

# When the Economy Is Sick: Impact of the COVID-19 Pandemic on the Regional Real Economy

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**Keywords:** Coronavirus, Economic Growth, Economic Decline, Gross Domestic Product, Pandemic, Real Economy, Restrictive Measures.


**Abstract:** In the context of the COVID-19 pandemic, an economic decline is observed in most regions of the world in 2020–2021. The restrictive measures caused a significant reduction in business activity. Falling incomes and reduced demand of households should be considered as the main channel for the impact of coronavirus on the economy. All above mentioned in turn causes a reduction yield and a feedback effect. Russian economy has been significantly affected both by the deteriorating external economic conditions, such as drop in oil prices, currency fluctuations, financial market volatility, and by the established accepted and voluntary restrictive measures. The purpose of the article was to analyze the impact of the COVID-19 pandemic on the world economy in general and Russia in particular. The authors examine macroeconomic statistics on gross domestic product (GDP) fluctuations and assess possible economic downturns in the world and in Russia. Changes in the real sector of the economy in the world and in Russia are revealed. The results of the study can be used for further research on the impact of global virus attacks on the socio-economic systems at all levels.


## 1 INTRODUCTION


The spread of the coronavirus and the restrictive measures imposed everywhere, along with the self-restrictions of the population, has had a rapid impact on both national economies and the global economy as a whole.


In the context of increasing external threats and impact of the pandemic on business relations and on the deformation of marketing communication fields within the borders of different territorial entities, the system quality in all segments and links of the


business sphere deteriorates. The instability of the socio-economic sphere of society increases the asymmetry of marketing behaviour of subjects and multipolarity of the impact of different hierarchical levels of regulation and management on key areas of entrepreneurship in national economies. The unbalanced modulating effects of various market participants contribute to the deepening of motivational and resource contradictions between the subjects of relations in the conditions of uncertainty, instability and increased crisis processes and

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phenomena under the influence of an external coronavirus pandemic explosion.

At the end of 2019 and in the first half of 2020 in Russia the interest of researchers in reviewing the state of the economy in the context of a pandemic has increased.

Recently, there have been a lot of publications on the main trends in the development of the world economy as whole and individual countries in the context of the crisis triggered by the COVID-19 pandemic. In this case the scientific researches of such experts as Boccaletti et al. (Boccaletti, Ditto, Mindlin, Atangana, 2020), Drobot et al. (Drobot, 2020; Drobot, Makarov, Nazarenko, Manasyan, 2020), Grigoryev et al. (Grigoryev, Pavlyushina, Muzychenko, 2020), Grinberg, Pylin (Grinberg, Pylin, 2020), Milovidov, Asker-Zade (Milovidov, Asker-Zade, 2020), Varnavskii (Varnavskii, 2020) should be mentioned.

The scientific papers by Akindinova et al. (Akindinova, Dabrowski, Shirov, Belousov, Voskoboynikov, Gurvich, 2020), Dynkin, Telegina (Dynkin, Telegina, 2020), Kolodko (Kolodko, 2020), Mau (Mau, 2020), Minakir (Minakir, 2019), Polbin et al. (Polbin, Sinelnikov-Murylev, Trunin, 2020) were devoted to the search for ways and means of economy revitalization in the post-pandemic period.

Researchers are also interested in assessing the impact of the pandemic on the well-being of the individual, mental and physical health of the population. Asai et al. (Asai, Konno, Ozaki, Otsuka, Arai, Kitagawa, Ofusa, Yabumoto, Hirotsu, Eguchi, Doki, Ishii, Taniguchi, Vecchione, 2020), Conversano, Marchi, Miniati (Conversano, Marchi, Miniati, 2020), Dheeraj (Dheeraj, 2020), Kuklin et al. (Kuklin, Pecherkina, Tyrsin, Surina, 2017), Mediawati et al. (Mediawati, Susanto, Nurahmah, 2020), Sharma (Sharma, 2020), and Welling et al. (Welling, Battle, Byrd, Burrell, South, Sparks, 2020) addressed these issues in their articles.

