Transport industry in the context of the growth of sectors of the Russian economy

A N Kazak\textsuperscript{1*}, N N Oleinikov\textsuperscript{1}, D V Gorobets\textsuperscript{1} and N P Shamaeva\textsuperscript{2}

\textsuperscript{1}V.I. Vernadsky Crimean Federal University, Prospekt Vernadskogo 4, Simferopol, 295007, Russian Federation
\textsuperscript{2}Udmurt State University, Universitetskaya St. 1, Izhevsk, 426034, Russian Federation

E-mail: kazak_a@mail.ru

Abstract. An important opportunity to overcome the crisis consequences of COVID-19 is also to restart the economy through solving the accumulated infrastructure problems, including transport. Programs for the development of airports, the railway network, and maritime transport throughout Russia can have a big impact. There is the possibility of supporting technological restructuring in those sectors that are crucial for the future of the Russian economy: transport, aircraft, automotive, in-vestment engineering. To restore activity in the real sector of the economy, including the transport industry, it is necessary to stimulate demand for competitive products and services manufactured by it. Two areas are important here. The first is the provision of basic demand through the public procurement system of federal, regional and municipal services. The second is subsidizing loans for the purchase by the population of durable goods of domestic production (including cars) and mortgages.

1. Introduction
The scale of the shocks taking place in the world and Russian economies allows us to consider the current crisis not as an economic phenomenon, but rather as a social one. Thanks to the directive directives of the authorities, entire sectors of the economy in which the majority of working citizens were employed have never stopped in foreseeable world history. What happened, on the one hand, demonstrates the value of human life that has increased many times over the past decades, and, on the other hand, raises the question of how far one can go by exchanging economic welfare for relative epidemiological well-being [1, 2, 3, 4].

2. Materials and Methods
In the paper, there were used general scientific and special research methods to solve mentioned aim. There are graphical analysis, statistic, techno-economic, expert estimation method. It was studied theoretical and applied papers on the research topic [1-17], also official statistics data.

3. Results
The significance of a two-month period of strict quarantine measures in the economy can be estimated as a fall in GDP in the second quarter compared to the same period last year by no less than 15\% (fig. 1, 2). Such a shocking fall in the level of economic activity is unprecedented in the domestic economy over the past two decades. But the recession turned out to be unequal for both individual sectors of the economy and for individual groups of the population.
GDP: THE LOWEST POINT OF DECLINE IN 2020 IN THE SECOND QUARTER

![GDP chart]

**Figure 1.** GDP: the lowest point of decline in 2020 in the second quarter.

![Seasonally aligned GDP index chart]

**Figure 2.** Seasonally aligned index (2010=100).

Key indicators for forecast of the Russian economy are presented in table 3 [5, 6, 7].

**Table 1.** Key indicators for forecast of the Russian economy.

| №  | Index ( % to the previous year, unless otherwise indicated) | 2018 | 2019 | 2020 | 2021 |
|----|----------------------------------------------------------|------|------|------|------|
| 1  | Oil price, $ / barrel                                   | 70   | 64   | 34   | 44   |
| 2  | The average annual rate of the US dollar, rub. / $      | 62.5 | 64.7 | 74.1 | 70.1 |
| 3  | GDP                                                      | 2.5  | 1.3  | -3.8 | 4.8  |
| 4  | Investments                                              | 5.4  | 1.7  | -7.9 | 6.1  |
| 5  | Inflation (end of year), %                              | 4.3  | 3.0  | 5.5  | 4.3  |
| 6  | Retail turnover                                          | 2.8  | 1.6  | -6.2 | 5.0  |
| 7  | Real disposable income                                  | 0.1  | 0.8  | -6.5 | 6.1  |
| 8  | Real wage                                               | 6.9  | 2.9  | -1.5 | 3.1  |
| 9  | Unemployment rate to EAN, %                             | 4.9  | 4.7  | 7.0  | 5.0  |
| 10 | Export, $ billion                                        | 443  | 419  | 294  | 339  |
4. Discussion
The situation in the economy is deteriorating, and the measures taken by the authorities to support enterprises are insufficient and far from everyone who needs them. This is evidenced by the next monitoring of the state of business in the regions. As part of the study, managers and owners of more than 2,300 small and medium-sized businesses across Russia were interviewed. The number of enterprises that temporarily suspended their activities increased, of which more than 56%, while about 1.5% of respondents said that their company had completely ceased to exist [9, 10, 11].

Over 63% of respondents reported a decrease in demand for products or services of their companies by 50% or more, and almost a third of all respondents recorded a decrease in demand by more than 90%. Over 56% of entrepreneurs surveyed are the main problem for their companies. Wage lending was answered in the affirmative only by 3.4% of respondents. 13% stated that the conditions for granting these loans are such that they cannot be obtained.

