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R95 **Russian Economy in 2020. Trends and outlooks**. **(Issue 42)** / [V. Mau et al; scientific editing by Kudrin A.L., Doctor of sciences (economics), Radygin A.D., Doctor of sciences (economics), Sinelnikov-Murylev S.G., Doctor of sciences (economics)]; Gaidar Institute. – Moscow: Gaidar Institute Publishers, 2021. – 668 pp.: illust.

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The review "Russian Economy. Trends and Outlooks" has been published by the Gaidar Institute since 1991. This is the 42th issue. This publication provides a detailed analysis of main trends in Russian economy, global trends in social and economic development. The paper contains 6 big sections that highlight different aspects of Russia's economic development, which allow to monitor all angles of ongoing events over a prolonged period: global economic and political challenges and national responses, economic growth and economic crisis; the monetary and budget spheres; financial markets and institutions; the real sector; social sphere; institutional changes. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

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Section 1. The Coronavirus Pandemic and Economic Policy Trends[1]

A turbulent decade ended with the turbulent year of 2020. Starting with the global financial crisis of 2008-2009, the world economy and politics were in a state of unstable uncertainty, which ended with a full-scale explosion - the pandemic of a new coronavirus. The further socioeconomic development of the world as a whole and of individual countries (developed and leading developing) will be determined by how the lessons of the past 12 years and of 2020 in particular are studied, interpreted and assimilated.

The events of 2020 have been compared with different crisis periods of the past, especially economic ones: the Great Depression of the 1930s[2], the structural crisis of the 1970s, the financial and economic crisis of the 1970s, and the economic crisis of the 1980s. These comparisons are fair, especially if you compare their quantitative characteristics - the depth of the recession, the scale of unemployment, etc. But to understand the current situation and identify ways to overcome the crisis, we need an analysis that goes beyond historical analogies (important as they are) and beyond economic subjects and arguments.

1.1. The non-economic nature of the crisis and anti-crisis policy measures

In the starting point of this analysis we should state that the events of 2020 have, at their core, a non-economic nature. There is an economic crisis, but it is neither cyclical, nor financial, nor structural. The economic crisis is the result of

1 This section was written by *Mau V.*, Doctor of Economics, Professor, Rector of the Russian Presidential Academy of National Economy and Public Administration.

2 The similarity of a number of parameters of the current situation with the Great Depression was pointed out by V.V. Putin in his speech at the forum in Davos on January 27, 2021. Putin, speaking at the forum in Davos on January 27, 2021: "Of course, there are no direct parallels in history. But some experts - I respect their opinion - compare the current situation with the 1930s. You can agree or disagree with this situation. But by many parameters, by the scale and the complex, systemic nature of the challenges and potential threats, certain analogies come to mind."

factors exogenous to socioeconomic life, the result of a natural (or biological) cataclysm. This has happened in history, when socioeconomic processes were significantly (and even radically) transformed under the influence of external circumstances, and not only natural, but also military and political. However, even in these circumstances the role of socioeconomic processes has never been passive, only responding to external challenges. External shocks become a trigger and catalyst for those changes that were previously accumulated in the socioeconomic system, including through technological innovations.

The combination of exogenous (non-economic) shocks and the economic crisis, which is only partly a consequence of exogenous factors, makes the situation in 2020 unique.[1]

Analyzing the processes of the year that has ended, it is important to consider together the economic contradictions accumulated by this time, technological innovations and the external shock itself, which launched very complex crisis and transformation processes that affect all aspects of human society.

In our opinion, drawing an analogy with war provides the most accurate understanding of the events of 2020. Comparisons with war can be heard in the speeches of the leaders of many countries, and this is not a tribute to heroism - it is an adequate description of the challenge facing humanity.[2]

First of all, such comparisons reflect the uncertainty and poor predictability of the enemy virus. As in any war, national governments were immediately faced with the tasks of:

- countermeasures by means available at the time of the outbreak of war (medicine);
- developing new weapons, which applied science, developing vaccines and new medicines, had to provide;
- finding out the enemy's intentions by penetrating into its "general headquarters," which required deep scientific research, expected to

1 In the midst of the structural crisis of 2008-2009, the widely acclaimed study by K. Reinhart and Rogoff, This Time Is Different: Eight Centuries of Financial Folly was published, which, among other 3. At the height of the structural crisis of 2008-2009, an important work analyzed the common features of different financial crises of the past and the similarity of mistakes made by governments in dealing with them. (*Reinhart Carmen M., Rogoff Kenneth S.* This Time Is Different. Eight Centuries of Financial Folly. M., 2014: Sberbank.). But in 2020, K. Reinhart, who by that time had become the chief economist of the World Bank, came out with an article with the characteristic title - "This Time Truly Is Different" (*Reinhart Carmen.* This Time Truly Is Different // Project Syndicate. 2020, March 23. URL: https://www.project-syndicate.org/commentary/covid19-crisis-has-no-economic-precedent-by-carmen-reinhart-2020-03).

2 Comparisons with war have been regularly heard in statements by politicians. Perhaps the first to do so was French President E. Macron in March 2020. German President F.-W. Steinmeier, on the contrary, suggested not to use comparisons with war, but to see the pandemic as a test of humanism. Gradually, these themes appear in analytical reports. See, for example, the McKinsey Global Institute study "The 'War' on COVID-19: What Real Wars Do (and Don't) Teach Us About the Economic Impact of the Pandemic," published in May 2020 (*McKinsey.* The 'War' on COVID-19: What Real Wars Do (and Don't) Teach Us About the Economic Impact of the Pandemic. McKinsey Global Institute. 2020, May 14. URL: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/the-war-on-covid-19-what-real-wars-do-and-dont-teach-us-about-the-economic-impact-of-the-pandemic).

understand the logic of virus behavior, mutations and other peculiarities of its development.[1]

As in any war, society was faced with an existential choice: to save the economy or human lives, infrastructure or institutions. How to make a choice between lockdown and the formation of "herd immunity"? After all, this is a choice between saving lives and economic well-being (at the same time it should be recognized that this choice does not really exist: economic collapse itself becomes dangerous for the physical survival of people). In 2020, just as in war, the governments of many countries were faced with this choice, and they had to make very difficult decisions, not so much on the basis of logic or political reasoning, but primarily on the understanding of the value of human life and the level of socio-political consolidation of society, the level of trust of citizens in national institutions.

The crucial question in 2020 was to what extent closing the economies would save lives, and to what extent it would lead to economic depression with grave social consequences. The world was moving forward by touch. Countries were making very individual choices, choices that depended on the relationship between society and the state. Some could afford austerity measures like China, Singapore or South Korea. Some, like Australia, for geographical reasons, can virtually shut down the country. The high level of public trust allows Sweden to choose the way of collective immunity and to limit itself to recommendatory measures. Most European countries, including Russia, have sought a balance between the two extremes.[2]

Several conclusions for the formation of economic policy follow from this assessment of the situation.

First of all, there is a structural and organizational restructuring of the economy. There are two different but interrelated processes: short-term changes associated with repulsing the attack ("rebuilding the economy on war footing") and long-term trends.

The first includes the need to quickly organize the production of the necessary means of warfare and protection: masks, gloves, disinfectants, and everything related to individual and collective protection of people. At the same time, the organization of production processes is being reorganized so as to meet the challenges of social distancing and supply logistics.

At the same time, we are witnessing profound structural shifts with lasting effects. This is particularly noticeable in the services and human capital sectors. The most significant and visible shifts are in the reassessment of the role of health and education, in the dramatic growth of distant forms of interaction

1 "Lockdowns of entire cities. Panic in financial markets. Bare store shelves. Shortages of hospital beds. The world has entered a reality unknown outside wartime." (*Frydman Roman, Phelps Edmund S*. Insuring the Survival of Post-Pandemic Economies // Project Syndicate. 2020, March 23. URL: https://www.project-syndicate.org/commentary/economic-insurance-requires-massive-government-intervention-by-roman-frydman-and-edmund-s-phelps-2020-03).

2 Jean Pisani-Ferry considers best the approach that gave the priority to people's health over economic considerations. (*Pisani-Ferry Jean*. The Challenges of the Post-Pandemic Agenda // Project Syndicate. 2020. July 27. URL: https://www.project-syndicate.org/commentary/harsh-uncertain-economic-transition-after-covid19-by-jean-pisani-ferry-2020-07?barrier=accesspaylog)

between people and organizations, and in the increased emphasis on the spatial organization of production.

This raises the question of the sustainability of these changes. And naturally, one of the most important questions of the present is: *which institutional and organizational innovations are temporary and will last for a short time, and which will remain for a long time, or even forever?*

During the military cataclysms of the twentieth century, new institutions were formed that were perceived ambiguously by their contemporaries. Some regarded them as purely temporary, connected exclusively with the war and destined to disappear after its end. Others saw in them the outlines of a future social order, whose preconditions had been forming during a rather long preceding period, and believed that the war had only hastened their establishment.[1]

In this connection an analogy with the growth of state regulation of the economy during World War I is appropriate. The question then was whether this was a purely military phenomenon that would go away with the advent of peace, or whether a socioeconomic model for the future was taking shape. We now realize that the underestimation of the stability of new institutions and mechanisms and the attempt to return to old institutions (such as the gold standard) in the 1920s was an important factor in the socioeconomic catastrophe of the 1930s.

The question of the new institutions that emerge in the course of global cataclysms deserves a special analysis, which is beyond the scope of this paper. Here we will only draw attention to the following circumstances.

First, new institutions are indeed not generated by the cataclysm exogenous to the economy itself; it only accelerates society's acceptance of new institutions and their dissemination as legitimate. Their preconditions mature over a fairly long period and are associated with changes in society's technological base.

Secondly, it is not only the fact of the emergence of a new institution that is important, but also the form of its implementation and the degree of its spread, which can vary significantly from country to country, depending on the circumstances of their history and political tradition. For example, a sharp increase in state regulation (and the share of the state in GDP) occurred in the mid-20th century in all countries, but differed qualitatively in market and centrally administered systems. The abandonment of the gold standard had

1 Characteristic was the discussion of Russian economists around the assessment of the prospects of the economic model established during World War I and the Russian Revolution. As a result of the 1917 revolution, a political force that essentially denied market relations came to power in Russia, and for it, the military centralized management of the economy fit into the idea of the "right" direction of development. However, there was already a fierce controversy between those who saw in the military economy (and especially in "military communism") a "breakthrough to the future" or a "foretaste of the future" (*L. Kritsman*, The Heroic Period of the Great Russian Revolution. Moscow: State Publishing House,1925), and those for whom "crude military communism" had nothing in common with the future society of free toilers (genuine communism), and therefore the excesses of wartime had to be resolutely overcome (*Bogdanov A.* Questions of Socialism. M.: Book Publishing House of Writers in Moscow,1918), and an economic model combining state regulation with a functioning market should be formed in the country (*Kaktyn A.* Sketches on the Organization of the National eEonomy. M.; 1922; *Ginzburg A.* Preface // Legislation on Trusts and Syndicates. M., VSNKH. 1926). See for details of these discussions: *Mau V.* Reforms and dogmas. M., Delo. 2013, pp. 222-227, 273-276.

different manifestations in the organization of the Soviet and market monetary economies. In other words, new institutions could be implemented differently and with different degrees of effectiveness.

Thirdly, it is important to distinguish desirable and undesirable tendencies, which carry with them new institutions - not all of them will work for the benefit of social progress. The situation is further complicated by the fact that the evaluation of the effectiveness or ineffectiveness of an institution may vary depending on the time horizon (historical perspective): often, what seems effective for short-term problems can turn into serious losses in the medium and long term. Thus the very assessment of the effectiveness of a given institution may change over time.

It is not difficult to see that the principles and limitations outlined are fully applicable to the confrontation with COVID-19 in 2020-2021. Below we will take a closer look at some of the institutional innovations that are emerging before our eyes and that are causing contradictory assessments - from new normality to harbingers of severe crisis and degradation. This applies to modern macroeconomic innovations (negative interest rates or the "modern monetary theory" that abolishes the limits of budgetary borrowing in national currency), the hypothesis of "long-term stagnation," a return to the mid-20th century model of "big government," the possibility of total digitalization with the prospect of a "Big Brother," the transition to online education and healthcare, and so on.

1.2. Economic peculiarities of the 2020 shock and anti-crisis policy

The crisis born of the pandemic has a number of specific features, consideration of which is important both for the complex of anti-crisis measures, and for economic policy at the stage of overcoming the crisis. First of all, it is necessary to clarify the understanding of "new normality," which has been the subject of discussion for the past 12 years. However, this problem is usually perceived as a manifestation of a specific macroeconomic situation - a combination of very low inflation, low growth rates, low (or even negative) interest rates, and high debt burden of the budgets of developed countries.

The coronavirus pandemic allows us to push the boundaries of the "new normal" discussion and, most likely, move away from many of the perceptions of the past decade.

1.2.1. Peculiarities of the 2020 Shock

To understand the reality of the year that has ended, it is important to highlight several specific features in it that affect the assessment of the situation and measures of anti-crisis and post-crisis economic policy. First of all, we have in mind the presence of *three types of contradictions in the economic situation*, which make the crisis unique.

The *first contradiction* consists in the necessity to actively use measures of fiscal and monetary stimulation while the efficiency of these measures is very limited. The problem is not only in the risks of macroeconomic stability related to the application of these measures.

Financial injections can indeed mitigate the painfulness of shocks, but they cannot remove the circumstances that generate these shocks. This is all the more important because the shocks that need to be countered go beyond socioeconomic problems and the instruments that correspond to them. "Monetary and fiscal measures can smooth out short-term problems in financial markets and in severely affected companies and households. But they have nothing to do with the main priority: to contain and mitigate the spread of the disease."[1] Not to mention the fact that "fiscal activism" is fraught with serious destabilization in the future, following the stagflationary scenario of the 1970s.

The *second contradiction* is between the exogenous shock and structural problems of the economy. On the one hand, as noted above, the crisis of 2020 is neither structural nor cyclical. In other words, the main problems of firms are not related to their inefficiency, and it is mainly a problem of liquidity, not solvency. This is also confirmed by the absence of a financial crisis, which is an inherent feature of structural crises. Therefore, governments can and should support economic agents (firms and people).

On the other hand, we cannot ignore the legacy of the global structural crisis of 2008-2009. It was left unfinished; it was "bought off" as it were. Thanks to the effective and coordinated anti-crisis policy of the leading countries, they managed to avoid the worst scenario by the parameters of recession and employment: structural reforms were bailed out by massive financial injections of fiscal and monetary authorities. The preservation of social and political stability was paid for by abandoning "creative destruction" (J. Schumpeter), unprecedented accumulation of public debt and central bank balance sheets, unconventional macroeconomics (extremely low or negative interest rates), and consistently low rates of economic growth. This means that despite the exogenous nature of the shock, the problem of structural reforms remains on the agenda and should be taken into account already at the stage of recovery growth. State assistance should not torpedo structural modernization, which is especially important for modern Russia.

In addition, the macroeconomic consequences of the structural crisis of 2008-2009 have an impact on the limits of resistance to the current crisis - the possibilities of monetary injections into the economy are limited.

The *third contradiction* is related to the intertwining of supply and demand shocks. In fact, counteraction to them requires, in fact, opposite measures. In a situation of a demand shock, it is possible to widely use monetary stimulus ("helicopter money"), which is an important lesson learned from the experience of the Great Depression of the 1930s. In a situation of a supply shock, monetary

1 "There is a broad consensus that the best way to restart the engine of global economic growth would be to straighten the growth curve of the COVID-19 virus - both in individual countries and in the world as a whole. It is this task, not the monetary and fiscal policy prescriptions used during the last crisis, that should be at the center of the authorities' laser sight during the current crisis. History testifies to the resilience of the modern world economy, which has survived one negative shock or another" (*Roach Stephen*. The False Crisis Comparison // Project Syndicate. 2020, March 19. URL: https://www.project-syndicate.org/commentary/covid-19-crisis-nothing-like-2008-by-stephen-s-roach-2020-03?barrier=accesspay).

injections become dangerous, as they lead to stagflation, a problem that is no less complicated than deflation, as the experience of the structural crisis of the 1970s shows. The crisis of 2020 began as a supply-side crisis, making it radically different from both the Great Depression of the 1930s and the Great Recession of 2008-2009. Businesses in industry and commerce stopped, not because of their inefficiency, not because of the collapse of the financial and banking system, but because of border closures and lockdowns. The physical restriction of the production of goods and services cannot be compensated by money, because in this case the growth of the nominal money supply would be followed by inflation and then by stagflation. This is why comparing the 2020 crisis to the Great Depression would be appropriate from a quantitative point of view, but not for the substance of the economic problems. "At no time since the 1930s have developed and developing economies faced a situation of a combination of international trade gaps, declining world commodity prices, and simultaneous economic contraction. Indeed, the causes of the current shock and the responses must be substantially different. After all, the measures of lockdown and distancing ensure saving people's lives at the cost of huge economic losses."[1] The macroeconomic stimulus measures aimed at counteracting the shock crisis also entail great risks.[2]

However, the supply shock was followed by a demand shock. This factor, as well as persistently low inflation[3] and cheap debt, created opportunities for the active use of monetary stimulus instruments. Of course, in this case it is necessary to conduct a very cautious monetary policy with constant monitoring of the risks of inflationary surges.[4] Besides, continuing the logic of comparing a pandemic shock with a war, it is worth noting that an increase in government demand with limited supply is characteristic of war.

1 See *Reinhart Carmen*. "If It's Not Over on the Disease … It's Not Over on the Balance Sheet" //The Harvard Gazette. 2020, May 20. URL: https://news.harvard.edu/gazette/story/2020/05/carmen-reinhart-named-chief-economist-at-the-world-bank/

2 "Fiscal and monetary easing is not the right answer to a permanent supply shock. Easing policies in response to the oil shocks of the 1970s led to double-digit inflation and a sharp, rice-vanishing rise in public debt. Moreover, if the economic downturn leads to the insolvency (not just illiquidity) of individual corporations, banks, and government agencies, there would be no point in keeping them afloat. In such cases, financial support from creditors themselves (debt restructuring and write-offs) is a more appropriate solution than "zombifying" financial assistance from the government" (*Roubini N*. The Allure and Limits of Monetized Fiscal Deficits // Project Syndicate. 2019, October 28. URL: https://www.project-syndicate.org/commentary/limits-of-mmt-supply-shock-by-nouriel-roubini-2019-10?a_la=english&a_d=5db6dd5f72fd112ef8fccbc9&a_m=&a_a=click&a_s=&a_p=%2Fcolumnist%2Fnouriel-roubini&a_li=limits-of-mmt-supply-shock-by-nouriel-roubini-2019-10&a_pa=columnist-commentaries&a_ps=&a_ms=&a_r=&barrier=accesspay)

3 Causes of consistently low inflation are discussed in the following papers: *E. Goryunov, S. Drobyshevsky, V. Mau, P. Trunin*, What Do We (Not) Know About the Effectiveness of MP Instruments in the Modern World? // Voprosy ekonomiki. 2021, № 2. C. 5-34; *Ha J., Ivanova A., Ohnsorge F. L., Unsal F*. Inflation: Concepts, Evolution, and Correlates. The World Bank Policy Research Working Paper. 2019, No. 8738. URL: https://doi.org/10.1596/1813-9450-8738; *Blanchard O., Cerutti E., Summers L*. Inflation and Activity - Two Explorations and Their Monetary Policy Implications. NBER Working Paper, 2015, no. w21726. URL: https://dx.doi.org/10.3386/w21726; *Rogoff K*. Globalization and global disinflation. Economic Review - Federal Reserve Bank of Kansas City, 2003, Vol. 88, No. 4, pp. 45-80.

4 In 2020, economists began to write regularly about the risks of a breakdown into high inflation. A number of articles in The Economist (Will inflation return? // The Economist. 2020, December 12-18. URL: https://www.economist.com/weeklyedition/2020-12-12)

There is another important circumstance from the point of view of demand regulation. A structural consequence of a pandemic could be the strengthening of autarkic tendencies (within individual countries or groups of countries) as a hedge against the future destruction of global ties. From this perspective, the state can finance this kind of structural shift.

Moreover, despite the inherently non-economic nature of the 2020 shock, the state's economic policy cannot be limited to current measures to counteract the crisis. It should always contain elements of structural transformation.

In Russia 2020 the situation with a double shock looks even more complicated.[1] Here we can see the intertwining of several serious problems on both the demand and supply sides.

On the demand side, as early as Q1 2020, there was a sharp deterioration in the terms of trade for Russia: a drop in export prices for oil and hydrocarbons and a reduction in demand for some Russian exports (except hydrocarbons) due to the slowdown of the world economy, and the decline in physical volumes of exports was even more important here than the price drop. At the same time there was a drop in domestic demand due to the reduction of gross national income (lower export revenues and trade balance, as well as ruble devaluation) and real disposable incomes of the population. This demand could and should have been supported by the state.

On the supply side, there was a shock equivalent to a one-time reduction in the volume of available capital and labor resources in the conditions of enterprise closures due to the spread of the coronavirus. In addition, there was a decrease (temporary) in total factor productivity due to the urgent transfer of companies' work to a remote format, as well as possible restrictions on transport connectivity and the functioning of established logistical chains. However, transfer to remote work, despite the initial shock, may become a significant factor of productivity growth at the next stage.

All these factors together led to an economic downturn comparable in depth with the Great Depression of the 1930s, as V.V. Putin said at the forum in Davos in January 2021. However, the acuteness of the crisis is determined not just by the recession, but by the duration of this recession or, more precisely, by the risk of a recession turning into a depression. A short-term contraction is unpleasant, but not catastrophic. Depression leads to the degradation of infrastructure, both industrial and social (which is not the same as "co-destruction").

A brief, albeit sufficiently deep, recession is usually replaced by a vigorous rebound, and under these conditions, a restorative growth model is implemented that does not require any significant investment. This model is sometimes described

1 See the Court of Accounts report with the participation of the Gaidar Institute (Court of Accounts, 2020. Forecast of key indicators of socioeconomic development of the Russian Federation for 2020-2023 / Accounts Chamber of the Russian Federation, E.T. Gaidar Institute for Economic Policy. URL: https://ach.gov.ru/upload/pdf/%D0%9C%D0%B0%D0%BA%D1%80%D0%BE%D0%BF%D1%80%D0%BE%D0%B3%D0%BD%D0%BE%D0%B7%20%D0%BD%D0%B0%202020-2023%20%D0%B3%D0%BE%D0%B4%D1%8B%20%D1%84%D0%B8%D0%BD%D0%B0%D0%BB.pdf)

by the Latin letter V, although the more dramatic W may also be appropriate here. An alternative scenario of prolonged depression is described by the letter L.

At the beginning of 2020 the experts had serious doubts about the V scenario, but it would be wrong to rule it out. It was also supported by the fact that the crisis of 2020 had no structural character, i.e. to overcome it the "external factor" (virus) should be eliminated, rather than the implementation of urgent economic reforms. Thus, the very choice between trajectories V and L was associated with the ability to eliminate the source of the recession, both by the efforts of the scientific and medical community, and adequate measures of state power.

1.2.2. Specifics of anti-crisis policy

Almost all developed and leading developing countries were ready to invest considerable funds to cushion the socioeconomic consequences of the crisis. According to existing estimates, by mid-April 2020, stimulus measures totaling about $11 trillion were announced worldwide. The funds were mainly intended to address three groups of tasks: support for citizens (including direct payments to households and a moratorium on debt service), saving jobs and helping businesses, especially small and medium-sized ones.[1]

It is possible to distinguish several options (models) of anti-crisis policy, which were implemented in different countries in 2020. They largely depend on the structure of the economy (including the share of the private sector and especially small business), the financial capacity of the state, the efficiency of monetary policy institutions, and, most importantly, on political preferences and the model of economic and political development of this or that country. Taking into account these factors and with an understandable degree of conditionality we can distinguish three types of responses to the challenges of the pandemic: market-liberal, market-regulated (social-democratic), as well as inherent in the modern emerging markets. Naturally, they have different short- and medium-term consequences for the well-being of people and the economic development of countries. [2]

Regulated-market countries help people and businesses vigorously, i.e., they protect jobs and current economic activity. However, this inhibits economic efficiency growth, which in the medium term translates into slower economic growth. This includes most European countries with a strong socioeconomic tradition, as well as South Korea. However, it would be wrong to see this policy as fiscal populism. On the contrary, the very possibility of such policies is based on sound macroeconomics, including tight control over budget expenditures, and

1 See: *Sneader Kevin and Shubham Singhal*. The Future Is Not What It Used To Be: Thoughts on the Shape of the Next Normal. McKinsey and Company. 2020, April. URL: https://www.mckinsey.com/~/media/McKinsey/Featured%20Insights/Leadership/The%20future%20is%20not%20what%20it%20used%20to%20be%20Thoughts%20on%20the%20shape%20of%20the%20next%20normal/The-future-is-not-what-it-used-to-be-Thoughts-on-the-shape-of-the-next-normal.ashx.

2 See: *Cassim Ziyad, Borko Handjiski, Jцrg Schubert and Yassir Zouaoui*. The $10 Trillion Rescue: How Governments Can Deliver Impact: Governments have announced the provision of trillions of dollars in crisis relief, but translating that into sustained recovery will not be easy. McKinsey. 2020, June.

a quality institutional environment. Since, as a rule, small and medium business occupies a leading (if not dominant) position here, support for people, employment and business is largely overlapping. However, the risk of such a policy is that excessive aid to companies may in the medium term (beyond the time frame of the current shocks) lead to their stagnation and inhibition of structural modernization.

Countries oriented more toward free market values face higher current risks, but they have more room for structural maneuvering in the medium term. Here, state aid is focused on people (households) rather than on business (including workers). In other words, in market economies social expenditures are dominant in the measures of anti-crisis policy, reaching in some cases 15% of GDP. And this is understandable if we take into account that in such economies large corporations play a significant role, which do not usually need direct support. "Countries with liberal market economies face greater short-term risks than those with regulated markets, but they have more flexibility to sustain momentum over the long term."[1]

Emerging economies affected by the pandemic most often face the problem of a large informal (shadow) sector, which plays an important role in socioeconomic dynamics and political stability, but which, by its nature, is very difficult to target with public support. Another peculiarity of the situation is the limited financial resources, which the state can attract from the market on acceptable terms (taking into account inflation and credit history of these countries).

Russia stands apart from the three described models. A relatively small share of small and medium-sized enterprises (SMEs) makes it possible to get along with limited amounts of money for economic support, concentrating mostly on social assistance for families. And the minimum values of the state debt provide ample opportunities for attracting financial resources for these purposes.

1.3. Medium-term problems and challenges of economic policy

One of the most difficult problems of economic policy in the context of the crisis is to ensure a balance between anti-crisis measures and the achievement of medium - and long-term development goals of the country. The latter, in fact, is synonymous with structural modernization.

1.3.1. Anti-crisis and structural measures

Although the crisis of 2020 is not structural in nature, the structural problems that became acute in 2008-2009 have remained unresolved since then. Then came the global structural crisis, which was neutralized by an effective anti-crisis policy.

Problems and challenges that became clear during the Great Recession but have not been resolved include: persistently low growth rates, ineffective monetary regulation, unprecedentedly high public debt and budget deficits in several leading countries, the global trade crisis and growing inequality (with a deepening gap between income from property and income from labor). To this

1 See: *Cassim Ziyad, Borko Handjiski, Jurg Schubert, and Yassir Zouaoui*. The $10 Trillion Rescue: How Governments Can Deliver Impact: Governments have announced the provision of trillions of dollars in crisis relief, but translating that into sustained recovery will not be easy. McKinsey. 2020, June.

list should be added climate challenges, which increasingly clearly affect both the economic and political agendas.

At the same time, the corona crisis has brought its own specifics to the structural reform agenda. Health care modernization is now at the center of the structural agenda of all countries, developed and developing alike. The economic, social and political role of health care has increased dramatically, which will influence policy discussions and budget priorities for a long time to come.

Another structural consequence of the pandemic has been a strong impetus in the development of digitalization. As has happened more than once in history, changes accumulated over the preceding approximately two decades, which then, under the influence of an external factor (might have been a war in the past, now a pandemic), lead to a qualitative leap. In 2020 alone, the introduction of digital technology has accelerated dramatically, which has become the most important factor (and driver) of structural modernization.

At the same time, while developing and implementing anti-crisis policy in a pandemic environment, some experts drew attention to the risks of repeating the experience of preserving firms at the cost of abandoning modernization. Indeed, large-scale anti-crisis programs can have long-term negative effects, and not only macroeconomic ones (high volume of public debt), but also structural ones, which include maintenance of zombie-companies.[1]

The combination of short-term (anti-crisis) and long-term measures is not an easy task from the point of view of its practical implementation. The former are designed to buy out social and political risks, which often contradicts the strategic objectives. "Creative destruction" is a beautiful term that accurately describes the role of economic crises and the essence of modernization tasks. However, in real life it creates difficulties whose solution is not always within the power of the political system. The economic and technological expediency of overcoming old forms does not translate directly into political expediency.

This was clearly visible in 2008-2010, and it was also visible in 2019. It was unclear how new institutions could be formed - the authorities mostly seemed to "buy out" the ability to preserve the old ones (paying for their ineffectiveness). New technologies were rapidly developing and even being implemented, but with the old forms and old institutional solutions preserved. This did not create a stable structure.[2]

1 See: Economist. Zombie dawn. Worries are growing about the long-term effects of the bail-out // The Economist. 2020,.September 19. URL: https://www.economist.com/europe/2020/09/16/germanys-bail-out-brings-worries-about-its-long-term-effects.

2 "But it is naive to believe that the authorities will simply let the wave of 'creative destruction' eliminate all the zombie companies, banks, and sovereign entities. They will be under intense political pressure to prevent the onset of a full-blown depression and deflation. And so the beginning of a new economic downturn will lead to nothing less than even more 'crazy' and unconventional policies than we have seen so far" (*Roubini N.* The Allure and Limits of Monetized Fiscal Deficits // Project Syndicate. 2019, October 28. URL: https://www.project-syndicate.org/commentary/limits-of-mmt-supply-shock-by-nouriel-roubini-2019-10?a_la=english&a_d=5db6dd5f72fd112ef8fccbc9&a_m=&a_a=click&a_s=&a_p=%2Fcolumnist%2Fnouriel-roubini&a_li=limits-of-mmt-supply-shock-by-nouriel-roubini-2019-10&a_pa=columnist-commentaries&a_ps=&a_ms=&a_r=&barrier=accesspay). This, by the way, largely explains the emergence of exotic concepts, which, for example, include "modern monetary theory" (MMT).

All this formed a very unhealthy growth model and an unhealthy growth theory. Growth remained stable for almost the whole decade, although it was achieved by fiscal pumping and super soft monetary policy. This growth model looked rather exotic. They tried to avoid discussing it with new words - *"new reality," "secular stagnation."* Or with the "modern monetary theory" that states that the national debt can be increased and monetized almost indefinitely, as long as it happens in the national currency.[1] However, this situation only increased doubts about the sustainability (and longevity) of such a model.

1.3.2. Budgetary stimulation and budgetary sustainability

Fiscal support of demand was initially seen as the most important tool of anti-crisis policy. Economists saw in this, as well as in monetary stimulus, the most important lesson of the Great Depression. The goal was to keep fiscal spending high, regardless of the level of public debt and budget deficits that had already been achieved, because that ensured socio-political and economic stability.[2] A relaxed attitude towards the national debt was also due to ultra-low interest rates that provided the state with very cheap financial resources.

This policy was also supported by international financial organizations, which in the past have always advocated strict fiscal discipline - at least with regard to developing countries. Of course, there can be no *right economic policy for all times* without regard to specific circumstances. But the turn of the macroeconomic mainstream in favor of financial activism was itself an important phenomenon of the economic and political debates of the 2010s.

As a result, global public debt grew by about *$9 trillion in 2020 to about 103% of global GDP*, a historic jump of more than 10 p.p. GDP in just one year.[3] And in advanced economies, public debt will increase by 20 p.p. over 2020 - from 104.2% to 124.1% of GDP.[4]

However, the support in principle for fiscal activism is accompanied by some important clarifications.

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1 K. Rogoff called MMT "modern money nonsense." (*Rogoff Kenneth.* Modern Monetary Nonsense // Project Syndicate. 2019, March 4. URL: https://www.project-syndicate.org/commentary/federal-reserve-modern-monetary-theory-dangers-by-kenneth-rogoff-2019-03?barrier=accesspaylog). See also: *Edwards Sebastian.* Modern Monetary Theory: Cautionary tales from Latin America. Cato Journal, 2019, Vol. 39, No. 3, pp. 529-561. URL: https://doi.org/10.36009/CJ.39.3.3; *Mankiw N. G.* A skeptic's guide to Modern Monetary Theory. AEA Papers and Proceedings. 2020, Vol. 110, pp. 141-144. URL: https://doi.org/10.1257/pandp.20201102.

2 Some experts demanded a massive financial injection without regard to future risks. "Governments have only one good solution: further aggressive fiscal stimulus, ideally in the form of targeted government spending that could stimulate private investment. Whatever the risks posed by rising public debt, they don't compare - especially in today's low-interest-rate environment - with the long-term economic problems that countries will face without these stimulus measures" (*Prasad Eswar.* Don't Overestimate the COVID-19 Recovery // Project Syndicate, 2020. URL: https://www.project-syndicate.org/commentary/weak-and-uneven-global-covid19-recovery-by-eswar-prasad-2020-10?barrier=accesspay).

3 IMF Fiscal Monitor, January 2021. URL: https://www.imf.org/en/Publications/FM.

4 *Villegas A., Faiola A. and Wroughton L.* As spending climbs and revenue falls, the coronavirus forces a global reckoning. 2021, January 10. URL: https://www.washingtonpost.com/world/2021/01/10/coronavirus-pandemic-debt-crisis/?arc404=true&fbclid=IwAR3L6FeFimb29W-cqYqaBXVLVxP3Y_x0hxyD7NDWGtDOMVHErrirTWxQyBg.

First, it is important to ensure not only the growth of the economy, but also the quality of growth. Therefore, financial injections should be accompanied by institutional and structural reforms, which should be carried out as much as possible in conditions of relative economic stability. As C. Lagarde, then head of the IMF, remarked, "The time to repair the roof is when the sun is shining."[1]

Second, budgetary injections cannot be unlimited. It should always be remembered that debts will have to be paid sooner or later. K. Georgieva, who headed the IMF in 2019, reminds politicians: "When you spend money, keep your receipts. In 2020, K. Reinhart, Chief Economist of the World Bank, spoke about the same thing, drawing a direct analogy with the wartime economy.[2]

Thirdly, it is necessary to see the difference between the support that developed countries (especially those whose currency is a reserve currency) can afford and developing countries with limited foreign currency reserves and weak credit histories.[3]

Sovereign debt accumulation poses grave risks in the future, and this also applies to developed nations. The price for maintaining acceptable growth rates today (or for slowing the decline) could be a drag on future growth. Although, admittedly, in the political process, the burdens and risks of today are much more important (and dangerous) than the problems and risks of the future, which others will have to deal with.

The key problem is that the debt burden will significantly limit the ability of governments to address modernization in those sectors that require an active role of the state - infrastructure and human capital development. Monetization of public debt is possible to mitigate the debt crisis, but it will accelerate inflation beyond the targets. Finally, the way out of the debt trap is possible through higher taxes, but this path also leads to a brake. "There is not the slightest chance that the huge debts accumulated during the current crisis will be paid off quickly. Even after raising taxes on the rich (a measure that will face strong opposition and arguments against growth-stifling fiscal austerity policies), a large share of the debt accumulation will have to be passed on to future generations."[4]

1 *Lagarde Christine*. A Time to Repair the Roof. A Speech by IMF Managing Director. Harvard University. 2017. October 5. URL: https://www.imf.org/en/News/Articles/2017/10/04/sp100517-a-time-to-repair-the-roof

2 "If there is a war, one must concentrate first of all on how to win, and only secondarily on how to pay one's debts. The experience of both world wars shows this. I think this analogy is quite apt here. You have to do what will ensure victory" (*Reinhart Carmen*. If It's Not Over on the Disease ... It's Not Over on the Balance Sheet // The Harvard Gazette. 2020. May 20. URL: https://news.harvard.edu/gazette/story/2020/05/carmen-reinhart-named-chief-economist-at-the-world-bank/#:~:text="First%20and%20foremost%2C%20when%20you,debt%2C"%20said%20Carmen%20Reinhart)

3 "Much of what governments do in a pandemic is fine for developed economies, but dangerous elsewhere. Even if developing countries were simply to borrow money and spend it to weather the economic storm, their long-term prospects would be severely impaired." See *Spence Michael, Leipziger Danny*. The Pandemic Public-Debt Dilemma. 2020, December 8. URL: https://www.project-syndicate.org/commentary/pandemic-spending-debt-dilemma-by-michael-spence-and-danny-leipziger-2020-12?barrier=accesspay)

4 *Rajan Raghuram G*. 2020. Should Governments Spend Away? // Project Syndicate. August 3. URL: https://www.project-syndicate.org/commentary/government-spending-debt-burden-on-future-generations-by-raghuram-rajan-2020-08?barrier=accesspay.

In short, building long-term and sustainable debt ultimately traps the state in either severely limiting its role in structural modernization or allowing an inflationary spike. Both options have negative consequences for long-term economic growth and consequently welfare growth.

At the outset of the pandemic, there was a widespread belief among experts that it was advisable to allocate about 10% of GDP to mitigate the crisis. Summing up the results of 2020, it should be noted that there is no convincing correlation between the volume of budget support and economic dynamics (*Table 1*). Against this background, the restrained budget policy of the Russian government looks quite effective, especially compared with most other developed countries.

Table 1

Fiscal anti-crisis measures and GDP dynamics in 2020

Country	Fiscal anti-crisis measures, % GDP	Change in real GDP in 2020, % for year
Germany	39,1	-5,4
Italy	37,9	-9,2
Japan	35	-5,1
UK	30,2	-10,0
New Zealand	23,6	-6,1
France	22,6	-9,0
USA	18,6	-3,4
Spain	18	-11,1
Canada	16,8	-5,5
Australia	15,8	-2,9
Denmark	14,9	-3,9
South Korea	13,8	-1,1
Norway	11,4	-3,5
Sweden	10,6	-3,4
Finland	9,6	-4,3
Netherlands	8,9	-4,1
Brazil	14,7	-4,5
Turkey	13,8	1,2
Chile	10,7	-6,0
South Africa	9,6	-7,5
India	7	-8,0
Argentina	6	-10,4
China	5,9	2,3
Russia	**4,6**	**-3,1**
Indonesia	3,9	-1,9
Saudi Arabia	3,2	-3,9
Mexico	1,1	-8,5

Source: Volume of Support - IMF (URL: https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19); Fiscal Monitor // IMF. - Oct. 2020. (URL: https://www.imf.org/en/Publications/FM/Issues/2020/09/30/october-2020-fiscal-monitor), Russia - RAS-HIGS estimate. Real GDP Change - IMF World Economic Outlook Update, January 2021: Policy Support and Vaccines Expected to Lift Activity (imf.org); European Commission Autumn 2020 Economic Forecast (europa.eu), Russia - first annual Rosstat estimate (dated February 1, 2021).

1.3.3. Monetary policy – opportunities and risks

Monetary stimulus remained an important tool of anti-crisis policy in 2020, although its possibilities in conditions of extremely low inflation in most developed countries were very limited. In contrast, in Russia, with its higher (4% target) inflation rate, the room for easing monetary policy was much greater. However, given the long period of high inflation over the past 30 years, the Russian monetary authorities tended to tighten monetary policy at the onset of a crisis. The year 2020 saw a radical change in the model: for the first time, the Bank of Russia switched to a countercyclical policy, i.e. it began to reduce the interest rate against the backdrop of the crisis - and continued to reduce it throughout the year. This was an important indicator of the normalization of monetary and fiscal policy.

The common challenge in most developed and some developing economies has been to keep inflation exceptionally low, with the risk of turning into deflation, despite ultra-soft monetary policy.[1]

At the same time, in 2020, economists (but not politicians) began to raise the question of the prospects of an inflation surge and even of stagflation. The latter could naturally follow from the resumption of a supply shock.[2] A number of researchers have pointed to structural and demographic problems that could lead to a prolonged period of stagflation.[3]

The role and priorities of central banks are becoming increasingly important as they discuss the prospects and possibilities of monetary policy against the backdrop of the pandemic. It is possible to distinguish several lines of discussion.

First, there is a growing consensus among politicians that it would be wise to reject the idea that central banks should be independent. The reasons for such a turnaround are beyond the scope of this paper. At the same time it is worth mentioning that throughout the history of existence of national monetary regulators their functions and role were periodically revised in line with changes in monetary systems and technologies of monetary circulation.

Second, there are growing proposals in developed countries to expand the mandate of central banks beyond price stability, economic growth and

1 "Economists rarely agree with each other, but almost everyone now argues that inflation is dead. Recognition of low inflation is now the basis for economic policy and financial market decisions. That is why central banks are lowering interest rates to near zero and buying government debt en masse. This explains the ability of governments to borrow and spend huge sums to save the economy from collapse in a pandemic" (Economist. Will inflation return? // The Economist. 2020, December 12-18. URL: https://www.economist.com/weeklyedition/2020-12-12).

2 Ibid.

3 *Ch. Goodhart and M. Pradhan* in their book The Great Demographic Reversal see the prospective risk not in secular stagnation, about which much has been written during the last decade, but in secular stagflation. This prediction is based on the observed aging of the population in developed countries and the assumption of a non-increase in the retirement age. "In addition to long-term stagnation ... the world economy will face long-term stagflation, as economic growth and productivity growth will be much slower than in the past, while prices will rise faster. This means that living standards will rise very slowly, if at all, and for many they will be eroded by inflation. The Great Demographic Reversal: Ageing Societies, Waning Inequality, and an Inflation Revival. L.: *Palgrave Macmillan; Coyle Diane*. 2020. Why economics needs to wake up to aging populations. Financial Times. December 2. URL: https://www.ft.com/content/fcbccad8-491e-4f5b-a859-6622bc368e5c).

employment. It is now expected that central banks should consider the impact of their decisions on the climate agenda and equality (social, racial, gender).[1] In fact, it is a revision of the principles established after the crisis of the 1970s.

In this context, the problem of social inequality takes on a special meaning. The massive injections of money of the last decade have not led to consumer price inflation, but have caused the rapid growth of stock markets, i.e., asset inflation. The gap between property income (which was growing) and labor income (which was stagnating) was widening. Thus, soft monetary policy led, among other things, to an increase in populism and political and social destabilization.

Third, after several years of skepticism toward cryptocurrency, central banks turned to discussing the prospects of issuing their own e-money.[2] E-money is no longer associated with private money (cryptocurrencies) as an alternative to state money, but with fiat money, which is opposed to money issued by commercial banks and transactions with which do not require mediation by commercial banks, thereby undermining the business of the latter. This is a completely new kind of competition on the money market, and, apparently, its course will largely determine the contours of the post-crisis monetary system of developed countries.

1.3.4. The economic role of the state

The great recession of 2008-2009 marked the beginning of a trend towards an increased (or revived) role of the state in regulating the economy. This was a turn from the "cheap state" model, which was established as a result of the crisis of industrial society and Keynesian regulation. *A new stage of technological development objectively required a stronger regulatory role of the state*.[3] The pandemic of 2020 contributed to a significant strengthening of these trends, thus becoming not an accidental episode, but an important milestone in the formation of a new institutional model.[4] It remains to be seen in what forms this principle

1 At present, the Fed's mandate for adapting to new challenges is broader than that of the ECB. The latter is more focused on price stability, which is largely determined by the position of the FRG and especially its Constitutional Court, which relies on the traditions of conservative monetary policy formed after two hyperinflation in Germany in the twentieth century (see *Gerlach Stefan*. 2020. A Decisive Moment for Central Banks // Project Syndicate. September 15. URL: https://www.project-syndicate.org/commentary/central-banks-response-to-public-opinion-on-inequality-environment-by-stefan-gerlach-2020-09/russian?barrier=accesspaylog).

2 On October 13, 2020, The Bank of Russia issued a document "The Digital Ruble. Report for Public Consultations," in which it thoroughly formulated its approaches to understanding the role of the digital ruble in monetary circulation, possibilities of its application, its role in solving monetary policy tasks, etc. (Bank of Russia. 2020. Digital Ruble. Report for public consultations. October 13. URL: https://cbr.ru/StaticHtml/File/112957/Consultation_Paper_201013.pdf).

3 "It is increasingly likely that COVID-19 will mark the exhaustion of the model of growth formed four decades ago by the Reagan-Thatcher revolution, China's move toward socialism, and the collapse of the Soviet Union. The pandemic has exposed humanity's vulnerability and exacerbated the need for urgent climate action… The years ahead will be difficult." (*Pisani-Ferry Jean*. 2020. The Challenges of the Post-Pandemic Agenda. July 27. URL: https://www.project-syndicate.org/commentary/harsh-uncertain-economic-transition-after-covid19-by-jean-pisani-ferry-2020-07?barrier=accesspaylog).

4 "If the pandemic turns out to be only a temporary setback, then it will be remembered as a tragic but still isolated episode. But if the crisis of 2020 leads to a profound rethinking of the relationship between government and society, then this terrible year will prove to be a turning point and not just a calendar date." See: *Palacio Ana*. COVID and the Comeback State // Project

will be implemented in the foreseeable future. However, it is unlikely to be a return to the classical forms of the "big state" of the mid-20th century.

It is impossible not to pay attention to the fact that the increasing role of the state is fixed even by those who in the past were adherents of the liberal system. "Understanding the importance of decisive state action to stop the pandemic, it would be difficult now to follow Reagan ... to argue that 'government does not solve our problems, but government is precisely our problem.' And no one can give a convincing example that the private sector or charity can replace a competent state in a national emergency," writes Fukuyama,[1] who in 1989 saw "the end of history" in the triumph of the liberal model.[2]

However, two groups of questions naturally arise here. First, it is necessary to specify what the role of the state in the economy should be. Second, the question of the efficiency of the state, the quality of public administration, and which political systems will be more effective in principle and in confronting economic and non-economic (pandemic) crises in particular.

The currently observed strengthening of the role of the state in the economy is associated with a sharp increase in the uncertainty of technological and, consequently, socioeconomic dynamics, and in a short time perspective. Unlike modern economic growth of 19th-20th centuries, the qualitative changes in technologies and conditions of life occur not from generation to generation, but within a single generation, which leads to general instability in the development of society. This instability should be compensated by the state.

Thus, the current increase of the role of the state has preconditions that are directly opposite from those that led to the formation of etatist model in the first half of the twentieth century. At that time the strengthening of state intervention in economy was caused by the rapid development of large economic forms (industrial giants), which led to simplification of economic structure and possibilities to control everything from a single center. The centralization of production made the centralization of regulation *possible*. This made it possible for the etatist model to spread. The solution of problems of catching-up industrialization, which required redistribution of resources in favor of advanced industries, made centralization and governmentalization *necessary*.

In the modern world the situation is essentially different - extreme uncertainty of technological development and technological priorities leads to increased risks when implementing investments (especially long ones) and innovations. At the same time, it is possible to ascertain that division on advanced and backward branches is replaced by division on advanced and backward technologies, and in each branch there can be both the first and the second. As it was mentioned,

Syndicate. 2020, December 29. URL: https://www.project-syndicate.org/commentary/covid19-pandemic-transforms-role-of-the-state-by-ana-palacio-2020-12.

1 *Fukuyama Francis*. The Pandemic and Political Order. It Takes a State // Foreign Affairs. 2020, July-August. URL: https://www.foreignaffairs.com/articles/world/2020-06-09/pandemic-and-political-order?utm_medium=newsletters&utm_source=fatoday&utm_campaign=The%20Pandemic%20and%20Political%20Order&utm_content=20200609&utm_term=FA%20Today%20-%20112017

2 *Fukuyama Francis*. The End of History? // National Interest. Summer. 1989.

technological uncertainty leads to uncertainty of social and political and increases the risks of destabilization. The state should take on itself to reduce these risks.

The modern state must, first of all, address two groups of problems:

- first, by maintaining investment activity. The last decade is characterized by a decline in interest in private investments, which is manifested in the lower share of investments in GDP compared with the share of savings, characteristic for many countries. This is not a typical Russian phenomenon and not a consequence of a poor investment climate. The problem is deeper, it is connected with a high level of technological uncertainty, which increases the riskiness of investments, and also with a low level of inflation, which determines the "preference of liquidity" in relation to risk;
- second, the growth of inequality fixed by many researchers, especially as a result of the growing gap between income from property and income from work. This, in turn, leads to an increase in populism and political instability, which requires the state to rethink its socioeconomic objectives.

Under conditions of low investment propensity, the state should assume the function of "*investor of last resort*,"[1] similar to the way the central bank is viewed as "*lender of last resort*." Unlike the etatist models of the past, this function of the state does not involve siphoning off funds from private investors in favor of bureaucratic projects. Now there is weak interest (propensity) for private investment, and therefore the state can and should compensate for this failure[2]. In essence, we can talk about a return to a model close to classical Keynesianism: only now the idea is that the state should influence not demand as such, but investment, while the private sector should follow the state.

The argument that more efficient private investment is replaced by less efficient public investment is not correct here, because the former are simply at

1 See: *Sjögren Hans & Martin Jes Iversen*. 2018. The State as the Investor of Last Resort: a comparative study of banking crises in Denmark and Sweden // Scandinavian Economic History Review. URL: http://www.tandfonline.com/loi/sehr20; *Caballero Diego, André Lucas, Bernd Schwaab and Xin Zhang*. Risk en-dogeneity at the lender/investor-of-lastresort. BIS Working Papers No 766, 2019. True, some researchers interpret this role of the state as an "investor of first instance," which, however, does not change the substance of the issue: "The COVID-19 crisis and recession create a unique opportunity to rethink the role of the state, and especially its relationship with business. The previously prevailing thesis of the state as a burden in a market economy has been debunked. The prerequisite for effective governance in the post-coveted era must be the re-emergence of the state as "investor of last resort" and not only "creditor of last resort" (*Mazzucato Mariana, Andreoni Antonio*. No More Free-Lunch Bailouts // Project Syndicate. June 25, 2020. URL: https://www.project-syndicate.org/commentary/conditional-bailouts-of-private-companies-2020-crisis-by-mariana-mazzucato-and-antonio-andreoni-2020-06?barrier=accesspay).

2 In 2020 a new expectation arose from the state - to be the insurer of last resort. This term, however, does not refer to the performance of commercial insurance functions, but to the state's willingness and ability to come to the rescue in dire circumstances. "Walter Bagehot, one of the earliest editors of The Economist, urged states and central banks to be lenders of last resort. In a crisis of such magnitude as this, governments must also play the role of insurer of last resort. No private entity can simultaneously provide and finance the necessary health measures, support workers sent on unpaid leave, give money to firms to save jobs, make emergency payments to vulnerable families. Only the state can do that." Are We All Keynesians Again? 2020. August 25. URL: https://www.project-syndicate.org/commentary/states-must-be-insurer-of-last-resort-against-aggregate-risks-by-andres-velasco-2020-08?barrier=accesspay.

a low level. And the choice is really not between public and private investments, but between availability of investments and their absence.

Speaking about the priority directions of public investments, it is obvious that these are the sectors that increase the aggregate factor productivity. First of all, this refers to investments in human capital and infrastructure (transport and digital). The quality of public administration itself is no less important.