The purpose of the research was to assess the changes taking place in the real sector of the economy in the world and in Russia, and to determine the impact of the spread of coronavirus on the individual economic sectors.

## 2 MATERIALS AND METHODS

Data from The International Monetary Fund (IMF), Bloomberg, Bank of Russia, Ministry of Economic Development of the Russian Federation, Federal State Statistics Service of the Russian Federation (Rosstat), etc. provided an empirical base of the study.

The research is based on the analysis of macroeconomic statistics on gross domestic product (GDP) and gross value added fluctuations as a whole and by economic sectors.

The methodology of comparative economic analysis, methods of induction and deduction based on the provisions of neoclassical economic theory were used.

## 3 RESULTS

### 3.1 The Outbreak of COVID-19

In 2020 the COVID-19 pandemic has become truly globalized. The numbers of infected cases and death globally are increasing so rapidly that the epicenter of the pandemic is moving fast. Figures 1, 2 show the total number of confirmed cases and deaths in the world as a whole and in the G20 countries. According to the data in September 2020, the numbers of infected cases globally stand at 25,541,380, with 852,000 death cases. The number is stunningly high when compared to other similar outbreak in the past; for example, the SARS outbreak killed 774 and infected 8,098 between November 2002 and July 2003. However, in September 2020 COVID-19's worldwide fatality rate stands at 3.33%, while 66.31% have so far recovered.

While the virus has already reached more than 200 countries and territories, the US, China, and the Europe appear to be the biggest victims. The top countries in terms of number of infected cases are the United States, Brazil, India and Russia (Figure 1). Initially China was the epicenter with a very high number of infected and death cases, but that moved very fast to the Europe making Italy the next epicenter. At the latest, the US tops the list with 6,088,672 confirmed cases and 183,066 deaths, making the country the latest epicenter of the diseases, according to the data in September 2020. Except for the USA, Brazil, India, Mexico, Great Britain, Italy, France and Spain leads by the number of deaths caused by COVID-19 (Figure 2).

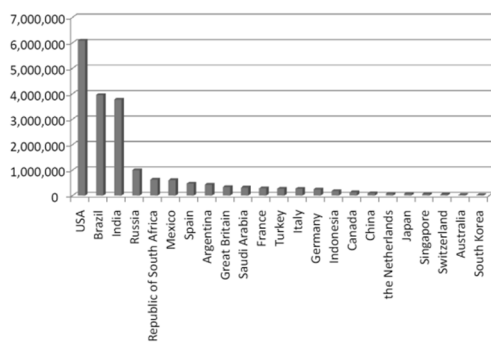


Figure 1: Numbers of COVID-19 infected cases in G20 countries, September 2020

Source: compiled by the authors according to: Trading Economics. URL: <https://ru.tradingeconomics.com/> (Date of access 07.08.2020).

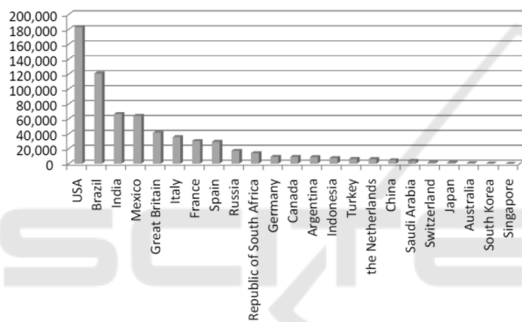


Figure 2: Numbers of deaths caused by COVID-19 in G20 countries, September 2020

Source: compiled by the authors according to: Trading Economics. URL: <https://ru.tradingeconomics.com/> (Date of access 07.08.2020).

### 3.2 A Crisis Like No Other: Impact in Figures

The constant updating data indicate deterioration in long-term forecasts. Thus, the current situation is more complex than it has been previously estimated.

This situation was very clearly described in the headline of the IMF Bulletin in June 2020 “A Crisis Like No Other”. By the way, the IMF itself significantly revised its forecast in an unfavorable direction. Thus, according to the IMF forecast, only China will maintain positive GDP growth in 2020 (Figure 3).

