



Comparative analysis of international crisis management in Covid-19 pandemic

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Abstract: The article identifies economic shocks that accompanied previous pandemics and the features of the 2020 recession. An analytical review of typical measures for overcoming the COVID-19 pandemic and mitigating its economic consequences allowed the authors to identify problems common to all countries and specific challenges for groups of countries. The research made it possible to conclude that in 2020 the vector of support in Russia coincides with the directions of support in most countries, while in the past crises Russia has gone its own way. The authors justify, that applying a network approach to government anti-crisis programs may largely increase their success.

Keywords: recessions, crises, pandemic, COVID-19, anti-crisis measures

JEL classification: O57

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1. Introduction

The history of economic development in the XX-XXI centuries has shown that certain success has been achieved in crisis management. This made it possible to overcome the "Great Depression" in the thirties of the XX century, the financial crisis of 2008, and mitigate other crises. However, problem of public governance during economic downturns remains relevant now, because despite a long history of developing and applying measures of supporting economy and population during economic shocks, universal measures have not been worked out. The world economy is hence regularly plunged into recessions and crises.

The main goal of this study is to assess international experience in responding to various types of recessions, including those caused by the modern COVID-19 pandemic and to identify national economies' specifics in developing and applying financial and economic measures to support the population and businesses.

This goal of the study assumes the solution of the following tasks:

- classification of the world's recessions and crises, identification of features caused by pandemics;
- analysis of country models regarding response to the development of the 2020 recession;
- identification of common features and differences between Russian plans with respect to overcoming socio-economic consequences of COVID-19 pandemics and the global practice;
- proposing a concept of network approach to the development of crisis management programs.

The study of crises and recessions was part of interest by many famous economists (Marks, 1876; Fischer, 1911; Kondratiev, 1922; Keynes, 1936; Stiglitz, 2000). These scientists started and developed the theory of economic cycles. In the works of some our contemporaries (Kose, et al., 2020), an overview of global recessions and crises is presented and the factors that caused them are identified. However, the analysis is limited to economic causes and does not affect pandemics. Among the scientific directions that consider pandemics as a factor of crisis, we should mention the paper «The Macroeconomics of Epidemics» (Eishenbaum, et al., 2020). In this study, an important conclusion was made: there exists the necessity to find a balance between permissible level of a pandemic and an acceptable decline in business activity. However, the authors have not suggested any approach regarding the problem. Also, there are some scientific attempts devoted to the transformation programs (Thiry, 2015; Bilgina, et al., 2017). From our point of view, they may be very useful in crisis management. Their main idea is the implementation of network approach and consideration of program projects not as a linear set, but as interrelated components of the program. But such programs are mainly designed for companies. The development of government programs for overcoming crises based on network approach remains out of the spotlight of scientists.

Thus, the lack of research considering international experience in overcoming pandemic-induced recessions and difficulties in spreading of the best practices have determined the range of issues we are considering in this article.

The research is based on two main hypotheses:

- 1) despite the peculiarities of fiscal and monetary measures in national economies, most countries take similar measures;
- 2) the amount of support depends on the availability of financial resources (in particular, the amount of GDP per capita).

2. Methodology and database

The methodological basis of our research are legal acts regulating various aspects of crisis management, scientific monographs, periodicals, as well as fundamental and applied works prepared by international organizations, such as the World Bank, and the Organization for Economic

Cooperation and Development. Depending on the tasks set, the following methods are used in the study: a systematic approach, analysis and synthesis, logical and comparative analysis, grouping and generalization, expert analysis, scientific classification. Variety of methods made it possible to implement the basic principles of scientific research: objectivity, complexity and verification.

The empirical framework is based on OECD countries' statistics, World Bank Open Data, Germany Federal Statistical Office, Banque de France, Russian [Federal State Statistics Service](#) (Rosstat) and Central Bank of the Russian Federation. The study considers crises over the period of their regular observation, paying special attention to the recession caused by COVID-19 pandemic.

The main observed indicators are: the share of expenses on overcoming COVID-19 pandemic in countries' GDP; the expense structure; direct payments to the population and support measures to SMEs, plus their administration.

