Macroeconomic aspects of the development of the transport industry under the influence of COVID-19

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Abstract. The scale of the upheavals in the global and Russian economies allows us to view the current crisis not as an economic phenomenon, but rather as a social one. Universal support measures in the form of tax, credit and rental leave, which will be applied to all sectors of the economy and companies without exception and will be financed from the budget and the Central Bank of the Russian Federation, are the right recipe in the very difficult economic conditions of today. Reconfiguration of the system of national projects by redistributing funds to ensure demand for the products of competitive industries, including such as automobile and rail transport, air and sea traffic, should contribute to an effective structural adjustment of the economy during the period of post-crisis recovery.

1. Introduction

The crisis of 2008-2009 was more financial. And this crisis is serious, structural, and selectively structural. And from this crisis, the world will return to a completely different point. A whole chain of consequences arises, and these consequences will not be cosmetic. This happened in 2002. There was also an epidemic of the SARS-CoV virus in China then. And there were several hundred dead. All this was stopped quite quickly. But then remote technologies developed online, and Alibaba quickly grew [1, 2, 3, 4].

The correlation of medical and economic effects of the global lockdown will still be the subject of research by economists and sociologists, but for now we will try to summarize its first results for the Russian economy. First of all, it should be noted that the epidemic crisis for our country is complicated by lower prices in key global commodity markets. You can talk as much as you like about the inevitability of lowering oil prices, but the fact remains that without the pressure of a pandemic, oil prices would hardly have turned out to be like in the first half of April 2020 [5, 6, 7].

Only a drop in crude oil export earnings can be at least $ 60 billion. The trade balance will be reduced, and the current account for the first time in many years will be reduced to a negative result. The decrease in this oil and gas budget revenues will amount to more than 3 trillion rubles. This amount seems gigantic, but if you recall that for the period of the growing cycle of oil prices in 2017-2018. The National Welfare Fund was replenished in the amount of more than 4 trillion. rubles and by April 2020 reached a volume of 12.8 trillion rubles, then resources to finance the current budget deficit at least this year are available.
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
Already, there is every reason to believe that the rate of decline in GDP will be more substantial than the decline in industrial production. This will happen because a number of industrial enter-prises did not stop during the period of strict quarantine, a similar situation has developed in a number of construction projects, and in agriculture. In these conditions, for enterprises in the real sector of the economy, with the exception of transport, demand parameters, both internal and external, will be of key importance for the speed of recovery. External demand depends rather weakly on the parameters of domestic economic policy, but a reasonable stimulation of domestic demand will determine the parameters for the Russian economy to overcome the crisis [8, 9, 10, 11].

The most vulnerable sectors of the Russian economy are presented in table 1.

Table 1. The most vulnerable sectors of the Russian economy. Forecast of the dynamics of added value.

| № | Index, % | 2019 | Q1 | Q2 | Q3 | Q4 | year |
|---|---|---|---|---|---|---|---|
| 1 | GDP | 1,3 | 1,8 | -18,0 | -0,9 | 1,3 | -3,8 |
| 2 | Manufacturing industry | 1,6 | 3,7 | -17,5 | 0,0 | 2,1 | -2,9 |
| 3 | Building industry | 0,4 | 1,5 | -11,2 | 0,0 | 5,0 | -0,2 |
| 4 | Wholesale and retail trade | 1,7 | 5,0 | -26,1 | 0,0 | 3,2 | -4,3 |
| 5 | Transport | 2,1 | -1,0 | -40,2 | -2,0 | 1,0 | -10,6 |
| 6 | Hotels and catering | 3,2 | 0,0 | -69,5 | -15,0 | -5,0 | -22,2 |
| 7 | Healthcare | -2,0 | 2,0 | 2,3 | 2,0 | 1,5 | 2,0 |
| 8 | Culture and sport | 1,8 | -1,0 | -78,9 | -10,0 | 5,0 | -21,2 |

In 2018 and 2019 the value volumes of export and import of goods, although they did not reach the values of the first half of the 2010s, were close enough to them. Export volume grew faster, and the trade balance reached the pre-crisis level: in 2019 it amounted to $ 180 billion, and a year earlier - $ 212 billion. In January-February 2020, both the value and physical volumes of imports of goods were practically did not change, the volume of exports of goods decreased, but their decline was not extraordinary. The trade balance for the first two months of this year - $ 25 billion - turned out to be lower than last year's value ($ 34 billion), but higher than in 2016 and 2017. However, in March there was a sharp deterioration in the terms of trade: in January-February, the average monthly price of Urals oil was equal to $ 58.0 per barrel, in March it fell to 29.2, and in April to $ 18.2 per barrel. The result of this fall was that, according to the Central Bank of the Russian Federation, in January-April the trade balance fell to $ 36 billion against $ 62 billion for the same period last year.