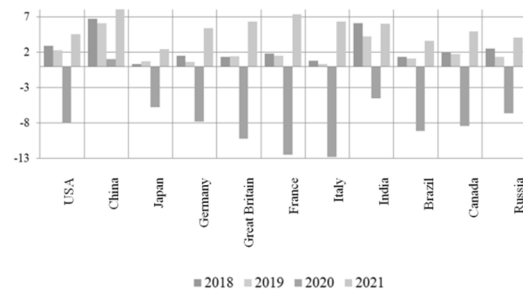


Figure 3: Real and projected GDP growth/decline, %

Source: compiled by the authors according to the IMF.

Many countries suffered from several types of crises both in the economic and health sectors in the first and second quarter of 2020.

According to the IMF experts, the total loss of global GDP in 2020–2021 will reach about \$9 trillion. And this is more than the combined size of the Japanese and German economies (Figure 4).

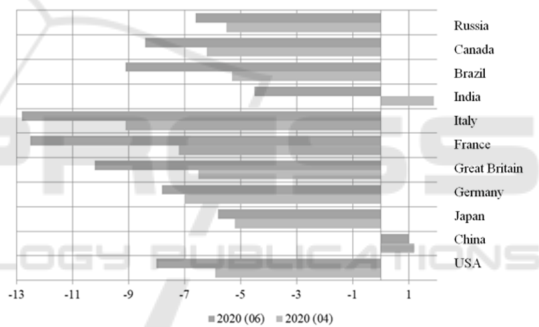


Figure 4: The IMF forecasts for GDP decline, April – June 2020, %

Source: compiled by the authors according to the IMF.

The negative impact of the pandemic on employment in percentage terms is more than it is in relation to GDP (Walmsley, Rose, Wei, 2020). This is due to the fact that most service sectors, especially in the most economically developed countries such as the United States and Europe, tend to be more labour-intensive. And their closure has a more negative impact on employment than on the main sectors of the economy.

The uncertainty increases with each new forecast for the impact of coronavirus on national economies. In addition, the lack and lag of data significantly complicate the objective assessment of changes.

Over the past few years, there has been a tendency to reduce the growth rates of developed and

developing countries (Figure 5), which, in the context of the combined impact of the pandemic and the aggravation of the situation in the oil market, has a negative synergistic effect on the Russian economy.

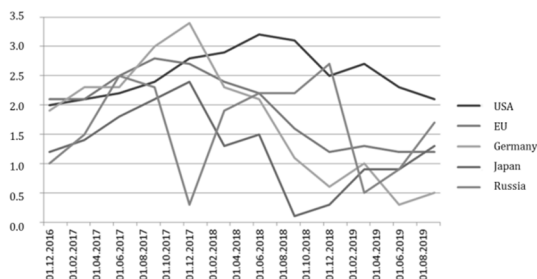


Figure 5: GDP growth rates in developed economies and the Russian Federation, quarterly data, %

Source: compiled by the authors according to Rosstat, Bank of Russia, and Bloomberg.

The Russian economy has been significantly affected both by the deteriorating external economic conditions (drop in oil prices, currency fluctuations, financial market volatility) and by the restrictive accepted and voluntary measures. Falling incomes and reduced demand of households should be considered as the main channel for the impact of coronavirus on the economy. All above mentioned in turn causes a reduction yield and a feedback effect.

The assessment of the decline in economic activity in Russia remains very ambiguous: from -4.3% in the HSE consensus forecast to -6% in the World Bank forecast and -6.6% according to the IMF forecast.

In our opinion, the main effect of restrictive measures will be reflected in the reduction of consumer demand and investment, which accordingly determines the main vector of anti-crisis measures.

The restrictive measures and lockdown caused a significant reduction in business activity.