The study has the following structure. It begins with determination of commonalities and differences of crises in the last hundred years. The identification of the peculiarity of the pandemic-related crisis in 2020 has made it reasonable to consider individual country models for responding to the Covid-19 pandemic. The last section of the article is devoted to the disclosure of Russian crisis management programs. It contains analysis of their strengths and weaknesses, opportunities for improvement.

3. Recessions and crises in the 20th-21st century: commonalities and differences

There are many definitions of terms "crisis", "recession", "stagnation". They differ depending on scientific schools, subject of research, and also change over time. In order to achieve uniformity, in this paper we will apply the definitions used by modern international institutions.

On these issues, the most comprehensive study has been conducted by World Bank (World Bank, 2020). Five types of economic shocks have been highlighted: recessions, financial crises, oil price shocks, a combination of recessions and financial crises, and combination of recessions and oil price shocks. Recessions are defined as years of negative output growth. Financial crisis is seen as an economic crisis in the form of systemic banking crisis, currency crisis, or sovereign debt crisis. They may be caused by overproduction or other reasons. Oil crises are considered as situations in which the average prices for the Brand, WTI and Dubai brands fall by more than 30% for six or more months. So, from our point of view, the term "recession" is a kind of generalization: it includes all types of crises. In turn, any crisis can represent the turning point of a recession, the period where the growth may begin.

Factors that caused recessions before 2020, may be aggregated as financial crises, which have been related with overproduction crises, wars, or oil price shocks. The factors that caused the 2020 recession are radically different from those listed above: the beginning was a natural disaster (pandemic), but the development has been determined by the purposeful actions of governments: curbing the spread of the virus by reducing business activity, limiting migration, etc.

Pandemics are characterized by the following economic and social features:

- decline in business activity (contraction of production, financial activities, etc.);
- reduction of consumer demand, decline in savings;
- shrinking of labor market: employment opportunities are narrowing due to the decline in consumer demand and reduction of production; labor supply is contracting due to morbidity and mortality, reduced mobility both within the country and because of interstate restrictions;
- increase in the business costs in order to comply with sanitary and hygienic requirements;
- stopping of trade relations, inability to organize optimal logistics;
- expectations regarding change in the structure of demand, decrease in investment due to uncertainty in the medium and long term.

All of them have always increased financial problems in affected countries or regions. However, in the era of COVID-19 pandemic, which is characterized by increased integration of the global economy, multiple network trade and financial links, the adverse impact of the pandemic is magnified many times. According to the World Bank estimates (World Bank, 2020, p. 13-15), the decline in GDP per

capita affects more than 90% of countries, although even during the Great Depression only about 85% of countries were affected.

Thus, the 2020 recession is unique in many aspects. It requires studying country models of response to recessions in general and pandemics in particular, and developing innovative measures to overcome them.

4. Country models for responding to the 2020 recession

One of the peculiarities of the 2020 recession is that most countries have adopted unprecedented fiscal measures: direct payments to the population, priority support of small and medium-sized businesses (SMEs), grants and other kind of shoring up to companies most affected by the crisis. For example, in Germany direct payments to the population reach €5,000, to SMEs and agricultural enterprises - €9000-15000, in United Kingdom - £2,500 and up to £25,000 respectively (News Business, 2020; Roskongress, 2020).

An important feature of direct support in many countries has been its quick and transparent administration. For example, in Germany, one-time assistance to self-employed and small entrepreneurs was delivered within 7 days, grants to SMEs were provided within 48 hours after the application. An interesting protectionist measure was undertaken by Germany: a €100 bln fund has been created to prevent non-residents from buying out shares of German companies. Non-standard measures have also been undertaken in Finland: they have included provision of unemployment benefits if business is temporarily suspended due to Covid-19 (Tax Rebate Proposal, March 2020, p.21).

In general, the extent of support for overcoming COVID-19 pandemic in different countries can be seen by the share of expenses in the GDP. The largest share of such expenses has been observed in Germany, Bahrain, Sweden: it is about 30-33% of GDP. The next group of countries includes France, Canada, Italy, Finland, Great Britain and Japan - they have spent 20-28% of GDP. The group of countries whose expenses are only 1-4% includes China, India, Indonesia, Russia, etc. (World Bank, 2020, p. 120-133; World Economic Outlook Update, June 2020, p. 3-4).