The question remains open to what extent these processes should be accompanied by an increase in taxation and the budgetary burden in GDP. There is not enough empirical material to answer it yet. We can assume that solving the government's investment tasks would be more effective through the mechanisms of targeted borrowing, rather than increasing the tax burden. The more so because targeted borrowings are quite compatible with the principle of a balanced state budget.[1]

At the same time, economists often share the traditional view on the role of the government in the economy, which implies abandoning laissez-faire once again and going back to the old dogmas of "industrial policy," which is seen as a source of both innovation and monetary stability.[2]

A victim of changing attitudes to the role of the state in 2020 was the well-known and popular Doing Business index, which was sharply criticized from within the World Bank, which compiled it. The index has been developed since 2003, and originally its methodology was based on the premise that economic freedoms and deregulation are the foundation and condition of a favorable business climate. The revision of economic policy dogmas towards etatism led to criticism that its authors were too ideological and supported right-wing (i.e., free market supporters) governments, thus disorienting developing countries and forcing them to reduce state intervention in the economy. In the logic of new statism and from a political point of view, this criticism is certainly valid: the index was developed under the conditions of the traditional late 20th century paradigm of deregulation and economic liberalism, i.e. a favorable business climate was equated with reducing the state burden on the economy. Now the mainstream has changed - state regulation and confidence that it can be effective are in vogue.[3]

1 *Frieden Jeffrey*. Lessons for the Euro from Early American Monetary and Financial History. Brussels: Bruegel, 2016.

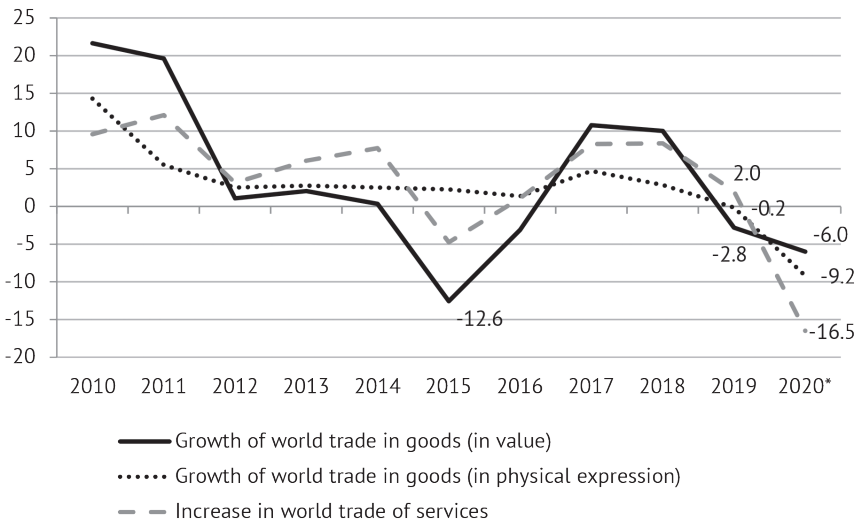
2 *Krugman Paul*. Was the Year Reaganism Died // The New York Times. December 28. URL: https://www.nytimes.com/2020/12/28/opinion/reagan-economy-covid.html; *Vives Xavier*. A Stable Euro Requires an Ambitious Industrial Policy // Project Syndicate. 2020. September 4. URL: https://www.project-syndicate.org/commentary/european-industrial-policy-to-guide-recovery-fund-by-xavier-vives-2020-09?utm_source=Project+Syndicate+Newsletter&utm_campaign=7b97cc5224-covid_newsletter_09_10_2020&utm_medium=email&utm_term=0_73bad5b7d8-7b97cc5224-104946393&mc_cid=7b97cc5224&mc_eid=b7e0b2bcd3

3 "Doing Business is fundamentally based on the principle of deregulation: the less government intervention in a country, the higher the index. Including the level of taxation in the index is so unacceptable that two independent World Bank evaluation commissions have proposed that it be abandoned. Moreover, the index focuses only on ease of doing business and on reducing regulatory burdens on companies. The index ignores the positive aspects of regulation and its own ability to improve the business environment." See *Ghosh Jayati*. Stop Doing Business. 2020, September 10. URL: https://www.project-syndicate.org/commentary/world-bank-should-scrap-doing-business-index-by-jayati-ghosh-2020-09?utm_source=Project+Syndicate+Newsle

However, drawing attention to the turn to the "big state" model, many economists, having learned from the experience of stagflation in the 1970s or post-communist transformation, warn against misuse of monetary injections as potential sources of systemic (macroeconomic) disorganization. Here is the important point that Keynesianism does not imply monetary irresponsibility. "It has become a commonplace of our times to say that after COVID-19, Milton Friedman will have to give way to John Maynard Keynes. But even agreeing with the thesis attributed to Richard Nixon that 'we are all Keynesians now,' it must be remembered that Keynes' teachings require that fiscal policy be tightened in good times, and only then can it become expansionary in times of crisis."[1]

1.3.5. Rethinking globalization

Globalization is an organic element of modern economic growth, one of its most important characteristics. However, this does not mean that the forms and themes of globalization are invariable. There are periods of rapid acceleration,



* Preliminary estimates / predictions

Fig. 1. Dynamics of international trade in 2010-2020, %

Source: WTO Data.URL: http://data.wto.org/en); Trade shows signs of rebound from COVID-19, recovery still uncertain. WTO Press release, 6 October 2020. URL: https://www.wto.org/english/news_e/pres20_e/ pr862_e.htm; UNCTAD Global Trade Update, February 2021. URL: https://unctad.org/system/files/official-document/ditcinf2021d1_en.pdf.

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1 *Velasco Andres*. Are We All Keynesians Again? // Project Syndicate. 2020, August 25. URL: https://www.project-syndicate.org/commentary/states-must-be-insurer-of-last-resort-against-aggregate-risks-by-andres-velasco-2020-08?barrier=accesspay.

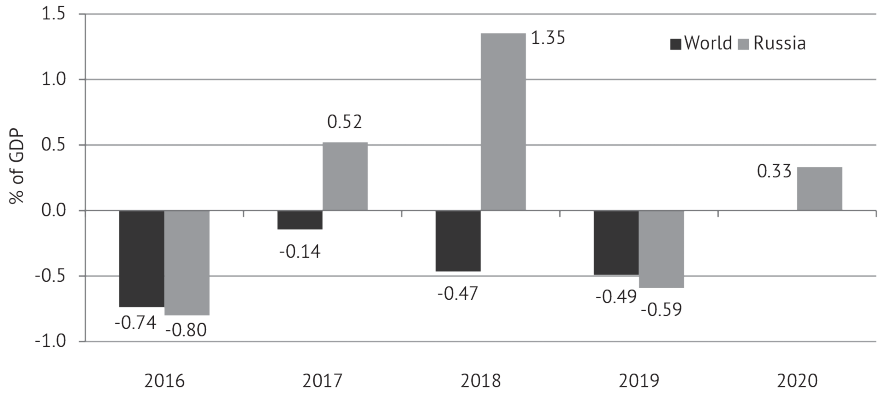

Fig. 2. Foreign Direct Investment (balance of inflows and outflows), % of GDP

Source: WDI World Bank, UNCTAD Investment Trends Monitor, Bank of Russia

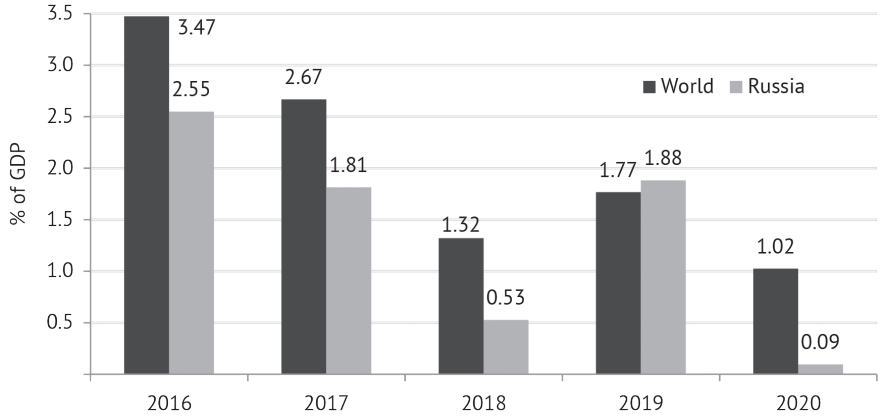

Fig. 3. Foreign Direct Investment Inflows, % of GDP

Source: WDI World Bank; CTAD Investment Trends Monitor; Bank of Russia.

as well as periods of inhibition. Globalization can encompass the whole world as a single entity, or it can develop through regional or other unions, free trade zones, etc. The general trend toward globalization does not cancel the periods of protectionism, which is not limited to bans and customs duties, for example, ecological requirements and currency management are much more effective (and politically acceptable) forms of market protection in the modern world. This category also includes sanctions, which in our eyes have become not only a political tool, but above all the most important instrument for solving economic problems.

Over the past decade, globalization has clearly slowed down, which was evident in the dynamics of world trade and foreign direct investment (*Fig. 1–3*).

The previous period of very rapid growth of these parameters led to the accumulation of serious contradictions (economic, social, political), which in turn necessitated a period of consolidation. The situation was exacerbated by the growing political rivalry between the U.S. and China, which quickly led to conflicts on the "economic front," balancing on the brink of a trade war or sometimes even crossing that brink.[1]

The coronavirus pandemic has created tough new barriers to globalization: the closure of production facilities and the closure of the borders of leading countries and economic groupings have led to the rupture of the usual economic ties, value chains, and strained relations between traditional partners. An example of the latter in 2020-2021 can be the "coal confrontation" between China and Australia, which, however, has become an important factor in the growth of Russian coal exports.

The pandemic has had an impact on the development of globalization, which can be traced in the following main directions.

First, direct restrictions on the movement of goods, services and people in accordance with sanitary and epidemiological requirements. This is the most severe and, presumably, short-term impact. But the second circumstance follows from this fact.

Second, trade gaps have forced governments and experts to rethink the acceptable level of openness of their economies. The result of 2020 was that the governments of developed and leading developing countries began to take measures to strengthen self-sufficiency in a number of critical positions, independence from foreign markets. Of course, we are not talking about the transition to autarky, but the willingness to pay for market efficiency with economic (and, consequently, political) security is clearly decreasing.

Third, there is a growing interest in ensuring openness within the framework of narrower (non-global) economic partnerships – common markets, free trade zones. And at the same time, traditional regional groupings are going through a crisis, which may lead their members to renewal, or may end in collapse. The most striking example of the latter is the situation with the EU, and the problem is not only in Brexit, which was formally completed at the turn of 2020-2021. A serious challenge was the pandemic, the fight against which did not become a common European matter and raised the question of the need to have certain reserves of production within national borders, without fully relying on common European solidarity.

Fourth, there has been increased attention to the prospects for regional globalization, i.e., the formation of alliances of individual countries to solve various economic problems. This trend is likely to increase in the foreseeable future.

Of course, all these trends are not unambiguous and rigid. The extent to which the centrifugal forces will be significant or even irreversible depends largely on the duration of the pandemic. In 2020, there was not only a tendency to disintegrate. The EU countries have taken a major step towards the formation

1 See more: *Roach Stephen*. 2019. Unbalanced. The Co-dependence of America and China. Moscow: Gaidar Institute Publishing House, 2019.

of a single financial system by agreeing to form a single fund, the funds of which are formed as obligations of all member states, which the largest and richest EU countries have so far categorically refused.[1]

All these approaches are reflected in the expert community, where the division has increased between critics of globalization and those who link overcoming the crisis (both non-economic and economic) with the deepening of world trade and the development of integration processes. "International trade is at the heart of global peace and stability, giving everyone a share in the common global system. Creating such a system requires more than just the removal of duties, administrative barriers, and national regulation measures that hinder the movement of basic consumer products, industrial goods, and-especially – technology. The nations of the world must understand that either we all win (and people everywhere get access to the tools they need to improve their standard of living, industrial development, and innovation), or we will all be worse off."[2]

However, economists and politicians are still far from understanding the future contours of globalization. So far, it is mostly clear which of its features are socially or politically dangerous and therefore need to be adjusted. It is also clear that the globalization of the Internet and artificial intelligence era should be radically different from the globalization of the "coal and steel" era. "Any global order must balance the benefits of trade (maximum when regulation is harmonized) with the benefits of regulatory differences (maximum when each national government is absolutely free to do whatever it wants). One of the reasons for the fragility of hyperglobalization that has now emerged is that the authorities have made it their priority to benefit from foreign trade rather than from regulatory differences. In the case of new technologies, this mistake cannot be repeated."[3]

* * *

We have only outlined the long-term challenges that the pandemic has posed to economists and policy makers. Of course, this is only a preliminary analysis. More detailed conclusions can be drawn after the end of the pandemic and the resulting economic crisis. Although the current crisis itself is neither cyclical nor structural, most of the problems posed by the global structural crisis of 2008-2009 remain unresolved. This means that we will have to return to them again and again until they are resolved.

1 "If you think about the long term, the European Commission's bond auction was good news for the ECB, which will benefit from the important side effect associated with the return of strong fiscal policy. Providing loans from the EU's Next Generation fund to debt-ridden union countries will take some of the pressure off the ECB after years of monetary policy doing all the hard work." See *Krauss Melvyn*. Europe's Faustian Bargain // Project Syndicate. 2020, November 23. URL: https://www.project-syndicate.org/commentary/eu-recovery-fund-german-italian-solidarity-by-melvyn-krauss-2020-11?barrier=accesspaylog

2 *Fung Victor K*. The Trade Cure for the Global Economy. // Project Syndicate. 2020, April 22. URL: https://www.project-syndicate.org/commentary/covid19-crisis-revive-multilateralism-open-trade-by-victor-k-fung-2020-04?barrier=accesspaylog

3 *Rodrik Danny*. The Coming Global Technology Fracture // Project Syndicate. 2020, August 8.

Section 2. Monetary and Fiscal Policy

2.1. Monetary policy[1]

2.1.1. Monetary policy trends

In 2020, the world economy was faced with a large-scale crisis caused by the coronavirus pandemic, a worsening situation in the global oil market, increasing global uncertainty, and capital outflows from emerging markets. The crisis phenomena were experienced, to a varying degree, by every sector of the economy and required the implementation of a set of urgent monetary policy measures. The Bank of Russia's switchover to monetary policy easing became its key decision aimed at sustaining aggregate demand: in 2020, the regulator cut the key rate four times, from 6.25% per annum in February to 4.25% per annum in July, thus sinking it to its historic low.

It should be noted that just before the onset of the 2020 epidemiological crisis, the Russian economy was characterized by a favorable situation in terms of monetary conditions, inflationary processes, the balance of payments, and the foreign exchange market. Low inflation, stabilization of inflationary expectations, high levels of international reserves, a positive current account balance, low external debt, a significant structural surplus of banking sector liquidity, and lower dependence of the ruble exchange rate against major world currencies on the movement of oil prices under the fiscal rule had all contributed to the Russian economy being more secure that before from external shocks.

In February-March 2020, the Russian economy had to deal simultaneously with two major challenges. The slowdown in the global economy resulting from the rapid spread of the coronavirus translated into a sharp plunge in aggregate demand, while the containment measures introduced in the Russian Federation

1 This section was written by *Bozhechkova A.*, Candidate of Economic Sciences, Head of the Monetary Policy Department of the Gaidar Institute, senior researcher at the Center for Central Banking Studies of the IAES RANEPA; *Trunin P.*, Doctor of Economic Sciences, Director of the Center for Macro-Economics and Finance of the Gaidar Institute, Director of the Center for Central Banking Studies of the IAES RANEPA.

triggered a decline in aggregate supply. All this was occurring alongside a growing uncertainty and capital outflows from the developing markets. In addition, the OPEC+ deal failure on March 6, 2020 sharply accelerated the oil price downfall. Following the auction on March 9, prices of Urals crude fell more than 30%, to $33 per barrel. Over the remaining weeks of March, Urals prices continued to slide, reaching a local minimum of $18.64 per barrel on March 18, 2020, which corresponds to their level in February 2002.

An additional downward pressure on the ruble exchange rate was exerted by capital outflows from emerging markets in a situation of uncertainty. Over March, the share of non-residents in the OFZ market shrank by 3 p.p., from 35% to 32%, which corresponds to a reduction in the portfolio held by non-residents by Rb280 bn. The outflow exceeded the volume of OFZ placement in Q1 2020, which amounted to Rb227 bn.

In the short term, these shocks created challenges to Russia's financial sustainability. Thus, over the course of February 2020, the ruble depreciated against the US dollar by 6.3%, to Rb67.0; and in March 2020, it lost another 16.0%, getting to Rb77.7. In view of the sharply deteriorating external situation, the RF Central Bank decided, from March 9 onwards, not to purchase foreign currency in the domestic market within the framework of the fiscal rule mechanism; and on March 10, it began proactive sales of foreign currency, thereby implementing the fiscal rule in order to support the cheapening ruble. Thus, over the period from March 10 to March 31, the Bank of Russia sold foreign currencies to the value of Rb143.5 bn, and the total volume of foreign currency sales under the fiscal rule over the period from March to December 2020 amounted to Rb1.7 trillion.

An additional mechanism applied in order to boost the foreign currency supply in the domestic forex market was the sale of foreign currency reserves from the National Welfare Fund (NWF) to pay for the RF Government's purchase of shares in Sberbank to the value of Rb 2.1 trillion. The daily volume of foreign exchange sales in the framework of that deal varied depending on the fluctuations of the price of Urals crude under $25 per barrel. When the cutoff price was exceeded, no operations were carried out. With due regard for the situation in the world oil market, forex sales were taking place from March 19 through May 12, 2020. The total amount of proactive forex sales and those involved in the Sberbank deal was about Rb0.5 trillion. Note that in August-September 2020, the RF Central Bank offset the remaining unsold foreign currency balance within the framework of the Sberbank deal against the balance of all the foreign currency purchases and proactive sales that had been deferred since 2018. The resulting balance of these operations amounted to Rb185 bn. Over the course of Q4 2020, the Bank of Russia evenly distributed the sales of the forex surplus in addition to its regular forex operations under the fiscal rule. In October 2020, the deal of purchase, by the RF Government of shares in Aeroflot PJSC at the expense of the NWF, was launched. The volume of forex sales completed by the regulator within the framework of this deal until the end of 2020 amounted to Rb50 bn.

In order to boost forex market stability and expand the possibilities for providing banks with foreign exchange liquidity, the Bank of Russia, starting from

10 March, decided to increase the limit of forex swap transactions for providing US dollars with maturity of 'today' from $3 bn to $5 bn. However, there was no demand for this instrument, which confirms the vital function of the fiscal rule as an automatic stabilizer – among other things, of foreign currency liquidity in the financial sector.

The measures implemented by the monetary authorities in order to maintain financial stability made it possible to prevent the development of a forex market crisis. In April-May 2020, the ruble exchange rate fluctuated within Rb70–75 rubles per US dollar. Our calculations demonstrate that over that period, a fundamentally sound ruble-to-USD exchange rate should have hovered around Rb75, if the price of oil remained at around $25-30 per barrel.[1]

Importantly, for the first time in a crisis environment, Russia's macroeconomic policy made it possible to avoid a tightening of its monetary policy. At its meeting on March 20, 2020, the Bank of Russia Board decided to keep the key rate at 6% per annum, although based on the experiences of the previous crisis, many had been expecting it to be raised. It should be recalled that during the currency crisis of late 2014 and early 2015, increasing inflationary expectations coupled with inflation acceleration as a result of a rapidly depreciating ruble necessitated, in December 2014, an urgent key rate increase from 10.5% to 17% per annum. In 2020, there was no national currency plunge of a similar magnitude, and after two short-term inflation surges in March-April and May-June 2020, the inflation rate slowed down, and the ruble strengthened. Thus, while the monthly growth rate of the CPI in March and April stood at 0.6% and 0.8%, respectively, later on, in May and June, its movement slowed down to 0.3% and 0.2%, respectively. It is in this aspect that the situation in 2020 significantly differs from that in 2014, when, as the ruble exchange rate plunged, inflation accelerated to 2.6% in December 2014, and then to 3.9% in January 2015.

As early as the spring of 2020, the RF Central Bank switched to monetary policy easing. On April 27, the key rate was cut by 0.5 p.p. to 5.5% per annum; on June 22, by 1 p.p. to 4.5% per annum; and on July 27, by 0.25 p.p. to 4.25% per annum (the latter, as noted earlier, corresponds to historic low). Thereafter, over the September-December 2020 period, under the influence of short-term pro-inflationary factors, including some recovery in consumer demand and growth in the inflationary expectations of consumers and businesses resulting from the ruble weakening, the regulator temporarily discontinued monetary policy easing.

Note that in the unprecedented crisis conditions typical of 2020, the majority of central banks in the developed and developing economies likewise reduced their key rates. As shown by the year-end results of 2020, the key interest rate in Russia in real terms (based on actual inflation) decreased significantly, and thus became negative (-0.65% per annum), at a level that was comparable to that of Australia (-0.6% per annum) and the UK (-0.5% per annum). The real key rates in the majority of developed economies, as well as some of the developing ones that relied on inflation targeting, also shifted to negative values (-1.4% per annum in

1 The calculations are based on the econometric model of a fundamental ruble exchange rate movement pattern, developed by the Gaidar Institute and the RANEPA.

Norway, -0.45% per annum in Canada, and -2.5% per annum in Chile), while their nominal interest rates hovered near zero, and inflation was low (*Fig. 1* and *Table 1*).

Table 1

Inflation and key rates in some developed and developing countries

	Actual inflation, December 2020 to December 2019, %	Key rate, end of year, % per annum
Developing countries		
Colombia	1.6	1.75
Indonesia	1.7	3.75
Peru	2.0	0.25
Poland	2.4	0.10
Hungary	2.7	0.60
Chile	3.0	0.50
South Africa	3.1	3.50
Mexico	3.2	4.25
Brazil	4.5	2.00
India	4.6	4.00
Russia	**4.9**	**4.25**
Kazakhstan	7.5	9.00
Turkey	14.6	17.00
Developed countries		
EU	0.2	0.00
United Kingdom	0.6	0.10
Australia	0.7	0.10
Canada	0.7	0.25
Norway	1.4	0.00
New Zealand	1.4	0.25
USA	1.4	0.25
Czech Republic	2.3	0.25
Iceland	3.6	0.75

Source: Central banks' websites.

In addition to the measures designed to maintain financial stability that have been discussed earlier, the Bank of Russia proposed a package of anti-crisis measures that included support of the lending market (including lending to SMEs, housing mortgage loans, and lending to businesses operating in the affected industries). Among the most significant measures, we may also point out payment holidays on consumer loans. In addition, the RF Central Bank launched a support program for small and medium-sized businesses to cover the payment of wages to their employees. Besides, it was decided to zero out the risk ratios for housing mortgage loans. Meanwhile, it is worth noting that this measure triggered a rush demand in the real estate market, resulting in a record increase in the volume of new mortgage loans issued and a surge in housing prices, thus giving rise to the risk of a mortgage bubble.

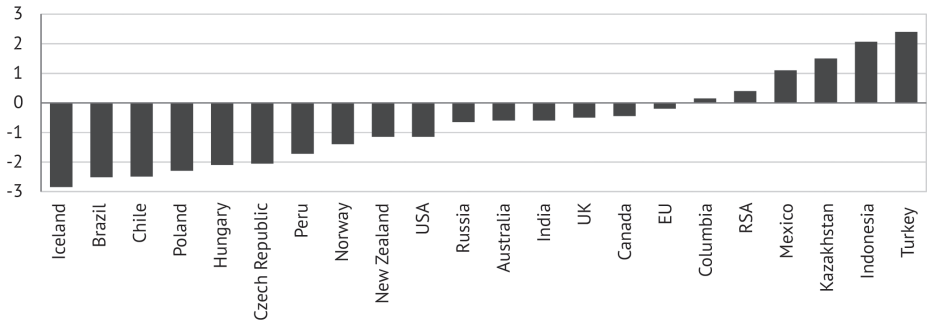

Fig. 1. The real key rates as of the end of November 2020, % per annum (based on the actual inflation patterns over the previous 12 months)

Source: Central banks' websites; own calculations.

The Bank of Russia also decided that, from March 1 to September 30, 2020, no increased risk-based buffers should be applied for foreign currency loans issued during that period to manufacturers of pharmaceuticals, and of materials and equipment used for medical purposes, as well as for their investments, over the same period, in forex-denominated debt securities. Besides, the Bank of Russia decided to grant a preferential treatment to systemically important banks for their compliance with the short-term liquidity ratios, in order to expand their opportunities for lending to the private sector. In addition to reducing the fee for the right to use an irrevocable credit line (ICL) from 0.5% to 0.15%, the Bank of Russia increased the maximum total limit for ICLs from Rb1.5 trillion to Rb5 trillion for the period from April 1, 2020 to March 31, 2021.

In general, having analyzed the actions undertaken by the Bank of Russia during the acute phase of the epidemiological crisis, it can be concluded that the key role in successfully dealing with the crisis period in terms of monetary measures belonged to the inflation targeting regime and the fiscal rule, which made it possible to prevent a dramatic weakening of the ruble, acceleration of inflation, and panic in the markets; in this, the current crisis differs significantly from the global financial crisis and the currency crisis in this country in late 2014 and early 2015.

2.1.2. The money market

In 2020, amid the spread of the epidemic, the higher uncertainty also created certain risks for the money market. The increased demand for liquid funds displayed by economic agents led to a rapid reduction in the liquidity surplus across the banking system. In this connection, part of the Bank of Russia's package designed to maintain financial stability were the measures aimed at providing the banking system with additional liquidity.

To begin with, over the period from March through November 2020, the structural surplus of banking sector liquidity[1] shrank from Rb3.8 trillion as of March 1, 2020, to Rb0.2 trillion as of January 1, 2020 (*Fig. 2*). The liquidity surplus shrinkage occurred in the main due to the increasing cash in circulation volume that resulted from the high demand for it displayed by economic agents. Thus, the amount of cash in circulation in March 2020 increased by Rb0.7 trillion, and the maximum increase (Rb0.2 trillion) occurred on March 27, 2020, the first day of the weekend preceding the non-work week. Note that the growth rate of cash in circulation in March 2020 relative to the previous month turned out to be significantly higher than the average monthly growth rate displayed by that indicator over the past 5 years (6.9% vs 0.8%). A similar pattern was observed in May-October 2020. Although during that time span the monthly growth rate of household demand for cash declined on March 2020, over the period from May through October it amounted on average to 1.7%, while in the previous 5 years it had stood significantly lower, at 0.2%. In November-December 2020, the growth rate of demand for cash stabilized at a level that was comparable to the previous year's values. As a result, at the start of January 2021, compared to the beginning of 2020, the volume of cash held by individuals increased on early 2020 by 26.4%, to Rb13.4 trillion.

Secondly, the liquidity surplus of the banking sector was receding due to the rising correspondent accounts balances of credit institutions with the Bank of Russia, because a number of banks wanted to create additional cash reserves as a safety net against the risk of sudden withdrawals of funds by their clients in face of growing uncertainty. Thus, over the course of March, the correspondent account balances of credit institutions jumped by 26.9%, to Rb2.6 trillion; and in April, by another 16.3%, to Rb3.0 trillion. Between May and December, the correspondent account balances of credit institutions stabilized at Rb2.9 trillion, and the fluctuations of this index were caused by the redistribution of funds between the correspondent and deposit accounts held by credit institutions with the Bank of Russia, which they did in order to meet the requirement for averaging their required reserves.

Thirdly, the liquidity surplus of the banking sector was shrinking in response to the increase in the required reserves of commercial banks as a result of the liabilities of credit institutions being adjusted relative to the changing forex rate of the weakening ruble. This effect was most pronounced in April and September 2020 when, due to the ruble weakening, the required reserves of banks increased by 6.9% and 2.1%, respectively. According to the year-end results of 2020, they stood at Rb0.7 trillion, having gained 15.6% relative to their year-beginning value.

Fourthly, the liquidity surplus shrinkage was associated with budget operations. Over the period from March 1 through May 10, foreign currency sales under the

1 According to the Bank of Russia definition, structural liquidity deficit/surplus is calculated as a difference between the Bank of Russia's aggregated claims on the banking sector and its aggregated liabilities to the banking sector. The banking sector structural liquidity deficit is the state of the banking sector which implies the existence of banks' permanent need of raising funds with the Bank of Russia operations; in case of structural liquidity surplus, it is their permanent need of allocating funds through the Bank of Russia operations.

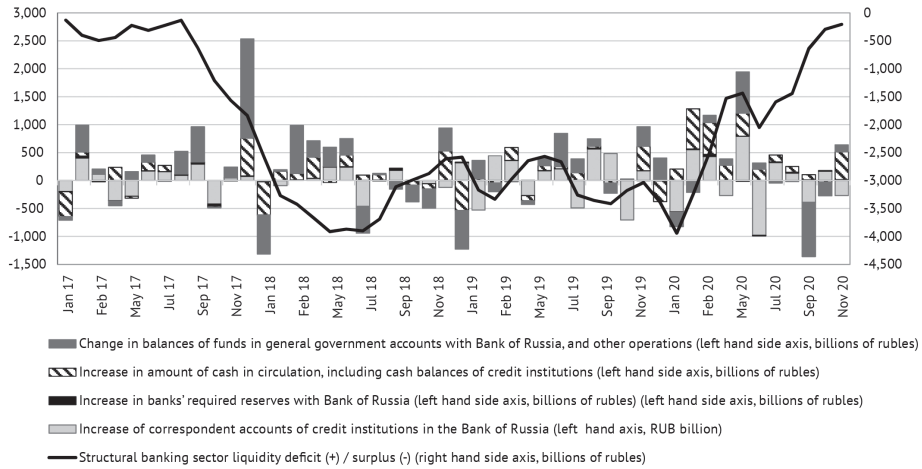

Fig. 2. Structural liquidity surplus of the banking sector and its components, 2017–2020

Source: Bank of Russia.

fiscal rule, increased net government borrowing, cash inflow into bank deposits, and the repo transactions carried on by the Federal Treasury, when taken together, accounted for liquidity absorption from the banking sector in the amount of Rb0.8 trillion; this was in part offset by the excess of budget expenditure over budget revenue, in the amount of Rb0.38 trillion. As a result, a total of Rb0.46 trillion was absorbed from the money market through the budget channel. Over the next period, from May 11 through June 2020, the situation drastically changed, and the budget channel was the source of liquidity for the banking system in the amount of Rb1.2 trillion. Thus, e.g., the operations of the RF Ministry of Finance with financial assets and liabilities (foreign currency sales under the fiscal rule, changes in the amount of net government borrowing, cash inflow into bank deposits, and the repo transactions of the Federal Treasury) absorbed liquidity in the amount of Rb0.3 trillion, but the excess of budget expenditure over budget revenue increased the banking sector liquidity by Rb1.5 trillion. Over the July-November 2020 period, budget operations pushed down the liquidity surplus as liquidity absorption amounted to Rb2.5 trillion, being in part offset by the excess of budget expenditure over budget revenue in the amount of Rb1.3 trillion. In December 2020, on the contrary, the operations of the RF Ministry of Finance with financial assets and liabilities absorbed Rb1.3 trillion, while the excess of budget expenditure over budget revenue added liquidity to the banking sector in the amount of Rb1.4 trillion; as a result, the budget channel supplied liquidity to the banking system only in the amount of Rb0.1 trillion. It should be noted that the liquidity inflow turned out to be rather modest for the month of December (compared with Rb1.8 trillion in December 2017, Rb0.4 trillion in December 2018,

and Rb0.3 trillion in December 2019), and so the liquidity surplus of the banking system in December 2020 remained at a low level (Rb0.2 trillion an average).

In response to the growing need of banks for liquidity resources, the RF Central Bank reduced its placement of Bank of Russia coupon bonds (COBR). While the offer of COBR in March and April 2020 amounted to Rb490.4 bn and Rb582.0 bn, respectively (vs Rb500 bn each in March and April 2019), in May the volume of new placements of COBR was zero (vs Rb600 bn in May 2019). Thus, on May 12, the auction for the placement of COBR-33 was canceled, and the regulator also decided to stop holding its COBR-32 auctions until the maturity date of COBR-31. As a result, in March-May 2020, the volume of commercial banks' investment in COBR decreased by 41%, to Rb1.1 trillion. Overall in 2020, the volume of COBR placements amounted to Rb5.2 trillion, while in 2019 the same indicator had exceeded Rb6.0 trillion.

In the context of a shrinking liquidity surplus, banks' demand for the Bank of Russia's deposit auctions became less prominent. So, while in 2019 the volume of funding attracted through deposit auctions amounted on average to Rb1.6 trillion, in 2020 it was only Rb1.2 trillion.

In general over 2020, broad money increased by 9.8%, to Rb18,472 bn (in 2019, it increased by 4.7%, to Rb16823.4 bn). Among the fastest-growing components of broad money by the end of 2020, as noted earlier, we can point out cash in circulation, which jumped by 26.4%, to Rb13,180.9 bn, and bank deposits with the Bank of Russia, which increased by 18.9%, to Rb1,220.7 bn. The amount of required reserves increased by 15.6%, to Rb713.6 bn, while the volume of Bank of Russia bonds held by credit institutions shrank by 70.6%, to Rb570.0 bn. The correspondent accounts of credit institutions with the Bank of Russia shrank by 2.9%, to Rb2,548.5 billion. Overall, in face of liquidity surplus, the volume of excess reserves[1] for 2020 decreased by 22.4% and amounted to Rb4339.2 bn (*Table 2*).

Table 2

The broad money dynamics in 2020, billions of rubles

	01.01.2019	**01.01.2020**	**01.01.2021**
Monetary base (broad)	16,063.4	16,823.4	18,472.4
cash in circulation, including cash balances of credit institutions	10,312.5	10 616.1	13,419.6
correspondent accounts of credit institutions with Bank of Russia	1,898.2	2,625.5	2,548.5
required reserves	575.3	617.4	713.6
deposits of credit institutions with Bank of Russia	1,903.5	1,027.7	1,220.7
Bank of Russia bonds held by credit institutions	1,373.9	1,936.7	570
For reference: excess reserves	*5,175.7*	*5,589.9*	*4,339.2*

Source: Bank of Russia.

1 Excess reserves of the banking system include deposits of credit institutions with the Bank of Russia, correspondent accounts of credit institutions with the Bank of Russia, as well as bonds of the Bank of Russia held by credit institutions.

The sharp liquidity surplus decline observed in March and April 2020 influenced both the volatility of money market rates and the measures taken by the RF Central Bank by way of stabilizing the situation. The Bank of Russia launched fine-tuning repo auctions to provide liquidity to the banking sector, which had not taken place since February 2017. Over the March- May 2020 period, the RF Central Bank carried out a total of 11 auctions, with the average allotment amount of Rb406 bn. A high demand for these operations persisted over the first ten days of May 2020. Later on, as the situation in the money market stabilized, there was no longer any need for fine-tuning operations to provide necessary cash to the banking sector.

In May 2020, the Bank of Russia expanded the list of instruments that it was using to provide ruble liquidity to credit institutions through one-month and one-year repo auctions. The list of acceptable collateral was reduced as compared to short-term repos. The acceptable collateral included federal government bonds put on the Lombard List and bonds of subjects of the Russian Federation and municipalities with the highest credit rating according to the national rating scale. The 28-day long auction offering up to Rb500 bn, scheduled for May 25, 2020, was recognized to be canceled as it was participated by only one lender. In June-September 2020, alongside a stabilizing situation in the money market, the demand for long-term refinancing likewise effectively dwindled. However, within the framework of 28-to-35-day long repo auctions held over the October-December 2020 period, banks were provided with a total of Rb2.6 trillion. It is noteworthy that the growth in banks' demand for monthly repo auctions is neutral in terms of money supply, because the bulk of these funds is spent on purchasing OFZs. Besides, throughout the year, these operations had neutral effect on money supply, because as early as December 2020, the money received by the budget as a result of OFZ sales went back into the economy in the form of budget spending. The demand for one-year repo auctions was extremely low: banks took part in one-year repo auctions only three times (on June 22, October 12, and December 7, 2020), and the amount of borrowing amounted to Rb5.1 bn, Rb20 bn, and Rb10.5 bn, respectively.

With the liquidity surplus decline in 2020, there was an increase in the debt of credit institutions to the Bank of Russia. By the end of 2020, the amount of loans attracted by credit institutions from the Bank of Russia had soared by 47%, to Rb3.6 trillion (vs Rb2.5 trillion as of January 1, 2020) (*Fig. 3*). The volume of the regulator's claims on banks within the framework of repo auctions at year end 2020 amounted to Rb0.85 trillion (vs zero claims at year end 2019), while banks' debt on loans secured by non-marketable assets reached Rb 0.96 trillion (vs Rb2.0 trillion at year end 2019).

Overall, the situation in the money market amid the epidemiological crisis radically differed from the currency crisis of late 2014 and early 2015, when in face of an increasing structural liquidity deficit, the banking sector's debt to the RF Central Bank nearly doubled the record high reached during the 2009 crisis, having climbed 2.1 times over the previous 12 months and amounting to Rb9.3 trillion as of January 1, 2015.

Another important feature distinguishing the two crises has to do with the banking sector's demand for forex resources. During the March-May 2020 period, the situation with foreign exchange liquidity in the banking sector remained stable. The stability of the required level of foreign exchange liquidity was further sustained by foreign currency sales by the Bank of Russia under the fiscal rule (Rb0.9 trillion in March-June 2020), by additional foreign currency sales carried out when the price of Urals oil plunged below $25 per barrel, and by the increasing de-dollarization of the Russian economy over recent years. One more important factor that determined the low demand of banks for foreign currency was the absence of panic-triggered retail purchases of foreign currency cash. As a result, banks displayed no demand for the foreign exchange liquidity instruments offered by the RF Central Bank. It should also be noted that in late 2014 and early 2015, amid a panic in the forex market, banks were actively taking part in forex repo auctions, and the resulting debt claims rose to $33.9 bn.

Table 3

The Bank of Russia's balance sheets in 2018–2020

	January 1, 2018		January 1, 2019		November 30, 2020	
	Billions of rubles	**% of assets / liabilities**	**Billions of rubles**	**% of assets / liabilities**	**Billions of rubles**	**% of assets / liabilities**
Funds placed with non-residents and foreign issuers of securities	24,496.1	62.2	25,342.9	62.6	30,995.1	60.2
Loans and deposits	3,672.5	9.3	3,305.7	8.2	4,378.6	8.5
Precious metals	6,123.9	15.6	6,952.8	17.2	10,225.2	19.9
Securities	1,038.8	2.6	1,121.6	2.8	1,037.3	2.0
Other assets	2286.0	5.8	2,252.7	5.6	2,861.4	5.6
Total assets	**39,368.9**	**100.0**	**40,513.1**	**100.0**	**51,492.4**	**100.0**
Currency in circulation	10,312.8	26.2	10,616.5	26.2	12,918.0	25.1
Funds in accounts with Bank of Russia	14,526.6	36.9	16,951.7	41.8	17,995.8	34.9
including RF Government	*7,894.7*	*20.1*	*10,734.1*	*26.5*	*10,953.1*	*21.3*
resident credit institutions	*4,381.7*	*11.1*	*4,273.9*	*10.5*	*5,116.5*	*9.9*
Credit float	0.05	0.0	–		–	
Securities issued	1,388.3	3.5	1,952.9	4.8	606.3	1.2
Liabilities to IMF	1,616.4	4.1	1,363.9	3.4	1,648.4	3.2

	January 1, 2018		January 1, 2019		November 30, 2020	
	Billions of rubles	**% of assets / liabilities**	**Billions of rubles**	**% of assets / liabilities**	**Billions of rubles**	**% of assets / liabilities**
Other liabilities	130.6	0.3	190.6	0.5	8,886.5	17.3
Capital	11,394.3	28.9	9,437.5	23.3	9,437.4	18.3
Profit for reporting year	–	–	–	–	–	
Total liabilities	**39,368.9**	**100.0**	**40,513.1**	**100.0**	**51,492.4**	**100.0**

Source: Bank of Russia.

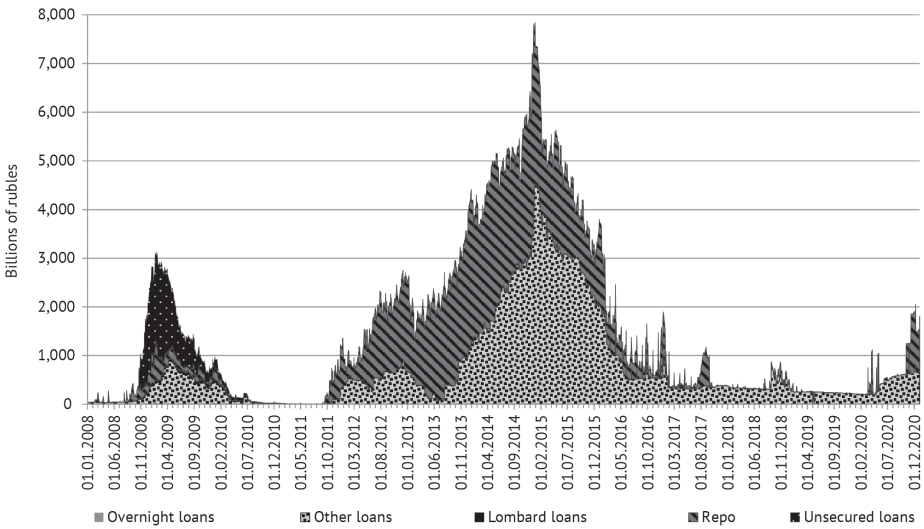

Fig. 3. Debt of commercial banks to the Bank of Russia, rubles, 2008–2020

Source: Bank of Russia.

Note that as a result of the growing tension in the money market, there were days when the short term money market rate rose above the key rate. The spread peaked at the end of April, at 0.5 p.p. Nevertheless, the measures implemented by the regulator made it possible to stabilize the situation in the money market and push the money market rate close to the key rate. As a result, over the May-December 2020 period, the MIACR rate stayed closer to the bottom of the interest rate band *(Fig. 4)*. On average over the January-December 2020 period, the MIACR rate stood at 4.87% per annum, which was significantly lower than its average index for 2019, when it had risen to 7.2% per annum; this is consistent with the Bank of Russia's switchover to monetary policy easing. It is noteworthy that in December 2014, the one-day MIACR rate repeatedly deviated beyond the interest rate band, on some days jumping 1.1–1.3 p.p. above the key rate. Under

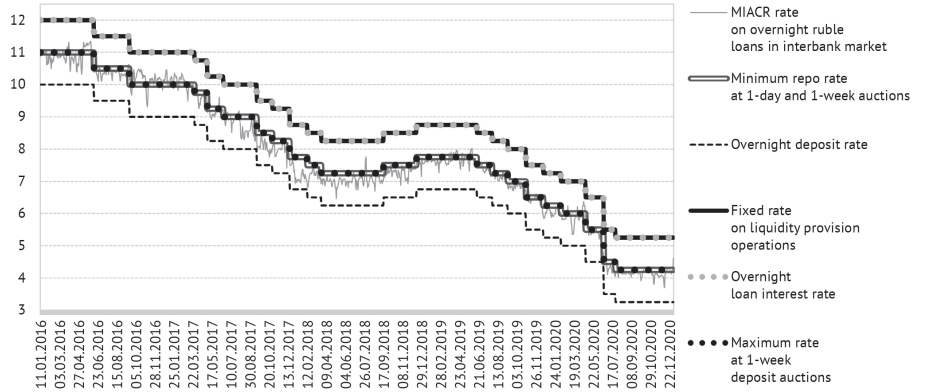

Fig. 4. The Bank of Russia interest rate band and the movement of interbank market interest rates, 2016–2020

Source: Bank of Russia.

such conditions, the instability in the money and forex markets necessitated an urgent raise of the key rate, from 10.5% to 17% per annum. On the contrary, the situation in the economy and in the financial market during the current crisis made it possible to significantly soften the monetary policy. Thus, the regulator's measures launched in the spring of 2020 and designed to stabilize the situation in the financial market and ensure an adequate liquidity level in the banking sector turned out to be effective, and so it became possible to fully achieve the operational monetary policy goal of keeping the short term money market rate close to the key rate.

One of the factors that played a certain role in ensuring financial stability during the crisis situation was the record high amount of accumulated international reserves. Between January and December 2020, international reserves gained 7.5%, increasing to $595.8 bn. In early August 2020, a new historic high of international reserves was achieved, amounting to $600.7 bn (*Fig. 5*). It should be reminded that as far as the amount of international reserves is concerned, its previous historic high was hit in August 2008, when they climbed to $596.6 bn. The movement pattern of forex reserves in 2020 was determined in the main by the ruble exchange rate revaluation and the climbing gold prices in the world market. Note that in 2020, the monetary gold reserves increased by 25.7% to $138.8 bn, mostly due to the positive revaluation of this particular asset over the course of that year. Forex reserves gained 2.9%, and their value as of the beginning of January 2021 stood at $457.0 bn. The shrinkage of forex reserves resulting from the regulator's proactive foreign currency sales in the domestic forex market within the framework of the fiscal rule (the operations over the period of March through December 2020 to the total value of Rb1.7 trillion), and also, in part, from the foreign currency sales from the National Welfare Fund to pay for the government stakes in Sberbank and Aeroflot, was fully offset by the upward revaluation of

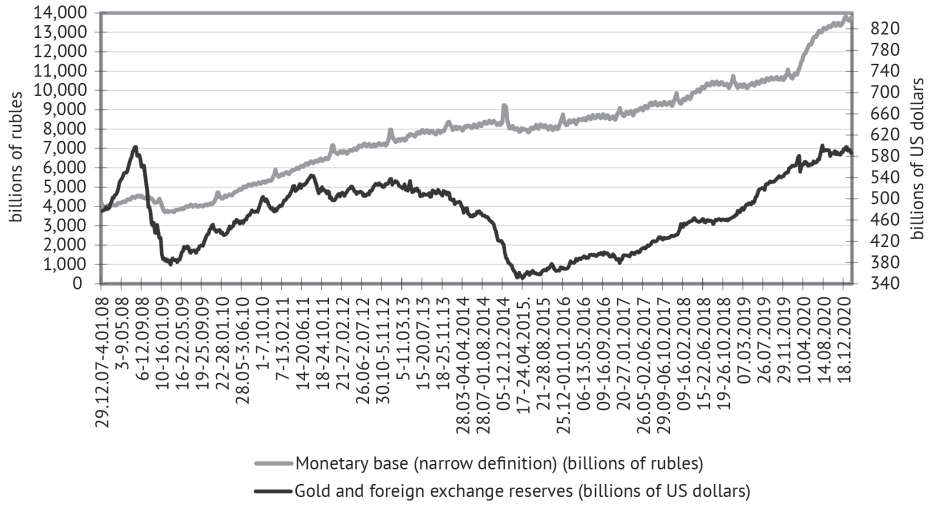

Fig. 5. The movement of the monetary base (narrow definition) and gold and foreign exchange (international) reserves in the Russian Federation, 2008–2020

Source: Bank of Russia.

foreign currency assets based on the exchange rate movement, in particular as a result of the US dollar weakening against the euro.[1] As of January 1, 2021, the share of forex reserves in the total amount of reserve assets was 76.7% (vs 80.1% in 2019), and that of gold was 23.3% (vs 19.9% in 2019). In this connection it is noteworthy that from April 1, 2020, the Bank of Russia discontinued buying gold in the domestic precious metals market, announcing that its further decisions concerning purchases of gold would depend on the evolvement of the financial market situation. It should be reminded that the regulator had been actively buying gold since 2014. The halt in purchases of gold by the RF Central Bank was followed by its export abroad by the banking sector, and this helped sustain the balance of payments of the Russian Federation.

As of year end 2020, the volume of reserves was sufficient to maintain a sustainable balance of payments, because it provided both for 18-month imports of goods and services (vs 16-month imports in 2019) and for the payments due on external debt that were scheduled for 2021.

The economic response measures adopted by the government authorities in 2020 significantly sustained the incomes of economic agents and the lending market. In 2020, the average monthly growth of M2 (relative to the corresponding period of the previous year) was 14.1% (vs 8.7% in 2019), and that of the monetary base was 12.0% (vs 1.9% in 2019). As a result, the money multiplier (the ratio

1 In the structure of forex and gold assets held by the Bank of Russia, the share of the euro is 29.5%; that of the US dollar is 22.2%; and that of the yuan is 12.2% (based on data for Q2 2020).

between M2 and the monetary base) amounted to 3.0 (vs 2.95 in 2019). The accelerated growth of M2 relative to the monetary base occurred in the main due to an increase in the lending volume in a situation of softening loan conditions, both in terms of loan price and otherwise. It is noteworthy that the achieved money multiplier index corresponds to its average value for developing economies (Ukraine, Belarus, Kazakhstan), while in the developed countries it is usually in a range of 5 to 8. It should also be noted that over the past 20 years in the countries of Eastern Europe, as their banking systems developed, the money multiplier was demonstrating an upward movement pattern. Thus, for example, in Poland over the period 1993–2020, the money multiplier increased from 3.1 to 4.9, while in Russia over the same period it climbed from 1.4 to 3.0.

According to preliminary estimates, the level of monetization in the Russian economy (the ratio of M2 to GDP) over the period 1999–2020 jumped 3.5 times to 55.0%, which is still lower than in many other developing countries. For example, in Poland, the ratio of M2 to GDP in 2020 amounted to 82.7% (vs 40.2% in 1999); in Chile, to 84% (vs 52.2% in 1999), in Brazil, to 95.0% (vs 42.8% in 1999); in Thailand, to 122.8% (vs 112.2% in 1999); and in Malaysia, to 123% (vs 122% in 1999). Meanwhile, in Belarus, the ratio of M2 to GDP over the same period increased 2.2 times to 37.5%; in Kazakhstan, 2.2 times to 30.2%; in Ukraine, 2.1 times to 36.0%; in Mexico, 1.4 times to 38.5%; in Colombia, 1.4 times to 49%; and in Peru, 1.4 times to 49.1%. In the developed countries, the index of monetization relative to GDP is even higher, due to a higher level of the financial system development: for example, in 2020 in the UK, this indicator climbed to 145.2%; and in Switzerland, to 193.1%.

2.1.3. Inflationary processes

At the end of 2020, inflation in the Russian Federation amounted to 4.9% (vs 3.0% in 2019), thus jumping 0.9 p.p. above the RF Central Bank's target (*Fig. 6*). The upward movement of the Consumer Price Index (CPI) over the course of 2020 was shaped by the effects of many multidirectional factors. As noted earlier, in spite of the inflation surge in March and April 2020 in response to the increased demand for consumer goods and a sliding exchange rate, the annual inflation rate (as measured during the previous 12 months) in March and April 2020 stood at 2.5% and 3.1%, respectively, while still staying well below the target. Over the May-June period, in face of a weak consumer demand, and also as the exchange rate pass-through effect reached its peak, inflation in annual terms was 3.0% and 3.2%, respectively, which turned out to be slightly below the Bank of Russia forecasts. In view of the current situation, the Bank of Russia switched to a significant easing of its monetary policy.

Over the September-December 2020 period, inflation was accelerated by the ruble weakening once again, the increased inflationary expectations of individuals and businesses, a consumer demand recovery, and rising food prices in the world market. As the pro-inflationary factors prevailed, inflation in annual terms increased from 3.6% in August to 4.9% in December 2020. Under such conditions,

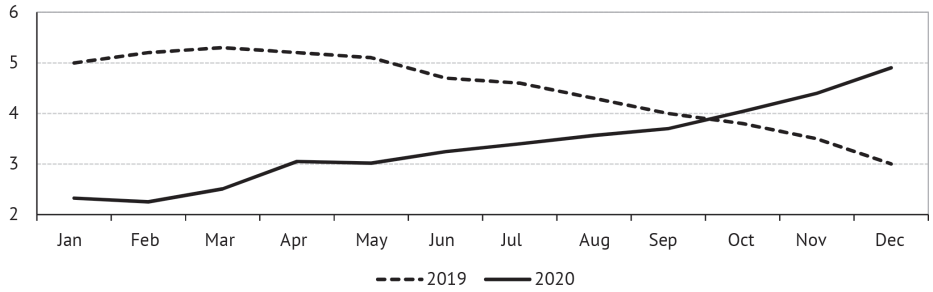

Fig. 6. The CPI growth rate in 2019–2020, % for the previous 12 months

Source: Rosstat; own calculations.

as noted earlier, the Bank of Russia took a pause in monetary policy easing by keeping the key rate unchanged.