Thus, according to the Russian Ministry of Economic Development, GDP decreased by 12% in April 2020 compared to the corresponding period of the 2019. The decline was about 10.7% in May 2020 and 6.4% in June 2020 (Figure 6). The gradual dropping of restrictions contributed to the improvement of dynamics in May – June 2020. At the same time, according to the Bank of Russia, the annual decline in GDP may reach 9–10% in the second quarter of 2020.

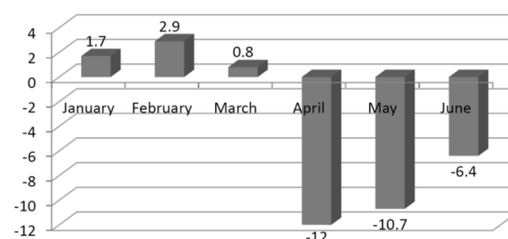


Figure 6: GDP growth/decline rate in 2020, as a percentage of the previous year's corresponding period level

Source: compiled by the authors according to the data of the Ministry of Economic Development of Russia.

The decline in industrial production had a corresponding dynamics. The largest decline occurred in the manufacturing, as the restrictions were added to the reduction in demand in related industries. As a result, production decreased by -10% in April 2020 and -7.2% in May 2020.

The pandemic also had a significant impact on retail sales. And as it was expected, the decline was more in non-food products sector (-36.4% in April 2020 and -29.2% in May 2020, compared to the corresponding period of 2019) (Figure 7).

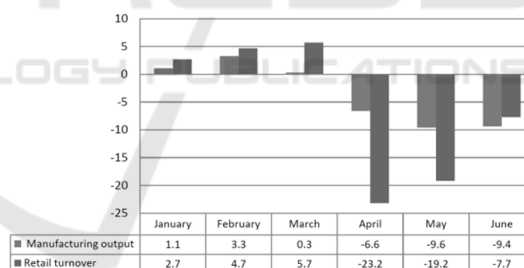


Figure 7: Growth/decline rates of industrial production and retail trade turnover in 2020, as a percentage of the previous year's corresponding period level

Source: compiled by the authors according to the data of the Ministry of Economic Development of Russia.

Food retail turnover was less affected by the decline, with a drop of 9.2% and 8.6%, respectively. The reduction of the retail sales decline in June 2020 was mainly due to a gradual recovery in demand for non-food products, which in turn has had a positive impact on the accordingly oriented manufacturing industries

Investment activity also suffered a significant negative impact of lockdown. The level of investment in 2020 was the lowest in the previous five years.

Similar trends are observed in the production of investment goods, transportation, and import of machine-building products. It should be taken into account that the growth rate of investment in fixed assets in Russia has been declining recently. Even in the updated macroeconomic forecast of the Ministry of Economic Development of the Russian Federation, published on September 30, 2019, expectations for the growth of investment in fixed assets in the coming years were lowered for various reasons. The forecast for investment dynamics was lowered from 3.1% to 2.0% in 2019.

At the same time, it is worth paying attention to the observed heterogeneity in the growth rates by industry or sector. A significant increase in investment activity in some sectors is taking place against the background of a significant slowdown in others.

Considering the dynamics of investment by industry or sector (Figure 8), we jump into conclusion that many outsider industries are included in the list approved by the Government of the Russian Federation that are most affected by the deterioration of the situation as a result of the new coronavirus infection.

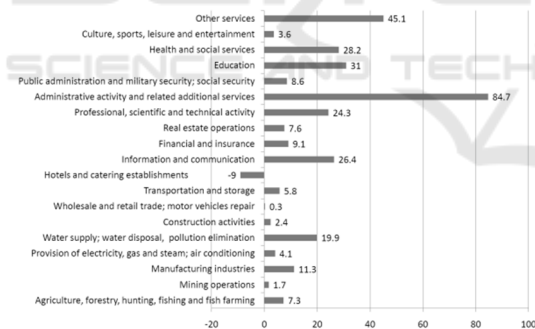


Figure 8: Growth rates of investment in fixed assets in Russia by economic sectors in 2019, as a percentage of the 2018 level

Source: compiled by the authors according to Rosstat data.