The research indicates that the level of support is not directly related with status of the country (advanced or developing). For example, during the pandemic the Swiss government allocated a lower share of GDP to economic support than Thailand. As a whole, the G20 countries, except Russia, spend more than 15% of GDP on combating COVID-19 and overcoming its consequences. At the same time, the study shows that the share of expenditures in GDP does not give a complete picture of support, since the countries' GDPs differ drastically in terms of volume and structure. Also, countries differ in their non-monetary support measures.

Currently, it is possible to identify common problems for most countries that are related to overcoming of the pandemic and growth recovery. These problems primarily include:

- low efficiency of some measures due to the unresolved institutional problems (in particular, the presence of shadow economy and the inability to reach all those people in need);
- lack of funds in low-income countries, and their dependence on international support. Beyond that, past experience shows that the system of international fund distribution suffers from several shortcomings: a significant part of the funds ends up in the international institutions themselves, corruption and theft are frequent in recipient countries;
- the debt in many countries is approaching its historical maximum: therefore could lead to a cascade of defaults and many bankruptcies;
- low oil prices reduce the financial capacity of supporting the economy in exporting countries, so they may aggravate the recession in these countries. On the other hand, not all importing countries can take advantage of low prices to accelerate their business recovery: for example, China is the second largest oil importer in the world, but the share of oil regarding energy consumption in China is low.

There are many predictions about the duration of recovery after the pandemic, but they are not always realistic. In the middle of 2020 World Bank analysts agreed that COVID-19 may take 4-5 years to recover. The reasons were: decrease in investment, reduction in labor migration, uncertainty of directions for economy restructuring. But in 2021, the global economy experienced recovery: global growth was about 5.6 per cent at the end of the year. At the same time, the analysts noted that the recovery is uneven: in advanced economies it is much faster than in countries with emerging market and developing economy (EMDEs) (World Bank, June 2021, p. XVII). But it should be emphasized that the recovery seems to be not only uneven but also unstable - this is due to the ongoing waves of the Covid-19 pandemic, risks of further lockdowns and related crisis phenomena. Perhaps a full recovery, which should be based on overcoming the pandemic, will really take 4-5 years.

5. Pandemic and new challenges for crisis management in Russia

In 2020 many important indicators deteriorated in Russia: the GDP decreased by 5.4% in the first half of the year, investments fell by 7.6%, exports decreased by 22.5%. However, the decline in GDP across Russia was significantly lower than in the USA, where only in the 2nd quarter of 2020 the decline reached 32.9%. In the United Kingdom the reduction was 20.4%, in Germany 11.7%.

An important component of economy recovery plans in all countries is the total amount of funding. Usually it is used to evaluate the efforts to overcome COVID-19 and make international comparisons. However, at present, such assessments seem premature. Firstly, the expenses increase as the situation develops and it is not known to what extent they will still be needed. Secondly, the measures themselves are heterogeneous (direct payments from the budget, loan guarantees, reducing the administrative burden, etc.), so their summing-up and comparisons are incorrect.

The expense structure can provide some insight into the strategy of overcoming Covid-19. In Russia, spending on shoring up the affected sectors of the economy is planned for more than 50% of the total sum. Among these expenses, the greatest assistance is reasonably directed to SMEs: it allows for support of the self-employed population in the face of reduced activity. However, there are some unresolved problems: the high level of shadow sector (about 20% of GDP) does not allow the distribution of payments to all those in need.

The high share of expenditures in healthcare (12-15%) is not only the result of the current recession, but it also proceeds from low healthcare expenses in recent years - they were less than 5% of GDP. In Europe, their share reaches 10%, in the USA 17% ([Aganbegyan, 2019, p.20](#)).

The necessity to allocate substantial funds to support the regions (15% of total sum) is due to the Russian budget system: the limited financial independence of regions and their objective inability to cope with the situation at their own expense.

Various measures have been taken to provide the support to population, including grants to businesses for paying wages, benefits for families with children, additional support to the unemployed, and so on (20% of additional expenses). However, the volume of direct assistance is significantly lower than in other European countries, even taking into account the purchasing power parity of the ruble.

So, it can be argued: in 2020, the support vector chosen by the Russian government coincides with the support directions in most other countries. In past crises, Russia went its own way, in particular, due to its concerns about inflation, with risks of the "collapse" of system-forming enterprises and banks (Bobyleva, Anshin and Ptitsyn, et al, 2020; Bobyleva, 2016).