Food inflation, after increasing in March and April 2020 to 1.0% and 1.7% in monthly terms, respectively, thereafter slowed down to 0.2% in May and June. In the July-September 2020 period, seasonal deflation was observed in the food sector. In the autumn, alongside climbing world food prices, Russian food products likewise rose in price. The leaders in price growth on the world market and Russia's domestic market were sugar (in Russia, + 64.5% in December 2020 relative to December 2019) and sunflower oil (+ 25.9% in December 2020 relative to December 2019). As a result, at the end of the year, food inflation in annual terms stood at 6.7% (vs 2.6% in December 2019 relative to December 2018) (*Fig. 7*).

In view of such a significant surge in the prices for several socially important foodstuffs, the RF Government decided, in December 2020, to freeze sugar and sunflower oil prices over the January-March 2021 period. According to our estimates, this measure is unlikely to significantly affect the price movement patterns, because it was adopted after the prices of these products had already jumped significantly.

Non-food inflation in annual terms increased from 2.4% in February to 4.8% in December 2020 (vs 3.0% in December 2019 relative to December 2018), which was due, in the main, to the ruble weakening, as well as the consumer demand recovery after the containment measures had been lifted. Over the course of 2020, the highest surge was demonstrated by the prices of pharmaceuticals (9.8%), tobacco products (8.2%), electrical goods and other household appliances (6.4%), Russian automobiles (9.4%), and foreign automobiles (10.3%).

According to the year-end results of 2020, prices for paid services provided to the population rose by only 2.7% (vs 3.8% at year end of 2019), because it was this sector that faced the most significant plunge in demand as a result of the containment measures. At the same time, prices for medical services (+ 4.3%) and resort and spa services (+ 3.8%) grew quite rapidly in response to a surge in demand triggered by the pandemic. The outbound tourism sector, on the contrary, demonstrated a deflation (-0.4% at year end of 2020).

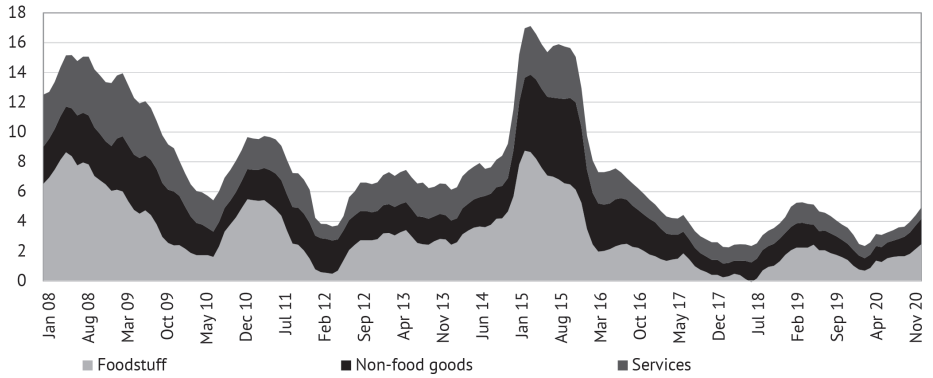

Fig. 7. The structure of inflation in 2008–2020 (%, month to the corresponding month of the previous year)

Source: Rosstat; own calculations.

Thus, core inflation (cleared of the effects of seasonal and administrative factors) grew steadily, to 4.2%.

In 2020, the key factor responsible for the downward pressure on consumer prices was shrinking demand, which resulted from real personal income decline, at the rate of -3.0% in 2020 (vs +1.7% in 2019). As a result, retail turnover likewise decreased significantly: -4.1% in 2020 vs +1.9% in 2019. Meanwhile, inflation acceleration was sped up by the ruble weakening. In 2020, the ruble fell 19.3% against the US dollar, to Rb73.9.

The rise in consumer prices in Russia was also contributed to by the climbing world food prices as a result of reduced supply. The food price index jumped from 91% in May 2020 to 107.5% in December 2020. Over the June-December 2020 period, world prices for dairy products gained 10.7%; prices for grain, 19.6%; prices for vegetable oils, 47.3%; and prices for sugar, 16.2%.[1]

The rapid growth of food and non-food prices pushed up the inflationary expectations of individuals and businesses. The first wave of increasing price growth expectations was observed in March-April 2020. Over the May-July period, the balance between the responses of managers of enterprises and individuals in a survey conducted by InFOM, pointed to the emergence of a downward trend in the expected price movement. However, from August onwards, individual inflationary expectations once again began to climb, rising by December 2020 to 11.5% (vs 9% in December 2019). The balance of responses received from enterprises also indicated a significant shift towards price growth, from 8.3 p.p. in January 2020 to 19 p.p. in December, as a result of a weakening ruble and rising costs. Growth in inflation expectations will contribute to a persistently elevated inflation rate in early 2021.

1 Data released by the Food and Agriculture Organization of the United Nations.

Table 4

The annual growth rate of prices for certain types of consumer goods and services in 2018–2020 (%, December relative to December of previous year)

	2018	2019	2020	2018–2020
CPI	**4.3**	**3.0**	**4.9**	**12.7**
Foodstuffs	**4.7**	**2.6**	**6.7**	**14.6**
Sugar	3.6	-30.8	64.5	17.9
Fish and seafood	3.7	5.2	5.2	14.8
Sunflower oil	1.8	-2.9	25.9	24.4
Milk and dairy products	2.9	6.1	3.6	13.1
Pasta	1.4	5.7	12.1	20.1
Bread and Bakery	5.2	6.3	7.3	20.0
Alcoholic beverages	1.3	1.2	2.8	5.4
Fruits and vegetables	4.9	-2.0	17.4	20.7
Cereals and legumes	1.2	15.2	20.1	40.0
Meat and poultry	9.7	0.2	2.7	12.9
Eggs	25.9	-5.0	15.1	37.7
Non-food goods	**4.1**	**3.0**	**4.8**	**12.4**
Gasoline	9.4	1.9	2.5	14.3
Tobacco products	10.1	11.0	8.2	32.2
Textiles	1.7	1.3	2.0	5.1
Washing and cleaning products	3.1	4.9	6.0	14.6
Footwear	1.9	1.2	1.2	4.4
Knitwear	2.5	2.4	2.0	7.1
Clothes and underwear	2.3	2.2	1.6	6.2
Pharmaceuticals	4.6	6.9	9.8	22.8
Services	**3.9**	**3.8**	**2.7**	**10.8**
Resort and spa services	3.8	3.1	3.8	11.1
Passenger transportation services	4.3	6.1	1.1	11.9
Medical services	4.3	3.8	4.3	12.9
Education services	8.4	5.6	1.9	16.6
Housing and amenities	3.7	4.3	3.6	12.1
Communications	2.4	4.2	3.1	10.0

Source: Rosstat.

Thus, as shown by the year-end results of 2020, under the influence of the pro-inflationary factors discussed earlier, inflation stood 0.9 p.p. above its target value (4%). Nevertheless, in the absence of new fiscal stimulus in 2021, consumer demand will remain at a modest level. Given the positive situation on the oil market coupled with the fiscal rule effects that sustain the ruble, any significant plunge in the ruble exchange rate is unlikely. In this connection we estimate that in H2 2021, inflation will stabilize near the target. In such a situation, the Bank of Russia in 2021 will begin to shift from monetary policy easing to a neutral monetary policy, which corresponds to the real key rate at the level of 1-2% per annum.

2.1.4. The balance of payments and the ruble exchange rate

According to the preliminary balance of payments estimates for 2020 released by the Bank of Russia, the current account balance amounted to $32.5 bn, which is 50% (or $32.3 bn in absolute terms) less than the corresponding figure for 2019.[1]

The goods trade balance amounted to $89.4 bn, which is 46% (or $76 bn in absolute terms) less than in 2019 ($165.3 bn) (*Fig. 8*). A decisive role in this decline was played by a shrinkage of exports by 22% (or $90 bn in absolute terms), from $419.9 bn in 2019 to $329.5 bn in 2020. This decline is primarily due to the downward movement of the average annual export prices of oil, petroleum products, natural gas, metals, and Russia's other main exports (*Table 5*). As a result, the share of fuel and energy complex products in the total export volume shrank from 56.9% in 2019 to 45.2% in 2020, which corresponds to the level of the late 1990s (*Fig. 9*). It should be noted that prices for some of Russia's main exports even increased; this was true of prices for grain, timber and vegetable oil, but the overall picture, nevertheless, remained unchanged.

Table 5

The movement of prices for Russia's main exports, in 2020 relative to 2019

Commodity group	Share in total exports, %	Average export price, USD/t		Price increase, %
		January-November 2020	January-November 2019	
Crude oil	22.0	301	454	-33.6
Petroleum products	13.5	321	471	-31.9
Natural gas *	7.3	123	190	-34.9
Ferrous metals	4.7	399	449	-11.3
Coal	3.7	63	78	-19.5
Wheat and meslin	2.3	209	201	+4.1
Natural gas, liquefied**	2.1	99	124	-19.7
Mineral fertilizers	2.1	203	246	-17.4
Timber	1.3	231	227	+1.9
Aluminum	1.3	1,573	1,691	-7.0
Copper	1.3	5,773	5,900	-2.2
Fish, fresh and frozen	0.9	1,645	1,825	-9.9
Vegetable oil	0.8	743	708	+4.9
Iron ores	0.6	75	97	-23.1
Nickel	0.5	13,119	13,696	-4.2
Synthetic rubber	0.4	1.261	1,596	-20.9

* price in US dollars per 1bn m3
** price in US dollars per 1,000 m3
Source: Federal Tax Service; own calculations.

The goods trade balance shrinkage, in addition to the downfall of exports, was also contributed to by declining imports (at a significantly more moderate rate, both in absolute and in relative terms), which over the course of 2020 lost 5.7% (or

1 *Bozhechkova A., Knobel A., Trunin P.* Balance of payments in 2019 // Russian Economic Development. 2019. V. 27. No. 3. P. 9–12.

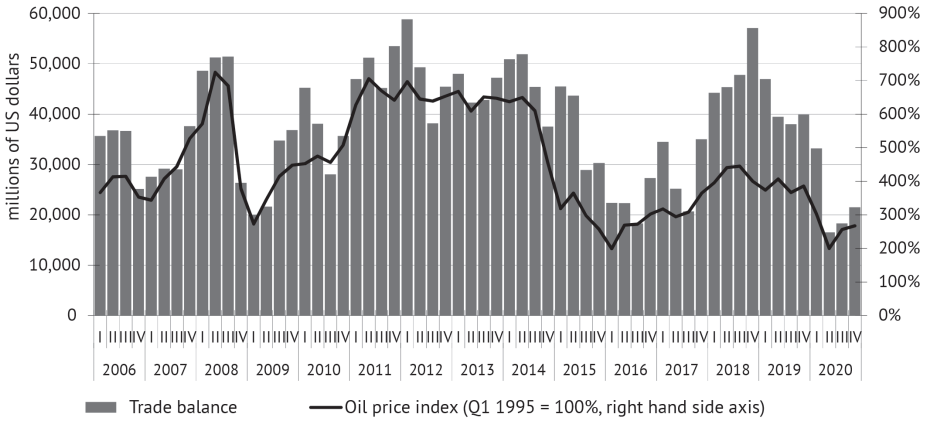

Fig. 8. Trade balance and the movement of oil prices

Source: Bank of Russia; IMF.

14.5% in absolute terms), shrinking from $254.6 bn in 2019 to $240.1 bn in 2020. The decline in imports of goods was caused primarily by the ruble weakening: according to the Bank of Russia data for 2020, the real effective exchange rate of the ruble against foreign currencies lost 7.8% on 2019.[1]

The deteriorating goods trade balance was in part offset by a significant improvement in the balance of trade in services: it amounted to only -$18.3 bn in 2020, which is 50% less in absolute terms than the corresponding index for 2019 (-$36.7 bn). At the same time, services exports fell by 28% (or by $ 5.7 bn in absolute terms, from $ 61.9 bn to $44.5 bn, as a result of a decreased inflow of foreign visitors into Russia and a decline in transportation services); and services imports (due in the main due to the curtailed travel of Russians abroad) shrank by 36%, from $98.7 to $62.8 bn.

In 2020, the balance of investment income and the balance of wages both changed very significantly. The former improved by $19.5 bn (from -$50 to -$30.5 bn), due in the main to a decrease of $32.3 bn in incomes payable (investment income repatriation), alongside a more moderate decline in incomes receivable (by $12.9 bn); and the latter lost $1.9 bn (sliding from -$3.6 to -$1.7 bn). These changes illustratively demonstrate that during a pandemic, when the national currency is weakening, foreign owners of the factors of production (capital and labor) are much less likely to actively repatriate their incomes generated by these factors.

Thus, the year 2020 once again confirmed that the current account balance of the Russian Federation is secure from any significant downfalls, let alone a shift into negative zone, because the national currency weakening in response

1 Concerning the effects of the exchange rate movement on trade, see *Knobel A., Firanchuk A.* Russia's foreign trade in January-August 2017 // Russian Economic Development. 2017. V. 24. No. 11. P. 12–18.

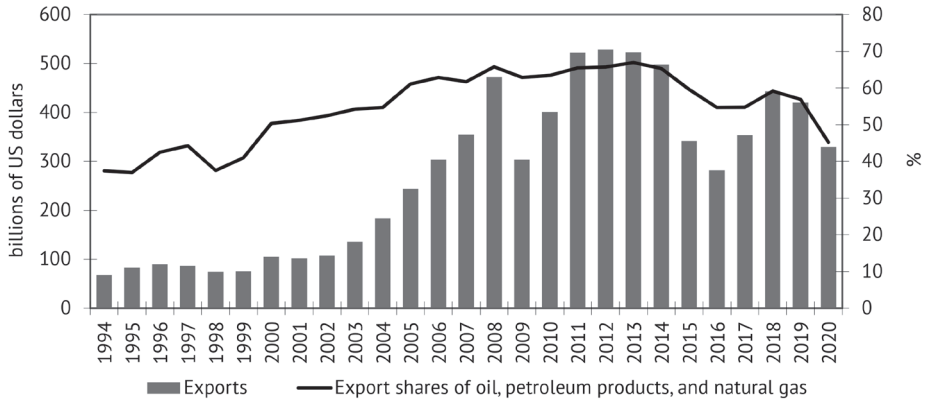

Fig. 9. The movement of goods exports and the export shares of products of the fuel and energy complex, 1994–2020

Source: Bank of Russia.

to declining prices for Russia's main exports translates into a shrinkage in the negative balances of both trade in services and factor income (generated from capital and labor). However, in 2020, it is the closure of borders and the nearly total halt in outbound tourism that contributed significantly to a less pronounced weakening of the ruble and the persisting current account surplus.

In 2020, the financial account deficit reached $49.9 bn, compared with a surplus of $3.9 bn in 2019. Net capital outflow was caused in the main by a shrinkage in foreign financial liabilities, by $43.1 bn in 2020 (while in 2019, foreign financial liabilities increased by $28.7 bn), and by a slight growth displayed by foreign financial assets ($6.8 bn in 2020 vs $24.8 bn in 2019).

The liabilities to non-residents were reduced as a result of operations carried out in 2020 by the banking sector and the other sectors, to the total value of -$25.8 and -$20.3 bn, respectively (vs -$19.8 and +$25.2 bn in 2019, respectively). The amount of foreign portfolio investments in the other sectors decreased by $14.1 bn (vs -$4.2 bn in 2019); the volume of foreign loans and borrowings decreased by $8.3 bn (vs -$6.2 bn in 2019); other liabilities to non-residents increased by only $0.7 bn (vs $6.7 bn in 2019). Foreign direct investment in the other sectors increased by $1.4 bn in 2020 (vs $28.9 bn in 2019).

As seen by the year-end results of 2020, the volume of government bodies' liabilities to non-residents increased by $3.9 bn (vs $22.0 bn in 2019). As of January 1, 2021, the share of non-residents in the OFZ market dropped to 23.3%, while at the beginning of the previous year it had been 32.2%. The reduction in foreign liabilities was due, most likely, to the high uncertainty as to the development prospects of the global economy and Russia's domestic economy: the attraction of non-residents' investment in Russian assets is becoming less rewarding both for Russian and foreign economic agents.

The growth of financial assets of Russian residents abroad occurred predominantly due to operations in the non-banking sector. Thus, for example, in 2020, the foreign assets held by the other sectors increased by $13.9 bn (+$26.5 bn in 2019). The growth of foreign assets in the other sectors resulted from increasing outgoing direct investments ($6.3 bn in 2020 vs $22.6 bn in 2019), outgoing portfolio investments ($10.2 bn in 2020 vs $2.3 bn in 2019), and trade loans and trade advances ($7.9 bn in 2020 vs $9.6 bn in 2019). The amount of foreign assets held by banks shrank by $7.9 bn (vs $2.1 bn in 2019). The foreign assets held by government administration bodies increased by $0.9 bn (vs +$0.5 bn in 2019).

As a result, net capital outflow from the private sector in 2020 fell sharply, to $47.8 bn (vs $22.1 bn in 2019) (*Fig. 10*). At the same time, in 2020, net capital outflow from the banking sector amounted to $17.9 bn, which corresponds to the level of 2019 when this index stood at $17.7 bn. In the non-banking sector, net capital outflow significantly increased, to $30.0 bn (vs $4.3 bn in 2019).

The excess of capital outflow in the financial account over the positive current account balance was offset by a shrinkage in international reserve assets, in the amount of $13.8 bn (vs +$66.5 bn in 2019). The decline in forex reserves was the upshot of foreign currency sales carried out by the Bank of Russia from March 2020 onwards by way of complying with the fiscal rule, because the oil price fell below the cutoff price. Overall for 2020, the volume of foreign currency sales by the RF Ministry of Finance in the domestic forex market amounted to approximately $22.7 bn, including the currency needed to pay for the government stakes in Sberbank PJSC and Aeroflot PJSC. It should be noted that over the August-September 2020 period, in connection with the Sberbank deal, the RF Central Bank offset the foreign currency residuals earmarked for sale against all the foreign currency purchases and sales that had been deferred since 2018. The balance of these transactions amounted to approximately $2.4 bn. The regulator

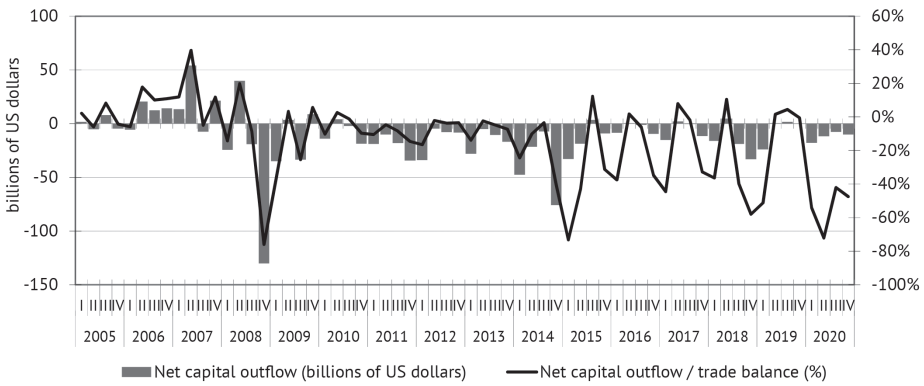

Fig. 10. Net capital outflow from the private sector, 2005–2020

Source: Bank of Russia; own calculations.

then gradually sold this excess currency in equal amounts over the course of Q4 2020 alongside its regular currency sale operations under the fiscal rule.

As mentioned earlier, in 2020 the ruble exchange rate against the US dollar fell by 19.3%, to Rb73.9. The first plunge occurred in March 2020 (16%), it was caused in the main by the sharp drop in oil prices. The ruble's second depreciation peak was observed in September 2020 (6.8%). It had to so with the intensification of geopolitical risks coupled with the diminishing attractiveness of Russia's OFZs for non-residents in the context of a reducing key rate and waning investor interest in the assets available in the developing countries in a situation of global uncertainty. Over the November-December 2020 period, in response to improved terms of trade, the ruble appreciated by 6.9% relative to October 2020.

It should be noted that in 2020, the ruble lost more in nominal terms against the US dollar than the national currencies of many other developing countries where inflation is targeted. Thus, in 2020, while in South Africa and Mexico the decline of the national currency's nominal effective exchange rate amounted to 4.7% and 5.9%, respectively, Russia's national currency plunged by 19.3% (*Fig. 11*). As of year-end 2020, the leaders in terms of national currency weakening were Brazil and Turkey (28.9% and 23.1%, respectively). Meanwhile, the currencies of some other developing countries strengthened slightly (2.1%, Chilean peso; 1.0%, Polish zloty).

In 2020, the foreign debt of the Russian Federation decreased by $21.3 bn, amounting to $470.1 bn as of January 1, 2021. The foreign debt of government administration bodies decreased by 5.5% to $66.1 bn, as a result of foreign capital outflow from the Russian OFZ market. The foreign debt of banks and enterprises decreased by 4.1%, to $391 bn.

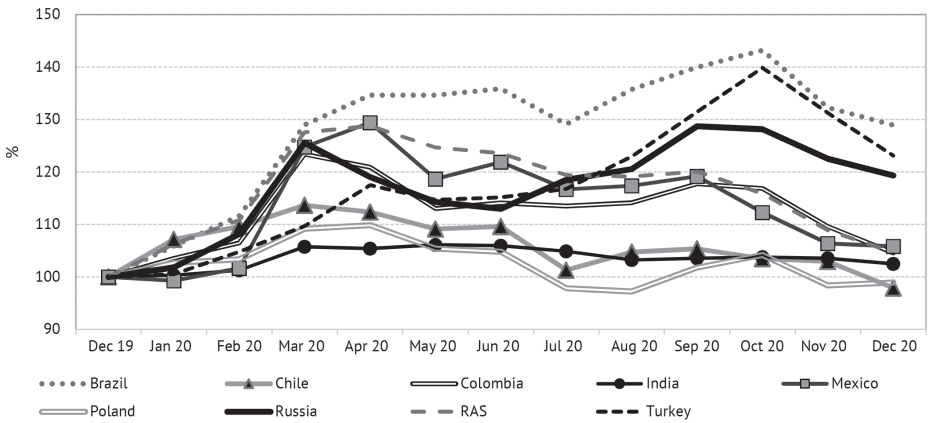

Fig. 11. The movement of nominal effective exchange rates of national currencies in the developing countries targeting inflation (December 2018 = 100%)

Source: IMF; own calculations.

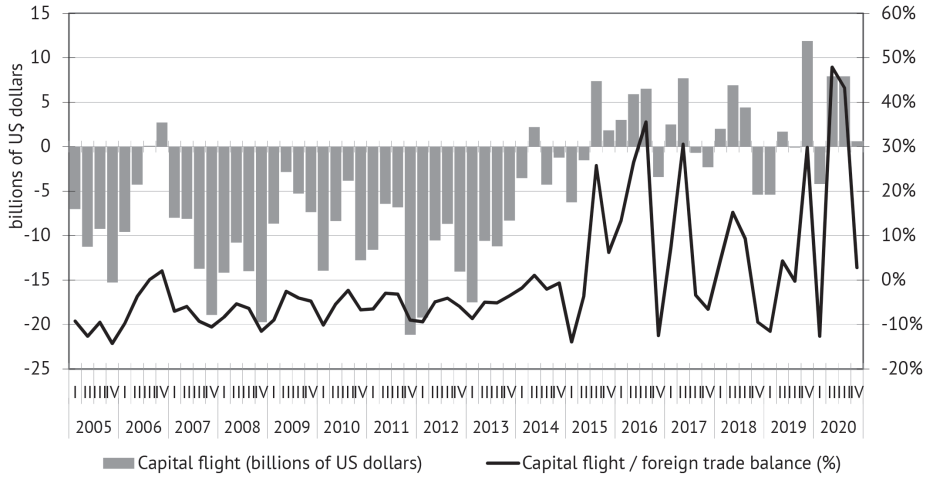

Fig. 12. Capital flight dynamics, 2005–2020.

Source: Bank of Russia; own calculations.

Our year-end estimate of capital flight for 2020 (*Fig. 12*) is $ 12.2 billion, which represents an increase of 50.6% on 2019[1] and reflects the success of Russia's authorities in blocking illegal channels of capital flight.

* * *

For 2021, as the epidemiological risks are expected to recede and the global economy to recover, we predict an increase in the current account surplus following the upward movement of prices for energy carriers, in spite of a possible recovery in imports. In addition, a gradual risk premium decline will conduce to the inflow of capital into the Russian market. As the oil price is expected to climb above the cutoff level in 2021, reserve assets will increase in response to the operations under the fiscal rule. As of the beginning of 2021, the ruble's fundamentally substantiated exchange rate against the US dollar was Rb68–69, which means that it was undervalued by 7–9%.[2] Thus, during 2021, the ruble may strengthen to this level, but this will happen only in absence of new economic and geopolitical shocks.

1 Capital flight is calculated according to the IMF methodology; it is the sum of 'trade loans and advance payments', 'questionable deals', and 'net errors and omissions'.

2 For more details, see *Bozhechkova A.V., Sinelnikov-Murylev S.G., Trunin P.V.* Factors of the Russian ruble exchange rate dynamics in the 2000s and 2010s // Voprosy Ekonomiki., 2020, No. 8, pp. 1–18.

2.2. Fiscal policy[1]

2.2.1. The characteristic features of budgets across the RF budget system

The Basic budget parameters of the RF budget system

The budget system revenues of the Russian Federation in 2020 shrank by Rb3.4 trillion in real terms compared to the previous year, or by 8.6% at constant prices (*Table 6*) on the back of reduced oil and gas revenues. For this reason, the proportion of oil and gas revenues in the total budget revenues of the enlarged government declined in 2020 to 13.1% against 20.9% in 2019. For non-oil and gas revenues, there is a slight increase of Rb118.0 bn or by 0.4% in constant prices, which was achieved during the crisis on the back of the transfer to the federal budget of the Bank of Russia profit obtained from the sale of equity stake in Sberbank (reflected under other income). In the total revenue side of the expanded government's budget, the federal budget revenues decreased to 49.4% in 2020, compared to 51.1% in 2019.

Table 6

Basic parameters of the RF enlarged government in 2019–2020

	2019		2020		Deviation, 2020 to 2019		
	Rb bn	% of GDP	Bn Rb	% of GDP	Rb bn (in 2019 prices)	In constant prices*, %	p.p. of GDP
Revenue, including:	**39 497**	**36.0**	**37 857**	**35.5**	**-3 412**	**-8.6**	**-0.5**
- oil and gas revenue	8 248	7.5	4 950	4.6	-3 530	-42.8	-2.9
-non-oil and gas revenue	31 249	28.5	32 907	30.9	118	0.4	2.4
Expenditure	**37 382**	**34.0**	**42 151**	**39.5**	**2 796**	**7.5**	**5.5**
Deficit (-) /Surplus (+)	**2 115**	**2.0**	**-4 294**	**-4.0**	**-6 208**	**–**	**-6.0**
For reference: GDP, billions of rubles	*110 046*		*106 607*				

* According to the consumer price index.
Sources: Ministry of Finance of Russia, Federal Treasury, Rosstat, own calculations.

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Expenditures of the Russian budget system increased by Rb2.8 trillion in real terms or by 7.5% compared to the previous year. In the total expenditure of the enlarged government budget, federal budget expenditures amounted to 56.6% in 2020 against 51.7% in 2019. The budget deficit of the enlarged government for January-December 2020 increased by Rb6.2 trillion in real terms relative to the budget surplus received at the end of 2019 and amounted to around Rb4.3 trillion, mainly due to the negative balance of the federal budget worth of Rb4.1 trillion.

The Main Tax Receipts in the RF Budget system

Revenues from all major taxes and duties dropped, with the exception of personal income tax and excise taxes (*Table 7*). The largest decrease occurred in customs duties and fees (a drop of more than 60% in real terms), the Mineral Extraction Tax (MET) (by almost 40%), and income tax (by 16%). For insurance premiums and VAT, receipts in 2020 declined slightly.

Table 7

The main tax receipts in the enlarged government budget of the Russian Federation in 2019–2020, RB bn

	2019	2020	Deviation, 2020 to 2019 in prices of 2019%
Corporate profit tax	4 541	4 018	-15,6
PIT	3 900	4 253	4,0
Insurance contributions*	7 292	7 329	-4,2
VAT	7 088	7 202	-3,1
Excises	1 363	1 935	35,4
MET	6 106	3 954	-38,3
Customs duties and fees	3 000	1 148	-63,5

* Minus contributions for non-working population.
Sources: MMinistry of Finance of Russia (operational data), Federal Treasury, own calculations.

Oil and gas revenues. The base rate of the mineral extraction tax (MET) on crude oil was maintained at Rb919 per ton, as in 2019. the dollar exchange rate and the oil price were the main factors of the MET dynamic.

On average for 2020, the price of Urals crude oil demonstrated a sharp drop (*Fig. 13*): in particular, in April 2020, it stood at around $16 bbl, which was due to a drop in oil demand amid the introduction of quarantine measures and an increase in supply owing to the collapse of the OPEC+ deal. Considering the fact that already at $15 bbl, the MET rate (according to the formula for calculating it) becomes zero, in April 2020, an all-time record was set – the minimum value of the ruble MET rate of Rb334 per ton of oil. The weakening of the ruble, which accompanied the fall in oil prices, somewhat smoothed out the loss of oil and gas revenues.

Corporate profit tax. The decline in income tax receipts was triggered by a general decline in business activity during the crisis. According to Rosstat, the income of profitable enterprises in 2020 in 2019 prices amounted to more than

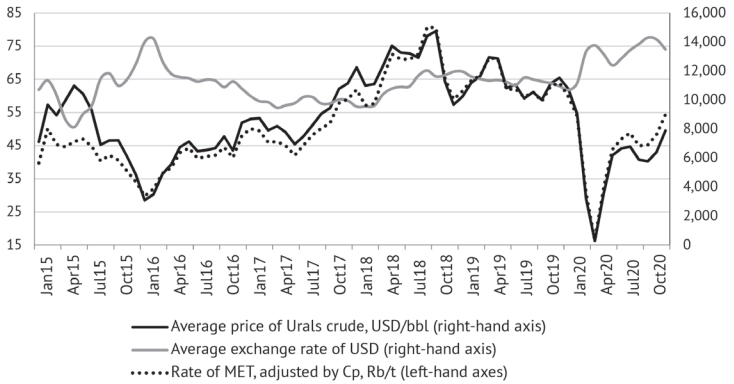


Fig. 13. The dynamic of the actual rate of MET, prices of Urals, and the exchange rate of USD in 2015–2020

80% of the 2019 level. The hardest hit industries in terms of reduced profit volumes were transportation and shipping operations (20-40% of the 2019 profit) and mining (60-80%). This being said, we should not expect a rapid recovery of income tax revenues, since in 2020 there was an accumulation of retained losses of enterprises – its level in constant prices has increased by about 2.5-fold compared to 2019.

Payroll taxes. In 2020, the payroll fund as the main tax base for insurance contributions and personal income tax in 2019 prices did not practically drop. According to the Q1 2020 results, the growth of the payroll fund in comparison with Q1 2019 continued, and the fall in Q2 2020 was recouped in Q3 and Q4 (the payroll fund in these 2 quarters at constant prices was approximately at the level of the previous year).

At end-2020, the payroll fund in construction, tourism and public catering did not fully recover (up to a third of the drop in constant prices), while the payroll fund increased in the sectors related to financial services, information technology and communications, as well as real estate transactions.

Value added tax (VAT). Total VAT receipts in 2020 decreased only slightly relative to the 2019 level. Furthermore, the decrease slightly affected both VAT on imported goods (-1.4% from the level of 2019) and on goods sold in the country (-4.3% from 2019). Retail turnover at comparable prices in Q1 2020 amounted to 104.4% from the level of the corresponding quarter of 2019, in Q2 – 84%, in Q3 – 98.4%. A full recovery in the level of retail turnover did not happen at the end of Q4 (97.2%), so the recovery of VAT receipts should be expected no earlier than the end of 2021.

Excises. Excise tax receipts from tobacco products in 2020 showed a positive trend compared to the previous year, although excise tax rates were increased only by the target inflation rate, and the total market volume continued to decline. In 2018-2019, as a result of a significant increase in the volume and share of the illegal tobacco market (up to 8.5% and 15%, respectively), excise tax receipts decreased for the first time in a decade. In 2020, due to the restrictive

border crossing measures taken to face the COVID-19 pandemic, a significant part of the smuggling channels was "covered up", as a result of which, according to preliminary estimates, the share of illegal traffic decreased to 7.5%. As a result, budget revenues generated by excises on tobacco products have almost recovered to the 2018 level. At the same time, it is worth noting the increase in the proportion of the heated tobacco segment in the total structure of all tobacco excise taxes: if in 2017 it was less than 1%, then in 2020 it reached 5%. The tax collection rate in this segment is almost 100% owing to the full control of this market segment by major players, which is stemming from the technological complexity of the product.

Total revenues from alcohol products increased in 2020, but not in the same way as projected in the context of the expected deviations in the consumption structure induced by the COVID-19 pandemic. That said, the dynamic broken down by segments is ambiguous.

From the point of view of tax collection, the best situation is in the beer market: the consolidated budget revenues from excise taxes on beer in 2020 amounted to Rb173 bn, and the input of beer to the structure of proceeds from excise taxes on alcoholic beverages exceeded 40%.

In recent years, the input of excise taxes from wine to the total income from excise taxes on alcoholic beverages has been growing: if in 2016 it was 3.5%, then by the end of 2020 it was already 6.2%, while budget revenues amounted to Rb26.5 bn. In 2020, the structure of taxation in the wine market changed: rates for wine beverages increased markedly, while domestic wine producers from homeland grapes gained a relative tax advantage. Despite the general increase in the rate, the collection rate remains at a high level.

Budget revenues from strong alcoholic beverages in 2020 remained almost at the 2019 mark and amounted to Rb224 bn. At the meantime, the excise tax collection in this segment fell slightly, but was offset by an increase in the excise rate and an overall increase in the consumption of strong alcohol products.

The Expenditure Side of the RF Budget system

Expenditures of the budget system of the country markedly increase in real terms in 2020 – up by 7.5% or by Rb2.8 trillion compared to the previous year (*Table 8*).

The major growth in expenditures in 2020 compared to the previous year is noted in the sections that provide funding for measures to reduce the social and economic risks associated with the pandemic, including (growth in constant prices): *Social policy* (Rb1,055.5 bn, or 8.1%), *Healthcare* (Rb918.5 bn, or 24.2%), *National economy* (Rb586.3 bn, or 11.3%). In real terms, a slight decrease is observed only in expenditures on financing national issues, housing and communal amenities, culture and cinematography. The real budget execution exceeded the annual budget allocations initially approved for 2020 at all levels of the budget system and amounted to (in nominal terms): according to the federal budget Rb2,780.8 bn, according to the state extra-budgetary funds Rb1,147.5 bn, and according to the consolidated budget of the subjects of the Russian Federation Rb767.4 bn.

Table 8

Enlarged government budget expenditure in 2019–2020

	2019		2020		Deviation, 2020 to 2019		
	Rb bn.	% of GDP	Rb bn	% of GDP	Rb bn (in 2019 prices)	In constant prices, %	p.p. of GDP
Expenditure total, including:	**37 382,2**	**34,0**	**42 150,9**	**39,5**	**2 796,2**	**7,5**	**5,5**
Nationwide issues	2 234,8	2,1	2 251,6	2,4	-88,6	-4,0	0,3
National defense	2 998,9	2,7	3 170,7	3,0	23,4	0,8	0,3
National security and law enforcement activity	2 233,6	2	2 392,4	2,2	46,8	2,1	0,2
National economy	5 171,8	4,8	6 040,8	5,7	586,3	11,3	0,9
Housing and community amenities	1 574,9	1,4	1 590,5	1,5	-58,8	-3,7	0,1
Environmental protection	250,3	0,2	303,9	0,3	39,4	15,7	0,1
Education	4 050,6	3,7	4 324,0	4,1	71,0	1,8	0,4
Culture, cinematography	587,9	0,5	610,1	0,6	-6,4	-1,1	0,1
Healthcare	3 789,7	3,5	4 939,4	4,6	918,5	24,2	1,1
Social policies	13 022,8	11,9	14 769,5	13,7	1 055,5	8,1	1,8
Physical culture and sports	375,4	0,3	400,7	0,4	6,5	1,7	0,1
Mass media	156,1	0,1	173,7	0,2	9,5	6,1	0,1
Government and municipal debt servicing	835,4	0,8	883,5	0,8	6,8	0,8	0,0

Sources: Finance Ministry of Russia (operational data), Federal Treasury, own calculations.

The Russian government relief package in 2020-2021 is worth almost Rb 4.8 trillion[1] or 4.6% of GDP, which is slightly lower than the level of the stimulus support in the OECD and BRICS countries (*Fig. 14*). The Russian practice of using various instruments of state support, with due regard for the real needs of businesses and households, has proved its effectiveness. Thus, the Russian economy ended 2020 with the least losses: Russian GDP for the year contracted by 3.1%, while in the figures presented in *Fig. 14*, GDP in developed countries shrank from 3.7% to 11.2%, and in India, Brazil and South Africa from 4.5% to 9.6%.

The Russian government approaches to the implementation of the anti-crisis policy are generally consistent with the practice of developed economies in prioritizing support areas and individual decisions, while having a fairly

1 The budget allocations appropriated by the corresponding Decrees of the Government of the Russian Federation as part of the stimulus policy implementation, the maximum amount of state guarantees envisaged, the assessment of tax expenditures, and the off-balance-sheet recapitalization of VEB.RF and Sberbank of Russia (by converting credit obligations into equity); excluding deferred income, as well as measures of the National Plan that are not included in the relief packages.

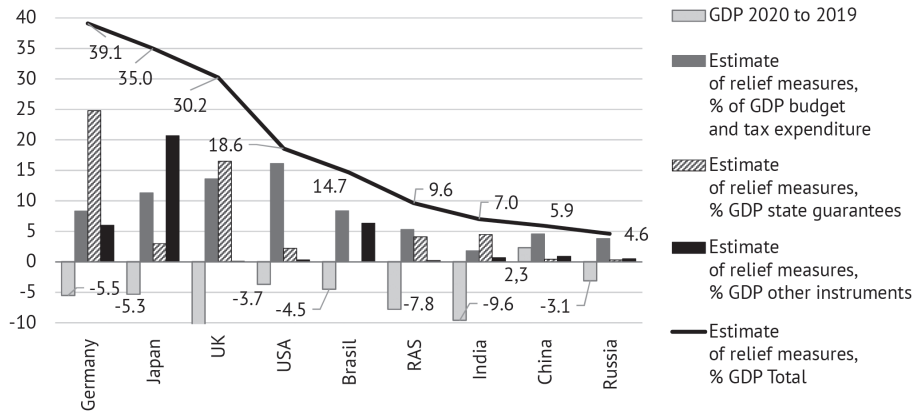


Fig. 14. The volume of relief programs (% of GDP) and GDP growth rates in 2020 in certain countries of the world

Sources: IMF data (January 2021), own calculations.

high social focus of direct budget incentives. A common feature of all national social protection programs is that budget support is provided to a wide range of recipients, not just the unemployed and the needy. In Russia, spending on household income support under the relief measures program accounted for almost half of the total amount of direct budget incentives, and social transfers to households account for one third of the total amount of anti-crisis response tools used by the Government of the Russian Federation. In general, according to the results of the implementation of the enlarged government budget in 2020, expenditures on social security and other payments to the population amounted to Rb16.6 trillion (Rb14.6 trillion in 2019).

No less significant in terms of the amount of budget resources allocated to the anti-crisis policy in Russia was the support of business (slightly less than 30% of the total budget expenditures of all three relief packages). The most "costly" measure of direct assistance to the private sector of the economy in 2020 was the provision of grants to SMEs in the hardest hit sectors for the payment of wages and salaries and other urgent tasks (Rb104 bn). Total expenditures of the enlarged government budget in 2020 for providing subsidies to enterprises of the real sector of the economy[1] and state-owned companies amounted to Rb2.4 trillion and Rb0.8 trillion, respectively (in 2019 – 2.0 and 0.5 trillion rubles, respectively)

Support for the national public health system - an uncharacteristic direction of anti-crisis policy in previous economic crises - was provided in all countries. The main response of the governments was the appropriation of additional budget allocations for the material equipment of public health institutions to combat the spread of COVID-19, the promotion of employees of public health

1 Legal entities (except non-commercial organization), individual entrepreneurs, individuals – producers of goods, works, and services.

institutions (in monetary and other forms), as well as experimental development and research. The scale of fiscal stimulus in this area is diverse: from 1.5% of GDP in the UK and the US to 0.5% of GDP in Australia or 0.3% of GDP in Sweden and New Zealand. The government of the Russian Federation in the context of the pandemic has allocated almost Rb340 bn to support the public health system. Most of these funds went to additional payments to medical and social workers who work with coronavirus patients. As a result, the budget expenditures of the enlarged government in 2020 rose in real terms compared to the previous year in the following areas of the *Public Health* program: for sanitary and epidemiological well-being by more than 2-fold (up to Rb70.9 bn), for providing emergency medical care by 1.8-fold (up to Rb55.0 bn), for inpatient medical care by 53.2% (Rb43.7 bn); the largest increase occurred in the subsection "other issues in the field of public health" by Rb493.8 bn.

The volume of productive spending of the enlarged government budget in 2020 was to the tune of Rb13.8 trillion in nominal terms, compared to Rb11.9 trillion a year earlier. The growth of productive spending in 2020 compared to the previous year is observed in almost all subsections, including (in nominal terms): *Healthcare* (Rb1,149.7 bn), *Public Roads* (Rb193.2 bn), *Transportation* (Rb123.2 bn). In general, the share of productive spending in the structure of the enlarged government budget expenditures showed an uptick up from 31.8% in 2019, up to 32.7% in 2020, which can be estimated as a continuation of the budget maneuver launched since the implementation of national projects.

The Debt of the RF Budget System

The revenue shortfall and the need to finance additional spending on anti-crisis relief measures led to unprecedented public borrowing, carried out mainly by the federal budget. By itself, the level of the debt burden stays at a safe level (less than 20% of GDP), however in the context of the emerging trend towards a reduction in oil and gas revenues of the budget system, the question of fiscal consolidation inevitably arises, which implies either a reduction in the expenditure side of the budget or an increase in taxes. In the absence of fiscal consolidation and while

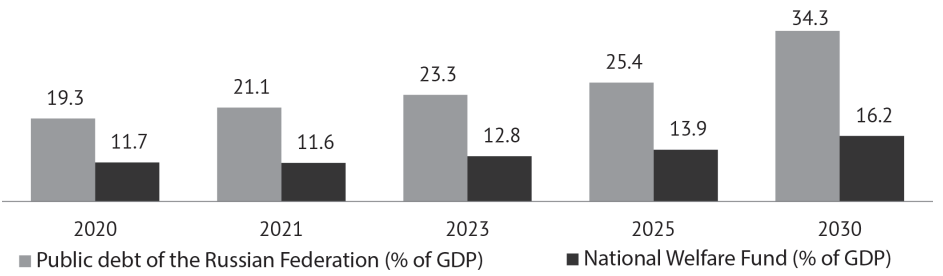


Fig. 15. The volume of public debt of the Russian Federation and the National Welfare Fund

Sources: Finance Ministry of Russia, own calculations.

maintaining the current fiscal policy, the public debt (according to calculations made on the data of the long-term budget forecast of the Ministry of Finance of the Russian Federation as of October 2019) and the "Main directions of budget, tax and customs and tariff policy for 2021 and the planning period of 2022 and 2023" of October 2020) may grow from 19.3% of GDP at the end of 2020 to 34.3% of GDP by the end of 2030 (*Fig. 15*). This being said, there will be an increase in debt service costs from 1.1% of GDP in 2020 to 2.0% of GDP in 2030. Furthermore, the increase in public debt will not be offset by a corresponding increase in the balance of funds in the NWF – the ratio of funds accumulated in the NWF to the amount of public debt will fall from 60% (at end-2020) to 47% (at end-2030).

2.2.2. The Characteristic Features of the Federal Budget

In 2020, in real terms the federal budget revenues decreased by 11.7% at constant prices compared to the corresponding period in 2019 (*Table 9*), and cash execution hit 90.8% of the approved forecast volumes for 2020. The largest reduction (2020 to 2019) in real terms is noted for oil and gas revenues of the federal budget by Rb3.5 trillion, or by 42.8%. At end-2020, the basic volume of oil and gas revenues amounted to Rb4.9 trillion.[1]

Table 9

The main parameters of the RF budget system in 2019–2020

	2019	2020			Change, 2020 to 2019	
	Real	Law of FB for 2020*	Law of FB for 2020 with amendments**	Fact	Rb bn (in 2019 prices)	In constant prices, %
Revenue, including:	**20 188.8**	**20 379.3**	**20 593.6**	**18 699.3**	**-2 363.0**	**-11.7**
- oil and gas	8 247.7	7 472.2	7523.8	4 950.2	-3 528.7	-42.8
- non-oil and gas	11 941.1	12907.1	13069.8	13 749.1	1 165.8	9.8
Expenditure, including:	**18 214.2**	**19 503.9**	**19 666.0**	**22 812.7**	**3 532.9**	**19.4**
- interest expense	730.8	896.9	896.9	784.2	16.8	2.3
- non-interest expense	17 483.4	18 607.0	18 769.1	22 028.5	3 516.1	20.1
Budget surplus (deficit)	**1 974.6**	**875.4**	**927.6**	**-4 113.4**	**-5 895.9**	**–**
Non-oil and gas deficit	-6 273.1	–	–	-9 063.6	-2 367.1	–

* Federal Law dated December 2, 2019 No. 380-FZ "On the Federal Budget for 2020 and the planned period 2021 and 2022".
** Federal Law dated March 3, 2020 No. 52-FZ "On Amendments in the Federal Law 'On the Federal Law for 2020 and the planned period 2021 and 2022' ".

Sources: Finance Ministry of Russia, Federal Treasury, 2020 GDP – Rosstat estimate, own calculations.

In 2020, non-oil and gas revenues of the federal budget went up by Rb1.2 trillion, or by 9.8% in real terms compared to the previous year, mainly in consequence of the aforementioned transfer of the central bank's profit from the sale of the Sberbank equity stake.

Federal budget expenditures in 2020 rose by Rb3.5 trillion compared to the previous year, or by 19.4% in real terms (*Table 10*). The cash execution of the

1 Including the reimbursement of excise.

federal budget in 2020, taking into account budget assignments distributed without amendments to the federal law, stood at 95.8% (in 2019 – 94.2%).

Table 10

Federal budget expenditure in 2019–2020

	2019		2020		Deviation, 2020 to 2019		
	Rb bn	% of GDP	Rb bn	% of GDP	Rb bn (in 2019 prices)	In constant prices, %	p.p. of GDP
Nationwide issues	**18 214.2**	**16.5**	**22 812.7**	**21.4**	**3 532.9**	**19.4**	**4.9**
National defense	1 363.5	1.2	1 502.4	1.4	68.7	5.0	0.2
National security and law enforcement activity	2 997.4	2.7	3 167.8	3.0	22.4	0.7	0.3
National economy	2 083.2	1.9	2 225.5	2.1	38.3	1.8	0.2
Housing and community amenities	2 827.1	2.6	3 483.8	3.3	494.0	17.5	0.7
Nationwide issues	282.2	0.3	370.0	0.3	70.5	25.0	0.0
Environmental protection	197.5	0.2	260.6	0.2	50.9	25.8	0.0
Education	826.5	0.7	956.7	0.9	85.5	10.3	0.2
Culture and cinematography	122.4	0.1	143.9	0.1	14.8	12.1	0.0
Healthcare	713.0	0.6	1 334.5	1.3	559.2	78.4	0.7
Social policies	4 882.8	4.4	6 991.0	6.6	1 781.6	36.5	2.2
Physical culture and sports	81.4	0.1	75.2	0.1	-9.7	-11.9	0.0
Mass media	103.5	0.1	121.1	0.1	11.9	11.5	0.0
Government debt servicing	730.8	0.7	784.2	0.7	16.8	2.3	0.0
Intergovernmental fiscal transfers	1 003.1	0.9	1 395.9	1.3	327.6	32.7	0.4

Sources: Finance Ministry of Russia (operational data), Federal Treasury, own calculations.

The largest growth (2020 to 2019) is registered in expenditures related to supporting the economy and social sphere in the wake of the pandemic, including the sections (in real terms): "Social policy" by Ки 1,781.6 bn (36.5%), *National economy* by Rb494.0 bn (17.5%), *Healthcare* by Rb559.5 bn (78.4%), and *Intergovernmental fiscal transfers* by Rb327.6 bn (32.7%).

In 2020, Federal budget expenditures on the implementation of national projects in real terms shot up by Rb446.7 bn, or by 27.9% compared to the previous year (*Table 11*). At the same time, the cash execution accounted for 97.4% of the approved annual assignments, which is 6.0 p.p. higher than the cash execution for the same period in 2019, and the improvement in cash execution of national projects is marked for most of them. At the same time, it should be noted that expenditures on national projects in 2020 were disbursed rather erratically: for example, as of December 1, 2020, the level of cash execution of federal budget

expenditures on national projects stood at only 78%. However, at the year-end, the level of disbursement of funds for national projects exceeded the cash execution for the expenditure side of the federal budget as a whole.

Table 11

The main parameters of the federal budget execution across national projects

	2019		2020		Deviation, 2020 to 2019	
	Rb bn	Cash execution, %	Rb bn	Cash execution, %	Rb bn (in 2019 prices)	In constant prices, %
Expenditure, total, including:	**18 214.2**	**94.2**	**22 812.7**	**95.8**	**3 532.9**	**19.4**
Across national projects, total, including:	*1601.8*	*91.4*	*2149.1*	*97.4*	*446.7*	*27.9*
Demography	498.4	95.5	689.6	98.0	158.9	31.9
Healthcare	157.2	98.0	295.7	96.1	124.7	79.3
Education	98.8	91.0	114.9	86.4	10.7	10.9
Culture	14.0	99.0	15.8	98.4	1.1	7.6
Science	37.6	99.1	40.3	99.2	0.8	2.2
Housing and Urban Environment	98.9	93.8	168.7	99.7	61.9	62.6
Ecology	36.9	66.3	63.1	97.6	23.2	63.0
Small and Medium-Sized Businesses and Support for Individual Entrepreneurs	56.4	93.1	61.7	96.9	2.4	4.3
International Cooperation and Exports	78.2	89.1	70.4	97.5	-11.1	-14.2
Digital Economy of the Russian Federation	73.8	73.3	86.3	97.0	8.5	11.5
Productivity and Employment Support	6.2	87.1	4.0	98.7	-2.4	-38.5
Safe and Quality Roads	138.4	97.1	155.7	98.7	10.0	7.2
Modernization of Infrastructure	306.4	88.0	382.6	99.4	58.3	19.0
Share of spending on NP in the overall volume of federal budget expenditure, %	8.8	–	9.4	–	–	–

Sources: Federal Treasury, own calculations

The share of spending on national projects in the total volume of federal budget expenditures in 2020 rose to 9.4% against 8.8% in 2019, which indicates a slight uptick in the proportion of productive expenditures in the federal budget. In real terms, the volume of funding for projects in 2020 increased: *Healthcare* up by 79.3%, *Ecology* up by 63.0%, *Housing and Urban Environment* up by 62.6%. Reduction in funding in 2020 in real terms compared to 2019 is registered solely

for the projects *Productivity and Employment Support* and *International Cooperation and Export* up by 38.5% and 14.2%, respectively, which is mainly owing to the spending planning features.

The federal budget deficit in January-December 2020 hit Rb4,113.4 bn against a surplus of Rb1,974.6 bn for the same period in 2019, respectively, the non-oil and gas deficit spiked from Rb6,273.1 bn Rb9,063.6 bn. As for the federal budget cash flow taken as sources of covering the budget deficit, one should note that in 2020 Rb5,176.3 bn were raised on the domestic market, with the planned volume of bond placement of Rb2,324.8 bn, the volume of borrowings on the foreign market amounted to Rb180.6 bn and the volume of repayment came to Rb 81.2 bn (planned volumes – Rb207.2 and Rb343.1 bn, respectively).

