certain conclusions.

Firstly, coronavirus spreading in most countries has great consequences for the economy as a whole, as well as for individual countries and the world as a whole. Secondly, activities related to the adoption of public policies in different countries aimed at mitigating the economic costs of containing the pandemic may have some negative consequences in both the long and short term.

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