4. Discussion
According to the results of calculations, the value of exports of goods in 2020 will fall to $ 294 billion (table 2), in the next three years it will gradually increase, but by 2023 it will reach only $ 308 billion. The reduction in imports of goods is projected much less significant: $ 218 billion in 2020 with growth up to $ 244 billion by 2023. As a result, it will decrease several times, but, nevertheless, the
trade balance will remain positive: $33 billion in 2020, and by 2023 under the given scenario the trade balance will increase only to $64 billion.

The volume of international reserves of the Russian Federation at the beginning of May amounted to $566.012 billion, an increase of $11.7 billion from the beginning of the year. The growth from operations in January-February (+$14.9 billion) was replaced by a decrease in March-April ($12.2 billion), the exchange rate revaluation made negative contribution to the dynamics of reserves ($7.05 billion).

Table 2. Export forecast: decrease in volumes by major product groups due to contraction of global demand.

| №  | Product groups                          | 2019         | % y/y | 2020         | % y/y |
|----|----------------------------------------|--------------|-------|--------------|-------|
| 1  | Export total                           | 419          | -2.1  | 294          | -3.7  |
| 2  | Mineral products                       | 267.7        | -5.1  | 160.0        | -2.3  |
| 3  | Food and agricultural materials        | 24.8         | 1.5   | 25.8         | 3.2   |
| 4  | Chemical products                      | 27.0         | 0.2   | 23.8         | -3.6  |
| 5  | Wood and pulp-paper products           | 12.8         | -5.3  | 11.8         | -9.0  |
| 6  | Metals (except than precious)          | 37.5         | -12.2 | 27.5         | -12.5 |
| 7  | Machines, machinery and vehicles       | 27.7         | -3.7  | 24.4         | -10.0 |

According to the Ministry of Economic Development, the total amount of state support measures is 2 trillion rubles, or 1.8% of GDP. The Ministry of Finance estimates them already at 7.2 trillion rubles (6.5% of GDP), and the IMF believes that 3.3 trillion rubles were allocated to support the Russian economy, which is 3% of GDP. However, currently only 356.6 billion rubles have been spent, the rest of the money should be influential over the next three to six months.

This is a categorically slow delivery of funds, which are urgently needed by both the population and business. Such channels for bringing money have been selected that require the preparation of a huge package of documents from the business or from each individual applicant who has applied. In this regard, Russia in the ranking of countries for already implemented support measures is still at the end of the list, between South Africa and Indonesia, with investments in supporting the economy at the level of 0.32% of GDP. The leaders are the USA (11%), Great Britain (10.5%), Egypt and Brazil (6%) [9, 10, 11].

At the same time, according to the Institute’s calculations, if we shall calculate the average annual oil price of $30 per barrel and the rate of 75 rubles per dollar, the country has about 14 trillion rubles of free funds that could be used to support the economy. Of all the largest Russian airlines, only Aeroflot's daughter, Pobeda, completely stopped domestic flights. And that, only because about two-thirds of its passenger traffic was made up of transit passengers with a final destination abroad. But all the other air carriers lost only about half of their passenger flow, mainly due to the cessation of all international flights, with the exception of so-called export flights (for which, by the way, the state allocated them separate compensation in the amount of more than 1.5 billion rubles).

Nevertheless, nothing prevents them from building up their presence within the country in order to at least partially compensate for the losses. And this, judging by everything, is already happening. So, according to the Federal Air Transport Agency, in the first two months of this year, passenger traffic on domestic routes increased by almost 6.7% and exceeded 10 million people.