As of January 1, 2021, the volume of public domestic debt amounted to Rb14,751.4 bn (including state guarantees to the tune of Rb695.2 bn), the volume of public foreign debt amounted to $56.7 bn.

In 2020, the volume of the NWF funds in ruble terms climbed from Rb7.8 trillion (or $125.6 b) to Rb13.5 trillion ($183.3 billion), including owing to the transfer of additional oil-and-gas revenues formed at end-2019 and currency revaluation. The amount of the NWF funds allocated to finance the federal budget deficit in 2020 amounted to only Rb289.8 bn. In other words, the NWF funds were unused as part of the Russian Government's anti-crisis relief package

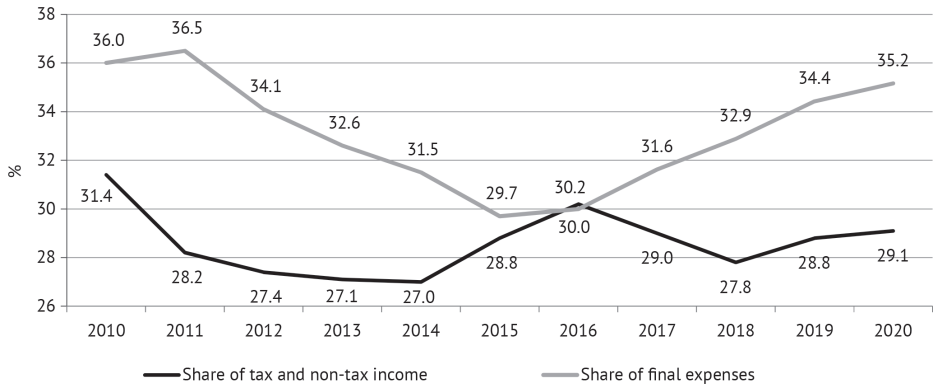
2.2.3. Intergovernmental relations and subnational finance

The Main Parameter of the Consolidated Budgets of the RF subjects

The main trends in relations between different levels of government are reflected in the structure of revenues and expenditures of the consolidated budgets of the subjects of the Russian Federation. *Fig. 16* exhibits the data reflecting the proportion of tax-generated and non-tax revenues and final expenditures of the consolidated budgets of the subjects of the Russian Federation in the total amount of tax-generated and non-tax revenues and expenditures of the consolidated budgets of the Russian Federation and state extra-budgetary funds.

Since 2021, the share of the tax-generated and non-tax revenues of the sub-federal level in the corresponding budget revenues of the enlarged government has varied in the range from 27% to 30%. The relative stability of this index can be explained by the synchronicity of the reaction of federal and regional tax-generated revenues to changes in external and internal factors. The crisis year of 2020 was no exception: the share of tax-generated and non-tax revenues of consolidated regional budgets in the tax-generated and non-tax revenues of the budget system of the Russian Federation in 2020 exhibited a slight uptick compared to 2019 - from 28.8% to 29.1%, which derives from a relatively smaller reduction in regional income compared to the federal one.

The share of final expenditures of regional and local budgets in the expenditures of the budget system of the Russian Federation demonstrated a slight uptick from



Note. In order to ensure comparability of the data for the reviewed period and to avoid double counting, the data on the budget parameters of the budget system of the Russian Federation, as well as the expenditures of the consolidated budgets of the subjects of the Russian Federation, were adjusted granting the insurance premiums for mandatory health insurance of the unemployed population.

Fig. 16. The share of tax-generated and non-tax revenues and subnational budget expenditures in the revenue and expenditure of the budget system of the Russian Federation in 2010–2020

Sources: Federal Treasury, own calculations.

34.4% to 35.2%. This reallocation of expenditures in favor of the regional level stems to the large-scale from an increase in financial assistance to the regions from the federal budget, aimed at mitigating the crisis fallout.

Revenue

The dynamic of the main components of the revenues of the consolidated budgets of the subjects of the Russian Federation in 2020 is presented in *Table 12*.

According to the Federal Treasury data on the regions budgets execution, the total revenue of the consolidated budgets of the RF subjects in 2020 gained 9.8% (up by 4.7% in real terms), amounting to Rb14.9 trillion. In the meantime, the regions own tax-generated and non-tax revenues dipped by 1.8%, and the growth of the total revenue of the consolidated budgets of the subjects of the Russian Federation was secured by fiscal transfers from the federal budget, which soared by 53.9%. It should be noted that the main reduction in tax-generated and non-tax revenues was observed in H1 2020, i.e. during the lockdown period. For the first 6 months of 2020 compared to the first half of the previous year, the reduction in tax-generated and non-tax revenues was 7.2%, while in the second half of the year they increased by 3.2%.

At the year-end, corporate income tax receipts fell the most from large revenue sources of the budgets of the subjects of the Russian Federation, which declined by 12.8%. Tax receipts on total income also dropped by 0.7% and non-tax income – down by 11.7%. Meanwhile, personal income tax revenues increased by 7.5%,

which indirectly indicates that anti-crisis measures helped prevent a reduction in household income and excise taxes (+ 5.6%). Largely due to the positive growth in the transport tax (+6.8%) and the personal property tax (+11.4%), a small final increase was exhibited by the group of property taxes (+ 0.5%).

Table 12

Revenue of the consolidated budgets of the RF subjects in 2019–2020

	Rb bn in nominal terms		Nominal growth, %	Real growth, %*
	2019	2020	2020/ 2019	
Revenue, total	**13 572**	**14 901**	**9,8**	**4,7**
Including:				
Tax-generated and non-tax revenues	**10 993**	**10 798**	**-1,8**	**-6,4**
Including tax-generated revenues:	*10 103*	*10 120*	*-0,9*	*-4,5*
Profit tax	3 358	2 927	-12,8	-16,9
PIT	3 956	4 253	7,5	2,5
Excises	755	798	5,6	0,7
Total income tax	596	592	-0,7	-5,3
Property taxes	1351	1 358	0,5	-4,2
Non-tax revenues	890	678	-11,7	-27,4
Fiscal transfers from budgets of other levels	**2 453**	**3 776**	**53,9**	**46,7**
Other revenues	**127**	**327**	**157,5**	**145,4**

* Income growth in real terms (adjusted for inflation). According to Rosstat, the value of the consumer price index in 2020 (December to December) stood at 104.91%
Sources: Federal Treasury, own calculations.

The contraction of consolidated budgets revenues in 2020 occurred in 5 subjects of the Russian Federation, of which the Nenets Autonomous District, the Tyumen region, the Yamal-Nenets Autonomous Okrug and the Sakhalin region are among the high-income ones, and the reduction in the income of the Chukotka Autonomous District (by 4.1%) is rather a correction after a spike of 56.2% seen in 2019.

Expenditure

The main indexes dynamic of the structure of the consolidated budgets of the RF subjects in 2020 are presented in *Table 13*.

In 2020, expenditures of the consolidated budgets of the RF subjects went up by 14.8% compared to 2019 and hit Rb15.6 trillion. This significantly exceeded not only the inflation rate (the growth was 9.5% in real terms), but also the revenues growth rate. During the fiscal year, expenditures grew unevenly: in the second half of the year, the growth rate slowed significantly compared to the first half – 12.0% versus 18.9%, which was due to the completion of a number of anti-crisis measures, as well as to the regional budgets growing deficit.

Table 13

Expenditure of the consolidated budgets of the subjects of the Russian Federation

	% to total		Nominal growth, %	Real growth, %
	2019	2020	2020/ 2019	
Expenditures, total	100.0	100.0	14.8	9.5
Nationwide issues	6.2	6.0	11.5	6.2
National security and law enforcement activity	1.1	1.1	10.5	5.3
National economy, including:	21.8	20.5	8.0	3.0
Agricuture and fisheries	1.9	1.7	0.1	-4.6
Transportation	5.1	4.9	10.5	5.3
Motor road system (road funds)	9.5	9.1	10.9	5.7
other national economy issues	5.3	4.8	3.7	-1.2
Housing and community amenities	10.1	8.5	-3.4	-8.0
Environmental protection	0.5	0.4	-0.6	-5.3
Education, including:	24.7	22.8	5.8	0.9
pre-school education	7.1	6.3	2.3	-2.5
supplementary education of children	11.9	11.5	10.6	5.4
general education	1.9	1.6	2.0	-2.7
vocational training	1.8	1.6	4.0	-0.9
other education issues	2.1	1.8	-4.0	-8.4
Culture, cinematography	3.5	3.1	1.2	-3.6
Healthcare	8.6	12.9	71.5	63.5
Social policies	19.8	21.3	23.6	17.8
Physical culture and sports	2.4	2.3	13.4	8.1
Mass media	0.4	0.3	0.0	-4.7
Government and municipal debt servicing	0.8	0.6	-5.0	-9.4
Other expenditure	0.0	0.0	8.5	3.4

Sources: Federal Treasury, own calculations.

The reduction in spending was observed solely in two regions – the Sakhalin region (-1.7%) and the Chukotka Autonomous Okrug (-11.4%), but in both cases, this reduction was not the result of fiscal policy rigidity, but a technical correction after a surge in spending in 2019 – by 23.4% and 57.1%, respectively. In two other regions (the Nenets Autonomous Okrug and the Tyumen Region), the increase in budget expenditures in real terms was negative, but given the high level of budget security in these regions, and, as a result, the possibility of reducing a number of lower-priority expenditures, this also did not prevent the implementation of a set of relief measures.

In the structure of expenditures of the consolidated budgets of the RF subjects at end-2020, we can note a substantial increase in the share of spending in the

healthcare sector (from 8.6 to 12.9%) and social policy (from 19.8 to 21.3%), which is due to the implementation of a set of relief measures at the regional level. One should particularly highlight the increase in expenditures under the item *Protection of family and childhood* from 0.9% in 2011 to 4.8% in 2020. The proportion of expenditures in all other sections fell, and in some of them it reached the lowest values since 2011: expenditures on national issues (6.0% with an average of 6.2% for the period 2011-2020), agriculture and fisheries (1.7% with an average of 2.7%), housing and utilities (8.5% with an average of 10.0%) and general education (11.5% with an average of 13.4%).

It is important to note that the share of expenditures of the consolidated regions budget in the sphere of national economy in 2020 (20.5%) remained at a higher level than the average for 2011-2020 (19.9%), which indicates the orientation of the regions' anti-crisis budget policy not only to address social issues, but also to support the economy.

Financial Assistance from the Federal Budget

In 2020, the crisis situation resulted in a significant change in the federal intergovernmental fiscal policy: the volume of fiscal transfers rose markedly, and many requirements for their provision, especially in terms of subventions and subsidies, were temporarily suspended. The total volume of fiscal transfers surged compared to 2019, both in nominal terms (+54.9%) and in real terms (+47.7%) (*Table 14*). All types of intergovernmental fiscal transfers increased, and the increase in subsidies was on the back of additional allocation of equalization transfers. At the same time, subsidies and not equalization transfers were the basis of the federal anti-crisis intergovernmental fiscal policy, as a result of which the percent of non-targeted financial assistance in 2020 decreased by 3.5 p.p. compared to 2019 and amounted to merely 35.2%.

In 2020, 38 subventions were extended,[1] which is 1 subvention more than a year earlier. The volume of subventions spiked (+52.9% in nominal terms and +45.7% in real terms), but the increase was mainly owing to subventions for social payments to the unemployed, so in general, the dependence of regional budgets on the federal budget in terms of delegated powers has not changed.

The increase in subsidies came to 81.7% (+73.2% in real terms), while subsidies for the national economy increased by merely 2.0% (and fell by 2.8% in real terms). The number of subsidies has increased substantially: from 113 in 2019 to 140 in 2020. Similarly, the real growth of other intergovernmental fiscal transfers constituted 45.2%, and the number of such transfers rose from 108 in 2019 to 120 in 2020. For the second year in a row, other intergovernmental fiscal transfers account for about a fifth of the total volume of federal intergovernmental assistance to the regions. Although the increase in subsidies and other intergovernmental fiscal transfers was due to the need to implement anti-crisis measures, it is undesirable in itself, since it reduces the fiscal autonomy of the regions. This being said, the

1 The number of transfers is determined by the number of unique expenditure directions (13-16 numbers of the budget expenditure classification code) provided for in the federal budget execution report.

federal level had another tool at its disposal (equalization transfers), which is more suitable for providing relief support and does not rise the dependence of regions upon the federal level.

Table 14

Federal budget fiscal transfers to the budgets of the subjects of the Russian Federation

	2019		2020			Прирост в 2020 г. к уровню 2019 г.	
	Nominal volume, Rb bn	% to total	Nominal volume, Rb bn	Real volume, Rb bn	% to total	nominal, %	real, %
Transfers to regions, total	**2 387.2**	**100.0**	**3 698.4**	**3 525.3**	**100.0**	**54.9**	**47.7**
Grants	**924.0**	**38.7**	**1 303.7**	**1 242.6**	**35.2**	**41.1**	**34.5**
Including:							
Equalization transfers	675.3	28.3	717.9	684.3	19.4	6.3	1.3
transfers to support measures designed to ensure well-balanced budgets	237.6	10.0	575.6	548.7	15.6	142.3	131.0
Subsidies	556.6	23.3	1 011.5	964.2	27.4	81.7	73.2
Including:							
subsidies to sustain national economy's development	209.9	8.8	214.0	204.0	5.8	2.0	-2.8
Subventions	**396.6**	**16.6**	**606.2**	**577.9**	**16.4**	**52.9**	**45.7**
Other intergovernmental fiscal transfers	**510.0**	**21.4**	**777.0**	**740.6**	**21.0**	**52.4**	**45.2**
Including:							
Other intergovernmental fiscal transfers for development of national economy	305.5	12.8	329.4	314.0	8.9	7.8	2.8

Sources: Federal Treasury, Rosstat, own calculations.

In 2020, as a year earlier, an extensive amount of fiscal transfers was directed to the implementation of national projects at the regional and municipal levels: 44% of the volume of subsidies, 20% of subventions and 32% of other intergovernmental fiscal transfers, and in general - 22% of all fiscal transfers from the federal budget to the regions. Excluding fiscal transfers allocated for the implementation of national projects, the structure of financial assistance in 2020 is as follows: grants – 45.2%, subsidies – 19.7%, subventions – 16.8%, other intergovernmental fiscal transfers -18.3%.

The effectiveness of transfers for the national projects implementation can be indirectly judged by the rhythm of the provision of appropriate funds during the financial year, i.e. by the ratio of the amount of funds transferred for the first

three quarters and the annual amount of funds transferred (*Table 15*). Transfers for the implementation of national projects were extended less evenly during the year than other transfers, which can be explained by the need to prioritize the provision of other transfers in the wake of the crisis.

Table 15

The movement of incoming transfers for the implementation of the national projects

Transfers	Movement, %
Transfers, total	**64.0**
Transfers for implementation of national projects	**54.1**
Including:	
Culture	62.0
The Digital Economy of the Russian Federation	69.8
Education	54.8
Housing and Urban Environment	50.3
Ecology	49.4
Small and Medium-Sized Enterprises and Support of Individual Entrepreneurship	86.0
Productivity and Employment Support	71.6
Healthcare	43.6
Demography	64.6
Safe and Quality Roads	47.5
International Cooperation and Roads	32.9
Comprehensive Plan of Modernization of Trunk Infrastructure	18.4
Other transfers	**66.8**

Source: Federal Treasury, own calculations.

The 2020 crisis had a positive impact on the reduction of the disparity of the fiscal capacity of the regions, which grew during 2017-2019. The growth rates of tax-generated and non-tax revenues of the regions with low fiscal capacity (these can be conditionally attributed to 31 subjects of the Russian Federation, the estimated level of fiscal capacity in accordance with the method of distribution of equalization transfers from the federal budget in 2019 was less than 0.6) exceeded the corresponding indexes of the regions with high fiscal capacity. For example, the correlation coefficient between the growth rates of tax-generated and non-tax revenues of regions for 2020 and the level of their calculated fiscal capacity was equal to -0.4, and due to the fact that the provision of additional financial assistance to the regions from the federal budget in 2020 was primarily focused on regions with low fiscal capacity, the reduction in disparity in total income was even more pronounced: the correlation coefficient between the level of fiscal capacity of the regions and the growth rate of income of their consolidated budgets is equal to -0.63.

The reduction in interregional disparity can also be illustrated by the dynamics of the coefficient of variation of per capita income (*Table 16*). So, if after the equalization in 2020, the discrepancy decreased by the expected 25% (by 23%

in 2019), then after the provision of grants and subsidies – by a notable 45% (by 35% in 2019). This is due to a sharp increase in grants for fiscal equilibrium and subsidies, the distribution of which takes into account the level of calculated fiscal capacity.

Table 16

The variance coefficient of the consolidated regional budget revenues (per capita, with due regard for the budget expenditure index)

Year	Tax-generated revenue	Tax-generated revenue and equalization transfers	Tax-generated revenue, transfers, grants, subsidies
2014	0.590	0.512	0.499
2015	0.661	0.603	0.560
2016	0.556	0.421	0.373
2017	0.558	0.413	0.377
2018	0.586	0.444	0.387
2019	0.603	0.464	0.390
2020	0.561	0.420	0.308

Sources: Finance Ministry of Russia, Federal Treasury, own calculations.

Deficit and Debt at the Regional Level

In 2020, the consolidated budgets of the subjects of the Russian Federation were executed with a deficit of Rb676.5 bn (in 2019 - with a surplus of Rb4.7 bn). Furthermore, the number of regions with a budget surplus decreased to 28 compared to 2019 (*Table 17*). 18 regions had a consolidated budgets deficit of more than 10% of tax-generated and non–tax revenues, of which 7 regions had 20%. Thus, the balance of the consolidated regional budgets for 2020 has deteriorated markedly.

Table 17

Execution (deficit/surplus) of the consolidated budgets of the Russian Federation in 2014–2020

Год	Number of RF subjects that have executed the budget	
	With deficit	With surplus
2014	74	11
2015	76	9
2016	56	29
2017	47	38
2018	15	70
2019	35	50
2020	57	28

Sources: Federal Treasury, own calculations.

In 2020, the volume of RF the subjects' public debt increased from Rb2.1 to Rb2.5 trillion, and in relation to the volume of tax-generated and non-tax

revenues of the budgets of the subjects of the Russian Federation - from 22.5 to 27.3%.

The debt burden on the budgets of certain regions has also changed: the ratio of debt to tax-generated and non-tax revenues decreased over the year in 32 regions, remained unchanged in one subject, and increased in 52. In 15 regions, the growth of the debt burden exceeded 10 p.p. By the end of 2020, the public debt exceeds 100% of tax-generated and non-tax revenues in 3 regions (in 2019, this situation was typical only for 1 region).

The structure of the state debt of the regions changed slightly over the year: the share of budget loans by the end of the year stood at 44.2%, increasing by 2.2 p.p. compared to the end of 2019 (*Fig. 17*), which is owing to the additional allocation of budget loans to the regions to the tune of Rb224 bn. Thus, at the end of 2020, the Russian Federation temporarily gave up policy of not providing budget loans to the regions, which it had adhered to since 2016. The share of securities also increased by 3 p.p., while the share of loans from credit institutions decreased by 4.5 p.p. In general, nominal debt increased on budget loans (by 24.5%) and on securities (by 30.8%).

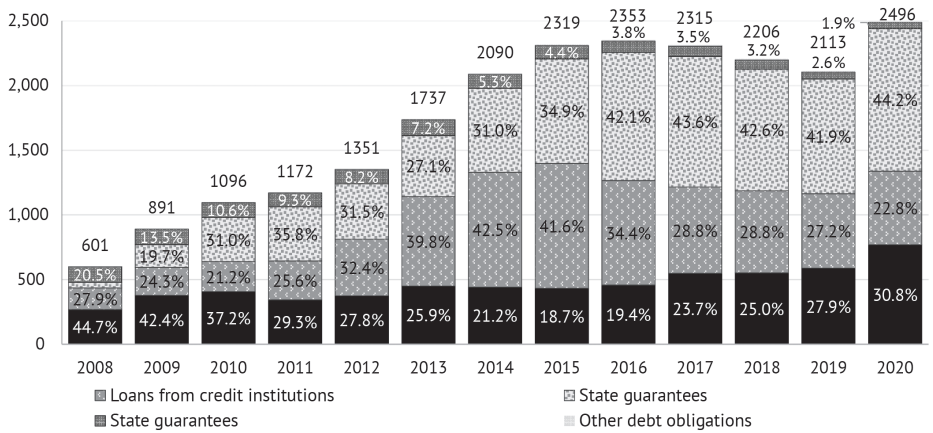


Fig. 17. Nominal volume (Rb bn) and structure (%) of public debt of RF subjects in 2008–2020

Sources: Finance Ministry of Russia, own calculations.

In 2020, the high growth rates of intergovernmental fiscal transfers to the regions, the additional allocation of budget loans to them to the tune of Rb224 b, as well as the reduction in disparity of the level of fiscal capacity of the regions as a result of the distribution of additional volumes of intergovernmental fiscal transfers in 2020 demonstrate that the budget policy of the Russian Federation in relation to the regions in 2020 was countercyclical, aimed at priority support for the worst-off subjects. This made it possible not only to offset for the decline in the regions ' own tax-generated and non-tax revenues, but also to ensure the

implementation of relief measures aimed at strengthening the public health system, as well as supporting the economy and the social sphere.

2.3. Challenges of international business taxation in the context of digitalization[1]

The current system of international taxation does not result in a fair distribution of the tax base between countries in a digital environment violating the principle of taxation in accordance with the added value created in the particular country. In the absence of international consensus, countries reform their tax systems aimed to collect taxes in the digital economy unilaterally by imposing Digital Services Tax (DST). By their nature, being indirect, these taxes (DST) are collected on the turnover of foreign digital companies in the market country (the country of the source of income).

Unlike VAT, credited along the entire value chain to ensure its neutrality, these taxes are more like import duties levied on a one-off basis when accessing the local digital market. Due to their specific nature, these taxes do not fall into the system applied by international tax agreements, however, according to some countries, for example, the United States, they violate existing trade agreements and WTO principles.

The introduction of such a tax will result in additional budget revenues, increase the cost of digital services for local users and create a trade barrier for foreign digital businesses. Its goal to ensure neutrality in the overall tax burden between digital and traditional business is an overly complex task that is unlikely to be implemented, given a rather simple and unclear mechanism of this approach, which assumes taxing the attributable profit of foreign digital companies through taxation of turnover at a low rate.

Principles of methodology being the platform for the VAT calculating and levying system in cross-border electronic trade in both goods and services do not generate significant disagreements between countries. The analysis of international experience proves that countries are trying to implement the destination principle to the maximum in relation to international trade as far as the tax administration allows, and, accordingly, ensure equal competition conditions and a neutral shift of the VAT economic burden to the jurisdiction of the product final consumption, including those sold in the electronic form.

These principles were developed and structured by the international consensus back in 1998[2] and further detailed in the context of their introduction owing to certain challenges associated with practical aspects, administration and control over the VAT payment by a foreign company without its physical presence in the

1 This section was written by *Milogolov N.*, Candidate of Economic Sciences, Head of IAES RANEPA Tax Policy Research Department; *Berberov A.*, Researcher of the Gaidar Institute.

2 A Report by the Committee on Fiscal Affairs, as presented to Ministers at the OECD Ministerial Conference, "A Borderless World: Realizing the Potential of Electronic Commerce" on 8 October 1998" Ministers welcomed the report and endorsed the proposals on how to take forward the work as outlined within it. URL: https://www.oecd.org/ctp/consumption/1923256.pdf

country[1]. Thus, the new rules for levying VAT on foreign services in electronic form provided to Russian individuals and enterprises have been in effect in Russia since 2017[2].

However, it should be noted that taking into consideration methodological approaches to direct taxation in the context of digitalization, the relevant international consensus is lacking today, although certain methodological approaches are being developed both by international organizations, primarily the OECD and the EU, as well as by individual countries.[3] The meaning of the mentioned discussion in relation to direct taxation comes down to rethinking of the existing rules for distribution of the tax base of international groups of companies between the country of residence and the country being the source of income, applied amid the current tax architecture, most commonly based on a chain of international bilateral tax agreements built upon the OECD Model Convention concluded by countries.

The reason for the rethinking is that within the current tax architecture, countries being sources of income (market countries) do not have appropriate rights to tax the profits from activities even when foreign companies conduct there a real business without a physical presence, for example, when a fair amount of goods is sold to local population through Internet. Governments and people in these countries consider this situation unfair and thus, stimulate political and expert discussion[4] about particular countries that are creating value and to what extent in the context of new digital business models, and about the tax consequences that should arise hereat. The discussion escalated after the onset of the pandemic when humanity was forced to go digital, and the profits of the largest digital companies significantly increased.

Aiming to maintain competitiveness and fiscal adaptation of the Russian tax system to digital realities, the authors identify *5 key areas* requiring reform in the short and medium term and also put forward appropriate recommendations.

1. Current rules requiring physical presence when creating a "tax liaison" between a market jurisdiction and a foreign company do not meet the demands of digital economy and should be updated in the interests of Russia as a significant market country.

1 Addressing the Tax Challenges of the Digital Economy. Action 1 – 2015. Final Report // OECD/G20 Base Erosion and Profit Shifting Project. Paris: OECD Publishing, 2015. URL: https://doi.org/10.1787/9789264241046-en

2 Federal Law «On Amendments to Parts One and Two of the Tax Code Russian Federation «dated 03.07.2016 No. 244-FZ (last edition).

3 Program of Work to Develop a Consensus Solution to the Tax Challenges Arising from the Digitalization of the Economy / OECD/G20 Inclusive Framework on BEPS. Paris: OECD, 2019. URL: http://www.oecd.org/tax/beps/programme-of-work-to-develop-aconsensus-solution-to-the-tax-challenges-arising-from-the-digitalisation-of-the-economy.htm.

4 Addressing the Tax Challenges of the Digital Economy, Action 1 – 2015 Final Report, OECD/G20 Base Erosion and Profit Shifting Project, Paris: OECD Publishing, 2015. URL: https://www.oecd-ilibrary.org/taxation/addressing-the-tax-challenges-of-the-digital-economy-action-1-2015-final-report_9789264241046-en

OECD (UN) standpoint: global reform is critical because users of digital products, including free ones, being residents of large market countries, apparently represent the input resources (providers of user data) for foreign companies without an appropriate physical presence in these market countries.

The unilateral introduction of taxes on digital services (digital services tax - DST) is detrimental, while it is optimal to achieve an international consensus, that is the OECD Pillar One initiative. As a result of its implementation, the market countries will be entitled to tax a share of profits of foreign digital companies whose global revenues exceed Euro 750 mn based on the extent of their digital presence in the country (for example, the level of digital sales or user database in the country).[1]

Situation in Russia: Russian tax legislation lacks effective instruments for taxing local income (profits) of those foreign companies that have only a virtual economic presence in Russia, with a profit tax. However, ignoring the issue leads to unjustified tax losses for the Russian budget and distortion of the competition between foreign and Russian digital businesses.

According to own calculations based on the determination of the Russian users' role in the activities of foreign digital companies through the geographical analysis of their Internet traffic, the introduction of an indirect gross tax on the proceeds from provision of digital services purchased by Russian users from foreign companies (DST) can contribute to the budget about Rb +37.8 bn additional tax revenues.

Russia's accession to the OECD Pillar One initiative has less fiscal potential: according to own calculations, one can talk about Rb 10 bn tax revenues. It is important to emphasize that this amount may be lower, since the list of the largest Russian digital companies includes Mail.Ru and Yandex, operating in the post-Soviet markets, and, therefore, the relevant share of their foreign tax base will not be taxed in Russia and the foreign tax will be credited against the Russian one.

Notwithstanding that the introduction of a unilateral measure is more preferable from a fiscal point of view, the application of this strategy can lead to challenges when increasing the international economic cooperation in the digital sphere with developed countries (OECD countries and, especially, the United States, due to the leadership of this country in the global digital economy).

Amid the actual contradictions and the lack of international consensus, the optimal approach is to introduce a temporary digital indirect tax on digital services purchased from foreign companies (DST). This tax may be canceled after the introduction of the Pillar One mechanism and Russia's accession, taking into consideration a pre-announcement of its national position.

This trend seems preferable, given that ease of administration and fiscal efficiency (typical for DST) currently seem to be more important than fairness in international taxation. Moreover, the introduction of a temporary digital tax is in line with Russia's position as a "market country" and the current needs for

1 Secretariat Proposal for a "Unified Approach" under Pillar One // OECD. URL: https://www.oecd.org/tax/beps/public-consultation-document-secretariat-proposal-unified-approach-pillar-one.pdf

fiscal consolidation amid the pandemic economic consequences. Finally, a similar position is now becoming an "international consensus" in developed countries (except for the United States and the "hub countries").

2. Due to the novelty of digital business, revenues from digital operations may fall under several articles of tax treaties and provisions of internal legislation at once (they can be classified as income from business activities, royalties, income from asset disposal). This uncertainty creates opportunities for tax optimization and fiscal risks for the state, as well as increasing risks for entrepreneurs and investors.

OECD (UN) standpoint: the key principle is the analysis of the economic and legal meaning of the transaction based on the scope of rights transferred to the buyer (compared to provisional minimum required standard ("de minimis"). If this threshold is not exceeded, the income received will be interpreted as "income from entrepreneurial activity." Otherwise, the income will be considered a royalty. In a recent initiative, the UN proposes to expand the definition of "royalty" aimed to apply withholding tax to any B2B payments for software.[1]

Situation in Russia: the analysis of the Russian tax legislation shows its current uncertainty regarding the category of income received by a foreign organization from provision of digital operations within the license agreements that fix the "limits" for using the results of the intellectual activity or the means of individualization by the licensee.

The reference to "limits" is shaping the complexity of the reliable definition of the income category. First, in most cases, any transfer of rights can be a transfer of (1) partial or full rights in relation to the underlying copyrights, (2) partial or full rights to using a copy of the program, (3) know-how or a secret formula.

Second, as for mixed contracts, it remains debatable whether the main purpose of the contract should be highlighted to the tax payer when calculating income tax liabilities according to recommendations expressed in the comments to the OECD MC (2017).[2] It should be emphasized that lacking the relevant judicial practice on direct taxes does not allow us to determine the business end of this issue.

In short term, it is relevant to develop a national approach aimed at unambiguous identification of income from provision of digital services (Clause 2, Article 174.2 of the Tax Code of the Russian Federation) for income tax purposes, which should be expressively reflected as Letters of the Ministry of Finance and detailing the provisions of Chapter 25 of the Tax Code of the Russian Federation. In its drafting, one should build upon the principle "de minimis" used in the OECD MC (2017)[3] and tax legislation of various countries (for example, Singapore).[4] In this regard,

1 Discussion draft: Possible Changes to the United Nations Model Double Taxation Convention between Developed and Developing Countries Concerning. Inclusion of software payments in the definition of royalties / UN. URL: https://www.un.org/development/desa/financing/sites/www.un.org.development.desa.financing/files/2020-09/Revised%20discussion%20draft%20final.pdf.

2 Articles of the Model Convention with respect to taxes on income and on capital (2017) // OECD. URL: https://www.oecd.org/ctp/treaties/articles-model-tax-convention-2017.pdf

3 Ibid.

4 Rights-Based Approach for Characterising Software Payments and Payments for the Use of or the Right to Use Information and Digitised Goods // IRAS. URL: https://www.iras.gov.sg/irashome/

we do not share the latest UN initiative[1], since economically different types of transactions should be classified differently for the purposes of tax treaties based on the scope of rights transferred to the recipient.

3. Despite the progress made in the BEPS plan, companies still have the opportunity to avoid paying corporate taxes by redirecting their profits to low-tax jurisdictions, which is especially important for digital businesses.

OECD (UN) standpoint: elimination of unfair tax competition through the introduction of an internationally agreed minimum tax rate (method of calculating is under discussion) and the implementation of the following global rules (OECD Pillar Two)[2]:

- the country of residence of the parent company is entitled to additionally tax the foreign profit of the subsidiary if it has been taxed at a rate lower than the agreed minimum (*income inclusion rule);*
- the country of residence is entitled to switch from the exemption of foreign income from taxation (for example, the income of a permanent establishment) to its taxation at the minimum rate, if it was taxed at a rate lower than the agreed minimum (*a transition rule that will be introduced into tax agreements) ;*
- the country of source is entitled to refuse deducting a payment in favor of a related party or in case of its preferential taxation, if the payment is taxed in the recipient's country of income below the minimum rate (*the rule of compulsory payments* (*including the supplementing tax rule*).

Situation in Russia: the insights of the recommendations related to the second component of the OECD proposals (OECD Pillar Two) indicate that the Russian legislation already has analogues of these rules introduced at the national level. In particular, the "*income inclusion rule"* proposed by the OECD is similar to the CFC rules, which are better adapted to the requirements of Russia's economic policy**.**

The "*transition rule*" is irrelevant for Russian tax practice for the purpose of eliminating double taxation, since Russia already applies the method of offsetting foreign tax in all cases. Finally, the "*rule of compulsory payments*" can also be recognized as not meeting Russia's interests due to the following:

- its implementation may "devalue" provisioning of low tax rates in Russia for foreign investors as a tool to attract foreign investment;
- if increasing the withholding tax rates to 15% is completed in tax agreements with "transit countries", the rule implementation will be irrelevant from a practical point of view, including due to "thin capitalization" rules in Russian legislation;

uploadedFiles/IRASHome/e-Tax_Guides/etaxguides_CIT_rights-based%20approach_2013-02-08.pdf

1 Rights-Based Approach for Characterising Software Payments and Payments for the Use of or the Right to Use Information and Digitised Goods // IRAS. URL: https://www.iras.gov.sg/irashome/uploadedFiles/IRASHome/e-Tax_Guides/etaxguides_CIT_rights-based%20approach_2013-02-08.pdf

2 Global Anti-Base Erosion Proposal ("GloBE") – Pillar Two // OECD. URL: https://www.oecd.org/tax/beps/public-consultation-document-global-anti-base-erosion-proposal-pillar-two.pdf.pdf

- the concept of the beneficial owner of income already contains measures aimed at achieving the goals proposed by the second component of the OECD global reform, since the information confirming "lack of tax savings on subsequent transfer of income" can be taken into consideration when identifying the individual having actual right to receive income.[1]

Thus, Russia's accession to the OECD recommendations regarding Pillar Two is premature. First, the second component contains a large number of legal ambiguities (for example, the algorithm for calculating the minimum tax rate is still unclear). Second, its rules may duplicate provisions already included in tax legislation. Third, the accession suggests that Russia renounces part of its tax sovereignty, which is unacceptable in the current environment of intense international economic competition. With regard to Pillar Two, in our opinion, Russia should only monitor now the progress of the discussion related to the OECD initiative.

4. The mechanism for determining the companies' tax residency is not in compliance with digital realities: the criterion for incorporating a company is formal, while the place of effective company management (hereinafter – POEM – Place of Effective Management), being the basis of the economic criterion, can be easily switched to a low-tax country amid globalization and the growing use of digital technologies for communication and management.

OECD (UN) standpoint: notwithstanding that since the 90s, this issue has been the subject of consideration by both the OECD and the UN, the place and role of the concept of the legal entities residence in digital environment is still being discussed.

Situation in Russia: currently**,** according to Article 246.2 of the Tax Code of the Russian Federation, only two categories of companies can be recognized as Russia tax residents: Russian organizations belong to the first category; the second category suggests recognition of a foreign organization as a tax resident when identifying the place of its effective management in Russia[2]. Besides challenges of uncertainty in the interpretation of the existing criteria[3] tending to aggravate in digital environment, following the chosen approach, in our opinion, is against Russia's sovereign interests. This is due to the fact that despite the policy of deoffshorization and establishment of special administrative regions (SAR), the role of foreign companies owning Russian assets remains significant, which is especially important for digital business focused on global markets.[4]

1 Letter of Tax and Customs Policy Department of the Russia Ministry of Finance of April 9, 2020. No. 03-08-05/28323 "On determining the beneficial owner for purposes of taxation// Guarantor. URL: https://www.garant.ru/products/ipo/prime/doc/73927000/

2 To fulfill it, compliance with at least one of the conditions presented is required: governance of organization is maintained "regularly" by an executive body in Russia, or the organization is managed by chief executives mainly in Russia.

3 Both the Tax Code of the Russian Federation and the Letters of the Ministry of Finance of Russia do not clearly answer the question of what is considered "regular" management of a foreign organization. Likewise, there is no answer as to what is meant by "preferential" management of the organization by officials in Russia.

4 Between deoffshorization and globalization // SPARK. URL: https://www.spark-interfax.ru/articles/mezhdu-deofshorizatsiey-i-globalizatsiey

By virtue of Russia's accession to the BEPS Multilateral Agreement, the implementation of a mutual agreement procedure between the competent authorities can become a mechanism for resolving situations of companies' dual residence in the event of a conflict thereof. Such an analysis based on all facts and circumstances most fully meets the sovereign interests of Russia, while its effectiveness may be low without the improvement of Russian legislation in the following areas:

- developing a mechanism for determining the place of effective management aimed to give more weight to the economic functions performed in each country, as well as determining the residence of the majority of top managers or those who make the most important decisions (location of their centers of vital interests), issuing detailed recommendations and analyzing specific situations (a similar trend is particularly typical for South Africa[1]);
- introducing objective criteria into national legislation that would indicate the existence of a stable economic relationship between the company and Russia (for example, analyzing geographical distribution of assets between countries) and the subsequent recoding in the agreements of those factors that will be taken into account in the event of disputes. It should be emphasized that the OECD MC (2017) makes it possible to supplement the corresponding provision by specifying factors that are relevant for determining the residence of a legal entity.[2]

5. The current mechanism for taxing royalties at the source on a gross basis is not economically feasible for a foreign licensor, since the entire amount of paid royalties is subject to taxation, excluding the costs of the licensor for development of an intangible asset.

OECD (UN) standpoint: international organizations note the existence of this problem, however, it is recognized that the solution runs into overcoming the contradiction in economic interests between developed and developing states. The transition to taxation of the calculated value, which would more fully take into account the real fiscal result of the licensor's activities, can be carried out through the following mechanisms[3]:

- "non-final" withholding tax, when a non-resident is entitled to set off all possible or only particular expenses against the income received;
- withholding tax at a rate calculated based on the expected profitability;
- a tax from the legally established part of the gross amount of payment (part of the gross amount).

1 Interpretation Note: No. 6 (Issue 2) [Electronic resource] // South African Revenue Service. – URL: https://www.sars.gov.za/AllDocs/LegalDoclib/Notes/LAPD-IntR-IN-2012-06%20-%20IN%206%20Resident%20-%20Place%20of%20effective%20management%20(companies).pdf

2 Articles of the Model Convention with respect to taxes on income and on capital (2017) // OECD. - URL: https://www.oecd.org/ctp/treaties/articles-model-tax-convention-2017.pdf

3 *Trepelkov, A., Tonino, H., & Halka, D.* (Eds.). 2015. United Nations Handbook on selected issues in protecting the tax base of developing countries. UN.

Situation in Russia: today, gross income is subject to a withholding taxation at a rate of 20% upon payment of royalties to a foreign recipient. The geographical structure of royalties outgoing from Russia is dominated by "transit jurisdictions" with their R&D expenditures vs received worldwide royalties being abnormally high[1], and Russia's tax treaties providing for a reduction of the withholding tax rate to zero.

Thus, it can be assumed that companies of such jurisdictions are integrated into economic chains only to obtain unjustified tax benefits, while the intangible asset benefiting from royalties paid from Russia is established and maintained in other jurisdictions.

Based on the actual regulatory conditions, the taxation of royalties originating from Russia requires an adjustment towards an increase in the withholding tax, which is in line with the fiscal interests of Russia and presents a response to the challenges related to withdrawing profits through royalty payments to low-tax jurisdictions.

Other types of income (for example, dividends) can be paid under the guise of royalties, which is relevant in the context of an increase in the withholding tax on dividends and interest up to 15% in agreements with transit jurisdictions.[2] Growth in the withholding tax rate when transferring royalties to residents of "transit jurisdictions" will increase tax revenues and create a barrier to profit withdrawal. The implementation of this measure also corresponds to the UN MC recommendations[3], as well as to the experience of BRICS countries, where royalties are mainly taxed at a nonzero rate[4].

Such a mechanism can be balanced through offsetting a part of the costs incurred to create an intangible asset in Russia. It is assumed that a foreign taxpayer could deduct all incurred expenses (or part of them) when creating an asset (implementing R&D) in Russia.

Foreign companies may show interest to developing an intangible asset in Russia, knowing that granting licenses to use it in the future will result in a legitimate tax benefit in Russia. This incentive measure can be enhanced by introduction of a mechanism for preliminary disclosure of tax information (according to recommendations of Action 12 BEPS), giving the opportunity to a foreign taxpayer to provide Russian tax authorities with relevant data in advance for tax control purposes "in real time".

1 *Berberov A.*, *Milogolov N.* Assessment of the scope of tax base erosion in Russia // Financial Journal. 2018. No. 6 (46). p. 54.

2 *Milogolov N.* Impact and recommendations analysis for supplementing and implementing measures announced by the President of the Russian Federation in terms of taxation at a rate of at least 15% of dividends and interest paid to "transit" jurisdictions /Monitoring of economic situation in Russia: trends and challenges of socio-economic development. 2020. No. 10 (112). April / Gaidar Institute for Economic Policy, The Russian Presidential Academy of National Economy and Public Administration 211 p. URL: http://www.iep.ru/files/text/crisis_monitoring/2020_10-112_April.pdf, p. 114.

3 United Nations Model Double Taxation Convention between Developed and Developing Countries (2017) // UN. URL: https://www.un.org/esa/ffd//wp-content/uploads/2018/05/MDT_2017.pdf (date of reference 2020-15-05). p. 299.

4 Treaty Rates // Deloitte. URL: https://dits.deloitte.com/#TaxTreatySubMenu

Section 3. Financial Markets and Financial Institutions

3.1. The Russian financial market[1]

3.1.1. The stock market in 2020 and Q1 2021

In 2020, after the sudden financial shock in March caused by sales of risky assets by investors against the backdrop of the rising coronavirus pandemic, stock markets in many countries recovered faster than did the economic indicators. The traditional hypothesis that the value of financial assets depends more strongly on future investor expectations than on past events has been confirmed.

As shown in *Fig. 1*, in 2020, among the 36 monitored national stock indexes denominated in different currencies, the positive movement patterns of their returns in per annum terms were demonstrated by the stock index portfolios of only 23 countries. In this connection, the highest returns were linked to the tech-heavy stock indexes: thus, NASDAQ Comp. (CIF) climbed 43.6%; Shenzhen Composite Index (China), 35.2%; and NASDAQ OMX Copenhagen (Scandinavian countries), 28.5%. The poorest performance patterns were typical of those economies that were hit hardest by the pandemic, as well as by the UK economy, which was experiencing the additional difficulties as a result of Brexit. Over the year, the Spain Stock Market Index lost 15.5%; FTSE 100 (UK), 14.3%; the Cyprus Stock Market Index, 13.0%, the Straits Times Index (Singapore), 11.8%; and Greece's Athex Composite Index, 11.7%.

Although, in 2020, Russia's GDP plunged significantly less than the corresponding indices of many developed and developing economies, the RTS Index, which is denominated in US dollars, fell by 10.4%, thus making Russia one of the six countries with the worst-performing stock markets. This happened primarily due to the sharp drop in oil prices and the Russian economy's strong

1 This section was written by *Abramov, A.* , Candidate of Economic Sciences, Director of the Center for Institutions Analysis and Financial Markets, IAES, RANEPA; *Radygin, A.*, Doctor of Economic Sciences, Head of the Center for Institutional Development, Ownership and Corporate Governance of the Gaidar Institute, Director of the RANEPA Institute of EMIT; *Chernova, M.*, researcher at the Center for Institutions Analysis and Financial Markets, IAES, RANEPA.

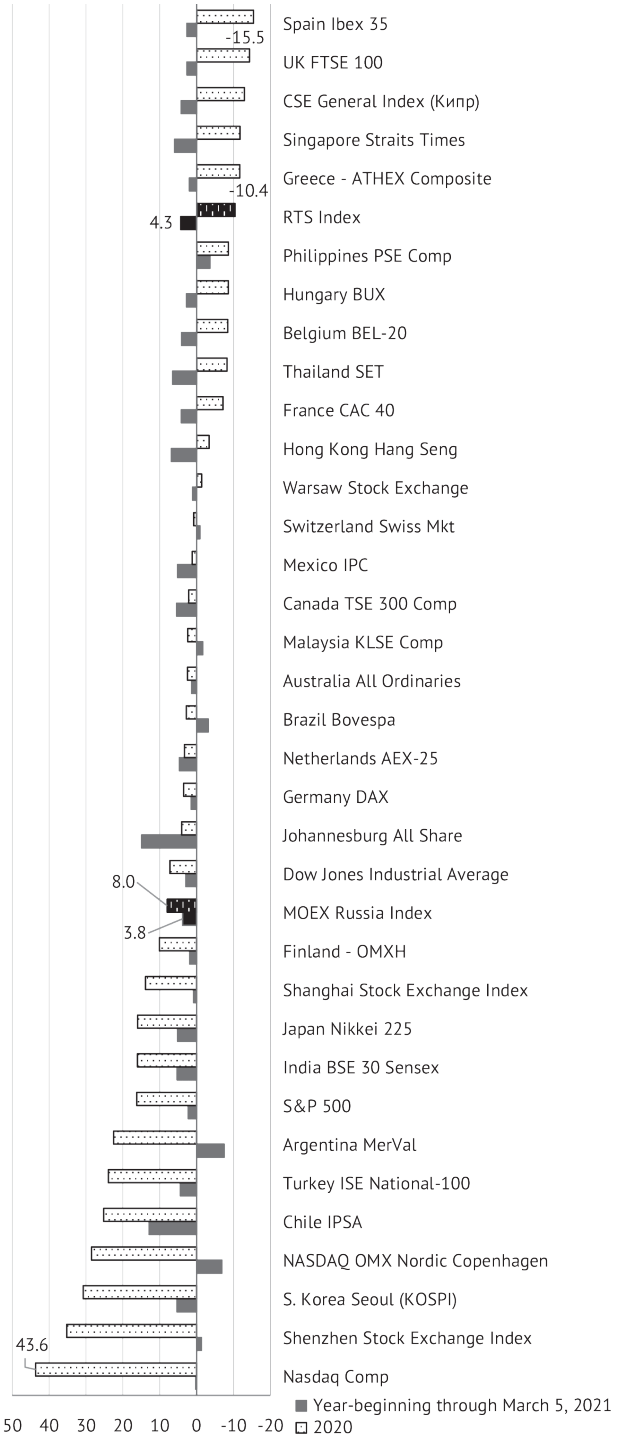


Fig. 1. The returns of 36 world stock indexes on major exchanges, 2020 and 2021, as of March 5, as % per annum

Source: own calculations based on data released by The Wall Street Journal.

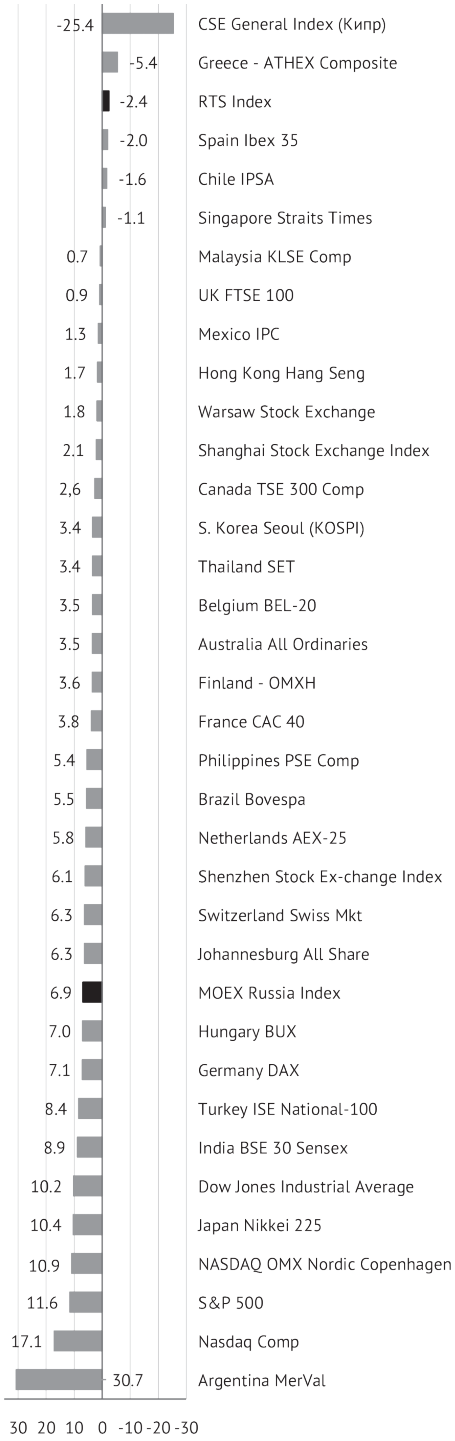


Fig. 2. The geometric mean return of 36 world stock indexes on major stock exchanges over the period 2010–2020, as % per annum

Source: own calculations based on data released by The Wall Street Journal.

dependence on exports of raw materials. During the first two months of 2021, Russia's both national stock indexes were growing at above average rates. As of March 5, 2021, the return of the RTS Index stood at 4.3%, and that of MOEX Russia Index, at 3.8%, which was the upshot of the faster growth of oil prices in response to the global economic recovery coupled with the influence of OPEC+ on oil production, as well as the relative stabilization of the ruble exchange rate.

Over the 10-year time horizon from 2010 to 2020, the geometric mean return on investments in Russian stocks denominated in US dollars turned out to be among the worst in the group of 36 world stock indices (*Fig. 2*). The average annual return of the RTS Index amounted to -2.4%, i.e. it was slightly better than the corresponding indexes of the countries that had been experiencing long-term financial crises - Greece's Athex Composite Index, with its annual return of -5.4%, and Cyprus Stock Exchange General Index (CSE), which on average declined by 25.4% over the year. The long-run negative return of the RTS Index has to do with to the low returns on materials stocks in face of the protracted stagnation in the growth rate of prices for those raw materials that the issuers of those stocks export, as well as the ruble weakening.

Over the same period, the average annual return of MOEX Russia Index rose to 6.9%, which happened in the main in response to the ruble weakening, and not to the performance of the stock issuers.

As shown in *Fig. 3*, in 2020 the Russian ruble exchange rate against the US dollar fell by 16.2%, thus demonstrating one of the deepest plunges among the national currencies of the 27 countries and regions included in our sample. Considering that, compared with many other countries of the world, the financial stability indicators that Russia had been displaying were quite high, the fact of the ruble hovering near the national currencies of the countries experiencing an unstable financial situation (Argentina, Brazil, Turkey and Ukraine) can be explained in the main by the impact of the oil and gas market shocks. This happened largely due to suspension, from H2 2020, of the measures designed to support the ruble in the form of foreign currency sales on the exchange by the RF Ministry of Finance. Over the first two months of 2021, the ruble exchange rate further depreciated by 0.4% (data as of March 5, 2021); however, this decline turned out to be less than that of the other 18 national currencies over the same period.

During the crisis in 2020, world gold prices rose by 25.1%, reflecting the desire of global investors to find a "safe haven" for their assets in face of low government bond yields. However, in the first two months of 2021 alone, gold prices declined by 10.3%, which was caused by the increasing attraction of investors towards riskier assets in response to the positive information concerning the high economic recovery rates and the launch of vaccination campaigns. Besides, the discussions on the issue that the decline in gold prices could be caused by a shrinking demand for that particular asset because, as a store of value, it was being replaced by the increasingly popular digital financial assets, were becoming more intense.[1]

1 *Vigna Paul*. Bitcoin's Value Is All in the Eye of the 'Bithodler'. The Wall Street Journal on-line, Feb.20, 2021; Gallagher Tyler. Will Crypto Replace Gold As The Go-To Inflation Hedge In 2021? Forbes on-line, Feb. 20, 2021.