Almost half of all surveyed entrepreneurs reported that their companies were not included in the list of the most affected sectors, since their main activity does not coincide with the requirements of the list approved by the government. And more than half are those whose companies can still count on assistance under this program, or consider that the conditions for receiving it are actually prohibitive, or have already managed to apply and have been refused [12].

Being on the list of the most affected by the coronavirus pandemic gives companies a delay in paying certain taxes and loans, an opportunity to get a loan at a reduced rate, a moratorium on filing bankruptcy applications, and a number of measures. So getting into the list is a chance of survival. The government will allocate more than 23 billion rubles to Russian airlines in emergency care. This money is expected to go towards paying leasing payments, air-craft parking bills, salary payments and working capital replenishment. True, the aviators themselves are sure that this is not enough even to cover the fixed costs of air carriers (they do not depend on airfare) in the next three months. Thus, the Association of Air Transport Operators in their appeal to the government estimated them at almost 177 billion rubles, referring to the actual expenses incurred in the second quarter of last year. At the same time, experts say that only Aeroflot spends about 25 billion rubles on salaries for its employees, aircraft parking and some other expenses. In other words, it turns out that government assistance would not be enough even for our national air carrier. But that is not all.

For example, the International Airport Association (IAA) directly asked Transport Minister Yevgeny Dietrich to provide airlines with state guarantees for their obligations to airports worth 76 billion rubles by the end of this year. They explained such a position by the fact that otherwise the airports themselves would have to go to unprecedented deferrals of payment for their services, which could very well lead to defaults. And this, in turn, will inevitably hold back the restoration of air travel. Representatives of the IAA are confident that at the end of this year, airports will lose about 80 million passengers, as a result of which industry revenues will decrease by 81 billion rubles - in the second quarter of this year alone, the net loss will be about 37 billion rubles. According to the IAA, at 33 leading airports in the country there is an avalanche-like drop in passenger traffic. So, as of March 21, it amounted to 75% in annual terms, on April 1 - 83%, and after ten days it reached the level of 91-93%.

In general, according to the results of this year, all civil aviation in our country will lose about 250 billion rubles, of which 150 billion rubles will be the losses of airlines.

Experts offer their solution to this problem. The principle is very simple: if an enterprise lost 30 percent of revenue and more in March – April compared with January – February, then it, irrespective of the industry, regardless of its legal form, is among those who suffered most from the epidemic.

At the same time, according to the assessment of the Institute of Growth Economics named after P.A. Stolypin [13, 14, 15], measures to support the economy covered 5 million people from the point of view of the country's population and 526 thousand individual entrepreneurs and enterprises, in total 5.3 million people are employed.

This is very small relative to the extent of poverty.
Need universal help. We can distinguish such blocks as small and medium-sized businesses, large companies and direct support of citizens through subsidies for salaries [16, 17].

The first block - helping people. However, do not give out to everyone fifty thousand, as someone suggests. It is necessary to support those who are most difficult. So that people who have no money at all can satisfy their needs. In the same series are measures to support employment. There are proposals to put in place a social insurance fund to support employment, as it was in the same 1990s. Roughly speaking, this is an exchange of the state with enterprises for maintaining employment, at least temporarily.

The second topic is system solutions in the sphere of fixed costs of a business. Fixed business costs are taxes, interest payments and rent. Here, apparently, we need some kind of vacation. And the budget itself will be the grantor in the case of taxes, banks in the case of loans and lessors in the case of leases. In doing so, we move support to a higher level, and instead of tens of thousands of subjects of support, we have much less support, and the economy is much better visible.

For example, there are many lessors, but they are still less than tenants. Roughly speaking, you can look at the February leases, estimate how many months it takes to support the pants for businesses that must decide in three months whether they leave the market or not, and compensate these costs to lessors.

The third topic is selective support. Maybe it is necessary to support the final demand, for example defense industry, maybe export industries, which have stood up for a while.

The uniqueness of the current crisis lies in the fact that it hit the layer of the population that has an average income level and is not employed in the public sector. These are those people who are mainly employed in the services sector and have shown massive demand for durable goods, hotel and restaurant services, air and rail transport. Their demand can be restored only under one condition - the large-scale launch of economic growth. In this case, the initiating factor here should be an increase in income in the primary link of the economy - the real sector. A key anti-crisis package should be sent there. Having restored the profitability of the real sector, one can also count on a gradual, steady recovery in the services sector, with the majority of middle-income citizens getting out of attack [6, 7, 16].