In 2021 the recovery is noticeable in Russia, but it is more modest than in advanced countries: GDP volume index in Quarter III 2021 to Quarter III 2020 is 104.3% (Federal state statistics service, 2021). Our study results are as follows: some lagging behind global growth is caused by low growth rates in previous years, a relatively small decline in GDP in 2020 because of the structure of the economy (predomination of extractive industry and impossibility of its reduction; poor small business development and insignificant impact of its reduction on GDP, underdevelopment of the service industry etc.). On the other hand, Russia's outperformance in comparison to some countries in terms of growth rates is the result of successful government measures in response to the challenges of

COVID-19: providing essential goods and supporting the population, industries at risk and SMEs; taking additional measures of banking regulation; supporting the regions with falling incomes; reducing the administrative burden; protection from bankruptcy. Also, a slight decrease in measures against the spread of Covid-19 compared to the beginning of the pandemic has made its contribution.

Measures of responding to the pandemic challenges were combined into anti-crisis programs (plans). These programs were clarified and supplemented almost monthly, so they helped to avoid an economic and social catastrophe. However, these plans were mostly reactive and did not involve proactive measures that would contribute not just to mitigating the crisis, but would also take into account other strategic prospects: the development of digital economy, technological innovations and the reform of institutions, in particular, the institute of bankruptcy (i.e. the development of its rehabilitation procedures).

Another feature of these programs was their development as a loosely interconnected complex (linear set) of projects and the absence of possibilities concerning the network approach. The use of network approach allows to consider program's projects as interrelated components, to evaluate the role of the project in the program and its impact on the other projects. It also allows to distribute resources between projects and to assess the risks of the program as a whole. (Anshin, Bobyleva, 2021). Currently, such programs are developed mainly for companies, but at the macro level they remain a concept that requires further practical implementation.

6. Conclusion

In general, the main findings of the study are the following:

- All previous pandemics have always increased social and economic problems in affected countries or regions. However, in the era of COVID-19 pandemic the situation is unique in many aspects: it is characterized by increased integration of the global economy and multiple network of trade and financial links. So the adverse impact of the pandemic is magnified many times.
- In the Covid-19 pandemic, all countries take both monetary and fiscal measures. Fiscal measures contain a high share of direct payments. The level of support is not directly related to whether a country belongs to a group of developed or developing countries or the size of its GDP. However, the first half of 2020 showed that higher expenses and the associated decrease in GDP had been observed in developed countries.
- Fiscal measures prevailed in the midst of the crisis. Monetary measures (supporting price stability, curbing inflation, so on) were used more widely at the end of the crisis, thus creating the prerequisites for stable development.
- The recovery in 2021 seemed to be not only uneven between countries but also unstable both in advances and developing countries - this has been due to the ongoing waves of the Covid-19 pandemic, risks of further lockdowns and related crisis phenomena.
- Despite the fact that the vector of support chosen by the Russian government in 2020 coincided with the directions in other countries, the amount of funds planned for mid-2020 in Russia was lagging behind. This could be explained by smaller decrease of GDP and other macro level indicators compared to other countries, as well as limited financial resources and chosen support strategy.
- International experience has shown that the period and possibilities of overcoming pandemic and its consequences depended not only on funding, but also on the availability of a detailed

- program. The program must take into account the specifics of the 2020 recession, the particularities of each country and should be aimed not only on solving current problems but at developing the fundamental factors of economic growth, too.
- The complex and multi-project nature of the crisis management government programs makes it appropriate to present them as a network of interconnected projects. Among these projects, it is possible to identify projects that affect other projects in the network and determine the success of the program as a whole. Implementation of the program management methodology, the network presentation of the interconnection and ranking of projects will significantly streamline the activities for overcoming crises.
- Thus, it can be argued that the first hypothesis of the study (the vast majority of countries have taken similar economic measures to overcome the COVID-19 pandemic) was confirmed, while the second hypothesis - the presence of direct relationship between financial capabilities and the volume of support - was confirmed partially.
- Further research should focus: 1) on in-depth study of the differences in the size of financial support in countries with similar financial capabilities, as well as on their strategies for overcoming the recession; 2) on the development of macro level crisis management programs based on a network of interconnected projects.

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