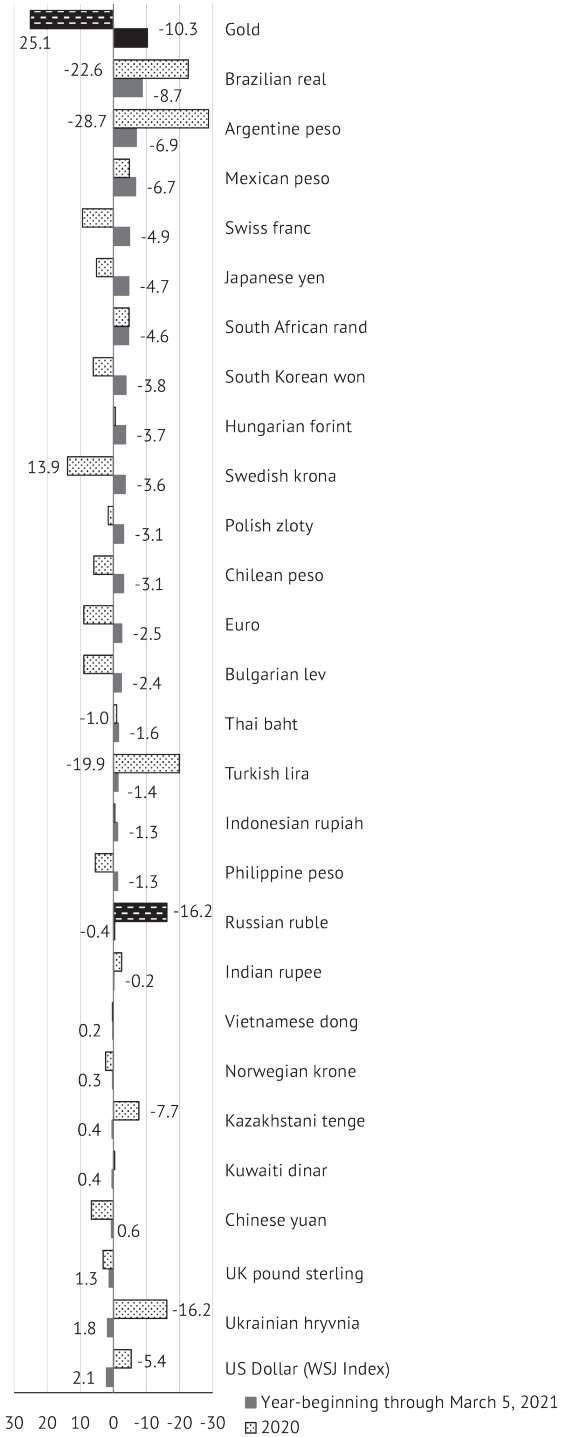


Fig. 3. Changes in the value of 27 national currencies in 2020 and Q1 2021 (as of March 5), as %

Source: own calculations based on data released by Bloomberg and The Wall Street Journal.

The year 2020 was a time of trial for many national economies and financial markets around the world due to the coronavirus epidemic. Many of them entered this crisis while not yet having fully recovered from the 2008 crisis, with low key rates, overvalued central bank balance sheets as a result of their quantitative easing policies, and significant government debt.

Academic studies have elaborated different criteria for defining financial crises. In our case, we apply the simplest criterion suggested in the works by Barro and Ursua,[1] Reinhart and Rogoff,[2] whereby a financial crisis is defined as a decline of stock prices (stock indices) by 25% or more.

Over the past 25 years, the RTS Index four times demonstrated more-than-25% plunges: in 1997–1998; in 2008; in 2014; and from 2020 onwards (*Table 1*). Each of the four financial crises was followed by declining oil prices and devaluation of the ruble. The oil price shocks worsened the financial stability parameters of companies and the state budget, while the ruble devaluation triggered urgent foreign investment outflow from Russian stocks.

With each new crisis, the shocks experienced by the RTS Index were becoming increasingly less pronounced. While in the late 1990s its maximum decline from July 1997 amounted to 91.3%, over the first three months of 2020 it lost only 34.5% relative to its peak value of December 2019. Some similar patterns were followed by the ruble-denominated MOEX Russia Index, except that starting from January 2020, it lost 18.5%, i.e. slightly more than it did in 2014, when its decline amounted to 13.2%. The depth of price shocks in the oil market, on the contrary, over the years has been increasing: -58.3% from December 1996 vs -72.7% from January 2020.

This is indicative of the fact that Russia's economic policy, in a broad sense, while failing to achieve the necessary structural changes in the economy, nevertheless every time demonstrated its better and better adaptability to the global markets shocks. Thus, for example, in 1997-1998, the crisis of emerging markets was aggravated in Russia by the internal problems in the form of an unbalanced budget and a lack of sufficient gold and forex reserves. However, during the 2020 crisis triggered by the coronavirus, Russia, on the contrary, implemented a proactive financial sustainability policy by relying on the fiscal rule, cooperation with OPEC+ member states, and the resources of the National Wealth Fund; all these measures made it possible to significantly mitigate the impact of the external shock on the domestic financial market.

At the same time, without structural transformations, the generally successful financial stability cannot secure a sustainable economic and financial market growth. With each new crisis, oil prices rarely returned to their pre-crisis level, which happened in part due to changes in technology and the structure of the global economy. The recession consequences were especially severe from July 2008 onwards, when Brent crude oil prices stayed well below their pre-crisis values for 151 consecutive months, and as of February 2021 stood only at 46.5%

1 *Barro, Robert and Jose F. Ursua*. Stock Market Crashes and Depressions. NBER Working Paper 14760. National Bureau of Economic Research, Cambridge, Mass. February, 2009.
2 *Reinhart, C.M., Rogoff, K.S*. This Time Is Different: Eight Centuries of Financial Folly, 2009.

of their pre-crisis level. Moreover, after June 2014, there was a new global wave of oil price decline; 80 months later, the price of Brent crude oil reached only 55.7% of its June 2014 level. Oil and natural gas production is gradually losing its role of a driver of the Russian economy.

Another upshot of the existing structure of the economy has been the regular weakening of the ruble, with its negative influences on the attractiveness of Russian stocks for non-resident investors and the long-term saving strategies of domestic investors. During the four financial crises, the depreciated ruble never returned to its original pre-crisis values.

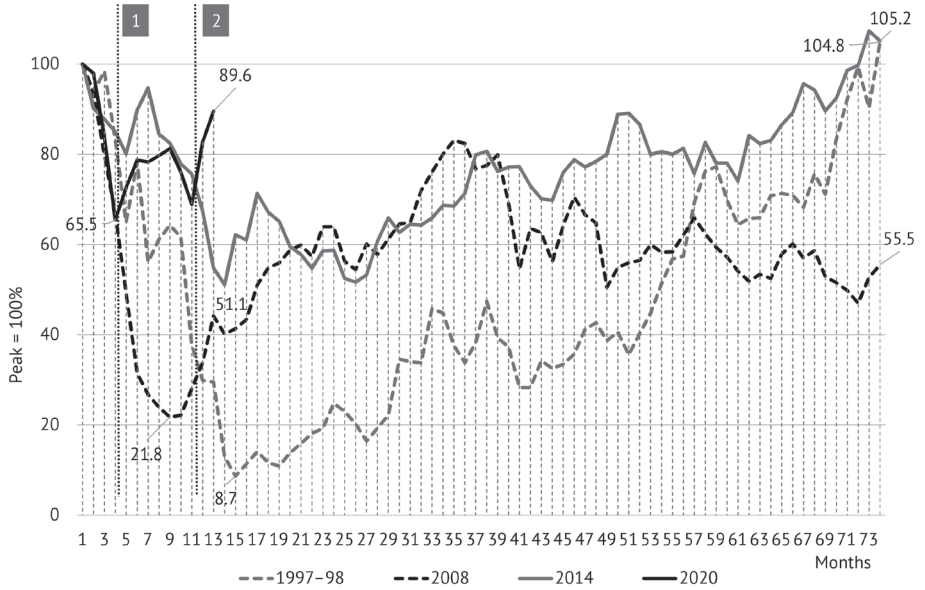
Table 1

The main parameters of financial crises in Russia over the period from July 1997 through February 2021

Market peak: index value, month and year	Market bottom period (months)	Maximum decline, %	Period of index recovery from its pre-crisis peak, months	Complete recovery	Current value of non-recovered index, % (peak = 100%)
RTS Index:					
July 1997	14	-91.3	73	Yes	
May 2008	8	-78.2	153	No	57.4
February 2014	13	-48.9	72	Yes	
December 2019	3	-34.5	12	No	89.6
MOEX Russia:					
August 1997	12	-79.1	21	Yes	
May 2008	6	-68.2	95	Yes	
February 2014	4	-13.2	11	Yes	
January 2020	2	-18.5	10	Yes	
Price of Brent:					
December 1996	24	-58.3	37	Yes	
July 2008	5	-68.9	151	No	46.5
June 2014	19	-72.6	80	No	55.7
December 2019	4	-72.7	14	No	92.5
Exchange rate growth (Rb/$) as of March 5, 2021, relative to:					
May 1998				No	12.0 times
May 2008				No	3.1 times
June 2014				No	2.2 times
December 2019				No	by 19.9%

Source: own calculations based on data released by the Moscow Exchange, the Bank of Russia, and data available at http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=rbrte&f=m

As shown in *Fig. 4*, in 2020, compared with its behavior during the four financial crises in Russia, the RTS Index (value of Russian stocks in US dollars) demonstrated the smallest decline. It amounted to only -34.5% vs -91.3% during the 1997-1998 crisis, -78.2% in 2008, and -48.0% in 2014. With a high degree of certainty, it may be assumed that its recovery in 2021 will happen much earlier



Notes.
1. March 2020. The RTS Index hits its record low, followed by a renewed recovery after the conclusion of a new OPEC+ oil price deal on April 12, 2020.
2. October 2020. The start of a new index growth wave after the US presidential election and the release of positive news about a global economic recovery and progress in the development of vaccines against the coronavirus.

Fig. 4. The movement of the RTS Index on a time horizon of up to 73 months relative to its peaks of July 1997, May 2008, February 2014, and December 2019, as of February 2021, as % (peak value = 100%)

Source: own calculations based on data released by the Moscow Exchange.

than it used to happen before. As of early March 2021, within just 12 months, the RTS Index climbed to 89.6% of its pre-crisis peak value.

In spite of the record decline experienced by many economies during the coronavirus pandemic, a considerable number of them demonstrated a recovery of their stock indexes even before the end of 2020 (*Fig. 1*), because the movement patterns of stock indexes were largely determined by the expectations of a quick economic recovery and successful vaccine rollout. A specific factor that helped a rapid recovery of the RTS Index was the OPEC+ agreement on oil price reached in April 2020.

As shown in *Fig. 5*, MOEX Russia Index (value of Russian stocks in rubles) recovered before the end of 2020, in just 10 months. Its faster recovery compared with that of the RTS Index resulted from the ruble weakening within the range of 20% over the same period. During the other three financial crises (in 1997–1998, in 2008, and in 2014), the Moscow Exchange Index had also recovered faster, for a similar reason.

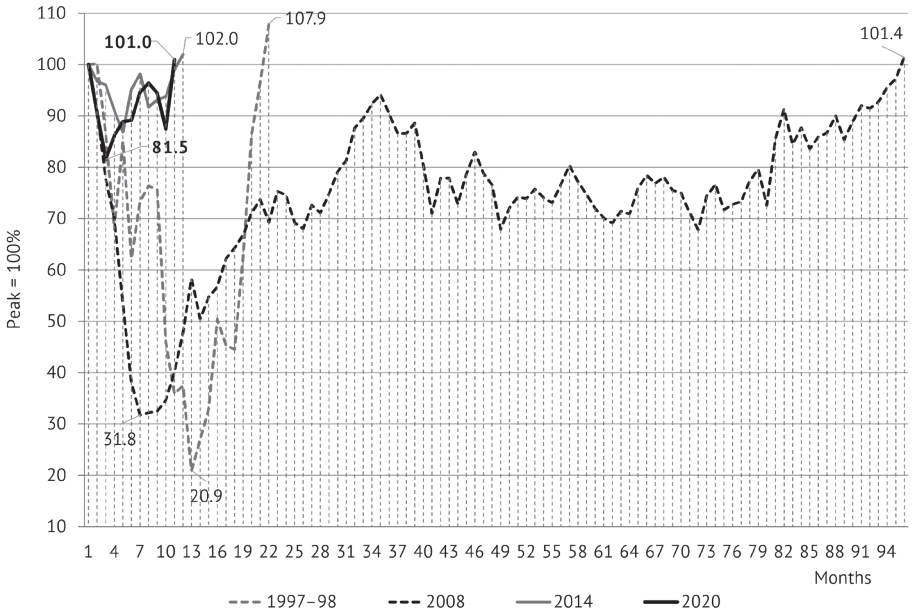


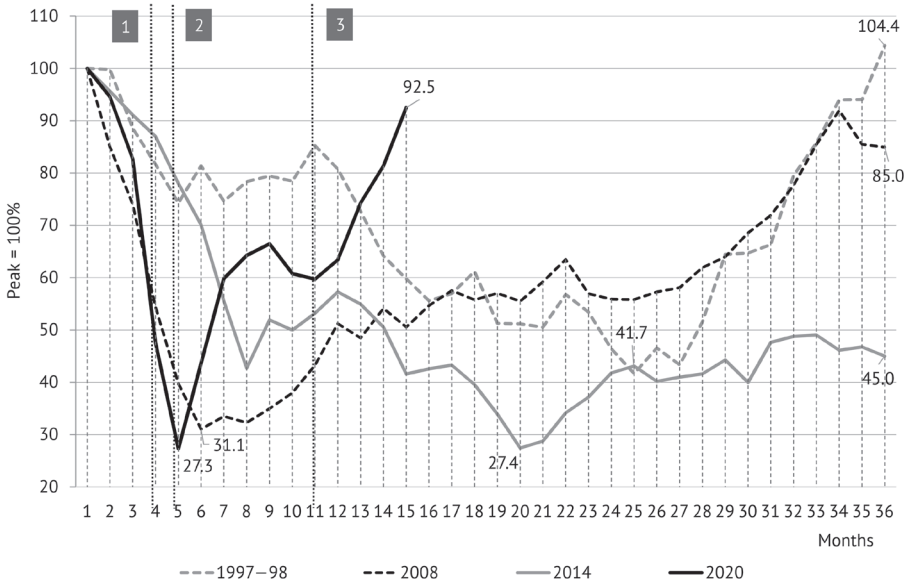
Fig. 5. The movement of the RTS Index on a time horizon of up to 95 months relative to its peaks of August 1997, May 2008, February 2014, and January 2020, as of February 2021, as % (peak value = 100%)

Source: own calculations based on data released by the Moscow Exchange.

In 2020, an accelerated recovery of stock markets relative to the pace of economic recovery was typical of many countries. US economist Paul Kaplan[1] showed that, among the 18 most serious financial crises in the US history over the 150-year period from 1870 to 2020 ranked by the depth and duration of stock price decline, the 2020 crisis triggered by the Covid-19 pandemic was the shortest and shallowest one. After a plunge by 20% (in real terms) over the period from December 2019 through March 2020, the US stock market fully recovered in just four months, returning to its pre-crisis level in July 2020. The expert came to the conclusion that after each of the 18 crises, the market for US stocks always recovered to its pre-crisis level, but that the actual speed of market recovery, including in 2020, is impossible to predict.

Although the downfall of the price of Brent crude oil in 2020 was the deepest compared with the previous three crises, it is likely that, in 2021, its recovery to its pre-crisis level will occur faster than it did on the previous occasions. As of early March 2021, price of oil already stood at 89.6% of its peak of December

1 *Kaplan Paul*. In Long History of Market Crashes, Coronavirus Crash Was the Shortest. Morningstar on-line, March 9.2021. URL: https://www.morningstar.com/articles/1028407/in-long-history-of-market-crashes-coronavirus-crash-is-short.



Notes.
1. March 2020. The collapse, on March 6, 2020, of the old OPEC+ deal on the oil price cap.
2. Resumed oil price growth after the new OPEC+ agreement on oil prices reached on April 12, 2020.
3. October 2020. The start of a new wave of oil price growth after the US presidential election and the release of positive news about a global economic recovery and progress in the development of vaccines against the coronavirus.

Fig. 6. The movement of Brent crude oil price on a time horizon of up to 36 months relative to its peaks of December 1996, July 2008, June 2014, and December 2019, as of February 2021, as % (peak value = 100%)

Source: own calculations based on data available at URL: http://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=rbrte&f=m

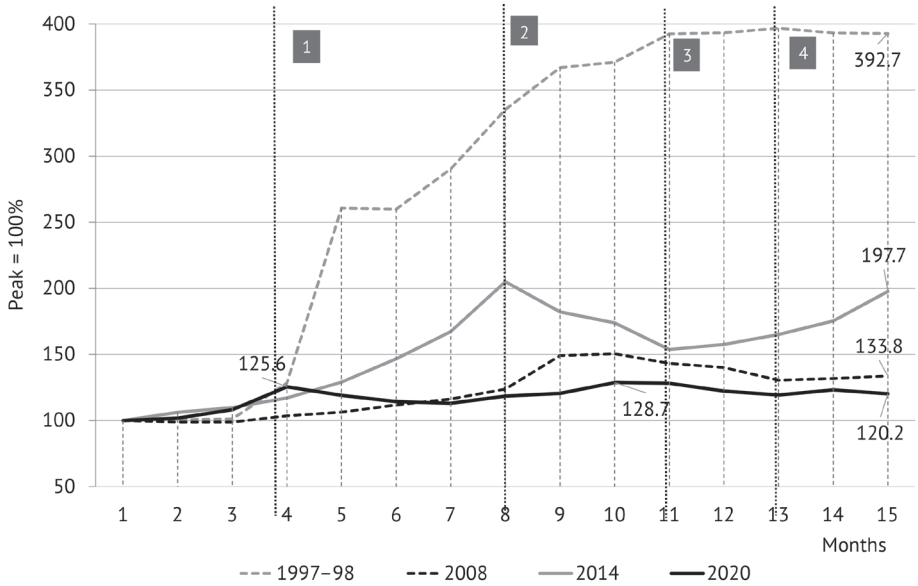
2019 (*Fig. 6*). This happened primarily due to the rapid pace of global economic recovery that had begun from H2 2020 onwards.

The oil price shock in the spring of 2020 was intensified by the unexpected breakdown of the OPEC+ oil price deal on March 6, 2020 triggered by the conflict between Saudi Arabia and Russia. However, the prompt achievement, on April 12, 2020, of a new agreement on oil production cut conduced to a recovery in oil prices. A new impetus to oil price growth from November 2020 was provided by the positive news of global economic recovery and the coronavirus vaccine rollout.

Against the backdrop of a rapid recovery in oil prices in early 2021, representatives of a number of global investment banks (e.g., JP. Morgan) announced the start of a new long-run cycle in the upward movement of prices for oil and other raw materials in the context of an increased demand for these

products and the soft monetary policies pursued by the central banks of many countries.[1]

The 2020 financial crisis was followed by a more moderate depreciation of the ruble compared to the shocks of 1997–1998, 2008, and 2014 (*Fig. 7*). Over the period from January 2020 through March 2021, the ruble exchange rate against the US dollar gained 20.2%. Back in 1998, over the same 14-month period, the ruble exchange rate jumped 3.9 times; from June 2014, - 2.0 times; while in 2008-2009, during the "managed" gradual devaluation of the ruble, the US dollar climbed 33.8%. In 2020, the RF Ministry of Finance and the RF Central Bank safeguarded the ruble exchange rate against any excessive fluctuations. During the shock-triggered collapse of financial markets in March 2020, the stability of the ruble



Notes.
1. March 2020. The launch of foreign currency sales in the market, by the RF Ministry of Finance within the framework of the fiscal rule, and by the Bank of Russia after selling a stake in Sberbank.
2. July 2020. The daily volume of foreign currency sales in the market by the RF Ministry of Finance is reduced on average to Rb6 bn in July, and to Rb 3 bn in August.
3. October 2020. The daily volume of foreign currency sales by the RF Ministry of Finance is increased on average to Rb8 bn.
4. From January 2021, the RF Ministry of Finance begins to buy foreign currency in the market.

Fig. 7. The movement, over a time horizon of up to 15 months, of the USD-to-ruble exchange rate relative to its peaks of May 1998, May 2008, June 2014 and December 2019, as of February 2021, as % (peak = 100%)

Source: own calculations based on the data released by the Bank of Russia.

1 *Goldstein Steve*. The fifth commodity super cycle has started, says highly regarded JP Morgan strategist. Market Watch on-line, Feb. 11, 2020.

exchange rate was sustained by the RF Ministry of Finance through applying the fiscal rule, whereby it was obliged to sell some of its forex resources in the market whenever it was necessary to draw from the NWF in order to cover budget expenditures, while the Bank of Russia was required to sell in the forex market its proceeds from the sale of a stake in Sberbank. Later on, the RF Ministry of Finance would periodically reduce or increase the daily volume of foreign currency to be traded on the Moscow Exchange, as a result of which the ruble would weaken or strengthen (*Fig. 7*).

So far, no straightforward explanation has been offered as to why the sudden financial market collapse, especially in the USA, happened specifically on Monday, March 16, 2020. An article published in *The Wall Street Journal* (2020)[1] reconstructs the events that had been taking place over the 2-3 days before that collapse.

On Sunday, March 15, at 5 pm, US Federal Reserve Chairman Jerome Powell, in an emergency move, announced dropping the benchmark interest rate to zero and launching a new round of quantitative easing, which would entail $700 bn worth of asset purchases in the stock market.[2] Markets had been expecting the rate cut issue to be discussed, in accordance with the Fed's plans, not earlier than Wednesday, March 18th. The Fed's sudden decision, announced three days ahead of schedule, put the market on the alert, and in many ways played the role of "oil poured into the fire".

The Fed's decision was caused by the simultaneous sharp surge in multiple investors' demand for cash, while at the same time, due to regulatory restrictions, major banks obviously lacked liquidity reserves that they could use without violating the established norms and their capital adequacy requirements. On the morning of March 16, 2020, the fears of an impending economic downturn triggered a massive exodus of investors from the money market funds and bond mutual funds. In order to properly settle with their shareholders, the funds needed to sell a large amount of bonds on the market, where they were faced with the reluctance of banks to spend money on purchasing bonds.

A number of municipalities experienced serious difficulties in the municipal bond market when they attempted to launch additional bond issues and refinance their old debts against the backdrop of the rapidly deteriorating coronavirus infection statistics.

Thus, it can be assumed that the events of March 16, 2020 represented primarily a liquidity crisis produced by the sudden awareness of market participants of the risks associated with the impending coronavirus epidemic and its consequences, coupled with the banking system's reluctance, because of the excessive regulatory requirements, to act as a temporary stabilizer of liquidity shortage. That is why the US Federal Reserve, from then onwards, had to shoulder the responsibility to deal with the liquidity shock.

1 *Baer Justin*. The Day Coronavirus Nearly Broke the Financial Markets // The Wall Street Journal on-line, May 20. 2020.
2 *Timiraos Nick*. Fed Slashes Rates to Fight Coronavirus Slowdown // The Wall Street Journal on-line, March 15, 2020.

So far, out of the five BRICS members, the stock indexes after the 2008 crisis have not recovered to their pre-crisis level only in Russia and Brazil (*Fig. 8*, *Table 2*). Over the 153 months that have passed since May 2008, the RTS Index recovered to only 57.4% of its pre-crisis level, and the MSCI Brazil Index, to only 34.6%. The RTS Index, which is calculated with due regard for reinvestment of dividends, recovered to the pre-crisis level within 140 months. The stock market crisis that occurred in March 2020, at the onset of the pandemic, in many ways hindered the recovery of the stock indices of Russian and Brazilian companies.

The stock indexes of the other three BRICS members managed to recover more quickly to their pre-crisis levels of 2008: the MSCI India Index, within 22 months; the MSCI South Africa Index, within 28 months; and the MSCI China Index, within 82 months. The stock indices of Chinese and Indian companies likewise recovered more rapidly after their downfall in March 2020: thus, as of early March 2021, the MSCI India index stood at 141.1%, and the MSCI China Index, at 163.1%, of their pre-crisis levels of 2008. In 2020, the MSCI South Africa Index was also recovering more successfully than its Russian and Brazilian counterparts, climbing by early March to 95.9% of its pre-crisis level of 2008.

The different rates of recovery demonstrated by the stock indexes of the two groups of BRICS members observed after the 2008 and 2020 crises have to do with a greater diversification of the national economies of India, China, and in part of that of South Africa, compared with the structure of the national economies of Russia and Brazil, as well as a number of specific features of the latter. The slow pace of recovery of Russia's stock market has been shaped by the economic sanctions that restrict the inflow of foreign investment; and in Brazil, by the increased macroeconomic instability, which has been further enhanced by the COVID-19 epidemic.

Table 2

The recovery of BRICS stock indexes denominated in US dollars after the 2008 crisis, as of February 28, 2021

Index	Index recovery period from May 2008, months	End of recovery	Current index value, % (May 2008 = 100%)
RTS	153	No	57.4
RTS Total Return	140	Yes	96.3
MSCI Brazil	153	No	34.6
MSCI South Africa	28	Yes	95.9
MSCI India	22	Yes	141.1
MSCI China	82	Yes	163.1

Source: own calculations based on data released by the Moscow Exchange and Bloomberg.

When analyzing the history of the US stock market for the period from 1870 to 2020, Kaplan[1] identified 18 major stock market shocks, and demonstrated that

1 *Kaplan Paul*. In Long History of Market Crashes, Coronavirus Crash Was the Shortest. Morningstar on-line, March 9. 2021. URL: https://www.morningstar.com/articles/1028407/in-long-history-of-market-crashes-coronavirus-crash-was-the-shortest.

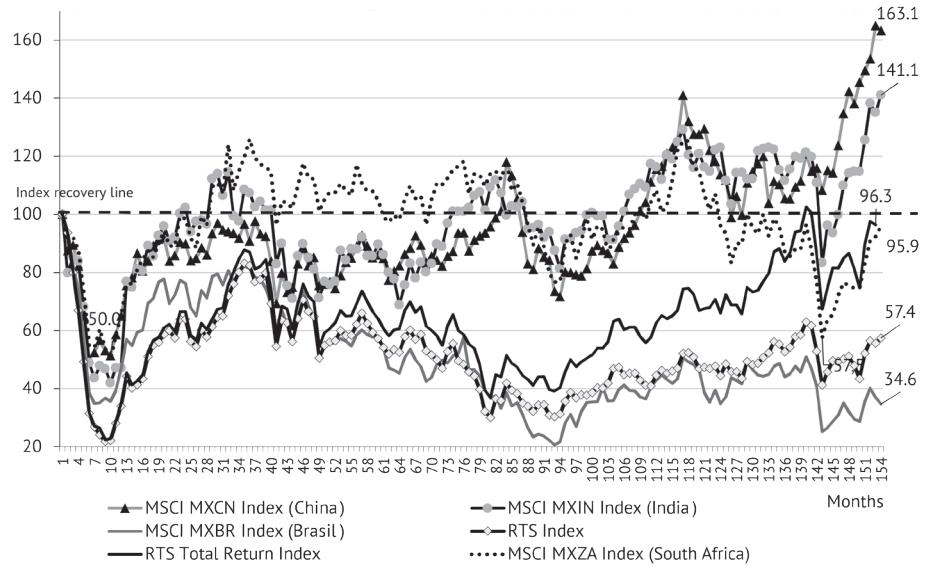


Fig. 8. The depth and duration of the impact of the 2008 crisis on BRICS stock indexes denominated in US dollars, as of February 28, 2021 (peak in May 2008 = 100%)

Source: own calculations based on data released by the Moscow Exchange and Bloomberg.

after all those financial crises, stock indices always recovered to their pre-crisis level. It is noteworthy in this connection that, in 2020, the period of the US stock market recovery was the shortest relative to those after all the previous 18 crises.

However, sometimes a full recovery of a stock market is a very slow process, and in a limited number of historic examples, that process has not yet been over even now, many years after the crisis. The most protracted crises in the modern history of stock markets were the recession in the US stock market during the Great Depression of 1929–1933, and the downfall of the Japanese stock market after 1989. The recovery of Dow Jones Industrial Average (DJIA) in the USA after the Great Depression lasted 303 months, or 25.3 years (*Fig. 9* and *Table 3*). In 2015, this record was broken by the Japanese NIKKEI-225 index, which as of March 5, 2021, had failed to recover in 374 months, i.e. more than 31 years. Its value in March 2021 amounted to only 74.4% of its peak achieved in 1989.

The somewhat faster recovery of the Japanese stock market in 2017–2020 was possible thanks to the quantitative easing measures implemented by the Bank of Japan since 2016, which entailed the acquisition of shares in private exchange-traded funds (ETFs), to the value of up to ¥6 trillion (about $55 bn) in per annum terms. In 2020, this limit was doubled; from March 9, 2021, the Bank of Japan announced that it would begin to reduce the limit.[1]

1 *Fujikawa Megumi*. Bank of Japan Drops Stock-Buying Target After Market's Rise. The Wall Street, March 19, 2021.

Against the backdrop of those crises, the recovery of Russia's RTS Index and the MSCI Brazil Index to the levels of 57.6% and 34.6%, respectively, which has lasted 153 months, is still closer to the trajectory of market recovery in a medium-term crisis. After the 1989 financial crisis in South Korea, the KOSPI Index recovered over 183 months, and after the dotcom bubble burst in the USA in 2000, the NASDAQ Composite returned to its pre-crisis level in 177 months.

Table 3

The longest recovery periods of national stock indexes as of February 28, 2021

Country (index - year of crisis onset)	Period of index recovery from its peak value, moths	End of recovery	Current value of unrecovered index, % (peak = 100%)
Japan (Nikkei – 1989)	374	No	74.4
USA (DJIA – 1929)	303	Yes	
South Korea (KOSPI – 1989)	183	Yes	
USA (NASDAQ – 2000)	177	Yes	
Russia (RTS (USD) - 2008)	153	No	57.4
Brazil (MSCI (USD) 2008)	153	No	34.6
China (MSCI-Shanghai (USD) - 1997)	122	Yes	
China (MSCI-Shanghai (USD) - 2008)	82	Yes	
USA (DJIA – 1907)	64	Yes	

Source: own calculations based on data released by the Moscow Exchange and Bloomberg.

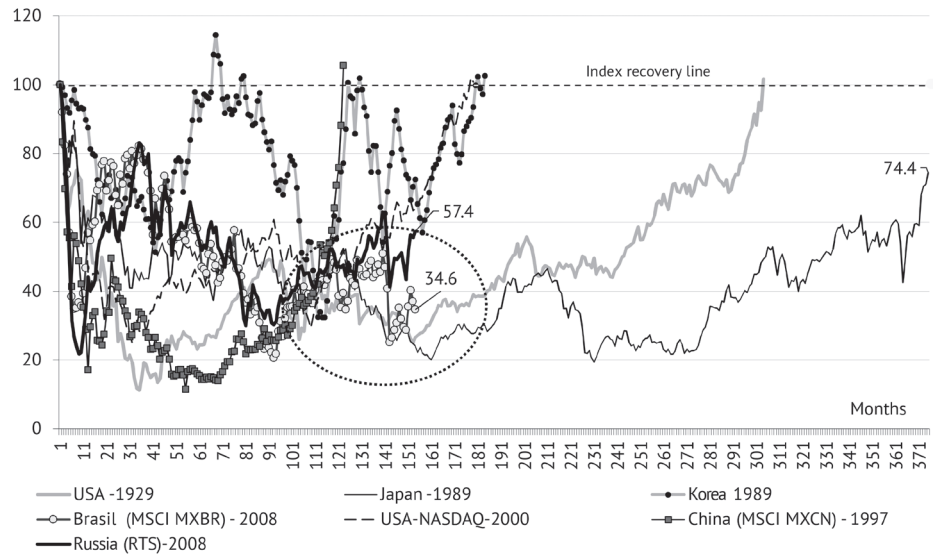


Fig. 9. The depth and duration of the longest stock index recoveries, as of February 28, 2021 (pre-crisis peak = 100%)

Source: own calculations based on data released by the Moscow Exchange and Bloomberg.

Typically, financial crises with longer (medium and long run) recovery periods are typical of the economies with severe structural problems. In the case of Russia, these have to do with the strong dependence of the national economy and stock market on the companies operating in the raw materials sector, investment climate problems that prevent the emergence of new leading companies in the non-resource sectors, and the high risks associated with geopolitical factors.

3.1.2. Equity risk premium

For domestic and foreign investors alike, the equity risk premium is one of the key characteristics of a country's stock market. It is the main component of the cost of capital to be considered when assessing investment projects, and it also serves as a universal corporate governance performance indicator and a benchmark of a stock's attractiveness for foreign investors. The essence of the problem is that there exist several different equity risk premium indicators of Russian stocks, and the relevant information concerning these indicators is provided by foreign agencies. Our review relies on our own estimates of these indicators.

In this connection, several most popular approaches to assessing the market risk premium of Russian stocks can be pointed out (*Fig. 10*). Fernandez et al. estimate the average equity risk premium based on opinion polls of scientists and business communities in different countries, who were asked about the particular equity risk premiums and risk-free rates they had applied in their studies over the past year.[1] Dimson, Marsh, and Stainton, in their book 'Triumph of the Optimists'[2] and their investment return reports released by Credit Suisse,[3] calculate the

1 *Fernandez P., Aguirreamalloa J., Corres L.* Market Risk Premium Used in 56 Countries in 2011. URL: http://ssrn.com/abstract=1822182, 2011; *Fernandez P., Aguirreamalloa J., Corres L.* Market Risk Premium Used in 82 Countries in 2012. URL: http://ssrn.com/abstract=2084213, 2012; *Fernandez P., Aguirreamalloa J., Linares P.* Market Risk Premium and Risk Free Rate Used for 51 Countries in 2013: A Survey with 6,237 Answers. URL: http://ssrn.com/abstract=914160, 2014; *Fernandez P., Linares P., Fernandez A.I.* Market Risk Premium Used in 88 Countries in 2014: A Survey with 8,228. URL: http://ssrn.com/abstract=2450452, 2014; *Fernandez P., Pershin V., Fernandez A.I.* Discount Rate (Risk-Free Rate and Market Risk Premium) Used for 41 Countries in 2015. URL: https://ssrn.com/abstract=2598104, 2015; *Fernandez P., Ortiz A., Fernandez A.I.* Market Risk Premium Used in 71 Countries in 2016: A Survey with 6,932. URL: https://ssrn.com/abstract=2776636, 2016; *Fernandez P., Pershin V., Fernandez A.I.* Discount Rate (Risk-Free Rate and Market Risk Premium) Used for 41 Countries in 2017: URL: https://ssrn.com/abstract=2954142, 2017; *Fernandez P., Pershin V., Fernandez A.I.* Market Risk Premium and Risk-Free Rate used for 59 Countries in 2018: URL: https://ssrn.com/abstract=3155709, 2018; *Fernandez P., Martinez M., Fernandez A.I.* Market Risk Premium and Risk-Free Rate Used for 69 Countries in 2019: URL: https://ssrn.com/abstract=3358901, 2019.

2 *Dimson E., Marsh P., Stainton M., Garthwaite A.*Triumph of the Optimists: 101 Years of Global Investment Returns. Princeton University Press, 2002.

3 *Dimson E., Marsh P., Stainton M., Wilmot J.* Credit Suisse Global Investment Returns Yearbook 2009 // Credit Suisse Research Institute, Switzerland, 2009; *Dimson E., Marsh P., Stainton M., Wilmot J.* Credit Suisse Global Investment Returns Yearbook 2010 // Credit Suisse Research Institute, Switzerland, 2010; *Dimson E., Marsh P., Stainton M., Holland D., Matthews B.* Credit Suisse Global Investment Returns Yearbook 2011 // Credit Suisse Research Institute, Switzerland, 2011; *Dimson E., Marsh P., Stainton M., Wilmot J., McGinnie P.* Credit Suisse Global Investment Returns Yearbook 2012 // Credit Suisse Research Institute, Switzerland, 2012; *Dimson E., Marsh P., Stainton M., Garthwaite A.* Credit Suisse Global Investment Returns Yearbook 2013 // Credit Suisse Research Institute, Switzerland, 2013; *Dimson E., Marsh P., Stainton M., Mauboussin M.* Credit Suisse Global Investment Returns Yearbook 2014 // Credit Suisse Research Institute, Switzerland, 2014; *Dimson E., Marsh P., Stainton M., Holland D., Mattenws B., Rath P.* Credit Suisse Global Investment Returns Yearbook 2015 // Credit Suisse Research Institute, Switzerland, 2015; *Dimson E., Marsh P., Stainton M., Wilmot J.* Credit Suisse Global Investment Returns Yearbook 2016 // Credit Suisse

long-term equity risk premiums for different countries, including Russia, as the difference between the estimated real return on stocks and the estimated real return on government securities. According to their methodology, the equity risk premium is the geometric difference[1] between the return on stocks and the return on risk-free assets. For the latter, the authors use two benchmarks: short-term government bonds and 10-year government bonds. The long-run average for each equity risk premium is calculated over the period starting from 1900, and the medium-run average, over the past 40-50 years. Dimson et al. disclose their data for Russia only in the Credit Suisse Yearbooks for 2014-2018; no data are available for other years.

A more sophisticated approach is used by Damodaran, who estimates country risk premiums (CRP) by adding country premiums to a risk-free rate calculated using the indicators of return on government securities and the volatility of shares issued by local companies.[2]

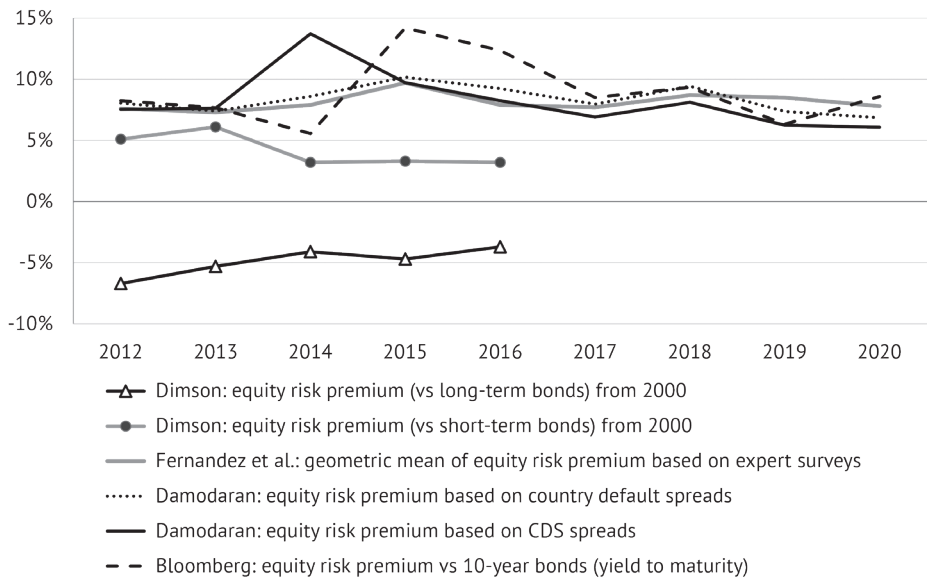


Fig. 10. The equity risk premiums on Russian stocks, based on the most cited international sources, as %, 2012–2020

Source: own compilation based on data from the studies by *Dimson et al., Fernandez et al., Damodaran, and Bloomberg.*

Research Institute, Switzerland, 2016; *Dimson E., Marsh P., Stainton M.* Credit Suisse Global Investment Returns Yearbook 2017 (Summary Edition) // Credit Suisse Research Institute, Switzerland, 2017; *Dimson E., Marsh P., Stainton M.* Credit Suisse Global Investment Returns Yearbook 2018 (Summary Edition) // Credit Suisse Research Institute, Switzerland, 2018; *Dimson E., Marsh P., Stainton M.* Credit Suisse Global Investment Returns Yearbook 2019 (Summary Edition) // Credit Suisse Research Institute, Switzerland, 2019.

1 (1+ Premium) = (1 + Return on stocks)/(1+ Return on bonds) in annual terms.

2 *Damodaran, Aswath,* Country Risk: Determinants, Measures and Implications – The 2020 Edition (July 14, 2020). NYU Stern School of Business. URL: https://ssrn.com/abstract=3653512 or http://

According to the latest survey by Fernandez published at the end of March 2020, the risk premium of Russian stocks fell from 8.5% to 7.8% (*Fig. 11*). The data summary published by Fernandez offers a sociological picture of how different specialists perceive the equity risk premiums in one or other country.

According to data released by the Bloomberg Terminal, the premium, which is calculated as the difference between the return of a stocks index and the yield to maturity of 10-year ruble-denominated government bonds, increased from 6.32% at the end of 2019 to 8.59% at the end of 2020. Such a benchmark is often used in practice as a guide for investors.

Damodaran's indicator, updated as of January 1, 2021, show a decline of the equity risk premiums of Russian stocks from 7.4% to 6.85% based on country default spreads and this country's credit rating; and from 6.2% to 6.08% based on credit default swaps.

The methodology applied by Bloomberg for calculating country risk premiums is based on the difference between the expected market rate of return of stocks and the risk-free rate, which is understood to be the yield to maturity of zero-coupon 10-year government bonds denominated in the local currency. For Russia, the MICEX Russia Zero Cpn 10 Year index is applied as the risk-free rate. The market yield is determined using the dividend discount model (DDM), which is similar to Damodaran's approach; it is calculated as a capitalization-weighted ex ante internal rate of return for each stock. The model is evaluated based on a 5-year consensus forecast for earnings-per-share growth rates.

It is noteworthy that the country risk premium data are posted by the Bloomberg Terminal to the specially assigned information pages together with data on dividend yields and dividend payout ratios (*Fig. 11*). All these indicators are the weighted averages for all the stocks and stock issuers included in MOEX Russia Index.[1]

Over the period from August 2018 through February 2021, the dividend yield on Russian stocks remained relatively high, at an average level of 6–6.5%. According to the year-end results of 2020, it amounted to 5.9%, while the temporary surge in March-April 2020 (when this index jumped to 8.1%) can be explained by the declining stock prices. The movement pattern of dividend payments had been displaying an upward trend since August 2018. The average dividend index for 2020 amounted to 53.7% of net profit, while prior to 2020 it stood at 45% only in May 2019. This means that over the course of 2020, in order to maintain their investment attractiveness, big public companies tried to maintain high dividend yields, although it was becoming increasingly difficult for them to do so, and so they had to noticeably increase the share of their net profit allocated to dividends.

In such circumstances, equity risk premium growth calculated according to the Bloomberg methodology implies that investors expect Russian companies to pay them progressively substantial dividends, even though such payments impose an

dx.doi.org/10.2139/ssrn.3653512/.

1 The historical data for all three indices are smoothed using a 21-day moving average (approximately 1 month), so the final risk premium values in Bloomberg data for the year-end of 2019 and 2020 slightly differ from the values of the same index in *Fig. 10*.

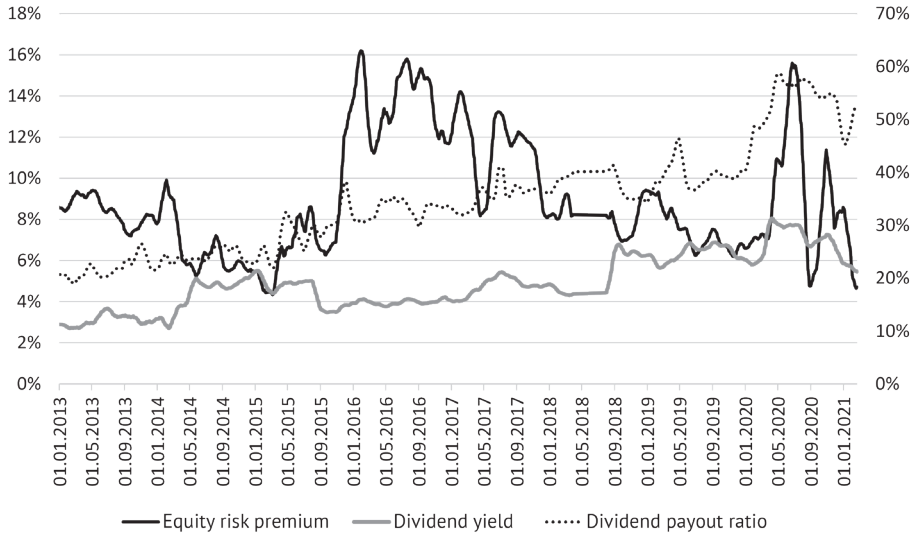


Fig. 11. The equity risk premiums on Russian stocks (left-hand side axis) and additional parameters: dividend yield (left-hand side axis) and dividend payout ratio (right-hand side axis) based on data released by the Bloomberg Terminal, as%, moving average, 2013 to February 2021

Source: own calculations based on data released by the Bloomberg Terminal.

ever-increasing burden on their net profit. However, the actual dividend payout reflected in Bloomberg's discounted cash flow model is volatile, which also results in the high volatility of the expected equity risk premium. Over the year, the equity risk premium according to Bloomberg increased from 6.7% in 2019 to 8.1% in 2020. However, during the year its value varied from 15.5% to 4.7%. In February 2021, it once again declined to 4.7%.

Foreign sources do not always promptly disclose their assessments of Russian stock risks and do not publish in full their calculation methodology. Therefore, based on the methods they use, we have decided to publish our own equity risk premium estimates, with due regard for our own historical data on the movement of financial instruments.

The first group of indicators, **predict risk premiums, or PRP,** are calculated based on the approaches, suggested by Damodaran,[1] to determining future returns

1 According to *Damodaran* (2019), the project risk premium for Russian stocks is calculated as the sum of the current default spread and the implied risk premium for the base country. The implied premium for the base country (USA) is calculated as the rate of return in a two-stage growth model of dividend payouts to investors (dividends + share buybacks), where the first stage lasts 5 years with volatile growth rates adjusted by data in the current consensus forecasts and S & P500 Earnings; and the second stage lasts 'indefinitely' for a long time, with income growth rates equal to the current risk-free rate. Thus, predictive power becomes part of the calculation of the equity risk premium components. The default spread (or country risk premium) can be calculated as the spread between Russian and US 10-year government bonds, or Russia CDS. In our calculations, we introduced an additional factor, which is the ratio between the standard deviation of stocks

and market expectation estimates.[1] It is these indicators that have been most frequently used by investors to calculate the cost of capital and the expected effectiveness of future investment projects. The equity risk premium according to Damadoran consists of the "premium in a base developed market" plus the country risk premium (specific of the stocks issued by a company in a given country. The base market premium is calculated as the discount rate applied to the cash payments to shareholders in the form of dividends and stock buybacks, which grow over a medium-term period of 3-5 years according to market expectations (based on the consensus forecasts released by news agencies, e.g., Bloomberg, Thomson Reuters, etc.), and thereafter at a growth rate that equals the current risk-free rate on 10-year government bonds issued in the base country. The country premium in this approach is determined using the spreads between 10-year government Eurobonds issued by a given country and the bonds denominated in the same currency for the base country, or by using CDS spreads. In addition, in our calculations, the methodology is augmented by the factor of relative volatility of stock returns compared to bond returns in the domestic market of the country under consideration, whereby the country risk premium may be adjusted for the relative equity risk premium.

This group consists of four indicators: PRP1 is country risk premium, determined on the basis of yield spreads of RF and US sovereign bonds denominated in US dollars; PRP2 is country risk premium calculated on the basis of credit default swap (CDS) premiums on RF sovereign bonds denominated in US dollars; PRP3 is country risk premium estimated by adjusting PRP1 for the volatility of Russian stocks; and PRP4 is country risk premium calculated by adjusting PRP2 for the volatility of Russian stocks. PRP3 and PRP4 are the indicators that most adequately determine the predicted value of equity risk premium on Russian stocks.

During crisis periods, the equity risk premium spreads, especially those based on indicators that take into account stock volatility, become quite significant. In December 2018, PRP1 and PRP2 amounted to 19.05% and 19.25%, respectively, while those indicators that were adjusted by stock volatility (PRP3 and PRP4) increased to 33.83% and 34.52%. During another crisis period with an increased ruble volatility in January 2015, while PRP1 and PRP2 stood at 12.39% and 13.11%, respectively, PRP3 and PRP4 rose to 15.34% and 16.46%, respectively.

As shown in *Fig. 12*, during the periods of relative stability in the stock market, the values of all the four indicators of predicted equity risk premium on Russian stocks become close to the same level. Another situation where all the premiums can converge is directly opposite, when stocks and bonds simultaneously become highly volatile, as it happened in 2020. The market downfall coupled with increased risks in March 2020 pushed the premiums upwards: PRP3 to 11.32%, PRP4 to 11.22 %, PRP1 to 10.23%, and PRP2 to 10.17%. By the year-end of 2020, the premiums declined to their levels of late 2019: to 6.12% (PRP1) and 6.5%

and the coefficient of variation of government bonds. Thus, the premium also accounts for the additional risk associated not only with the risk of stocks compared with that of bonds in a 'base' developed country, or with country risk, but also with stock volatility in a given financial market.

1 *Damodaran A.* Equity Risk Premiums (ERP): Determinants, Estimation and Implications, 2019. URL: https://ssrn.com/abstract=3378246

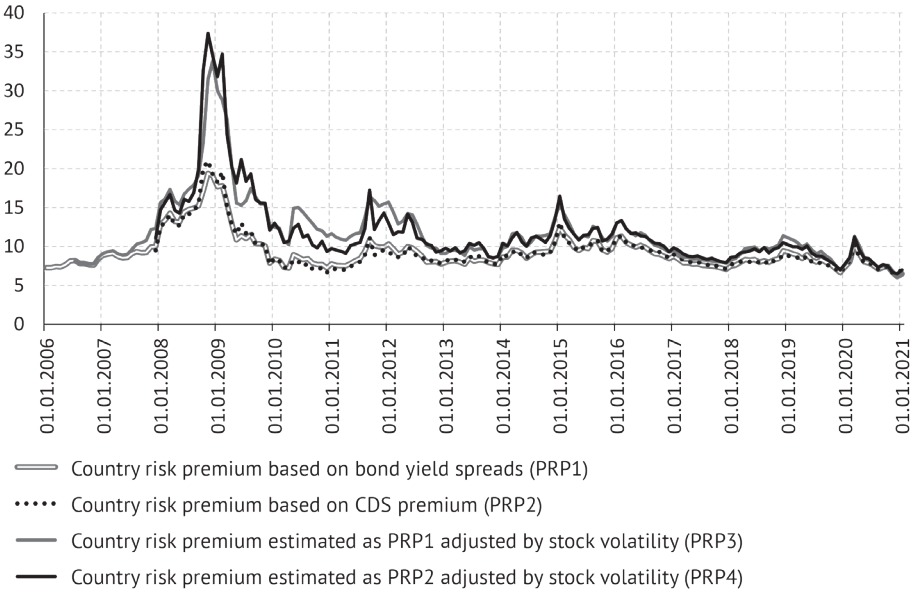


Fig. 12. The current and historical equity risk premiums on Russian stocks, adjusted for their relative volatility in the domestic market, as %, 2006 - January 2021

Source: own calculations based on data released by Bloomberg.

(PRP4 and PRP2). Their decline was caused by the reduced volatility of stocks and bonds, as well as by the shrinkage of spreads that had soared at the peak of the crisis events in every country. The spread in the values of all the four risk indicators towards the end of 2020 once again became very insignificant.

The low risk premium according to Damodaran, all other things being equal, is a positive signal to foreign investors that they should buy Russian stocks.