According to experts, the COVID-19 pandemic in Russia affected about 4.17 million companies and individual businessmen out of a total 6.05 million, i.e. about 67% of small, medium-sized and large enterprises and individual businessmen.

A reduction in the number of SMEs, a decrease in production volumes and financial indicators

deterioration can also lead to a decrease in the share of SMEs' production in GDP.

According to a joint study by NAFI and Forbes in June 2020, 76% of companies reported revenue reduction, 66% noted demand reduction in, and 36.5% indicated reduction in the number of suppliers.

The impact of the coronavirus pandemic has a serious impact on the internal labour forces. In particular, the coronavirus affected the motivation of employees to implement their work activity and professional adaptability to the challenges of a changing unstable market.

The motivation of the labour resource to implement its innovation capacity has decreased by 23–25%. For example, experts estimate that a 22.4% drop in employment in the United States over the three-month closing period means 35.2 million workers over that period (Walmsley, Rose, Wei, 2020).

## 4 DISCUSSION

The vulnerability of certain countries as a result of the negative impact of the COVID-19 pandemic is explained to a certain extent by the lack of mutual international support to ensure sustainable development (Barbier, Burgess, 2020).

The COVID-19 pandemic contributed to a serious disruption in global value chains and pushed the world economy into recession (Coveri, Cozza, Nascia, Zanfei, 2020), distorting established ties and destroying the balance of interests, which became more focused on political rather than economic conditions. At the same time, the pandemic has revealed opportunities for revising industrial and economic policies in managing the development of national economies, without looking at the pressure of the multidirectional forces of globalization and deglobalization.

Thus, the study of the impact of the pandemic on socio-economic processes in the economies of different countries (including Russia) indicates destructive phenomena in the industry segments of national economy that hinder the innovative development and form an increasing internal antagonistic tension in the system of relations between different stakeholders, i.e. between business and employees, between business and government, between stratification classes and society, etc. (Shchepakina, Gubin, Khandamova, 2019). Russia accepted the challenge of the pandemic as an objective reality, which strongly dictated the requirement for all stakeholders of the socio-economic process to seek a consensus of interests not



only within the country, but also at the level of the world community.

## 5 CONCLUSIONS

The pandemic and related restrictions have had a negative impact on macroeconomic indicators. There is a recession in all regions of the world. And like any economic crisis, it is characterized by economic decline and reduction in business activity, unemployment increase, and decrease in investment activity.

Sudden outbreak of coronavirus disease in 2019 led to a global commodity downfall (Rajput, Changotra, Rajput et al., 2020). And it greatly affected the demand, as well as the supply of goods. The COVID-19 pandemic has caused a major disruption to global value chains (Coveri, Cozza, Nascia, Zanfei, 2020).

The oil market had been severely damaged by a sharp collapse in demand, mainly due to travel restrictions, which also led to a sharp drop in oil prices. Prices of precious and industrial metals also fell down, although the drop in prices was less than that of oil prices. The agricultural sector is still one of the least affected by this pandemic because of its indirect link to economic activity. However, the final impact of the COVID-19 pandemic will largely depend on the severity and duration of its spread, but it is expected to have long-term consequences (Rajput, Changotra, Rajput et al., 2020).

An effective program of state support measures will be required to overcome this situation.

It seems that by the end of 2021, the macroeconomic situation may change, both for the better and for the worse. But an improvement in Russia's macroeconomic situation can be expected if the optimistic forecast of an increase in oil prices on world markets to the pre-crisis level of \$100–150 per barrel comes true.

As for the time scale of the Russian economy recovery in terms of GDP growth, there are two possible scenarios.

In accordance with an optimistic scenario (with oil prices growth), the Russian economy will be able to recover to pre-crisis level of 2019 by mid-2021. If we consider a pessimistic scenario, which, in our opinion, looks more realistic, then it will take at least three years to overcome the consequences of the crisis, and only by the middle of 2023 Russia will be able to cope with the crisis in the economy.

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