To preserve jobs, among other things, it was proposed to exempt small and medium-sized enterprises from taxes for at least a year, to carry out a tax amnesty, reduce payments to social funds to 15% for enterprises whose revenue fell by 30%, and completely exempt from these payments by half a year of the company, whose revenue fell by more than 30%.

In terms of maintaining demand - pay all employees of private companies whose salary is less than five times the minimum wage - minimum wage (about 60 thousand rubles), a benefit of two minimum wages. Such people, according to the estimates of the Stolypin Institute, in Russia 30.2 million people. In addition, it is necessary to al-low the use of 50% of maternity capital to pay current expenses and make monthly payments to pensioners in the amount of five thousand rubles.

According to the Institute's estimates, the financial support of the proposed measures is 12.7 trillion rubles (11.5% of GDP), including 5.6 trillion rubles - state guarantees. Together with the measures that have already been taken by the government, this will prevent GDP from falling below minus 2%, and next year will ensure growth at the level of 3%.

Thus, due to the organizing role of the state, it is possible to restore the total consumption of affected citizens and the production of domestic goods. And in cases where import substitution is possible, domestic production volumes may exceed the pre-crisis level.

Another thing is whether the government is ready to go for additional economic support.

5. Conclusions

To restore activity in the real sector of the economy, including the transport industry, it is necessary to stimulate demand for competitive products and services manufactured by it. Two areas are important here. The first is the provision of basic demand through the public procurement system of federal, regional and municipal services.
The second is subsidizing loans for the purchase by the population of durable goods of domestic production (including cars) and mortgages. According to our estimates, such loans have the largest multiplier (in the current conditions, each ruble spent by the state can ensure production growth of more than 6 rubles due to leverage). In addition, it will become possible to use part of the population’s savings, as well as more concentrated use of the deferred demand of high-income groups that has accumulated during the quarantine period.

References
[1] Faisal M, Prima Nirmala Muthia 2020 Jurnal Inovasi Ekonomi DOI: 5.10.22219/jiko.v5i3.11834
[2] Khanthavit A 2020 Foreign Investors' Abnormal Trading Behavior in the Time of COVID-19 DOI: 10.13140/RG.2.2.34797.20969
[3] Financial Times 2020 Global recession already here, say top economists https://www.ft.com/content/be732afe-652e-11ea-a6cd-df28cc3c6a68
[4] Elliot L 2020 Prepare for the coronavirus global recession. The Guardian. Media report https://www.theguardian.com/business/2020/mar/15/prepare-for-the-coronavirusglobal-recession
[5] Kazak A N, Lukyanova Ye Yu, Chetyrbok P V 2017 Proceedings of the 2017 International Conference "Quality Management, Transport and Information Security, Information Technologies", IT and QM and IS 2017 (Saint-Petersburg: Saint Petersburg Electrotechnical University 'LETI') p 533
[6] Kazak A N, Lukyanova Ye Yu, Chetyrbok P V 2017 IEEE II International Conference on Control in Technical Systems (Saint-Petersburg: Saint Petersburg Electrotechnical University 'LETI') p 103
[7] Kazak A N, Buchatskiy P 2018 Proceedings of the 2018 International Conference "Quality Management, Transport and Information Security, Information Technologies", IT and QM and IS 2018 (Saint-Petersburg: Saint Petersburg Electrotechnical University 'LETI') p 845
[8] Yu Krista D, Aviso K 2020 Process Integration and Optimization for Sustainability DOI: 10.1007/s41660-020-00113-y
[9] Wanjala K 2020 Preceding Epidemics DOI: 10.38157/finance-economics-review.v2i1.57
[10] Solow R M 1956 Quarterly Journal of Economics 70 Readings in the Modern Theory of Economic Growth (Cambridge: MIT Press) p 64
[11] Solow R M 1962 The American Economic Review, Papers and Proceedings of the Seventy-Fourth Annual Meeting of the American Economic Association 52(2) 76
[12] Nimark K 2012 Econometric Methods II: Time Series, Lecture Notes on the Kalman Filter p 20
[13] Okun A M Potential 1962 Proceedings of the Business and Economic, Statistics Section American Statistical Association 98
[14] Entov R, Lugovoy O 1998 Growth Trends in Russia After 1998 (The Oxford Handbook of the Russian Economy) p 132
[15] Oomes N, Dynnikova O 2006 IMF Working Paper WP/06/68
[16] Kuboniwa M 2011 Post-Communist Economies 23(3) 311
[17] Peterson O, Thankom A 2020 SSRN Electronic Journal DOI: 10.2139/ssrn.3562570