The second group of equity risk premium indicators consists of the **historical risk premiums (HRP) on Russian stocks** denominated in US dollars relative to short- and long-term portfolio yields of RF eurobonds. The methodology applied in calculating these spreads, without much detail, was described in the book "Triumph of the Optimists" and the reviews released by Credit Suisse. The problem with the data for Russia applied by Dimson et al. is that they are publicly available only for a limited number of years, and rely on a calculation methodology that is not entirely transparent. For these reasons, we decided to calculate HRP1 and HRP2 on our own; these are the historical risk premiums that we calculated on a longer time horizon relative to the long- and short-term yields of RF eurobond portfolios, respectively, and revised on a monthly basis.[1]

1 The risk premium on stocks is calculated as the difference (cleared of inflation) between the return of a stock index and the return of bonds. This estimate is historical, and not predictive. The stock returns on long historical horizons are calculated taking into account the exchange rate and

The calculation of historical equity risk premiums is of practical importance for predicting the movement of premiums and stock returns, evaluating the cost of capital for companies, as well as using it as a benchmark for the required rate of return on investments. A positive long-term equity risk premium is indicative of the relative safety of long-term investments in stocks compared with a risk-free rate (the authors have come to the conclusion that stocks most stably outperform bonds over at least a 40-year horizon). A comparison of premiums across many countries makes it possible to draw reliable conclusions as to the feasibility of global or regional portfolio diversification.

Fig. 13 presents long-term premiums as the difference between the geometric means of the returns of the main asset classes. The resulting premium values are compared with the values from the Credit Suisse reports, where a similar technique is used. When calculating our indicators, we managed to obtain similar results. The stock return is compared with that of short-term eurobonds (the most 'correct' proxy for the risk-free rate) and long-term eurobonds (the most commonly used proxy for the risk-free rate). The premium on relatively short bonds declined on 2019, amounting to 4.6% over the 21-year period from 2000 through 2021. The equity risk premium that since 2008 has been persistently negative relative to the premium on long-term bonds, whose negative value increased somewhat further in 2020, represents an adverse trend that points to the fact that foreign investors do not see any sufficient value growth potential in Russian stocks over long-term horizons. The prevalence of bonds over stocks in terms of yields creates some additional risks for the domestic stock market in view of the forthcoming massive rise in interest rates on the global stock markets in the medium term. This usually triggers a sell-off of bonds by investors in emerging markets, and a switchover to investments in local stocks. However, Russian stocks in this particular case may fail their role of a hedging asset because of their low return-to-risk ratio compared with bonds.

From 2017 onwards, Credit Suisse has no longer included Russia in its consolidated reports, so here, our own extended time series are used instead of the classical calculations by Dimson et al. For the period 2000–2021, the equity risk premium relative to long-term bonds declined on 2019, to -2.7%, which means that RF government bonds have become more attractive for investors than Russian stocks.

dividend yield of a given country's stock market index denominated in the base currency, and thus it becomes possible to compare the indices of different countries, for example, in US dollar terms. One example of such an index is MSCI Russia, which has been followed since December 1994. As a proxy for the risk-free rate, Dimson et al. used both short-term and long-term government bonds. Short-term bonds, according to the authors, are more consistent with the concept of a risk-free asset, and their volatility is lower. However, during the periods of a sudden surge in inflation or other extreme conditions, their cost varies significantly. On the other hand, long-term bonds are often used as a benchmark for calculating equity risk premiums. The benchmark in this case should be the yield of the national eurobond price index denominated in US dollars. In Russia, there is no eurobond index denominated in US dollars with a sufficient historical depth. All the available indexes, as a rule, are compiled either by Cbonds or by foreign agencies (e.g., Bloomberg), and have been followed from the mid-2000s. Our own calculations of eurobond price index enable us also to calculate our own values of historical risk premium for Russian stocks (HRP1 and HRP2).

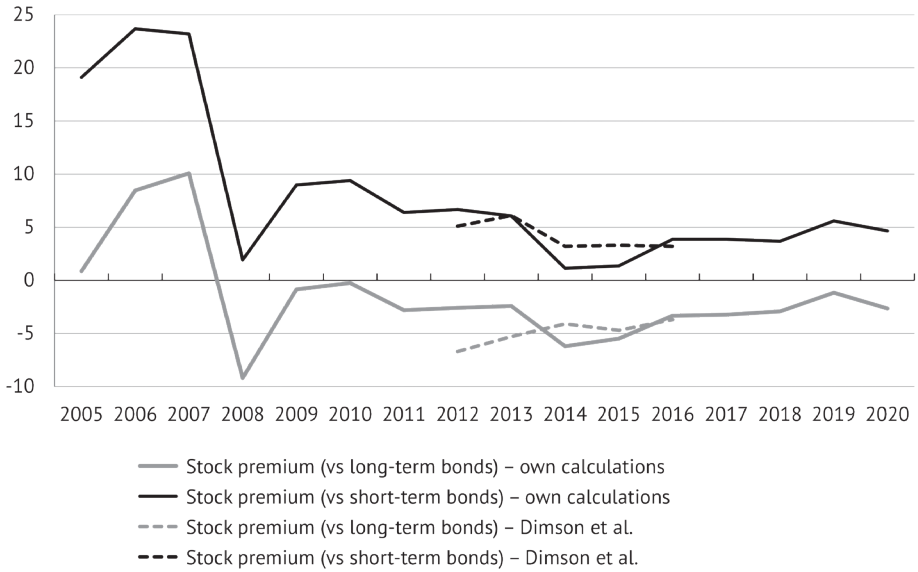


Fig. 13. The long-term historical equity risk premiums vs short-and long-term eurobonds (in US dollars), 2000–2020

Source: own calculations based on data released by Bloomberg.

As can be gleaned from Credit Suisse's reports over several years, most of the major stock markets are characterized, on a long-term horizon, by positive equity risk premiums on stocks relative not only to short-term government bonds, but also to long-term ones, and so in our study, the negative premium on stocks calculated relative to long-term debt instruments on the domestic stock market points to the existence of some stock market problems that prevent investors from receiving their expected amount of equity risk premi um on their investments in more risky assets.

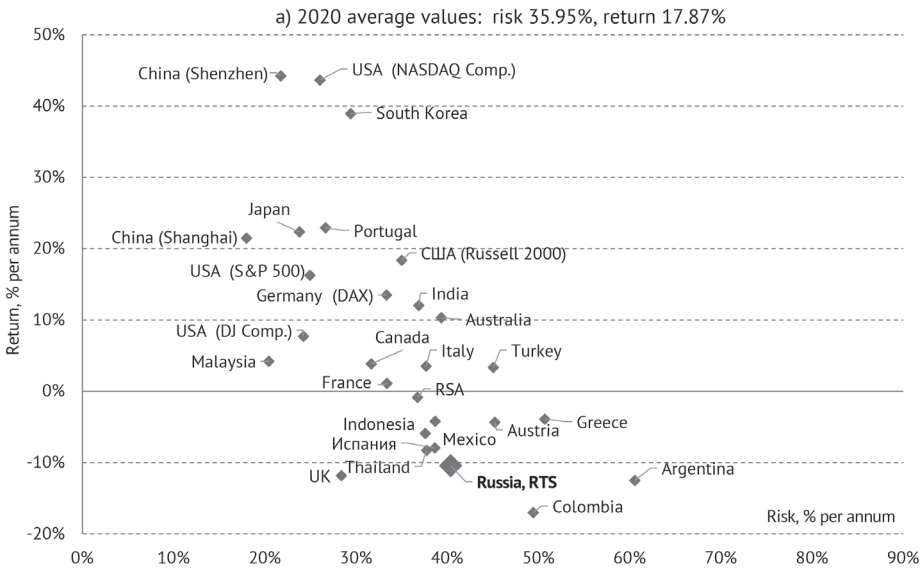
3.1.3. The fundamental characteristics of the stock market

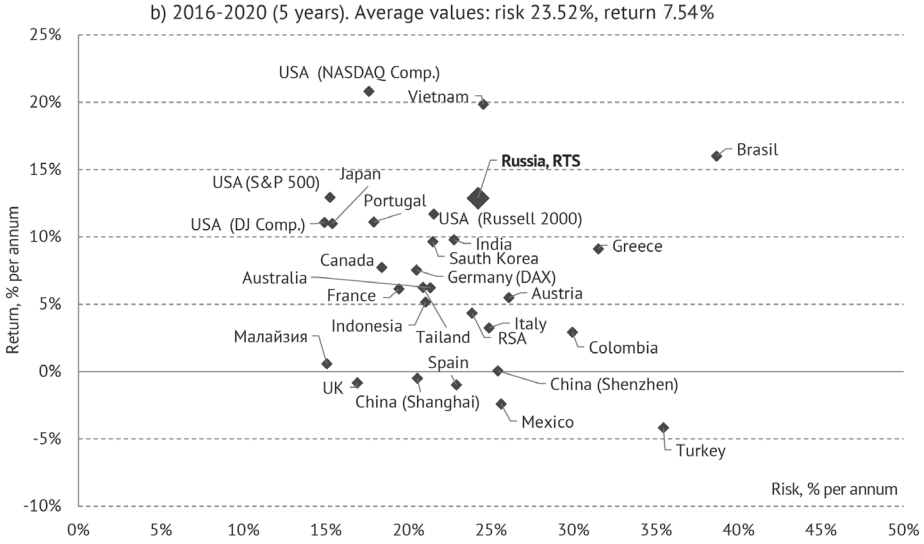
Fig. 14 shows data on the parameters of returns and risks of 31 stock indexes from 27 countries; for the sake of data comparability, the stock indices are recalculated in US dollars. The return and risk assessments of each country's index portfolio were done for 2020, the 5-year period from 2016 through 2020, and the 12-year period from 2009 through 2020.

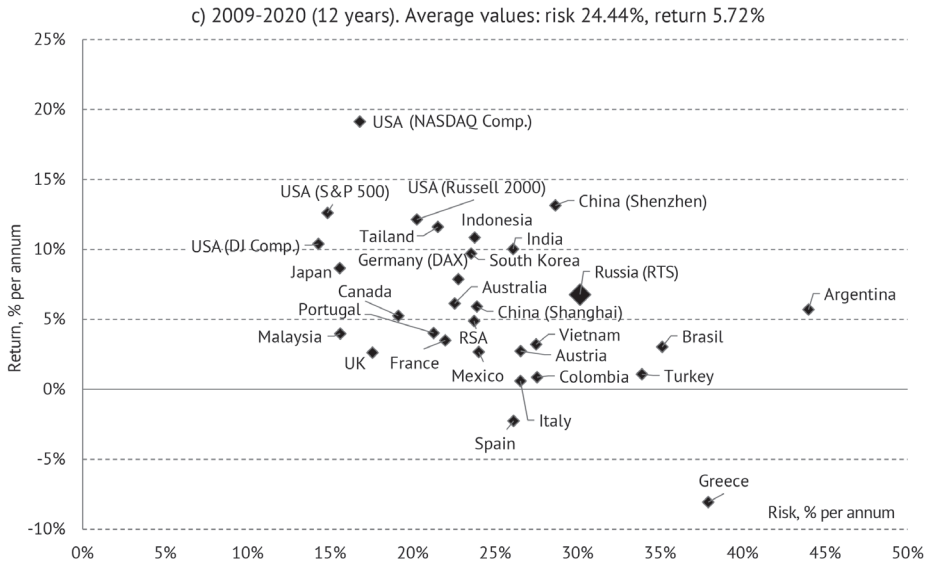
After the successful year 2019, during which the RTS Index, with its dividend yield of 44.9% per annum, was second only to one country in the sample, the year 2020 turned out to be less fortunate. That year, the dividend yield of the RTS Index amounted to -10.4%, while the sample's average stood at 17.7%; only the stock indexes of Argentina and Colombia demonstrated lower forex dividend yields than did Russian stocks. The risk index (standard deviation) of the RTS Index amounted to 40.4%, while the corresponding sample's average was 35.9%.

Higher risk scores were noted only for 5 out of 31 national stock indexes in the sample. Thus, in 2020, the volatility of the RTS Index once again was among the highest relative to the national indexes of other countries with biggest stock markets.

On a 5-year time horizon (2016–2020), the RTS Index demonstrated some decent results in terms of profitability-risk criteria *(Fig. 14b*). Its dividend yield of 12.9% per annum turned out to be almost twice as high as the average return for







* The values of Venezuela's stock index are not shown on the chart due to the scaling limitations of the X and Y axes.

Fig. 14. The geometric mean values of return and risk parameters of 31 national stock indexes for the period from January 2009 through December 2020, in US dollars, on time horizons of 1, 5, and 12 years, as % per annum

Source: own calculations based on data released by the Moscow Exchange and Bloomberg.

that group of countries (6.5%). It was second only to the corresponding indices for US stocks (S&P 500 and NASDAQ), as well as those of Brazil and Vietnam. However, the risk indicator of the RTS Index, which stood at 24.2% per annum, turned out to be above the sample's average of 23.5%; on this medium-term horizon, only 9 out of 31 country indexes had a higher risk indicator than the Russian stock index.

On the 12-year horizon from 2009 through 2020, the average annual return of the RTS Index, which amounted to 6.7%, turned out to be slightly higher than the sample's average return of 6.0%, while its risk ratio of 30.1 % significantly exceeded the corresponding sample's average of 24.4% (*Fig. 14c*). The countries with an unstable financial situation like Argentina, Brazil, Greece and Turkey displayed risk indicators that were higher than those of the RTS Index.

Thus, by comparison with the other competing countries, Russian stocks and their index frequently offer relatively high returns, but they are also characterized by increased risks of yield volatility.

While demonstrating higher financial indicators of net return on capital and dividend yield compared with many other national stock indexes, as well as one of the lowest leverage ratios in our sample, Russian stocks are priced lower than their foreign counterparts, and this underestimation has become a persistent

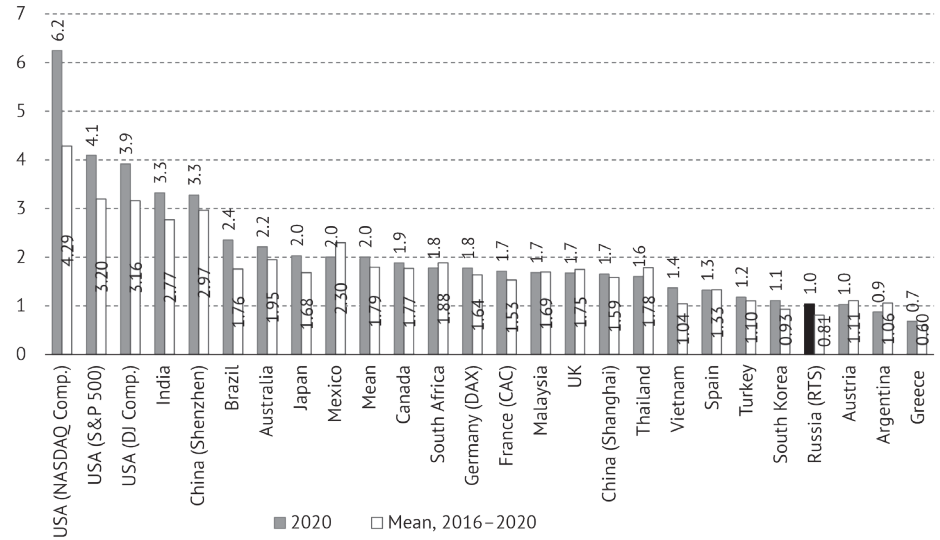


Fig. 15. The financial indicator 'price-to-book per share ratio' as of December 31, 2020 and its mean value for the period 2016–2020 based on 26 national stock indexes

Source: own calculations based on data released by Bloomberg.

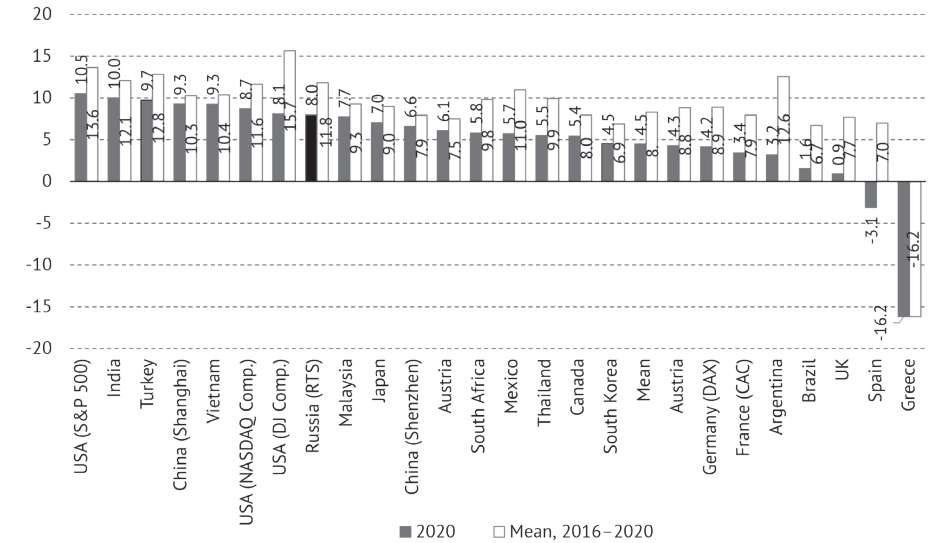


Fig. 16. The financial indicator 'return on equity' (ROE) as of December 31, 2020 and its mean value for the period 2016–2020 based on 26 national stock indexes, as %

Source: own calculations based on data released by Bloomberg.

phenomenon. As shown in *Fig. 15*, out of the 26 national stock indexes,[1] the price-to-book (P/BV) ratio[2] of the constituent companies of the RTS Index was among the lowest in the world. In 2020, it amounted to 1.0; according to the period-end results, during the 5-year period 2016–2020 its average value was 0.8.

The stock prices of Russian PJSCs are also lower compared to their competitors in other countries, even though their return on equity (ROE) ratio is significantly above that of the companies trading in other markets.[3] As shown in *Fig. 16*, in 2020, among the 26 national stock indexes, the ROE of 8.0% for the RTS Index was inferior to only seven national stock indexes (USA, India, China, Turkey and Vietnam.). The average ROE of Russian companies on a 5-year time horizon (2016–2020) stood at 11.8%, being below only two out of 26 stock indexes.

In the context of economic sanctions that restrict a capital inflow from external sources and the relatively high domestic key rate compared with the

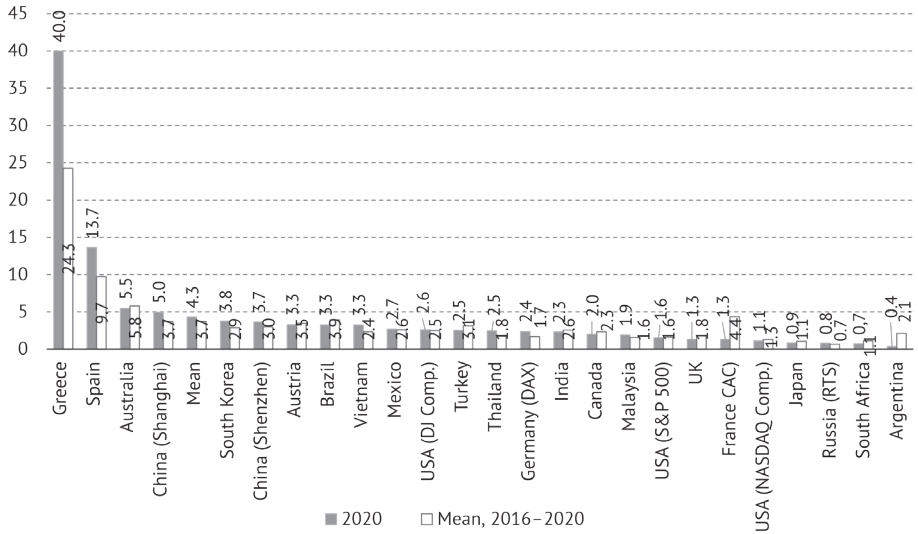


Fig. 17. The financial indicator 'debt/operating earnings' (D/EBITDA) as of December 31, 2020 and its mean value for the period 2016–2020 based on 26 national stock indexes

Source: own calculations based on data released by Bloomberg.

1 Hereinafter, the sample applied in our calculations differs from the sample of 31 stock indexes presented in *Fig. 14*, in that it does not include the national stock indexes of Venezuela, Indonesia, Italy, Colombia, and Portugal, as well as Russell 2000 Index, because of the anomalous values of their financial factors.

2 The P/BV ratio also describes the relative capitalization level of companies. It is the per share ratio between a company's market capitalization and the book value of its net worth, including charter capital, reserves and retained earnings.

3 ROE is calculated as the ratio between the company's net profit and the book value of its net worth, which should not be confused with the company's capitalization, because the latter depends on the number of ordinary shares outstanding and their market prices.

other economies, one characteristic feature of Russia's biggest public companies is their low debt burden. In 2020, among the 26 national stock indexes, Russia's RTS Index constituent companies had the lowest D/EBITDA Ratio[1] of 0.8; only Argentina and South Africa had lower values of this particular indicator. On average for the period 2016–2020, that constituent of the RTS Index was the lowest in the sample, amounting to 0.7 (*Fig. 17*).

One of the positive trends in the domestic stock market observed after the 2008 crisis has been a significant increase in the dividend yield on Russian stocks, from 1.56% in Q4 2009 to 8.12% in Q1 2020, i.e. 5.2 times (*Fig.18a*). The decline in dividend yield in Q4 2020, to 5.40%, turned out to be a temporary measure, typical of many countries where, on the recommendation of national regulators, major stock issuers decided to reduce their dividend payments to shareholders in order to preserve jobs in the situation of waning business activity in face of the coronavirus pandemic.

According to our studies,[2] the main factors behind the growth of dividend yields during these years were the desire of issuers to keep up the investment attractiveness of their securities in the eyes of investors; the pressure put by the RF Ministry of Finance on the biggest state-owned companies (SOE) to make them pay at least 50% of their net profit in the form of dividends; and also, in part, the desire of major stakeholders to receive additional payments from companies in the form of money that they had not invested.

Nevertheless, in 2020, the dividend yield of Russia's RTS Index constituent stocks, as well as their average dividend yield for the period 2016–2020, were among the highest in the sample of 26 national stock indexes (*Fig. 18b*).

In theory, the dividend yield is considered to be the quotient of the dividend payout ratio (as a percentage of net profit) divided by the price-to-earnings (P/E) ratio.[3] This means, e.g., that the growth of dividend yield can result not only from an increasing dividend payout ratio, which is a positive factor for shareholders, but also from a declining P/E ratio in response to a company's falling stock prices relative to its net profit, which points to negative consequences for investors.

The period 2018–2020 saw an unusual trend in the behavior of Russian stocks, when the growth rate of the P/E ratio was above that of the dividend payout ratio (*Fig. 18c*). From 2018 through 2020, the average P/E ratio of the RTS Index increased from 4.4 to 13.3, or 3 times, while the average dividend payout ratio increased from 31.9 to 81, 6%, or 2.6 times. In 2020, the accelerated growth of the P/E ratio relative to that of the dividend payout ratio even resulted in a dividend yield decline in Q2-Q4 of 2020, as can be seen in *Fig. 18a*.

The accelerated growth of both these indicators can probably be explained by the low net profits of the stock issuers and their desire to divert the bulk of their

1 The D/EBITDA is the ratio of companies' debt burden to their operating earnings before interest, taxes, depreciation and amortization, thus reflecting their ability to cover their debt by the amount of income generated and available annually.

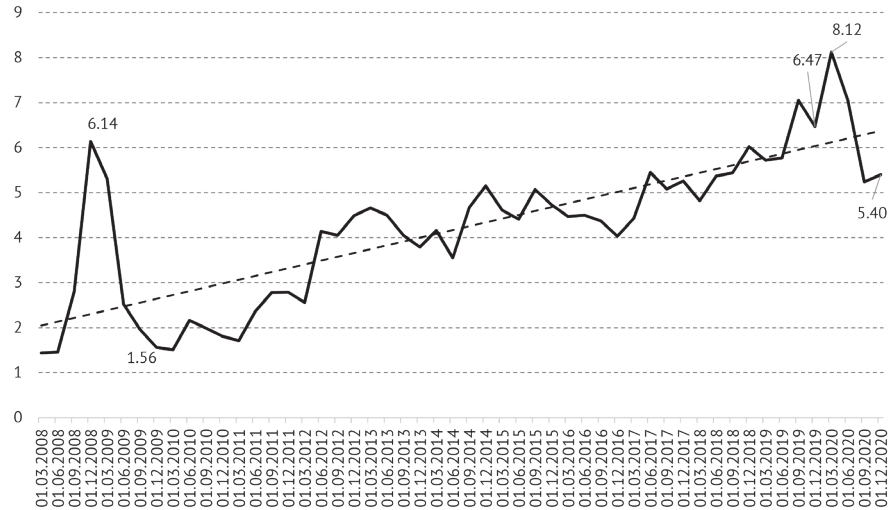
2 *Abramov A., Radygin A., Chernova M., Entov R.* The "dividend puzzle" and the Russian stock market // Voprosy Ekonomiki. 2020. No. 1. Part 1. P. 66–92; No. 2. Part 2. P. 59–85.

3 This financial ratio describes the relative amount of companies' capitalization, i.e., for how many years the amount of net profit per share pays off its market price.

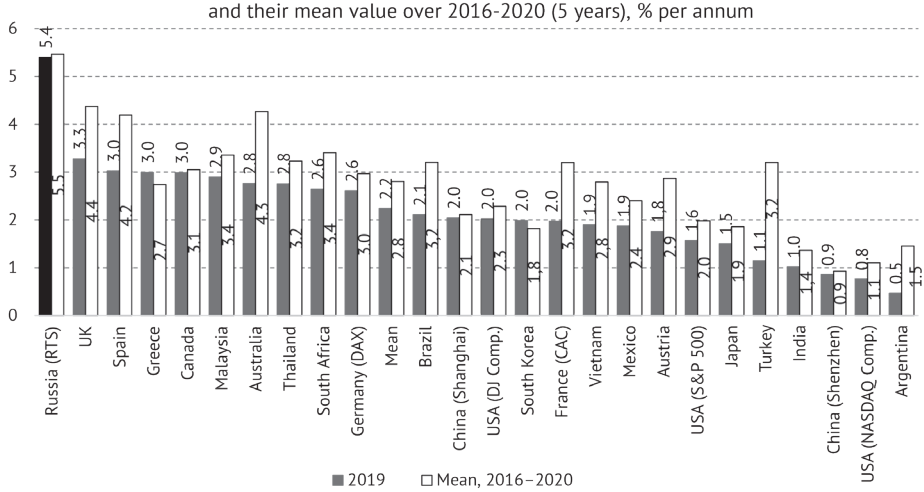
net profits to the payment of dividends, rather than investing it. However, in any case, this trend in the movement of the two indicators that was observed in 2018-2020 reflected a change in the accelerated dividend yield growth model that was typical of Russian PJSCs after the 2008 crisis, when high dividend yields had been the result of a moderate growth rate of dividend payments (the linear trend line in *Fig. 18c*) alongside stably low P/E ratios.

The chart in *Fig. 18d* explains the phenomenon of high dividend yields on Russian stocks observed over the period 2016–2020, setting the P/E ratio and dividend yield constituents of the RTS Index against those of the other 25 national

a) Dividend yield of RTS Index in 2008-2020, % per annum



b) Dividend yields of broad stock market indexes of different countries in 2020 and their mean value over 2016-2020 (5 years), % per annum



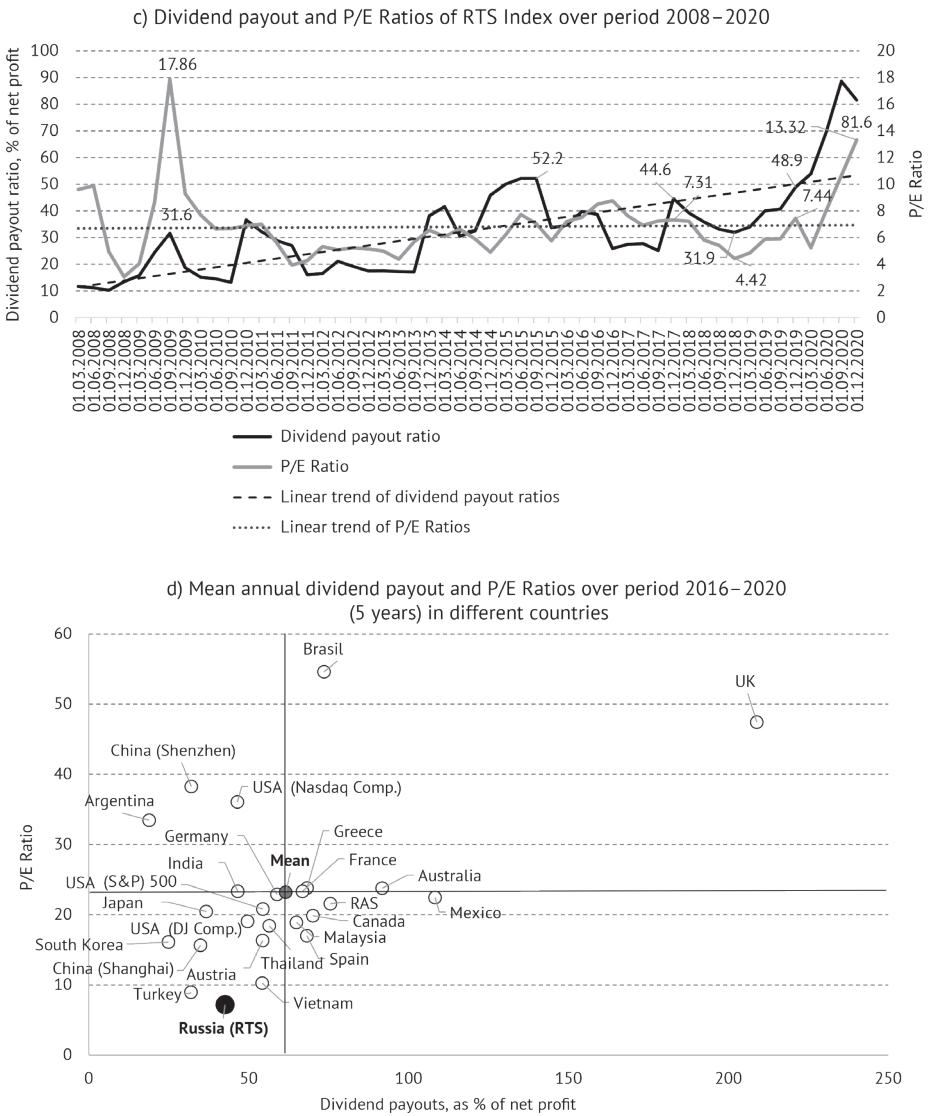


Fig. 18. Analysis of dividend yield on the RTS Index, as % of market stock price, as of December 31, 2020, including the following charts

a) the dividend yield of the RTS Index in 2008-2019 calculated on a quarterly basis, % per annum;
b) the dividend yields of 26 broad stock market indexes of different countries in 2020 and their mean values over the 2016-2020, % per annum
c) the dividend payout (%) and P/E Ratios of the RTS Index calculated on a quarterly basis over the period 2008-2020;
d) the mean annual dividend payout and P/E Ratios of 26 stock market indexes in different countries over the period 2016-2020.
Source: own calculations based on data released by Bloomberg.

stock indices. As shown in *Fig. 18d*, on a 5-year time horizon, the average annual P/E ratio of the RTS Index was the sample's lowest, with below-average dividend payouts. This means that so far, the higher dividend yields of Russian stocks can be explained by their low P/E ratio, rather than high dividend payout ratios.

Over the period 2008–2020, the cumulative equity risk premium on Russian stocks[1] amounted to 186% for the MOEX Total Return Index[2], and to 289.7% for our calculated broad market portfolio index (RMRF) (*Fig. 19*).

The issues of tradable Russian stocks and their issuers have their own specific characteristics. In our classification of stocks, we applied the following criteria: capitalization index; liquidity on the secondary market; P/BV ratio; dividend yield; the size of state-owned stakes; and stock returns over the previous period. These were augmented by a new factor, P/E ratio. A separate stock portfolio was compiled for each of these criteria, to be reviewed on a quarterly basis. This approach makes it possible to evaluate, on a monthly basis, the returns on stocks issues by different groups of companies, each group sharing one or other specific feature.[3] Besides, it becomes possible to evaluate their corporate strategies on the basis of these financial indicators, as well as to plot factor investing strategies, which are widely used by institutional investors all over the world.[4]

The data in the chart show that the use of three out of seven strategies for selecting stock issues - the company capitalization index, the absence of the State as a shareholder, and the dividend yield for the previous period – makes it possible for investors to increase returns on their stock portfolios. Over the period from December 2007 through December 2020, as a result of their orientation to stocks issued by smaller companies and by joint-stock companies with minor state stakes in their charter capital, as well as to stocks with higher dividend yields, investors received 13-year accrued premiums of 226.5%, 137.7%, and 61.3%, respectively, compared with the premiums on stocks issued by big companies, companies with large stakes held by the State, and stocks with low dividend yields.

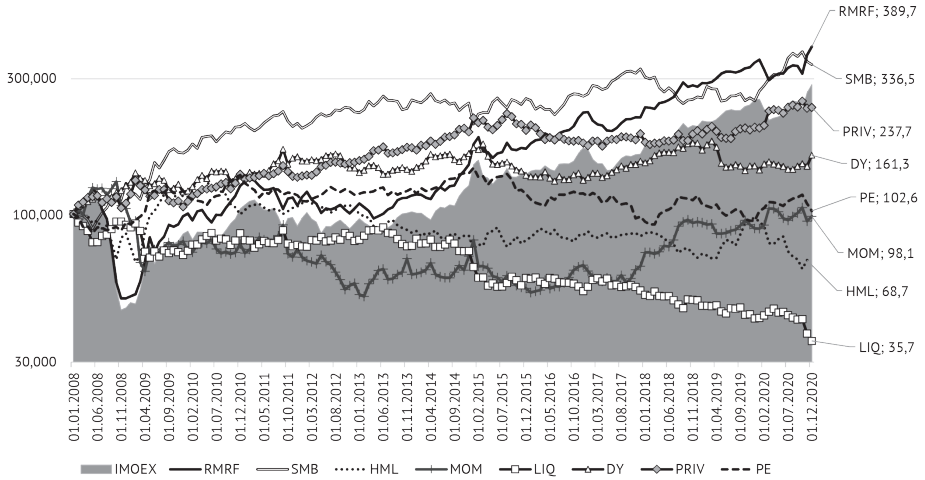
When investing in less liquid stocks or in stocks with higher returns, the investors were not rewarded with premiums in the amount that they usually expected to receive on low-liquidity financial instruments and when they relied

1 The difference between the yield on a market stock portfolio and on a risk-free asset. As market portfolios, we used in our calculations the MOEX Russia Total Return Index (MCFTR) and a broad market portfolio (RMRF) that we compiled using all the stocks traded on the market, where each stock was weighted by the market capitalization index of its issuer (with weight cap of 15%). Unlike the MOEX Index, a broad market portfolio is adjusted by survivorship bias, i.e. the yields on stocks no longer traded on the stock exchange.

2 Hereinafter, the total returns on the MOEX and RMRF Indices are understood as the sum of a proportional rise in the market value of stocks included in the index portfolio and their dividend yield.

3 We publish the regularly updated historical series of returns for each of these stock market factors at the official website of the Center for Institutions Analysis and Financial Markets (RANEPA IAES) at https://ipei.ranepa.ru/en/capm–ru. Similar calculations for US stocks are available at the data source supported by US economist Kenneth French, at https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

4 For more details on the use of factor pricing models in the Russian stock market, see *Abramov, A., Radygin, A., Chernova, M.* Pricing models of shares in Russian companies and their practical application // Voprosy Ekonomiki. 2019. No. 3. P. 48–76.



Note. The MOEX Index is the market equity risk premium on stocks, calculated as the difference between the return of the MOEX Index, including dividend yields (starting from January 2009) and the return of a risk-free asset; the RMRF index is the market equity risk premium on stocks, calculated as the difference between the return on a broad market portfolio, including dividend yields, and the return on a risk-free asset. SMB is a size and value factor, calculated as the difference between the weighted average return on small-cap stock portfolios and that on large-cap stocks (including dividend yields). Once every year, the companies were grouped into 'small-cap' and 'large-cap' ones, with the market cap set at the median. HML is a cost factor calculated as the difference between the weighted average return on portfolios of value stocks and that on portfolios of growth stocks (including dividend yields). The stocks were regrouped into the categories of growth and value stocks once a year according to their book-to-market ratio. MOM is a momentum (inertia) factor calculated as the difference between the returns on portfolios with high and low total returns in the previous 11 months (including dividend yields). The stocks were redistributed between portfolios with high and low total returns once a year, with the quantile caps set at 30% and 70%. LIQ is a liquidity factor calculated as the difference between the weighted average return on low-liquidity stock portfolios and that on high-liquidity stock portfolios, including dividend yields. DY is a dividend yield factor calculated as the difference between the weighted average return on high-dividend stock portfolios and that on low-dividend stock portfolios. The dividend yield is understood as the ratio of the sum of all dividends payable for a calendar year to the stock price at year beginning. PRIV is a state ownership factor calculated as the difference between the weighted average return on stocks issued by private enterprises and that on stocks issued by state-owned enterprises (SOE). A company was treated as a SOE if in its quarterly reports for the previous year the stake held directly or indirectly by the State amounted to more than 10% of its charter capital. PE is a growth factor calculated as the difference in the weighted average return on portfolios of stocks with high and low P/E ratios (including dividend yields).[For further details concerning the methodology applied in calculating each return factor, see the CAPM–RU project on the official website of the RANEPA. URL: https://ipei.ranepa.ru/ru/capm-ru/metodika-rascheta-faktorov]

Fig. 19. The cumulative returns on the MOEX Index, the broad market portfolio index (RMRF), and the investment factors that were influencing them from December 2007 through December 2020

Source: own calculations based on data released by CAPM-ru (RANEPA, IAES). URL: https://ipei.ranepa.ru/capm-ru.

on an 'inertial' investment strategy. No obvious benefits could be derived from investment in value stocks or growth stocks, either.

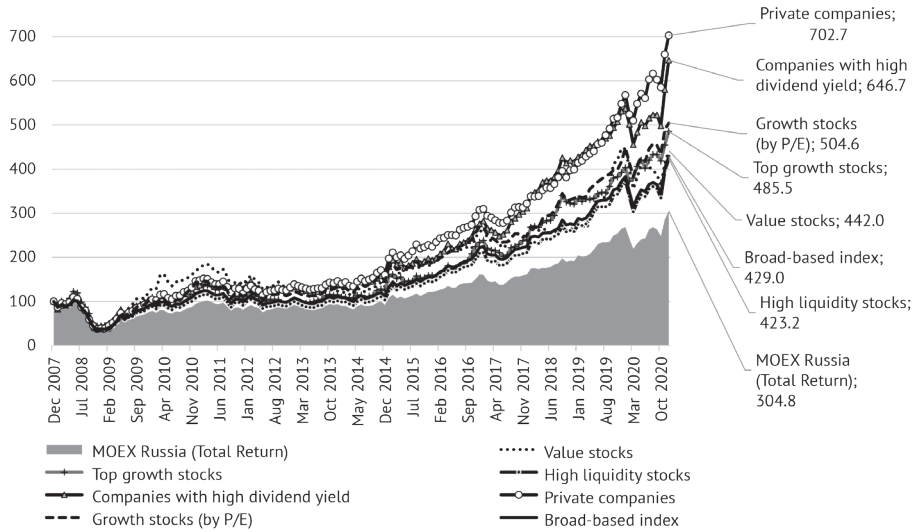


Fig. 20. The cumulative returns on the portfolios of best performing stock categories compared with MOEX Russia Index (Total Return) over the period from December 2007 through December 2020; December 2007 = 100%

Source: own calculations based on data released by CAPM-ru (RANEPA, IAES). URL: https://ipei.ranepa.ru/capm-ru.

Fig. 20 shows only long positions in stocks with the corresponding value of each factor, whose return is higher in the pair of portfolios used to calculate the premium for that particular factor. The figure does not show small companies, which over the period from December 2007 through December 2020 demonstrated a growth of 1,682%. The growth rates of all the other portfolios were slower than those of small companies, but faster than the growth rate of the MOEX Russia Total Return Index. The portfolio of private companies increased sixfold, and the broad stock index rose 3.29 times. The Moscow Exchange Russia Index demonstrated a return of 200% over 13 years.

Thus, an analysis of the fundamental characteristics of Russian stocks has revealed their significant underestimation, which is manifest in their chronically low P/BV and P/E ratios. Meanwhile, by some of their key financial indicators, such as return on equity, dividend yield, and low debt burden, Russian companies do just as well or even better than their foreign competitors. The increased volatility risks notwithstanding, on medium-term time horizons, the returns of Russian stocks also exceed those of many other national stock indices. Moreover, the popular stock risk premium indicators discussed earlier also indicate that, in spite of the economic sanctions, the country risks and investment risks of the stocks issued by Russian PJSCs are at their historic lows due to the domestic macroeconomic situation stability. Against this background, the underestimation of their value by investors has largely been an upshot not so much of the poor performance

Table 4

Annual returns on all long factor portfolios, %, 2007–2020

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Mean return, 2007–2020
Risk free rate of return	-0.1	-12.7	24.8	2.5	-1.2	6.9	-3.5	-20.9	19.7	6.8	5.0	-5.1	12.1	1.7	1.9
State-owned enterprises	11.0	-65.3	145.4	15.9	-19.1	-1.6	-2.4	-3.9	37.9	50.8	-3.8	19.4	32.4	5.6	7.4
Low liquidity stocks	41.5	-60.8	96.0	52.5	-20.4	8.4	4.1	-0.8	16.4	31.5	1.9	14.7	21.9	0.5	8.8
Lowest-growth stocks	14.2	-60.8	171.8	32.2	-24.3	20.1	0.5	-9.4	59.7	22.2	2.4	-7.6	28.0	7.2	9.1
Stocks without dividends	22.4	-64.7	176.1	55.5	-21.2	2.7	4.5	21.0	42.0	27.2	-2.6	-6.2	17.6	-5.8	9.3
Market risk premium	18.9	-56.4	95.1	28.0	-14.9	-2.3	11.1	28.5	13.9	34.1	-3.8	28.3	21.6	13.9	10.4
Stocks with low dividend yield	24.9	-64.3	136.1	12.9	-20.5	9.6	9.0	-7.9	52.6	47.7	-3.6	14.6	49.2	9.8	10.9
Large-cap stocks	13.4	-63.7	133.6	28.9	-16.1	3.4	6.8	1.9	37.3	43.6	0.8	22.1	36.0	14.9	11.2
High liquidity stocks	13.4	-64.1	136.4	26.8	-15.1	3.6	7.0	2.2	39.6	45.0	0.7	22.6	39.7	17.2	11.9
Value stocks (by P/E)	18.7	-64.9	129.8	25.4	-8.3	3.3	7.3	-2.5	48.3	42.1	9.7	11.8	50.4	8.5	12.2
Broad-based index	18.7	-62.7	140.9	31.0	-16.2	4.2	7.4	2.2	37.6	43.2	0.9	22.0	36.0	15.3	12.3
Growth stocks (by P/E)	21.1	-65.1	187.8	42.7	-22.3	4.8	13.5	10.4	27.9	44.1	-7.5	33.7	24.9	21.1	13.8
Growth stocks	11.1	-64.3	172.9	65.9	-23.3	1.1	9.0	10.2	39.7	32.8	-2.5	24.4	25.5	38.8	14.4
Stocks with high dividend yield	8.2	-55.6	132.3	29.2	-3.5	0.8	6.6	8.0	29.8	42.4	13.0	33.4	27.8	21.8	14.9
Top growth stocks	48.0	-55.9	134.1	30.2	-21.3	-5.8	15.4	8.7	27.0	47.4	2.5	33.9	22.2	23.8	15.1
Value stocks	65.2	-66.6	259.8	41.9	-18.6	-2.9	-8.2	8.2	38.3	38.4	-3.4	5.2	72.1	-1.1	15.3
Private stocks	27.4	-61.1	148.5	51.2	-19.4	12.0	10.6	9.7	39.8	37.4	4.6	24.0	37.4	28.3	17.0
Small cap stocks	53.4	-44.3	196.5	60.7	-12.4	14.6	18.5	0.8	47.0	46.4	26.5	-1.3	33.0	56.7	26.7

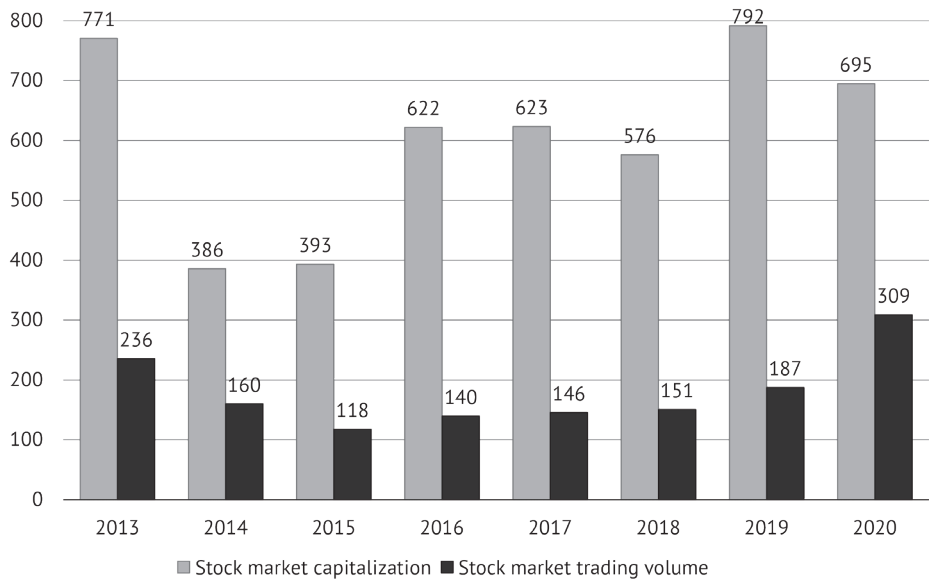
Source: own calculations based on data released by CAPM-ru (RANEPA, IAES). URL: https://ipei.ranepa.ru/capm-ru.

of stock issuers or of the macroeconomic risks peculiar to Russia, but rather of the investment climate issues and the low domestic investment base due to the insufficient development of institutional investors.

3.1.4. The organization of the stock market

In 2020, the total value of traded stocks on the stock exchange market continued to display a positive upward trend, which primarily had to do with an inflow of individual investors. The total volume of market trades in shares on the Moscow Exchange increased to $309 bn, from $187 bn in 2019, or by 65.2% (*Fig. 21*). However, the growing demand for Russian stocks on the part of individual investors was not sufficient enough to increase the total market cap of stock issuers in the tricky situation caused by the pandemic. This index plunged from $792 bn in 2019 to $695 bn in 2020, or by 12.2%.

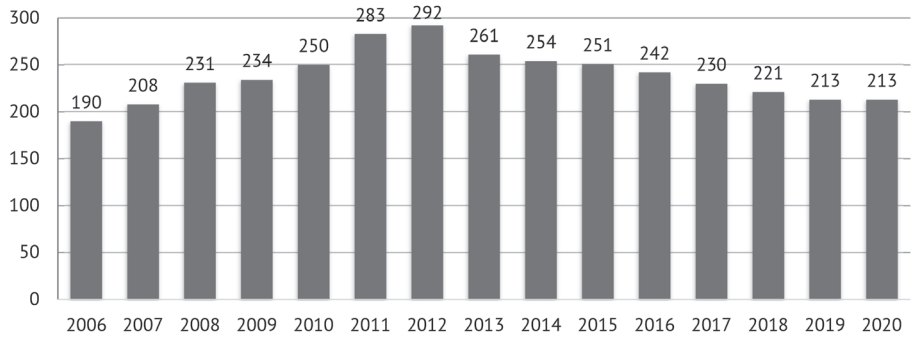
For 8 years already, starting from 2013, there has been a trend towards reducing the number of listed stock issuers on the Moscow Exchange (*Fig. 22*). In 2020, the number of listed issuers (213) remained the same as in the previous



* Market transactions are understood as the auction transactions carried on in an anonymous mode on the Moscow Exchange.

Fig. 21. The capitalization and volume of market stock transactions* on the Moscow Exchange in 2013–2020, billions of US dollars

Source: own calculations based on data released by the World Federation of Exchanges.



* The figures for the period 2006–2011 are based on the listing data released by the MICEX; for the period 2012–2020, on the listing data released by the Moscow Exchange PJSC.

Fig. 22. The number of companies listed on the Moscow Exchange in 2006–2020*

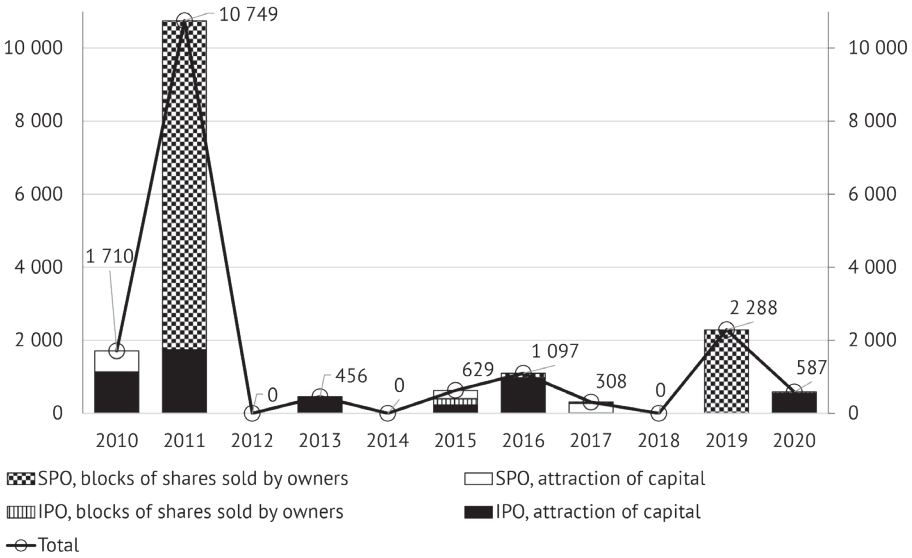
Source: calculations based on data for 2006–2008 taken from NAUFOR's (Russian National Association of Securities Market Participants) factbook 'Russian stock market: 2015. Events and facts'; and on data for 2009–2020 released by the World Federation of Exchanges (WFE).

year. The main problem in this connection is the weak inflow on the exchange of new Russian companies, which is manifest in the long-term stagnation in the IPO market.

Fig. 23 shows data on IPO-SPOs by Russian companies closed on the Russian stock exchanges in 2010–2020, less those closed by offshore companies doing business in Russia on foreign stock exchanges. After the surge in IPO-SPOs in 2011 to the total value $10.7 bn, over the next few years their value rarely exceeded $1 bn; and in 2014 and 2018, no such transactions took place. Meanwhile, the surges in public offering of equity shares in 2011 and 2019 were caused not by an inflow of new capital, but by sales of stocks by their previous owners in a secondary public offering procedure. In 2020, two IPOs were launched on the Moscow Exchange by Sovcomflot and Samolet, to the total value of $587 mn.

The low market activity in the segment of public offering of equity shares in Russia had to do both with the low investment supply (by stock issuers) and the low investment demand (on the part of investors). In the presence of sufficient liquidity in the banking system, it was easier for new stock issuers to borrow from banks, which is somewhat more expensive, but then they are not required to publicly disclose information on their activities. Besides, in the context of an outflow of non-resident investors and underdeveloped domestic institutional investors, stock issuers see fewer advantages in attracting capital through an exchange market in terms of lower borrowing costs.

Through mergers and acquisitions (M&A), stock markets contribute to the ongoing structural changes in the economy. Over the past two years, there has been a global decline in M&A transactions (*Fig. 24*), caused not only by the 2020 pandemic, but also by the constraints on globalization imposed by the



***** An IPO is an initial public placement of stocks on the market. In the WFE statistics, an IPO transaction is understood as the initial sale on a stock exchange of newly issued stocks or bundles thereof owned by their issuer. A SPO (secondary public offering) is a deal of sale of stocks issued by listed public companies on a stock exchange. This type of transaction may also involve newly issued stocks or bundles thereof, which during a SPO already belonged to their previous owners.