But, judging by the data of the same Federal Air Transport Agency, traffic on domestic routes last month grew by more than 11%. So, talking about the total collapse of our aviation industry is premature. Another thing is Western Europe. For example, in Germany, passenger traffic has fallen by almost 98%. So, from March 30 to April 5 this year, German airports served just a little less than 98 thousand people, against 4.5 million people over the same period last year.
But the national airline of Singapore - Singapore Airlines - received immediately $19 billion in financial assistance. Of these, $15 billion in loan guarantees was provided by Temasek Holdings, and another $4 billion was loaned to DBS Group Holdings aviators. But the United States promised to provide the most powerful support to the national airline industry. This country will give a total of $25 billion to the six largest airlines in America, with the proviso that they will not lay off employees until September 30 or change collective bargaining agreements, as well as pay dividends and remuneration to management.

Universal support measures in the form of tax, credit and rental holidays, which will apply to all companies without exception and will be financed by the budget and the Central Bank of the Russian Federation, are the right recipe in today's very difficult economic conditions.

One of the tools to prevent such a negative scenario and to quickly get out from the trap of falling incomes of the population and business can be the use of the mechanism of commodity certificates [12, 13]. The starting point for using the product certificate mechanism is the assessment of three key parameters:

- balance of fallen consumption (hereinafter - the balance of consumption);
- balance of fallen production (hereinafter referred to as production balance), including an assessment of the level of underutilization of production capacities;
- the volume of money supply that served the pre-crisis fallen consumption and production.

The structure of the mechanism of a product certificate is as follows.

The first. To restore fallen consumption, every citizen of Russia is given the right to receive a certificate of commodity free of charge in the amount of income lost during the coronavirus pandemic. The monetary equivalent of the goods certificate is personal, it is automatically calculated according to the data of the Federal Tax Service (hereinafter - the Federal Tax Service) and is equal to the difference between the current income of a citizen and the level of income before quarantine is introduced. The product certificate itself is individual, strictly targeted and not alienated (the possibility of converting it into any currency or sale is excluded). For the amount of a product certificate, a citizen can exclusively order and receive specific domestic goods [14, 15].

The second. To meet demand through the restoration of the fallen domestic production, a single customer-supplier is determined, who, at market prices, mass purchases of essential goods and goods consumed before the crisis by affected citizens. Due to the centralized and massive nature of the purchase, it is possible to establish a significant discount to the market price, which, in turn, will reduce inflation. Also, due to this, incentives arise for import substitution and the additional release of domestic goods.

The third. The source of procurement is money supply, which is actually already serviced before the crisis and provides for consumption and production. Thus, an absolutely unspoken channel for the formation of the money supply is created, the size of which strictly corresponds to the created commodity mass.

It is important that the proposed mechanism allows us to solve the problems of economic recovery without increasing the burden on business and the population. Therefore, it does not constrain future economic growth.

For the efficient and transparent operation of the mechanism of a product certificate, it is advisable to use a single online platform (an analogue of an online store), which provides a complete digitalization of all processes and the public disclosure of all procurement information, including prices and delivery conditions [16, 17].

It should be noted, that to implement measures to support the Russian economy, the Federal Tax Service has already deployed a blockchain platform for identifying a single accounting for loan recipients, which dramatically simplifies the receipt of loans for customers. This or a similar online platform can be used to register enter-prises and citizens in the mechanism of a product certificate. Registration through a government services portal of a citizen means receiving a commodity certificate, the amount of which can be calculated automatically according to the Federal Tax Service...
on the decrease in income of a citizen as a result of quarantine. From the moment of registration, the
citizen has the right to choose and subsequently receive goods in the amount of the equivalent amount
of the goods certificate. At the same time, in the citizen’s personal account on this platform, a “book
of your wishes” is provided for subsequent individual adjustment of the offer of goods that maximizes
the dynamic product variety.

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
An important opportunity is also to restart the economy through the solution of ac-cumulated
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, air-craft, automotive, investment engineering.

Reconfiguration of the system of national projects by redistributing funds to ensure demand for the
products of competitive industries, including such as automobile and rail transport, air and sea traffic,
should contribute to an effective structural adjustment of the economy during the period of post-crisis
recovery. All these actions will require financial resources at the level of 5-8% of GDP, and these
funds are in the economy. To use these funds to stimulate demand for 1-2 years is to take risks.
However, a return to macro-financial stabilization policies looks even more risky.

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