Note. The data for 2019 released by the World Federation of Exchanges (WSE) on the volume of IPO-SPO transactions were reduced by the value of SPO of shares in PJSC Gazprom, sold on May 25, 2019 and November 21, 2019 to the total value of $5,067 mn, because these were non-market deals. The WSE's data for 2020 on the volume of IPO-SPOs was adjusted by adding the value of IPOs of equity shares in Sovcomflot PJSC and Samolet PJSC.

Fig. 23. The value of different types of IPO and SPO transactions* on the Moscow Exchange in 2013–2020, billions of US dollars

Source: own calculations based on data released by the WSE.

deteriorating trade relations between some countries and regions. The value of M&A deals shrank from $4.1 trillion in 2018 to $2.8 trillion in 2020, or by nearly a third. In Russia, the value of closed M&A deals plummeted from $42 bn in 2019 to $28 bn in 2020, or by 33.3%.

In addition, in *Fig. 24* and *25*, we present comparative data describing the domestic stock market in terms of its competitiveness, where the indices of the baseline year 2013 (prior to the introduction of economic sanctions and the creation of a financial market mega-regulator) are set against the corresponding indices for 2020 and their average per annum values for the period 2013–2020.

Over the seven years since 2013, the value of M&A deals involving Russian companies declined from $156 bn in 2013 to $28 bn in 2020, or by 82.1%. The average per annum value of mergers and acquisitions over the period 2013–2020 was $56.3 billion, which is 63.9% lower than the corresponding index for 2013.

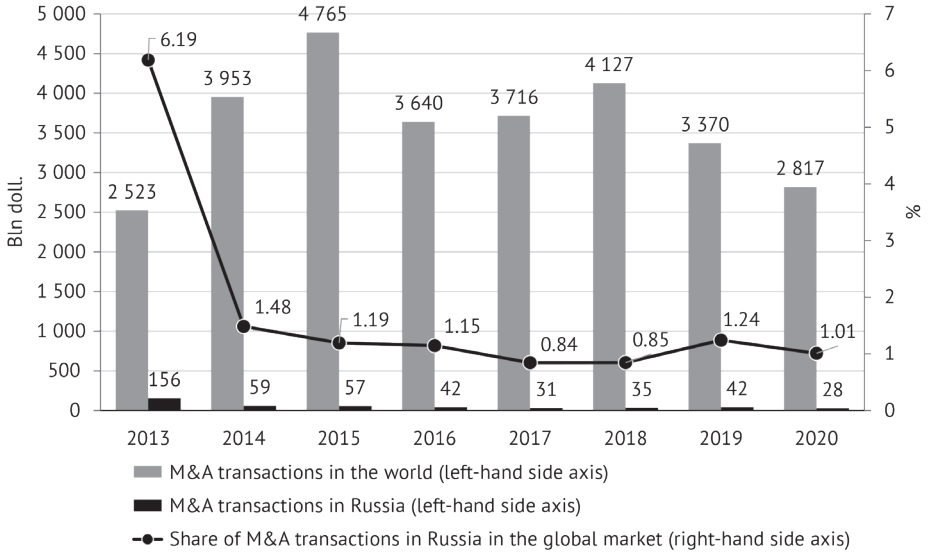


Fig. 24. The cost of mergers and acquisitions (M&A) in the world and in Russia in billions of dollars and the share of M&A transactions in Russia in the total value of similar transactions in the world (%), in 2013–2020

Source: own calculations based on data released by Merger.ru (URL:http://mergers.ru/), Cbonds Group, and the Institute of Mergers, Acquisitions and Alliances (IMAA). URL: https://imaa–institute.org/mergers–and–acquisitions–statistics/.

The share of the Russian segment in the global M&A market shrank from 6.2% in 2013 to 1.0% in 2020, and by 1.7% on average over the period 2013–2020.

The level of development of Russia's stock market does not match the scale of the domestic economy. According to World Bank statistics, Russia ranks sixth in the world by the volume of national GDP assessed in terms of purchasing power parity. By the key stock market development indices, Russia lags behind a much greater number of economies, and over the past 8 years this lag has been further increasing.

As seen from the analysis of the WSE's data presented in *Fig. 25a*, the Moscow Exchange, in 2013, was behind 36 foreign stock exchanges by the number of listed companies, while its share in the total global number of listed companies was 0.51%. In 2020, in terms of listing, the Moscow Exchange was inferior to 37 national stock exchanges, and its share in the world listing stood at 0.47%.

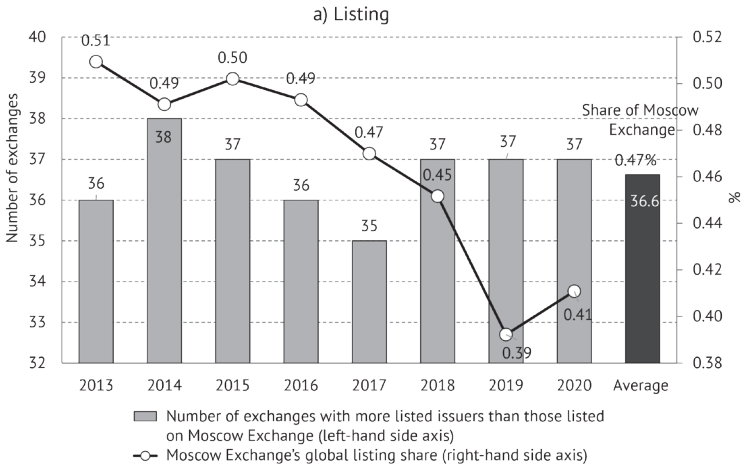
By the capitalization index of listed companies in 2013, the Moscow Exchange was behind 23 foreign stock exchanges, and its share in the global capitalization index was 1.03% (*Fig. 25b*). In 2020, in terms of the capitalization index of its stock issuers, the Moscow Exchange ranked second only to 21 foreign stock exchanges, but its share in the global capitalization index shrank to 0.63%.

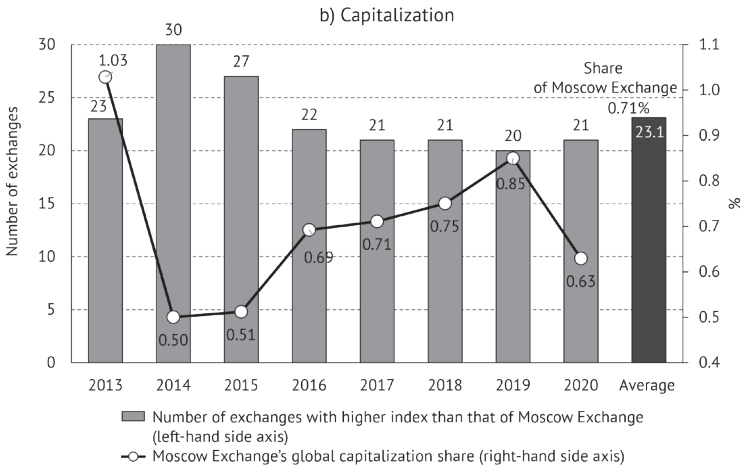
In terms of its stock exchange trading volume in 2013, the Moscow Exchange was inferior to 27 foreign stock exchanges, its share in the global stock exchange trading volume amounting to 0.33% (*Fig. 25c*). In 2020, by its volume of market

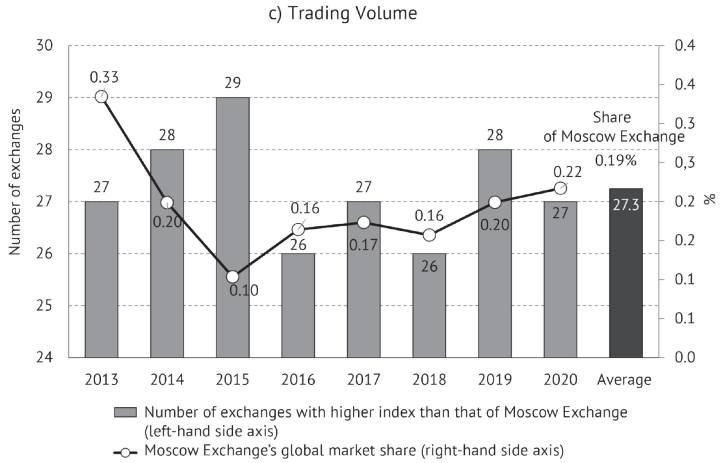
stock transactions, the Moscow Exchange also lagged behind 27 foreign stock exchanges, while its share in the global stock market liquidity index shrank to 0.22%.

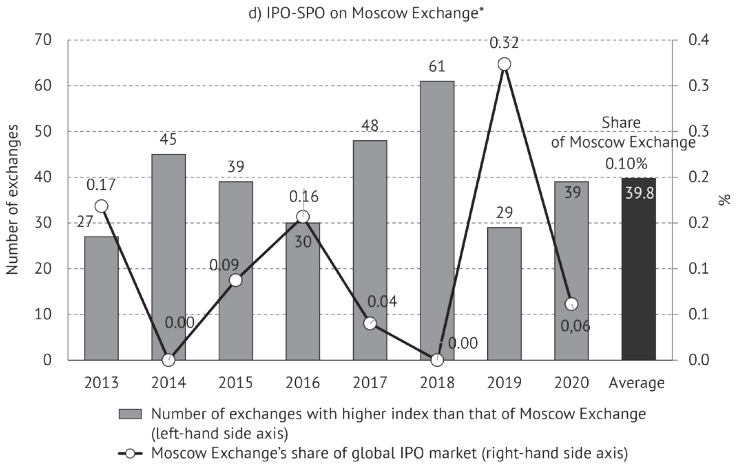
By its value volume of IPOs and SPOs in 2013, the Moscow Exchange ranked 28th in the world, and its share in the corresponding global index was 0.17% (*Fig. 25d*). In 2020, in terms of public offering value volume, the Moscow Exchange was behind 39 foreign stock exchanges, while its share in the global value volume of IPOs and SPOs declined to 0.06%.

Thus, in 2020, the domestic stock market continued to lag behind the national stock markets of other countries, and in terms of capitalization of listed companies and the value volume of public offerings, this lag increased even further. These processes have been shapes by a variety of factors, such as economic growth slowdown, economic sanctions, heavy regulatory burden, and weakness of









* The 2019 data on the IPO-SPO volume released by the World Federation of Exchanges (WSE) were reduced by the value of a SPO of shares in Gazprom PJSC, sold on May 25, 2019 and November 21, 2019 to the total value of $5,067 mn, because these were non-market deals. The WSE's data for 2020 on the volume of IPO-SPOs was adjusted to include the value of IPOs of equity shares in Sovcomflot PJSC and Samolet PJSC.

Fig. 25. The competitiveness indicators of the Russian stock market in 2013–2020

a) the number of foreign stock exchanges with more listed issuers than those listed on the Moscow Exchange, and the share (%) of Moscow Exchange in the global listing index;
b) the number of foreign stock exchanges with a higher capitalization index of their listed issuers, and the share (%) of the Moscow Exchange in the global capitalization index;
c) the number of foreign stock exchanges with a higher trading volume index than that of the Moscow Exchange, and the share (%) of the Moscow Exchange in the global stock market trading volume;
d) the number of foreign stock exchanges with a higher value volume index of all types of IPOs and SPOs than that of the Moscow Exchange, and the share (%) of the Moscow Exchange in the global value volume of IPOs and SPOs.
Source: own calculations based on data released by the WSE.

institutional investors. So far, the massive entry on the market of individual investors by itself has produced no significant impact on the trends that created the lag between the domestic stock market and its foreign competitors. The stock market needs some profound changes to increase its attractiveness for different categories of investors.

The Russian stock market is characterized by a high concentration of stock issuers in terms of their capitalization index; moreover, this index has been demonstrating an upward trend since the early 2010s (*Fig. 26* and *Table 5*). The combined share of the top 10 PJSCs in the total market capitalization index increased from 61.7% in 2011 to 64.4% in 2020, and that of the top 20 stock issuers of shares, from 77.0% to 80.0%, respectively. Unlike the USA and China, where hi-tech companies are dominant drivers in market capitalization, in Russia the top 10 companies by their market cap index operate in the fuel and energy complex, metallurgy and the banking sector. The hi-tech sector is represented by just one company, Yandex. Lately, five companies - Gazprom, Sberbank, Rosneft Oil Company, Lukoil, and Novatek – have been competing for the first place in the market cap ranking. In 2020, Sberbank had the highest market cap index.

In 2020, the concentration level of the largest stock issuers declined on the previous year: from 82.9% to 80.0% for the top 20 PJSCs, and from 70.1 to 64.4% for the top 10 companies. This means that, in the context of financial crisis and oil and gas price shocks, it was the stock issuers operating in other industries, such as gold mining, telecommunications, retail, energy and some others, that demonstrated a higher market stability. This can be regarded as a signal that in face of the expected

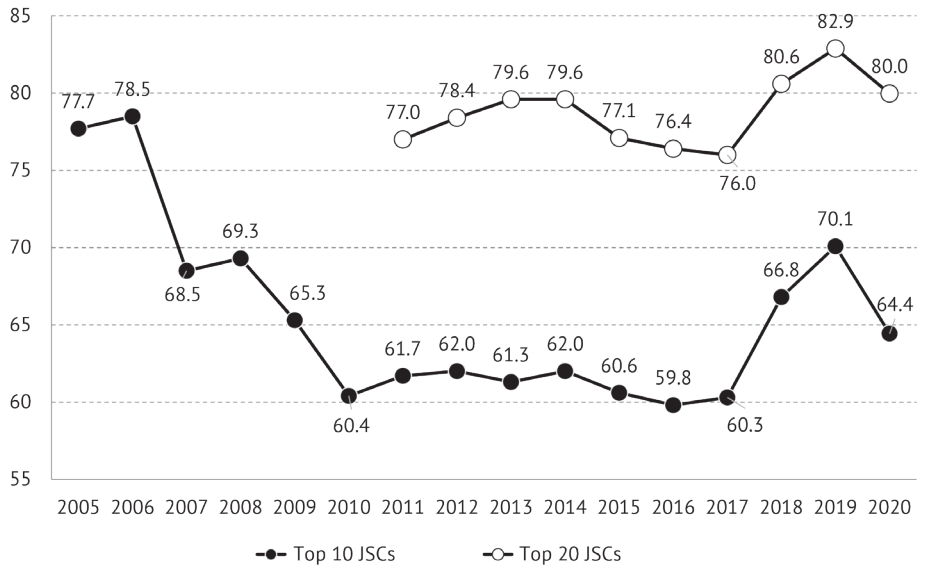


Fig. 26. The domestic stock market cap share of biggest PJSCs, as %

Source: own calculations based on data released by the Moscow Exchange.

Table 5

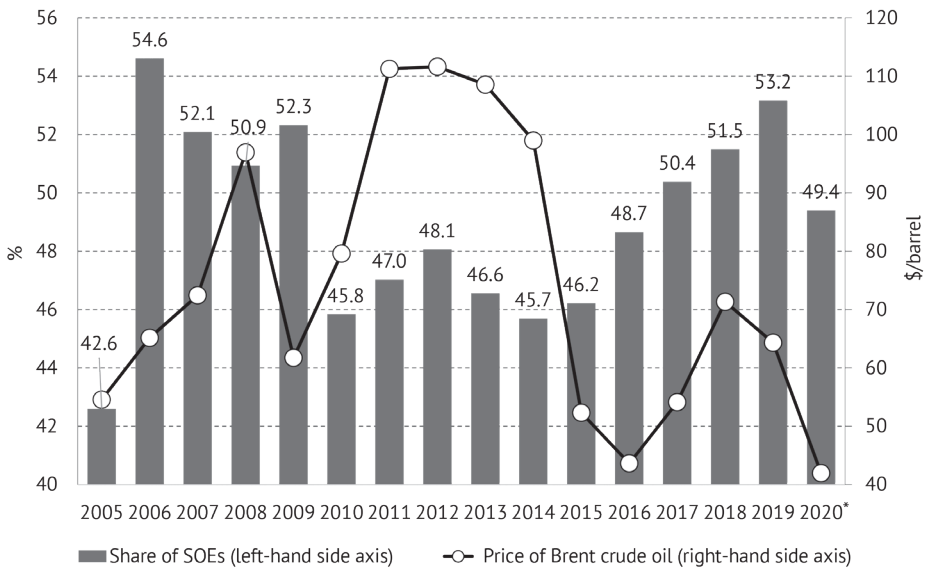
The market cap indices of Russia's top 10 public joint-stock companies (PJSCs) in 2017–2020

Issuer	2018		Issuer	2019		Issuer	2020	
	Capitalization, billions of rubles	Market share, %		Capitalization, billions of rubles	Market share, %		Capitalization, billions of rubles	Market share, %
1. Sberbank	4,535	11.4	1. Gazprom	6,077	12.5	1. Sberbank	5,873	11.4
2. LUKOIL	4,017	10.1	2. Sberbank	5,482	11.3	2. Gazprom	5,024	9.8
3. Gazprom	3,739	9.4	3. Rosneft Oil Company	4,776	9.8	3. Rosneft Oil Company	4,620	9.0
4. Rosneft Oil Company	3,629	9.1	4. LUKOIL	4,405	9.1	4. NOVATEK	3,814	7.4
5. NOVATEK	3,431	8.6	5. NOVATEK	3,834	7.9	5. MMC Norilsk Nickel	3,738	7.3
6. MMC Norilsk Nickel	2,059	5.2	6. MMC Norilsk Nickel	3,050	6.3	6. LUKOIL	3,590	7.0
7. Gazprom Neft	1,639	4.1	7. Gazprom Neft	1,995	4.1	7. Polyus PJSC	2,049	4.0
8. Tatneft PJSC	1,588	4	8. Surgutneftegaz OJSC	1,814	3.7	8. YANDEX N.V.	1,634	3.2
9. Surgutneftegas OJSC	959	2.4	9. Tatneft PJSC	1,668	3.4	9. Gazprom Neft	1,507	2.9
10. NLMK	944	2.4	10. Polyus PJSC	945	1.9	10. Surgutneftegaz OJSC	1,286	2.5
Combined cap of all issuers on Moscow Ex-change	**39,716**	**100**	**Combined cap of all issuers on Moscow Ex-change**	**4,879**	**100**	**Combined cap of all issuers on Moscow Ex-change**	**51,428**	**100**
Combined cap of Top 5 issuers	**19,351**	**48.7**	**Combined cap of Top 5 issuers**	**24,574**	**50.6**	**Combined cap of Top 5 issuers**	**23,070**	**44.9**
Combined cap of Top 10 issuers	**26,541**	**66.8**	**Combined cap of Top 10 issuers**	**34,047**	**70.1**	**Combined cap of Top 10 issuers**	**33,137**	**64.4**

Source: own calculations based on data released by the Moscow Exchange.

long stagnation of oil and gas prices, a steady growth in the market cap of Russian companies can be achieved only through structural changes across the national economy and the emergence of new leaders from the technology, pharmaceutical, chemical, retail, transportation, finance, and other sectors.

In 2020, there was a change in the upward movement pattern, observed in the 2014–2019, of the market cap share of state-owned companies (SOE). That index declined from 53.2% in 2019 to 49.4% in 2020 (*Fig. 27*). Its plunge does not mean that, in 2020, some significant changes occurred in the ownership structure of the largest companies: the IPO by Sovcomflot had no influence on its status of a state-owned company. This had more to do with the fact that state-owned companies prevailed in the fuel and energy complex, the energy, transportation, and banking sectors, which were more prone to be affected by financial crises and deteriorating world commodity markets. After the 2008 crisis, the market cap share of SOEs typically increased during the periods of rising oil prices (in 2010–2012 and 2016–2018), and declined alongside falling oil prices (in 2013–2014, and in 2020) (*Fig. 27*). Prior to the 2008 crisis, this pattern did not work, possibly because, beside climbing oil prices, the market cap index of Russian stock issuers was also strongly influenced by an inflow of foreign portfolio investments, as well as by structural reforms, such as the reorganization of RAO UES of Russia and the creation of government development institutions.



* The data for 2020 on the market cap share of SOEs are preliminary.

Fig. 27. The relative share of state-owned companies (SOE) in the domestic stock market cap index and the per barrel price of Brent crude oil in 2005–2020

Source: own calculations.

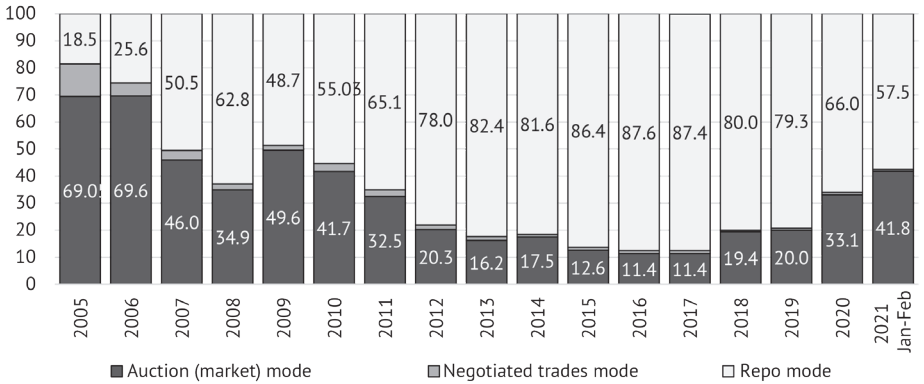


Fig. 28. The structure of stocks trades on the Moscow Exchange's Main Market from 2005 through February 2021, as %

Source: own calculations based on data released by the Moscow Exchange.

The status of a state-owned company enjoyed by Russia's largest stock issuers operating in the fuel and energy complex and the banking sector can be an obstacle to the implementation of structural reforms in the economy, because in the context of a favorable external economic environment the government has lower incentives to change the structure of the national economy, while during a crisis, state-owned companies feel more entitled to receive government support measures than private companies.

In 2020 and over the first two months of 2021, the role of individual investors in boosting stock market liquidity became noticeably more prominent. Investors began to more actively carry out exchange transactions using their own funds, which led to an increased share of market transactions in the structure of trades, from 20.0% in 2019 to 33.1% in 2020, and to 1.8% in January-February 2021 (*Fig. 28* and *Table 6*). This brings down the level of leverage for trading participants and increases the stock pricing mechanism transparency, since stock market prices are predominantly shaped by data on stock trades in the auction mode.

Individual investors, in their role of the main liquidity drivers, gained about the same importance as non-residents (*Table 6*). Thus, for example, the share of non-residents in market stocks trades shrank from 47.5% in 2019 to 44.6% in 2020, while that of individual investors increased, over the same period, from 36.7% to 44.1%.[1] For reference: in 2020, the share of private investors in the US stock exchange market was about 20%; in 2019, 10%;[2] this means that in Russia, the share of individuals in exchange trades is about 2 times higher than in the US market.

1 The Bank of Russia estimates the share of individuals in the turnover of equities and depositary receipts on the stock exchange to be even higher. According to its data for 2020, their share amounted to 47% compared to 34% a year earlier. (Bank of Russia. Review of Key Indicators of Professional Securities Market Participants. 2020. Information and analytical commentary. 2021. P. 16).

2 *Watts William*. Will individual investors stick around after pandemic's 'mind-blowing' stock trading surge? Market Watch on-line, March 25, 2021.

Table 6

The structure of investors participating in market stocks trades on the Moscow Exchange's Main Market from 2017 through February 2021

	2017	2018	2019	2020	February 2021
Non-residents	47.5	51.2	47.5	44.6	45.2
Individuals	35.3	34.7	36.7	44.1	42.8
Dealers	8.9	8.2	8.1	5.8	5.7
Legal entities	5.1	3.8	4.7	3.3	4.7
Trust Managers	3.2	2.1	3.0	2.0	1.6

Source: own calculations based on data released by the Moscow Exchange. [1]

At the same time, the creation of a stable liquid stock exchange market would be impossible without an active involvement of domestic institutional investors. That is why the data presented in *Table 6*, which demonstrate that the share of legal entities in the structure of investors on the Moscow Exchange declined from 15.8% in 2019 to 11.1% in 2020, point to the existence of significant risks there.

3.1.5. The general review of the domestic bond market

The year 2020 was favorable for domestic bond market growth facilitated largely by monetary policy easing which was applied probably for the first time in the history of the modern Russian economy amid the financial crisis. In 2020, the

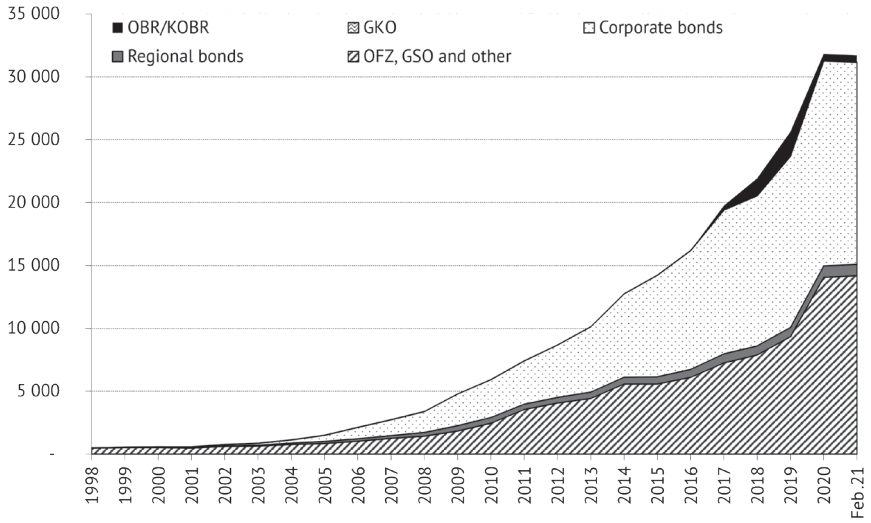


Fig. 29. The volumes of outstanding ruble-denominated bonds, 1998 - February 2021, billion rubles

Source: own calculations based on the data of the RF Ministry of Finance and Cbonds.

1 URL: https://www.moex.com/s2184?fbclid=IwAR1Xl1wazyliXc5_77Q7usAilbS4BwecrqBWQ8XtdlHJ78fvoc0bejFDTLA

Bank of Russia key rate fell from 6.25% per annum to 4.25% per annum. Further, owing to the budget deficit amid the pandemic starting from H2 2020 the RF Ministry of Finance increased sharply its net borrowing plans (with previous debt redemption taken into account) from Rb1.7 trillion a year to Rb4.5 trillion a year,[1] thus facilitating a quick pickup in the federal loan bond market.

In 2020, the value of bond issues in Russia kept growing and amounted to Rb31.8 trillion, an increase of 24.2% as compared with 2019 (*Fig. 29*).[2] There was growth in the value of corporate bonds (CB), including nonmarketable issues from Rb13.6 trillion to Rb16.2 trillion or 19.6%; federal government bonds (OFZs (federal loan bonds), GSO (state saving bonds) and other – from Rb9.3 trillion to Rb14.1 trillion or 50.6%; regional bonds – from Rb0.7 trillion to Rb0.9 trillion or 23.9%. In the meantime, the value of the RF Central Bank's short-term bonds (KOBR) fell from Rb1.9 trillion to Rb0.6 trillion or 70.6%. Amid government borrowings growth, banks reduced liquidity cushion in terms of KOBR in favor of higher yield federal loan bonds.

Owing to low interest rates and growth in federal and regional budget expenditures and companies' costs incurred amid the pandemic, in 2020 OFZs, regional and corporate bond placements increased substantially (*Fig. 30*). So, there was a pickup in the volumes of outstanding corporate bonds from Rb2.6 trillion

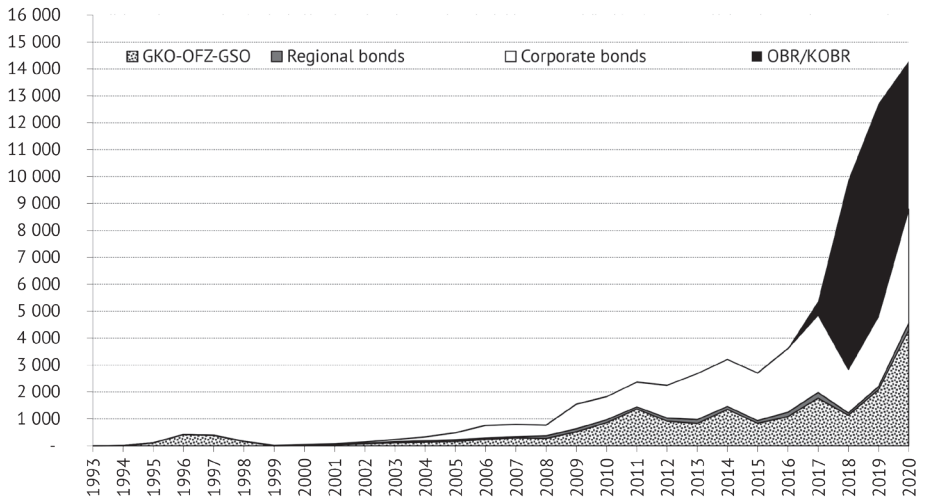


Fig. 30. The volumes of ruble-denominated bond placements in 1993–2020, billion rubles

Source: own calculations based on the data of the RF Ministry of Finance and the Moscow Exchange.

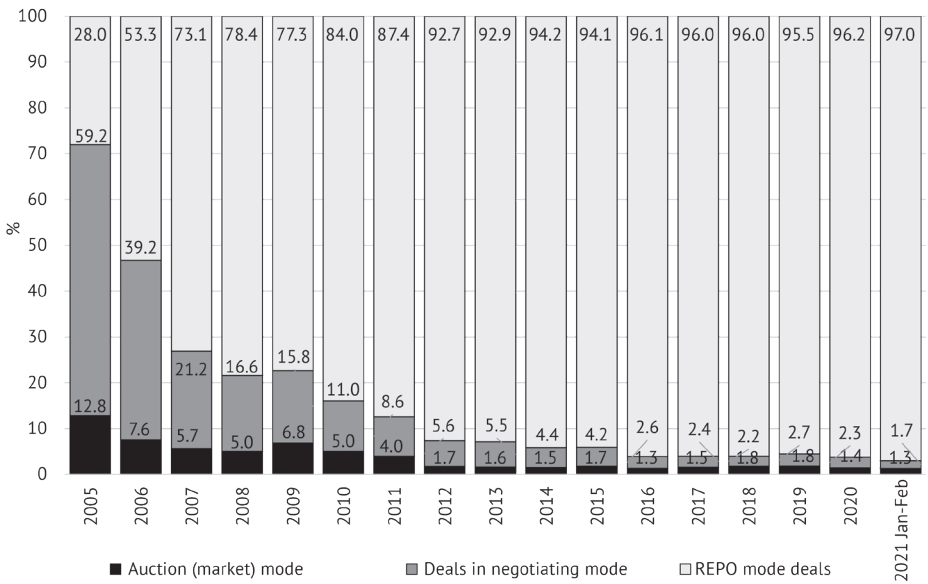
1 The Central Bank of Russia. The Financial Stability Review for 2020 Q2-Q3. Information and Analytical Review. 2020. p. 3.

2 Note that a pickup in the value of outstanding ruble-denominated bonds in Fig. 29 and the value of the placed issues thereof in *Fig. 30* is substantiated to a certain extent by a 16.2% depreciation of the Russian ruble against the US dollar in 2013.

in 2019 to Rb4.2 trillion in 2020 or growth of 61.1%; federal loan bonds – from Rb2.1 trillion to Rb4.3 trillion or 106.0%; regional bonds – from Rb111.8 billion to Rb264.9 trillion or 137.0%. However, the placements of the RF Central Bank's short-term bonds decreased to Rb5.5 trillion from Rb7.9 trillion in 2019 or 30.1%.

The overall value of market deals on the secondary bond market declined from Rb4.23 trillion in 2019 to Rb4.16 trillion in 2020 or 1.8%. This was partially compensated by a pickup in the value of deals transacted in a negotiating mode from Rb6.4 trillion in 2019 to Rb6.9 trillion in 2020 or growth of 7.8%. On the contrary, the volume of the money market where some participants extend loans to others against pledged bond (REPO market deals) increased much more, that is, from Rb227.2 trillion in 2019 to Rb283.4 trillion in 2020 or 24.7%.

So, the secondary market of government, regional and corporate bonds performs less and less the role of the mechanism of redistribution of long-term borrowed resources from less efficient borrowers to more efficient ones and formation of the bond market value, but becomes increasingly the marketplace where bonds are held till the date of redemption with a prospect of receiving by bondholders of an additional premium owing to a commercial use of short-term money loans received against pledged bonds. As seen in *Fig. 31*, the share



Note. REPO deals with bonds include direct REPO with the RF Central Bank, inter-dealer REPO and REPO deals with the central counterparty (REPO-REPO).

Fig. 31. The pattern of deals with bonds at the Moscow Exchange in 2005-February 2021, %

Source: own calculations based on the data of the Moscow Exchange and the VFB.

of market deals in the overall bond trade volumes decreased from 1.8% in 2019 to 1.4% and 1.3% in 2020 and February 2021, respectively. The share of deals transacted in a negotiating mode decreased, too, from 2.7% to 2.3% and 1.7%, respectively. It is noteworthy that the share of REPO deals increased from 95.5% in 2019 to 96.2% in 2020 and the record-high level of 97.0% in February 2021.

The bond market where REPO deals dominate resembles to a great extent motor traffic without any rules. REPO deals do not form securities' market value which sends normally a signal about issuers' credit risks and risks related to intertest rate changes. A lack of an option to sell bonds in the secondary market does not allow bondholders and securities issuers to react in a timely fashion to market changes. In the past few years, the major bond volumes emerged in the market amid excessive cash liquidity and falling interest rates. Changes in market trends, for example, a pickup in the inflation rate and a rise in the key rate may create serious problems to bondholders if they cannot sell bonds promptly in the market.

3.1.6. The basic characteristics of corporate bonds

Late in 2019, the domestic corporate bond market experienced a success euphoria. However, as early as the end of March 2020, Moody's, an international rating agency issued a warning that a collapse of prices of oil and depreciation of the ruble might affect the capital of Russian banks which had a huge volume of debt securities on their balance-sheet.[1] This situation illustrates high volatility and corporate bond risks to investors.

Presented in *Fig. 32* is the comparison of the parameters of yield and risk (standard deviation) of corporate bond indices of 12 different countries, including the Russian IFX Index, on time horizons of 1 year, 5 years and 12 years in 2009–2020.[2] Specifically, in order to ensure comparability of results historic yield series and risks were adjusted with the Russian ruble/US dollar exchange rate taken into account.

On all time horizons reviewed, the IFX index was normally characterized by the highest risk level which is related primarily to high volatility of the Russian ruble exchange rate, rather than the level of yield of the index bond basket. In 2020, the IFX index foreign exchange yield was equal to -8.7% per annum with the average yield on the sample amounting to +6.6%; standard deviation on Russian companies' bond portfolio amounted to 20.2% with the average risk of 9.6%.

On the 5-year horizon from 2016 to 2020, the IFX Index average annual yield of 10.6% per annum surpassed the average yield of 5.7% on the sample, but the risk of 15.1% of the Russian bond portfolio exceeded by nearly two-fold the average risk of 7.6% on the sample. On the 12-year horizon from 2009 to 2020, the IFX Index average annual yield of 3.2% annually was below the average yield of 4.2%

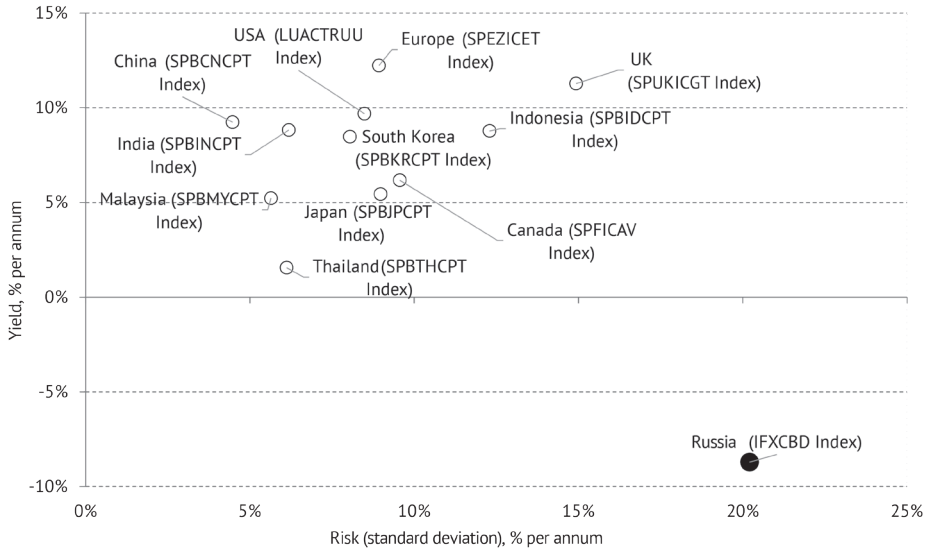
1 *Kazarnovsky P., Koshkina Yu.* Securities Add Vulnerability // The RBK Daily Business Newspaper. March 20, 2020. Issue No.33 (3200).

2 A relatively limited size of the sample is substantiated by the fact that in the Bloomberg's information and analytical resource the historic series of corporate bond indices are presented in respect of a relatively small range of countries.

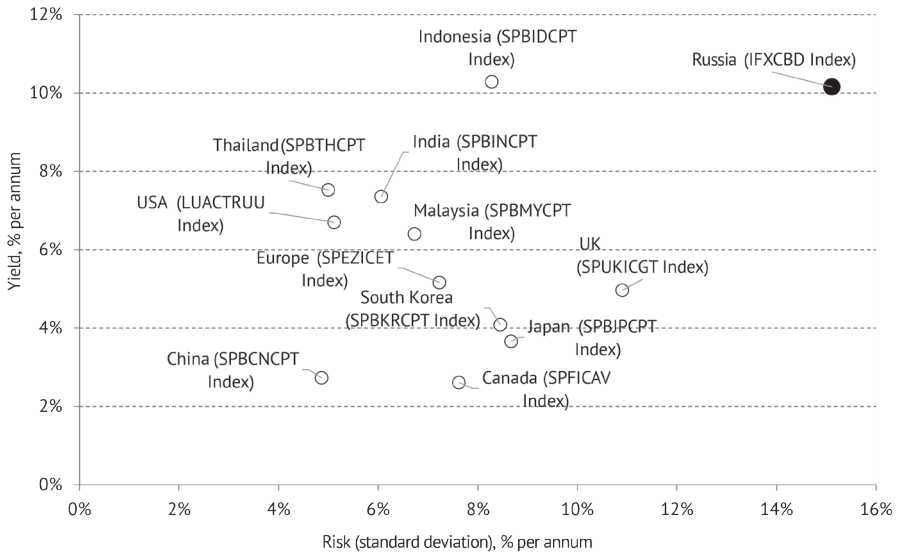
on the sample of countries, while the level of risk exceeded by two-fold again the average risk, that is, 16.6% against 8.6%.

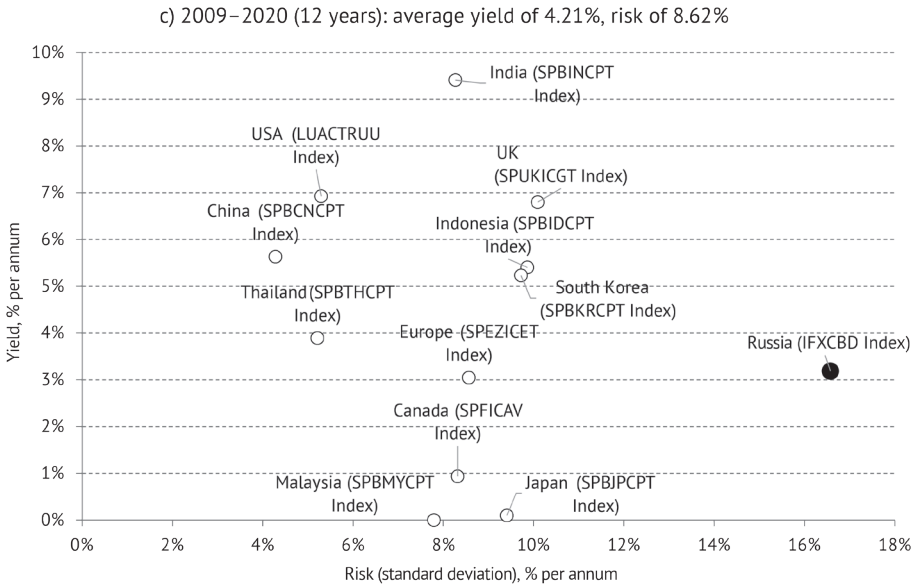
As regards yield-risk parameters in foreign currency, long-term investments in Russian companies' ruble-denominated bonds are much inferior to competitors from other countries both developed and developing ones. The downside of

a) Year 2020: average yield of 6.63%, risk of 9.56%



b) 2016–2020 (5 years): average yield of 5.72%, risk of 7.65%





* For the purpose of comparability, these yield series of respective country indices were translated in US dollars.

Fig. 32. The parameters of geometric mean return and risk of 12 corporate bond indices of different countries* in the period from January 2009 till December 2020 on 1-year, 5-year and 12-year time horizons, % per annum

Source: own calculation based on the data of the Bloomberg and Cbonds.

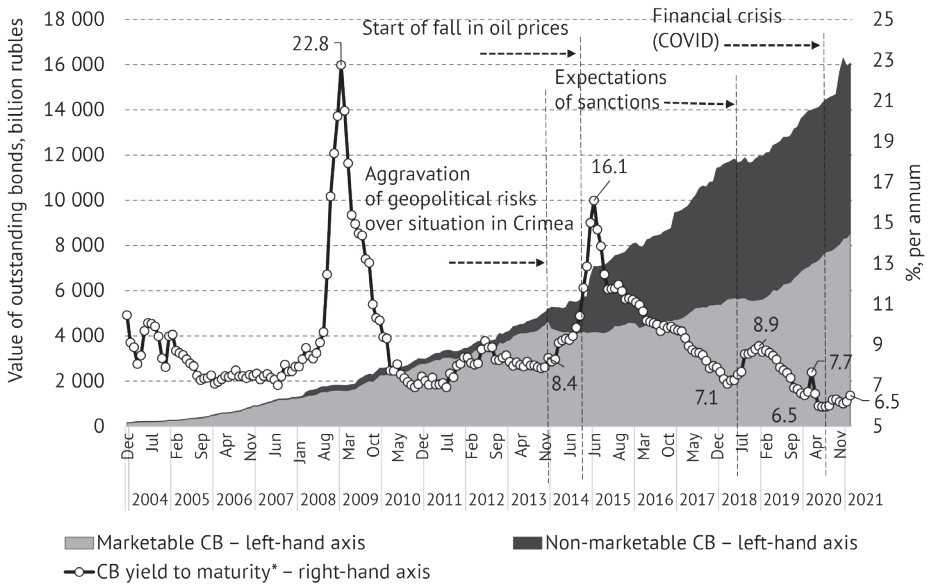
investments in ruble-denominated bonds is the volatility of the ruble exchange rate whose recurrent depreciation makes such investments less attractive to investors. High volatility of corporate bonds reduces their attractiveness to foreign investors. By estimates of the Moscow Exchange, in 2020 the share of non-resident holders of corporate bonds did not exceed 10% of their total volume.[1] Another factor preventing foreign investments in ruble-denominated corporate bonds is the lack of credit ratings - recognized by global institutional investors – of such bond issues as opposed to the situation with OFZs. Starting from 2021, a new factor hindering investments by individuals in public and corporate coupon bonds is the introduction of the personal income tax of 13% on coupon income. Also, from the year 2021 non-residents will have to pay a 30% tax on coupon income of public and corporate bonds issued after 2017.

As seen in *Fig. 33*, after the 2008 crisis the yield of the index of ruble-denominated RUIFX-Cbonds grew now and then on the back of depreciating oil prices and investors' concerns amid geopolitical risks and international sanctions. It is noteworthy that from 2014 corporate bond market growth has been largely

1 URL: https://naufor.ru/tree.asp?n=20436

driven by a pickup in non-marketable bond issues[1] without stock exchange quotations. In 2020, out of the overall value (Rb16.3 trillion) of outstanding ruble-denominated corporate bonds, marketable bond issues accounted for Rb8.3 trillion or 51.1%, while non-marketable bond issues, for Rb8.0 trillion (48.9%).

The corporate bond market entered the year 2020 with record-low yield to maturity which for the IFX index portfolio that included top-class issuers' bonds was equal to 6.11% per annum. During the acute phase of the crisis in March 2020, the yield grew, but at a moderate rate, to 7.65% which can be justified by sufficient liquidity in the market; measures taken by the RF Central Bank to stabilize the bond market (for example, the introduction of a special temporary procedure for accounting illiquid bonds on financial institutions' balance-sheet), as well as declared state support measures for backbone companies. Later, as the key rate was declining in April, June and July from 6.0% to 4.25%, the IFX index yield decreased to 5.96% in July 2020. From August, as inflation expectations



*Yield to maturity (YTM) on IFX-Cbonds portfolio.

Fig. 33. The value of outstanding ruble-denominated corporate bonds and yield to maturity of the IFX-Cbonds corporate bond portfolio, December 2003 - February 2021

Source: own calculations based on the data of Cbonds.

1 As defined by the RF Central Bank, deemed as a non-marketable issue is the situation where the entire placed issue or a larger portion thereof is purchased by the lead bank or companies close to the issuer (The RF Central Bank. The Review of the Russian Financial Sector and Financial Instruments. 2019. Analytical material. 2020. p. 37).

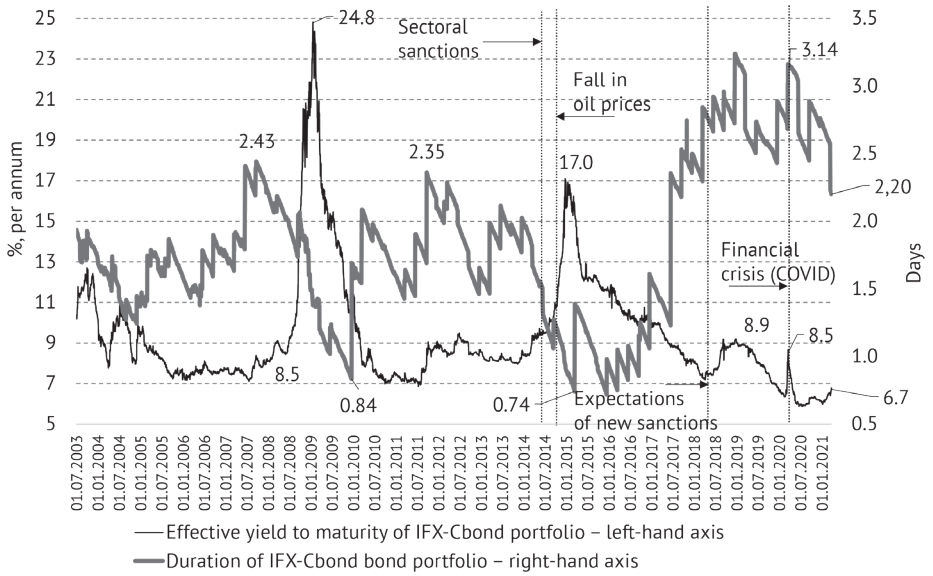


Fig. 34. Dynamics of effective yield to maturity and duration of the KOIFX-Cbonds portfolio, July 01, 2003 – March 25, 2021

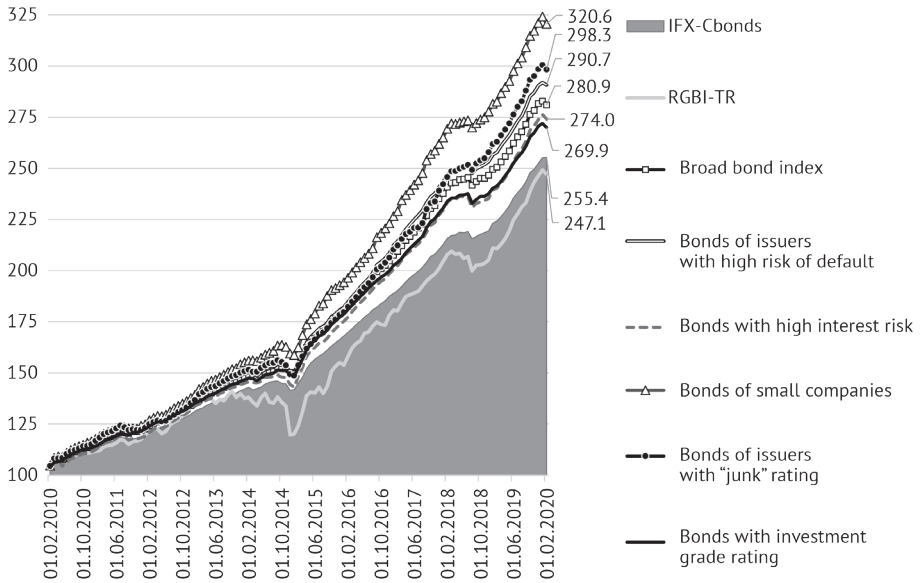
Source: own calculations based on the data of Cbonds.

increased, corporate bond yield started to pick up and amounted to 6.51% per annum in February 2021.

As shown in *Fig. 34*, CB yield to maturity closely correlates with their duration calculated with embedded put options taken into account. In expectation of cuts in the Bank of Russia key rate, investors' demand for longer-term bonds picks up and, on the contrary, in case of a rise in the key rate investors prefer shorter-term bonds. For these reasons, from mid-2015 till the end of 2018 the average duration of the IFX index bonds was explicitly growing, while starting from H2 2018 on the back of a moderate rise in the key rate the duration of bonds became volatile. From H2 2019 till the outbreak of the crisis in March 2020, duration used to pick up again. However, after the crisis till February 2021, the duration of corporate bonds decreased from 3.14 years to 2.20 years. It can be explained by the fact that amid uncertainties brought about by the pandemic and subsequently higher expectations of the upturn in the rate of inflation market participants preferred to invest in more liquid assets, including short-term duration corporate bonds.

3.1.7. CB portfolio factor income

On the corporate bond market, factor strategies have somewhat less advantages as compared with the equity market, however, a number of investment strategies suggesting the selection of securities based on specific parameters provided potential long-term excess return to investors (*Fig. 35*). So, the maximum



Note. All constructed yields of the portfolios are the indices of yield to maturity for relevant investment strategies which take into account par value payments, amortization of bonds, as well as coupon payments; the selection of bonds for the portfolios was based on the threshold value equal to each index median.

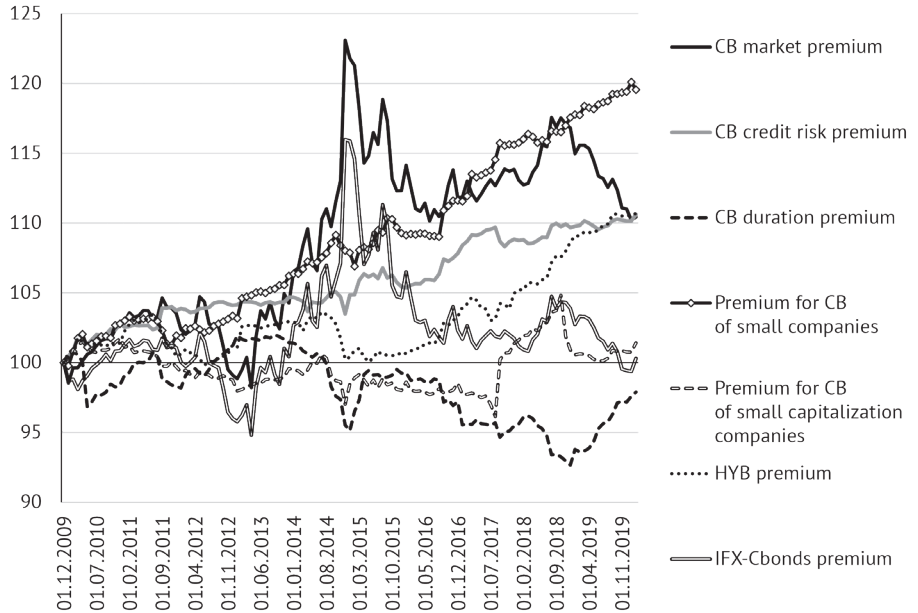
Fig. 35. Yield of the main investment factor strategies on the debt market, 2010 – January 2020 (December 2009 = 100%)

Source: own calculations based on the data of the Bloomberg and Cbonds.

diversification of corporate bonds in the portfolio represented by the broad index calculated by ourselves would have made it feasible to receive a return of 180.9% in 2010-January 2020 as compared with the yield of 155.4% and 147.1% of the standard index of 30 corporate bonds (IFX-Cbonds) and the Moscow Exchange Government Bond Index (RGBI-TR), respectively.

Small companies' bonds appreciated the most (220,6%) which indicates the importance and weight of small companies in terms of risks to investors not only on the equity market, but also on the debt market. High-yield bonds (HYB) or bonds with a "junk" rating earned 198.3%, while bonds of issuers with a high risk of default, 190.7%. Interest risk-based selection of bonds in favor of higher risk ones is less advantageous: the yield was equal to the mere 174%.

It is noteworthy that not all factor strategies yielded significant premiums in 2010-January 2020. The size of excess return for corporate bonds is measured by the difference between average annual return of two factor strategies, while the risk premium, by the spread of yield to maturity (*Table 7*). Premiums dynamics are shown in *Fig. 36*.



Note. The market premium is equal to the difference between monthly markups in the aggregate return index of a broad sample of corporate bonds and that of government bonds (RGBItr). The CB credit risk premium is equal to the difference between monthly markups in the aggregate return index of bonds with a higher credit rating and that of bonds with a lower credit rating. The CB interest risk premium (for duration) is equal to the difference between monthly markups in the aggregate return index of bonds with high duration and that of bonds with low duration. The premium for CB of small companies is equal to the difference between monthly markups in the aggregate return index of bonds of issuers with a small size of assets and that of bonds of issuers with a large size of assets. The premium for CB of small capitalization companies is equal to the difference between monthly markups in the aggregate return index of bonds of small capitalization companies and that of bonds of high capitalization companies. The HYB premium is equal to the difference between monthly markups in the aggregate return index of HYB against that of investment grade bonds. The Bloomberg credit rating scale was used. For calculation purposes, only liquid domestic ruble-denominated bond issues were used.

Fig. 36. Premium across the main factor strategies on the CB market in Russia, 2010 – January 2020 (December 2009 = 100%)

Source: own calculations based on the data of Cbonds and the Bloomberg.

The risk premium for investments in CB amounted to 1.47% per annum in the 10-year period, while the average income spread of corporate and government bonds was equal to 1.19% (*Table 7*).

CB credit risk premium amounted to 1.1% per annum and the spread of high-risk bonds was quite small, too (0.2 p.p.). It can be explained by the fact that unbiased evaluation of issuers' credit quality played a supplementary role in investors' approach to selection of bonds for the portfolio, so there was virtually no request for a higher return for risk.

Table 7

Premium and spreads in terms of bond factors, 2010–2019*

	Premium on factor, % per annum	Spread between factor portfolios, %
CB market premium	1.4696	1.1938
CB credit risk premium	1.0658	0.1973
CB duration premium	-0.3207	0.3152
Premium for CB of small companies	1.9584	0.7666
Premium for CB of small capitalization companies	0.0903	0.6335
HYB premium	1.0888	0.6257

*See note to *Fig. 36*.
Source: own calculations based on the data of Cbonds and the Bloomberg.

Duration as a simpler indicator of bond interest risk gives a prompt signal that the investor's portfolio needs to be reviewed and revaluated. Duration higher values mean that a bond is sensitive to interest rate changes and consequently its interest risk is high. Higher duration bonds on developed markets give premium to investors, thus compensating a higher risk. However, on the Russian market, there is no premium for interest risk or duration; investors probably overlook important information on risks in price setting.

The premium for CB of small companies is the highest one and is equal to 1.96% per annum, while the spread of bonds of small companies, to 0.77 p.p. In their turn, corporate bonds of small publicly traded companies do not provide a significant premium. This points sooner to the existence of the premium for non-public companies as in investors' view publicly traded companies entail a much lower risk. This can be explained by a greater transparency of publicly traded companies, a huge array of update information on them and a more strategic approach to repute-building on the stock market.

The aggregate return premium for investments in HYB amounts to 1.1% per annum in the 10-year period, while the spread, to 0.63 p.p. This factor is identified more clearly than the credit risk factor where the credit risk floating margin between the portfolios is used. This clearly shows that in the past few years investors started to pay attention to issuers' credit ratings though they do not take into account actual credit risk target values; in other words, risk evaluation is rather superficial without examination of securities within the credit rating.

3.1.8. Corporate bond market organization

The number of issuers at the Moscow Exchange corporate bond market exceeds largely that of companies in the listing of securities. The corporate bond market is actively used for raising new funds and refinancing former debts by issuers from various economic sectors.

During quite a long period, the Moscow Exchange saw the reduction in the number of issuers of corporate bonds from 467 issuers in the pre-crisis 2007 to 198 issuers in 2018 (*Fig. 37*). That can be explained not only by modification of

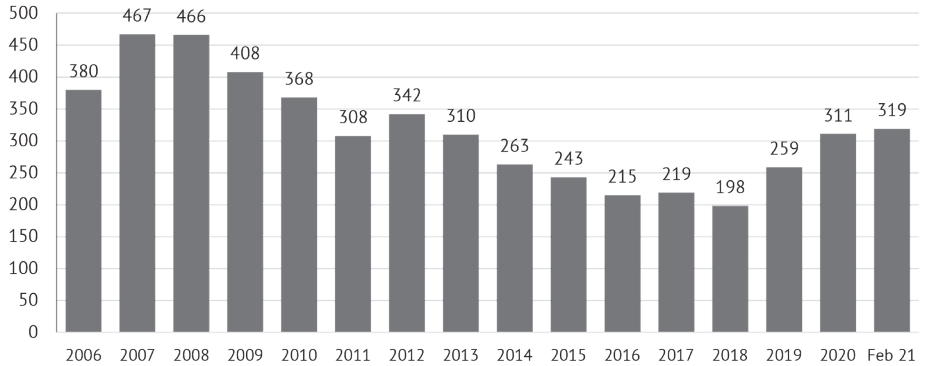


Fig. 37. The number of issuers of marketable corporate bond issues on the Moscow Exchange in 2006–2021

Source: based on the data of the Cbonds bulletin.

borrowing schemes where for issuing corporate bonds large issuers used their subsidiaries, while now they issue them directly, but also the fact that large bond issues had advantages in terms of issuers' costs and listing requirements.

In 2018, amendments were introduced in the securities market legislation to simplify the corporate bonds issuing procedure as regards decision-making in respect of bond issues, reduction in the length of the bond issues registration period, easing of the requirements to the reporting on bond issue results and lifting of limitations on the deadlines for placement of securities. The Stock Exchange took further measures to attract small and mid-sized businesses to the stock market. As a result, in 2019 the number of corporate bond issuers on the Stock Exchange started to grow. In issuers' view, a trend of downturn in the Bank of Russia key rate observed from the mid-2015 till March 2021 (except for a short period in 2018–2019) consolidated corporate bonds' investment appeal.

So, marketable corporate bond issues of 319 issuers floated on the Stock Exchange in February 2021, as compared with 198 issuers in 2018, that is a 1.6-fold increase.

As per the Cbonds data, the year 2020 saw sustainable growth in the segment of high-yield bonds. The volume of this market virtually doubled in 2020 and amounted to Rb40 bn against Rb21 bn in the previous year. It is noteworthy that small companies without credit ratings account for 70% of new HYB issues.[1]

The formation of the market of ESG-financing became a new trend in the corporate bonds development. The new version of the securities issue standards which came into effect on May 11, 2020 included the standards of issue of three new types of bonds: green, social and infrastructure ones. By December 7, 2020, the Moscow Exchange updated listing rules for the specified types of bonds.

1 Cbonds (2020). ROK – 2020 – Despite the Pandemic. Conference Review. URL: http://review.cbonds.info/article/magazines/5431/

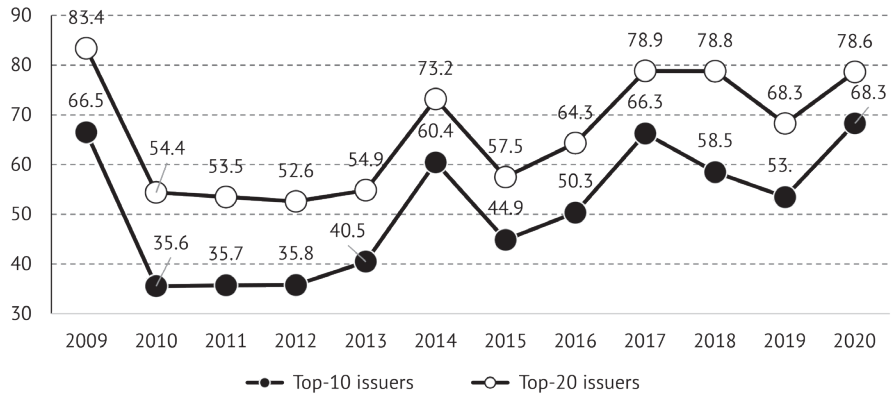


Fig. 38. The share of top-10 and top-20 issuers in ruble-denominated corporate bonds issues, 2009–2020, %

Source: own calculations based on the data of Cbonds.

According to the data of the Moscow Exchange, nine issues of green and social bonds worth Rb23 bn were placed as of that date.[1]

On June 26, the RZhD placed the first issue of irredeemable corporate bonds worth Rb30 bn in the history of the market of Russian publicly traded debts. The overall volume of the irredeemable bond series amounted to Rb313 bn.[2]

Like the domestic equity market, the primary market of corporate borrowings is a highly concentrated one (*Fig. 38, Table 8*). During the coronavirus pandemic, the share of top-10 corporate bonds issuers increased from 53.5% in 2019 to 68.3% in 2020, while in the same period the share of top-20 issuers grew from 68.3% to 78.6%. Large issuers sought to take advantage of the situation to borrow funds amid low rates to compensate revenue losses caused by the pandemic and low prices of oil, gas and other primary products. Top-10 corporate bonds issuers included seven companies with state participation.

Our own calculations based on the broad corporate bonds sample provided by Cbonds point to sustainable growth in the share of companies with state participation (CSP) in the value of outstanding corporate bonds (*Fig. 39*). If at the beginning of formation of the corporate bond market in January 2003 the share of CSP was equal to the mere 22.2%, by December 2020 it increased to 71.0% and this is the evidence of the domestic stock market's evolution into a mechanism supporting primarily state-owned companies, rather than performing a key market function of financing the fast-track development of private companies and businesses.

As illustrated by steady growth in the share of CSP in corporate bonds capitalization, it is easier for state-owned companies to receive an access to funding on the part of banks and NPF where government-controlled entities prevail.

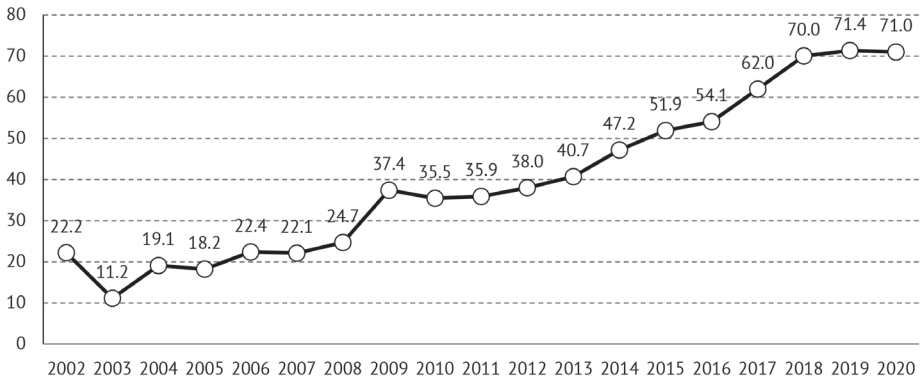
1 Cbonds. The Upside of the ECG–Bond Issue is Large. Cbonds Review, Issue No.1. 2021. URL: http://review.cbonds.info/article/magazines/5413/
2 URL: http://ru.cbonds.info/news/item/1320403

Table 8

Top-10 issuers of corporate bonds (CB) and their share in the overall value of CB issues

Issuers	2018		Issuers	2019		Issuers	2020	
	billion Rb	%		billion Rb	%		Billion Rb	%
1. PAO SberBank	301	17.9	1. SberBank of Russia	465	16.1	1. Rosneft	815	17.7
2. OOO DOM.RF Ipotechny Agent	137	8.2	2. DOM.RF	253	8.7	2. SberBank of Russia	550	12.0
3. OAO RZhD	85	5.1	3. VTB	172	5.9	3. VTB, including Demetra Holding	489	10.6
4. AO Rosselkhozbank	78	4.7	4. Vneshekonombank	170	5.9	4. DOM.RF	386	8.4
5. OOO Zhiloi Mikroraion	76	4.6	5. RZhD	106	3.7	5. RZhD	353	7.7
6. PAO NK Rosneft	70	4.2	6. Gazprombank	95	3.3	6. GSP-Finance	243	5.3
7. Gazprombank (AO)	67	4.0	7. Rosneft	80	2.8	7. VEB	90	2.0
8. VTB Bank (PAO)	59	3.5	8. MTS	78	2.7	8. Azot (Kemerovo)	88	1.9
9. AO DOM.RF	55	3.3	9. Avtodor	69	2.4	9. GTLK	66	1.4
10. Avtodor state-owned company	52	3.1	10. RUSAL Bratsk	60	2.1	10. Gazprombank	59	1.3
Capitalization of all CB issues	**1674**	**100**	**Capitalization of all CB issues**	**2893**	**100**	**Capitalization of all CB issues**	**4595**	**100**
Capitalization of issues of Top-10 CB issuers	**979**	**58.5**	**Capitalization of issues of Top-10 CB issuers**	**1547**	**53.5**	**Capitalization of issues of Top-10 CB issuers**	**3138**	**68.3**

Source: own calculations based on the data of Cbonds.



Note. The data on the year 2020 are preliminary.

Fig. 39. The share of CSP in the value of outstanding ruble-denominated corporate bonds in 2002–2020, %

Source: own calculations based on the data of Cbonds.

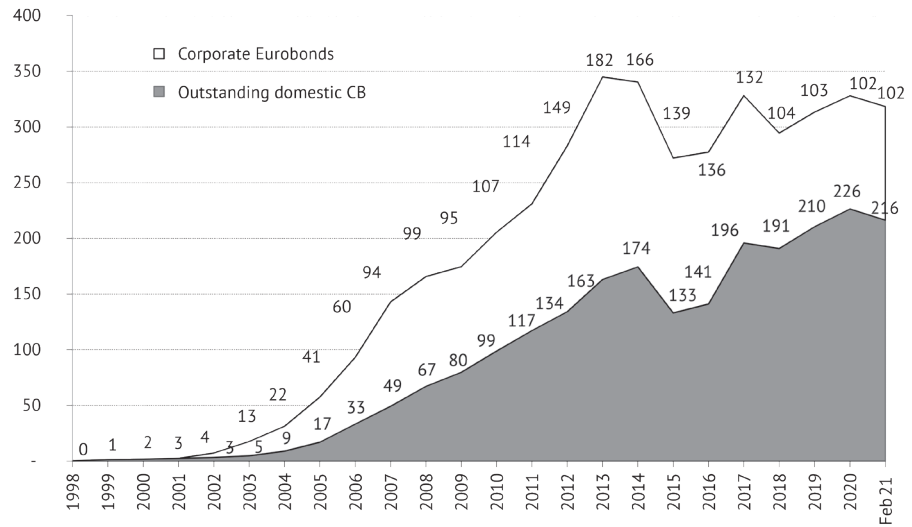


Fig. 40. The volumes of outstanding corporate bonds of Russian issuers in 1998 – February 2021, billion USD

Source: own calculations based on the data of Cbonds and the Moscow Exchange.

In 2018–2020, despite sanctions Russian companies increased their placements on the Eurobonds market. The value of new issues of corporate Eurobonds was equal to $10.9 bn, $13.7 bn and $17.1 bn in 2018, 2019 and 2020, respectively; index growth in 2020 on the previous period amounted to 24.8%.

However, a pickup in the value of corporate Eurobonds issues was not accompanied by changes in the value of outstanding Eurobonds of Russian issuers (*Fig. 40*); it was in the range of $102 bn-$104 bn in 2018–2020. This indicates that new issues of foreign exchange debt instruments were used by companies primarily for refinancing their former debts.

In 2018-2020, the volume of the domestic debt market of Russian companies still exceeded by two-fold the value of their debt on Eurobonds. In US dollar terms, the value of domestic corporate bonds appreciated from $210 bn in 2019 to $226 bn in 2020 or 7.6%, while the capitalization of corporate Eurobonds depreciated from $103 bn to $102 bn or 1.0%. However, in January-February 2021 the value of Eurobonds remained unchanged, while that of domestic corporate bonds fell to $216 bn or by 4.4% relative to the index of 2020.

Overall, a pickup in the share of domestic sources of funding Russian companies in the national currency amid higher securities market volatility is a positive trend reducing issuers' and investors' risks amid possible global financial markets shocks leading to dramatic outflows of foreign portfolio investments from developing countries.

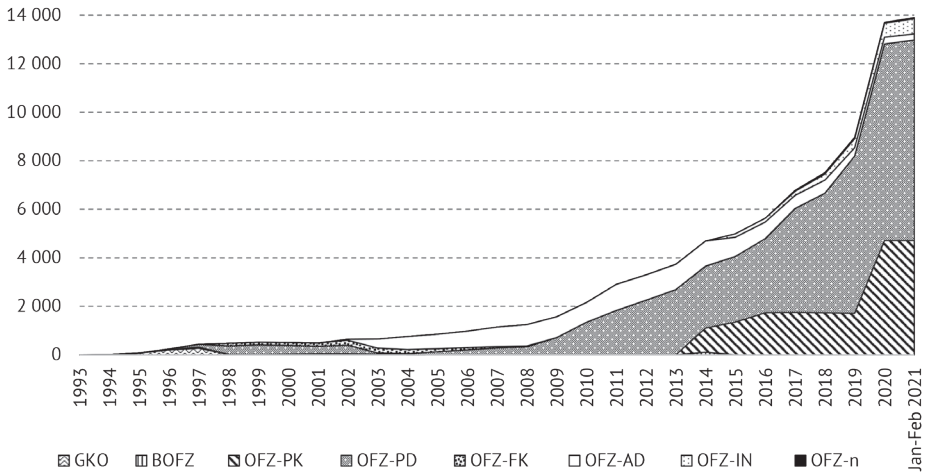
3.1.9. The Government bonds market

In 2020, on the OFZ market the RF Ministry of Finance raised the record-high sum of net borrowings (Rb3.8 trillion) in the past few years equal to the total value of net borrowings in 2016–2019. As of February 2021, the overall OFZ volume amounted to Rb13.9 trillion as compared with Rb9.0 trillion in 2019, a 50% increase (*Fig. 41*).

Sudden growth in the volumes of borrowings on the domestic market started from H2 2020; it was driven by the need of financing the budget deficit amid the suspension of the fiscal rule implying the funding of the budget deficit by means of sale of foreign exchange out of the National Welfare Fund. A pickup in the domestic market of government securities was facilitated by cuts in the Bank of Russia discount rate, excessive liquidity in the banking sector and the RF Ministry of Finance's readiness to offer a market premium on bonds to be placed.

As the main investors of the newly issued government bonds were banks and partially non-banking financial institutions, it was necessary to modify the pattern of OFZs to be issued in favor OFZs with a floating coupon (OFZ-PK), ensuring banks greater flexibility in liquidity and interest risks management. As regards OFZ-PK, the coupon size is pegged to RUONIA, a money market rate which is linked to the Bank of Russia key rate. Earlier, these bonds were popular with non-residents, but with time as the key rate declined, they became less attractive to foreign investors. The overall value of OFZ-PK issue increased from Rb1.7 trillion in 2019 to Rb4.7 trillion as of February 2021; accordingly, their share in the overall value of OFZs grew from 19.1% to 33.9%.

The largest segment of the OFZ market is represented by OFZ-PDs with constant coupon income. As the size of their coupon income is known in advance till maturity, these bonds are an attractive financial instrument for various types



Note. BOFZ is non-coupon federal loan bonds; GKO is government short-term non-coupon bonds; OFZ is federal loan bonds; OFZ-AD is federal loan bonds with amortization of debt; OFZ-IN is federal loan bonds with par value linked to the inflation rate in the Russian Federation; OFZ-PD is federal loan bonds with a constant coupon income; OFZ-PK are federal loan bonds with a floating coupon income "linked" to the RUONIA rate; OFZ-n is federal loan bonds for individuals ("people's bonds").

Fig. 41. The volume of outstanding GKO-OFZ issues in 1993 – March 2020, billion rubles

Source: own calculations based on the data of the RF Ministry of Finance and Cbonds.

of investors, primarily, non-residents.[1] The value of OFZ-PDs increased from Rb6.5 trillion in 2019 to Rb8.3 trillion in February 2021; however, their share in the overall value of OFZs in the specified period decreased from 72.2% to 59.5%.

OFZ-ADs with amortization of the principal debt amount are a convenient instrument for investing pension savings on a volatile market, but create difficulties for the RF Ministry of Finance in public debt managing. As pension savings growth slowed down starting from the "freezing" of pension savings in 2014, demand for this instrument dropped virtually to zero. The value of OFZ-ADs kept falling from Rb345 bn in 2019 to Rb253 bn in February 2021; within 14 months their share in the overall value of OFZs declined from 3.8% to 1.8%.

With taking into account growing inflation risks, a lucrative instrument of the government securities market is OFZ-INs envisaging the indexation of their par value depending on the level of the rate of inflation measured on the basis of the consumer price index. Owing to these characteristics, these bonds are in demand with domestic institutional investors and private persons. The value of OFZ-INs increased from Rb371 bn in 2019 to Rb627 bn in February 2021; their share in the overall value of OFZs increased from 4.1% to 4.5%.

In 2020, OFZ-n bonds often called "people's bonds" because they are oriented at private investors and positioned largely by the RF Ministry of Finance as an

1 *Lu Y., Yakovlev D.* Exploring the Role of Foreign Investors in Russia's Local Currency Government Bond (OFZ) Market. IMF Working Paper, № WP/17/28, February 2017, p. 10.

off-Exchange instrument meant for promoting households' financial literacy accounted for the smallest share (0.3%) of the OFZ market.[1] On July 16, 2020, investors were offered an OFZ-n issue worth Rb15.0 bn. Since OFZ-n bonds are sold via large retail banks, they have to compete fiercely with bank bonds and structured products offered by the same banks to their customers. Further, as per the estimates of the Moscow Exchange, in 2020 the yield of OFZ-n was below that of OFZs.[2] As a result, the value of OFZ-n bonds kept declining from Rb64 bn in 2019 to Rb43 bn in February 2021; within 14 months their share in the overall value of OFZ decreased from 0.7% to 0.3%.

With introduction of the personal income tax of 13% on coupon income of all bonds from January 1, 2021, OFZ investment appeal diminished for individual investors. In new OFZ-n issues, the RF Ministry of Finance offers investors an additional premium for compensation of personal income tax-related losses.[3]

Within a long period after the financial crisis starting from the mid-2000s, the Russian Federation pursued the policy of advanced growth in borrowings in rubles on the domestic market as compared with the buildup of debts in foreign currency (*Fig. 42*). In 2006, the value of the Russian Federation's domestic and external debts became the same and amounted to Rb38 bn each. After that the

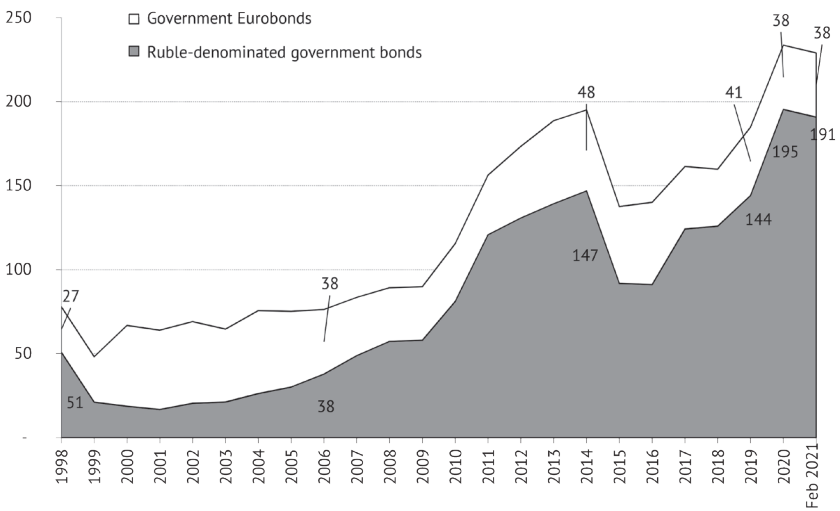


Fig. 42. The volumes of outstanding domestic public bonds and Eurobonds of the Russian Federation, 1998 – February 2021, billion USD

Source: own calculation based on the data of Cbonds and the Moscow Exchange.

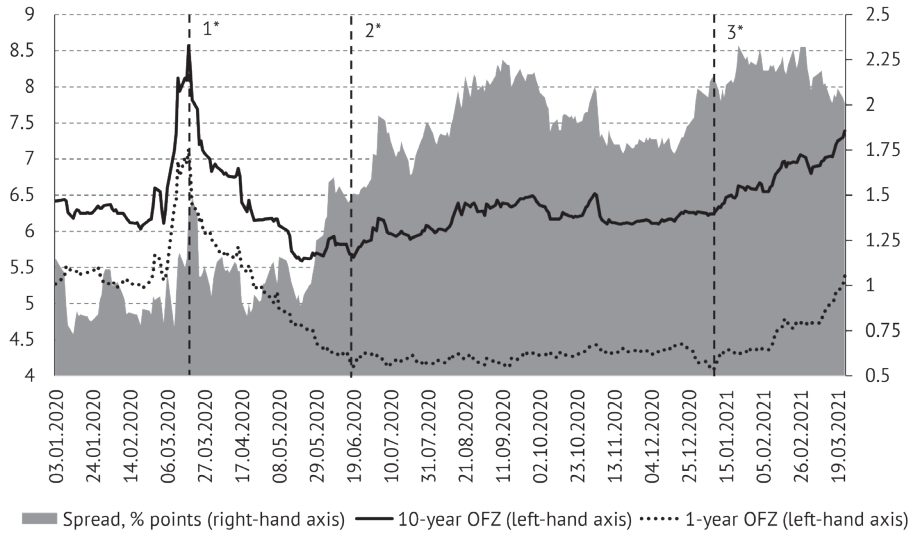
1 *Butrin D., Kassin P.* Purchasing of Experience: The Ministry of Finance has Made OFZ-n a Part of the System of Family Financial Planning // The Kommersant. Dengi. September 25, 2019. Issue No.39.
2 URL: https://place.moex.com/useful/dohodnost-obligatsij?list=vse-pro-obligatsii#a3
3 URL: https://minfin.gov.ru/ru/perfomance/public_debt/internal/ofz-n/current/?id_65=132412-informatsionnoe_soobshchenie_o_nachale_razmeshcheniya_ofz_dlya_fizicheskikh_lits_vypuska__53007rmfs

value of ruble-denominated domestic bonds (OFZ) started to grow faster than that of external borrowings.

Amid the pandemic, the value of outstanding OFZ increased from $144 bn to $195 bn or by 35.4%, while the Russian Federation's debt on Eurobonds shrank from $41 bn to $38 bn or by 7.3%. As a result, the share of ruble-denominated instruments in the overall value of the public debt increased from 78.0% in 2019 to 83.6% in 2020; this measure promoted sustainability of government borrowings amid higher volatility on global financial markets.

A favorable interest rates situation facilitated the implementation of the large program of public borrowings on the domestic financial market in 2020 (*Fig. 43*). At first, the acute phase of the financial crisis led to sudden growth in 10-year OFZ yield from 6.25% as of the beginning of the year to 8.57% as of March 18, 2020; over that period short-term OFZ yield increased from 5.27% to 7.14%. However, owing to the key rate cuts in April and June by 1.75 p.p. outright 10-year OFZ yield fell to 5.63%.

In the period of implementation of the program of mass borrowings in H2 2020, 10-year OFZ yield increased from 5.63% to 6.22% as of the end of 2020



Note. 1* is a financial shock caused by the outbreak of COVID-19 and liquidity shock on global financial markets; 2* is growth in the program of government borrowings with emphasis on domestic investors; 3* is a pickup in market participants' inflation expectations in the world amid new packages of stimulus measures in the US and Russia with the statistical data on the rate of inflation taken into account; the RF Ministry of Finance started to buy foreign exchange on the Moscow Exchange.

Fig. 43. Yield to maturity of 1-year and 10-year OFZ in percentage per annum and the spread between the yield of 10-year OFZ and 1-year OFZ in percentage points from January 3, 2020 till 23 March 2021

Source: own calculations based on the data of the RF Central Bank and the Moscow Exchange.

and this can be regarded as a premium payable to domestic investors for large investments in OFZ. On the contrary, the yield of short-term government securities remained record-low (4.08% at the end of 2020), while the spread of 10-year OFZs and 1-year OFZs increased in that period which factor indicates sufficient liquidity with financial institutions as they are prepared to keep surplus cash funds in short-term OFZ at a low rate of return.

Unlike quantitative easing measures in the US where in 2020 the Federal Reserve bought treasury bonds on a monthly basis, thus actually financing the budget, in Russia additionally issued OFZs for financing the budget deficit were bought by banks primarily at the expense of their own liquidity cushion, rather than with funds received from the RF Central Bank in terms of refinancing. For this purpose, banks had to reduce their investments in the Bank of Russia short-term debts (KOBRs).

Shown in *Fig. 43* is the alarming trend of an explicit pickup in 10-year OFZ yield from 6.22% in 2020 to 7.39% in February 2021 and short-term OFZ yield from 4.08% to 5.38%. This trend reflects investors' concern about risks of inflation on global markets and this situation may prompt central banks of different countries, including Russia, to raise key interest rates.[1]

After foreign clearing and settlement organizations opened nominee accounts at the Russian Central Depositary in February 2013, the domestic public debt market saw investments inflow growth. The share of non-residents on the secondary OFZ market increased from 6.5% in July 2012 to 28.1% in May 2013 (*Fig. 44*).[2] Later, non-residents held on average nearly a quarter of OFZs. However, this ratio changed dramatically under the impact of non-residents' cash flows with financial and geopolitical risks taken into account. For example, amid concerns over introduction of sanctions on global investors for buying Russian government securities, in April 2018 the share of non-residents in the OFZ ownership pattern fell from 33.1% in 2017 to 24.4% in 2018. However, after it became clear that no sanctions were going to be applied to OFZ buyers and condition for such investments changed for the better, in 2019 foreign investors' funds returned to this market segment and the share of foreign investors in the OFZ ownership pattern amounted to the record-high level of 34.9% in February 2020.

During the financial crisis caused by the pandemic, the share of non-residents in OFZ ownership started to fall dramatically from 34.9% in February 2020 to 23.3% in January 2021. However, this time such a reduction was not accompanied by the withdrawal of portfolio investors' funds from OFZs; these investments remained stable. The decrease in non-residents' share was brought about by steep growth in the RF Ministry of Finance' OFZ issues and placement thereof primarily among domestic institutional investors.

1 On March 23, 2021, the RF Central Bank raised its key rate from 4.25% per annum to 4.5%.
2 In our view, before the liberalization of the OFZ market in February 2013, the actual share of non-resident investors in OFZs was higher than the official ratio of 6.6% because prior to opening of Clearstream and Euroclear securities correspondent accounts at the National Settlement Depository there was the custodian accounting system which did not take into account non-residents' investments in OFZs via various indirect schemes.

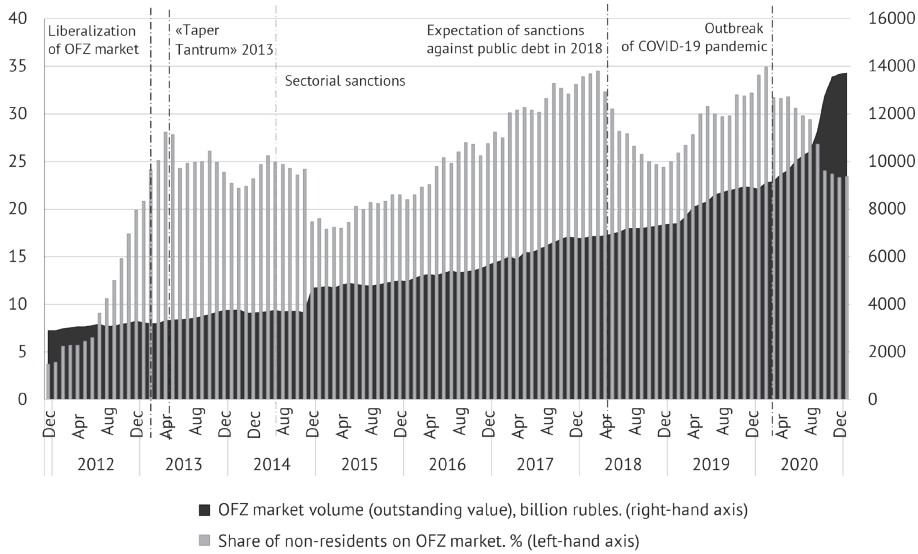


Fig. 44. The share of non-residents on the OFZ market, February 2012 – February 2021

Source: own calculations based on the data of the RF Central Bank and Cbonds.

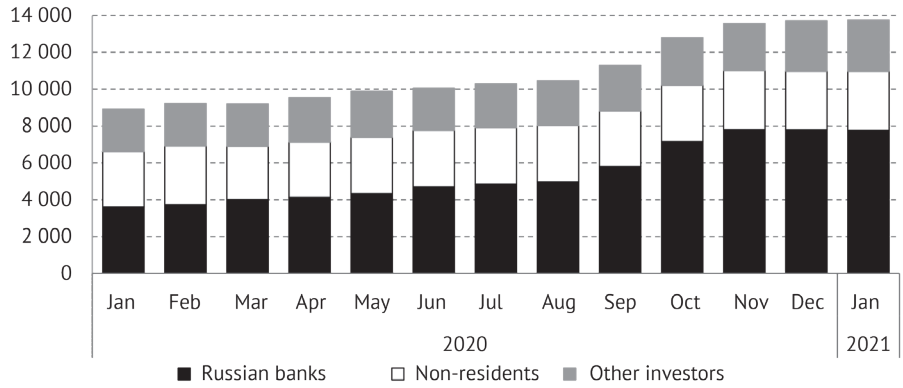


Fig. 45. The value of investments of banks, non-residents and other investors in OFZs. January 2020 – January 2021.

Source: own calculations based on the data of the RF Central Bank and Cbonds.

As shown in *Fig. 45*, the value of foreign investments in OFZs increased from Rb3.0 trillion in January 2020 to Rb3.2 trillion in January 2021. Specifically, banks' investments in OFZs increased by more than 100%: from Rb3.6 trillion to Rb7.6 trillion. Within the same period, investments of other investors including the NPF and insurers increased from Rb2.3 trillion to Rb2.8 trillion or by 21.7%.

So, during the crisis the OFZ market was one of the most dynamically growing segments of the domestic financial market by means of which the RF Ministry of Finance solved successfully the objective of raising a substantial net financing volume to replenish the budget. With the public debt financed in the national currency, it becomes more sustainable to global financial markets shocks. However, if such substantial government borrowings on the financial market continue, investment resources for the private sector of the economy may become limited.

3.1.10. The derivatives market

The importance of the derivatives market in economic terms consists in the promotion of transparency of assets pricing, as well as provision of market participants with an option to hedge their investments from sudden changes in prices of their assets in future.

In 2020, high income volatility of foreign exchange and financial and commodity assets facilitated, as expected, derivatives market growth on the Moscow Exchange (*Fig. 46*). The futures market trading volumes increased from Rb77.4 trillion in 2019 to Rb124. 5 trillion in 2020 or by 60.9%, while in 2019 they decreased by 6.1%. The option transactions volumes increased the least from Rb5.0 trillion in 2019 to Rb 5.3 trillion in 2020 or 7.1%; at year-end 2019 they fell by 27.3%.

The lag in the development of the options market observed in the past few years can be probably explained by low activities of foreign investors on this market and weakness of domestic institutional investors. In Russia, large banks which offer brokerage services to the bulk of individual investors did not carry out aggressive marketing to attract customers on the domestic derivatives market unlike, for example, the US market which saw vigorous growth in option deals transacted by individuals in 2020.

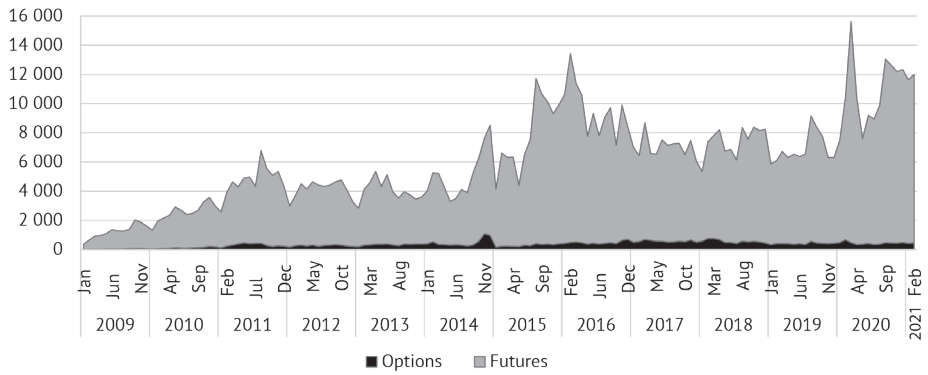


Fig. 46. The value of futures and option deals on the Moscow Exchange, January 2009 – February 2021, billion rubles.

Source: own calculations based on the data of the Moscow Exchange.

The derivatives market's insufficient development manifests itself in a weak analytical support it receives from the professional community: Russian academic journals and business media publish rarely materials dealing with the analysis of the domestic derivatives market situation.

The year 2020 saw no breakthroughs in terms of new products on the futures stock exchange market. It is noteworthy that currency forward contracts play the main role on the Moscow Exchange futures market; in 2020 the foreign exchange volatility brought about advanced growth in this market segment (*Fig. 47*). The volume of foreign exchange futures increased from Rb29.0 trillion in 2019 to Rb63.4 trillion in 2020; accordingly, the share of forex deals on the futures market increased from 40.1% in December 2019 to 51.6% in February 2021.

The second most important futures market segment is stock index futures contracts whose volume increased from Rb16.5 trillion in 2019 to Rb29.8 trillion in 2020; the share of index futures rose from 24.2% in December 2019 to 25.3% in February 2021.

The commodity futures trading volume (contracts for Brent oil, gold and other commodities) decreased somewhat from Rb27.5 trillion in 2019 to Rb27.4 trillion in 2020; the share of commodity futures decreased from 29.9% in December 2019 to 19.7% in February 2021. This segment of the derivatives market was less attractive to market participants because, unlike the forex market, for most companies the deals on this market have normally nothing to do with hedging, nor are related to their main business operations. Further, market participants' trust in this Moscow Exchange market segment was undermined by the abnormal situation with futures contracts for Light Sweet Crude Oil when the downfall of oil prices on April 20 and April 21 resulted in individual investors' losses owing

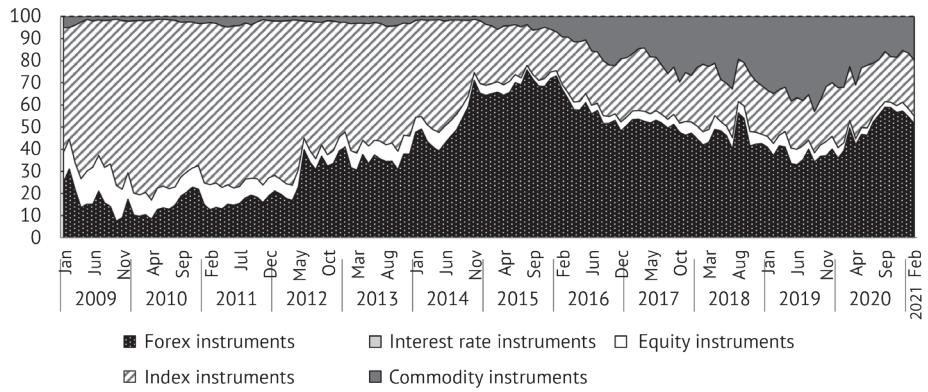


Fig. 47. The Moscow Exchange futures market pattern. January 2009 – February 2021, % of the deal value

Source: own calculations based on the data of the Moscow Exchange.

to forced closure of their contracts worth $1.5 bn - $1.7bn as estimated by the NAUFOR (the National Association of Stock Market Participants).

The volumes of trading futures for shares and bonds decreased from Rb4.3 trillion in 2019 to Rb4.0 trillion in 2020; their share in the overall volume of the futures market declined from 5.8% in December 2019 to 3.4% in February 2021. The low capacity of this derivatives market segment was related to low liquidity of most issues of underlying assets.

As in the previous few years, demand for interest rate futures and options still leaves much to be desired. In these market segments, the volumes of deals are actually equal to zero although amid the volatile financial market and growing inflation risks interest rates have an ever-growing impact on legal entities' and individuals' financial decisions. The main difficulties in this respect are related to the lack of reliable interest rate money market indicators and large investors which are prepared to take risks related to interest rate changes. Though numerous financial institutions and non-financial companies need hedging their contacts a lot in case of a pickup in interest rates, there are virtually no market participants which are prepared to pay for such risks.

As the options market was probably used the least for hedging investment assets, it predetermined a relatively moderate size of its liquidity on the Exchange. The options market's most active segment is index instruments contracts which volume increased from Rb3.1 trillion in 2019 to Rb3.3 trillion in 2020; their share in the total volume of options increased from 57.2% in December 2019 to 64.8% in February 2021 (*Fig. 48*).

The volumes of options for foreign exchange instruments increased from Rb1.5 trillion in 2019 to Rb1.7 trillion in 2020; their share in the overall volume of option deals declined from 34.7% in December 2019 to 28.6% in February 2021.

Other segments of the options market are very small. Options for commodity instruments decreased from Rb0.4 trillion in 2019 to Rb0.3 trillion in 2020; their

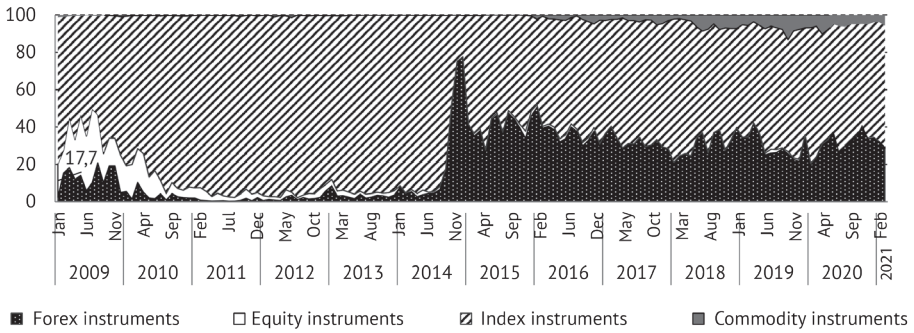


Fig. 48. The Moscow Exchange options market pattern, January 2009 – February 2021, % of deal value

Source: own calculations based on the data of the Moscow Exchange.

share in the overall volume of the options market declined from 6.9% in December 2019 to 5.8% in February 2021. The value of options for equity instruments is insignificant and has virtually no effect on overall performance indicators.

Probably, the Moscow Exchange derivatives market needs a new administrative impetus for active development, both in terms of attraction of new investors and motivation of financial intermediaries which may enhance this market segment's liquidity, particularly, as regards equity and interest rate derivatives instruments.

3.1.11. Financial intermediaries and the exchange

In 2020 and early in 2021, the number of professional securities market participants (PSMP) and licenses to carry out various types of professional activities kept decreasing (*Fig. 49*). There was a decrease in the number of licenses to brokerage activity from 290 in 2019 to 261 in February 2021 or by 10%; licenses to dealer activities from 319 to 291 or by 8.8% and licenses to trust management from 201 to 185 or 8.0%.

The reduction in the number of the licenses of PSMP on the long-term time horizon started from the 2008 crisis and reflected both the overall downturn economic trend and the diminishing role of the stock market in the economy. The establishment of the financial mega-regulator in September 2013 sped up this process a little because of a pickup in market participants' administrative costs. The main reason for cancellation of licenses to professional activities was licensees' declaration of their exit from the business.

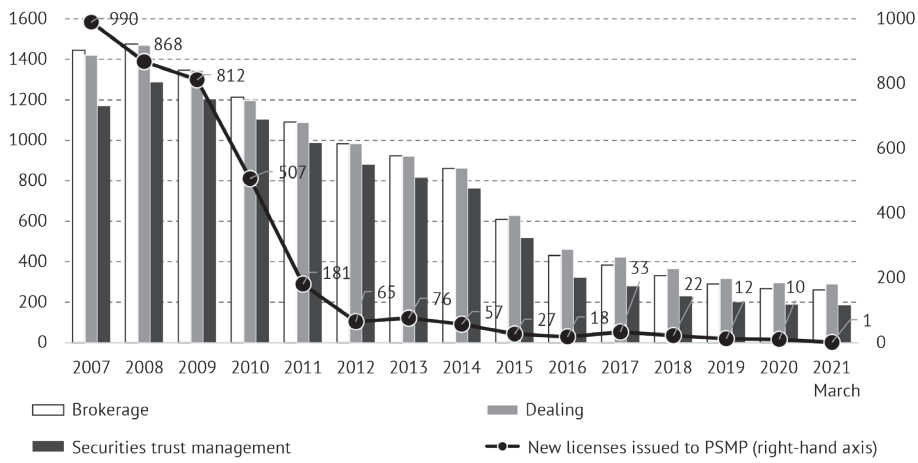


Fig. 49. The number of licenses to carry out brokerage, dealing and securities trust management activities (left-hand axis) and the number of licenses issued to professional securities market participants (right-hand axis) from 2007 till March 2021

Source: own calculations based on the data of the NAUFOR and registers of the RF Central Bank.

A more serious problem consists in a dramatic reduction in the number of new professional market participants which could underpin the economy, rather than the cancellation of licenses. A substantial downturn in the inflow of new market participants started from 2012. The number of new licenses issued to PSMPs in 2019, 2020 and in January-February 2021 was equal to 12, 10 and 1, respectively.

The concentration of activities of financial intermediaries is a reasonable strategy of upgrading their business efficiency; it takes place to one degree or another in lots of countries. However, the specific of the domestic market of financial services is the existence of administrative barriers for implementation of independent fintech-projects, domination of a few large retail banks, primarily, state-owned banks and active operations by the RF Central Bank which carries out often its own projects that compete with the private business. Facing such challenges as the violation of investors' rights and low efficiency of private financial business, the RF Central Bank does not focus its attention on the establishment of the "game rules" to solve one or another problem and legal enforcement thereof, but creates its own services aimed at solving these issues. In fintech, there are no mandatory requirements binding large financial institutions to comply with the "openbanking" standard and use open API addresses similar to the 2nd Services Payment Directive (EU) 2015 (PSD2).

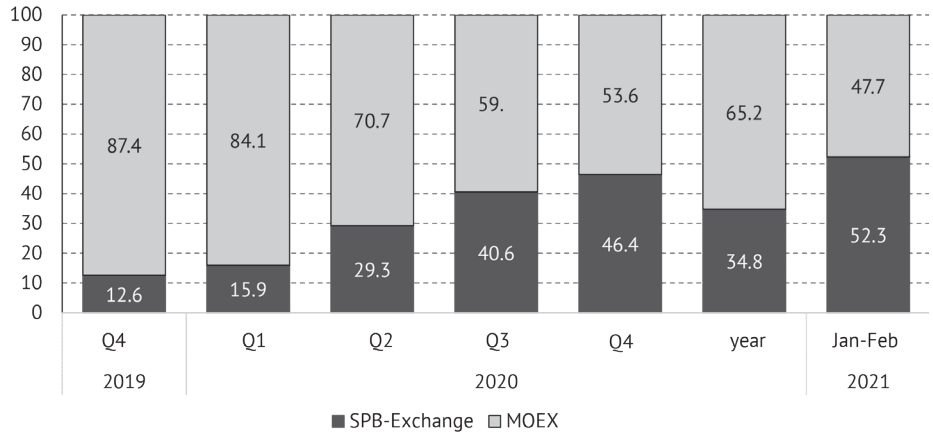
With a relatively liberal foreign exchange legislation and regulation of global financial institutions' operations on the domestic financial market, Russia is still the country with limitations for foreign direct investments in financial and banking activities due to geopolitical risks, slow and inconsistent development of the domestic savings system and an unfavorable investment climate.

Promotion of the competition on the financial market could be facilitated by legislative measures stimulating the competition of investment platforms; creation of conditions for implementation of private fintech projects; reduction of administrative barriers for new companies' entering the market; introduction of fiduciary standards of sale of finance and investment products[1]; more complete orientation of important infrastructure development projects to the needs of financial intermediaries and their customers.[2]

The merger of the MICEX and RTS in 2011 sped up the development of exchange-related technologies and facilitated the concentration of the liquidity in trading participants' accounts with the single clearing and trading system. However, along with positive changes, the merger of the RTS and the MICEX brought about ambivalent consequences. Most importantly, after the merger of the exchanges there is no longer competition which used to be a powerful driver of the development of exchange-related activities in the interests of domestic investors and financial intermediaries and, consequently, the development of the equity market and derivatives market slowed down to some extent.

1 These standards imply limitations on the conflict of interests with financial intermediaries in selling of financial products to customers.

2 On the development of investment platforms and fintech, see Abramov A. To Claim a Platform // The Expert magazine, Issue No. 44, October 28– November 3, 2019. pp. 64–68.



Note. On-exchange equity volumes include market transactions and negotiated deals.

Fig. 50. The shares of the Moscow Exchange (MOEX) and the Saint-Petersburg Exchange (SPB-Exchange in the overall volume of stock exchange transactions with equities, %

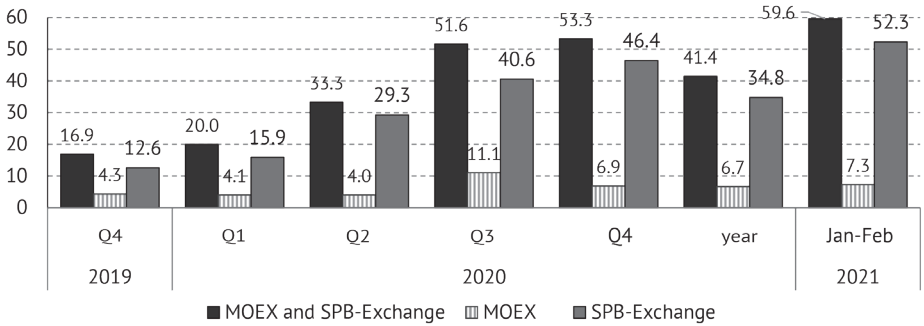
Source: own calculations based on the data of the Moscow Exchange and the Saint-Petersburg Exchange.

In 2020, the sped-up development of the Saint-Petersburg Exchange (SPB-Exchange) which trades equities of foreign issuers revived the competition between exchanges on the equity market. As shown in *Fig. 50*, the share of SPB-Exchange on the domestic spot market of equities of Russian and foreign issuers increased from 12.6% in Q4 2019 to 46.4% in Q4 2020 and by 52.3% in January-February 2021. So, early in 2021 the SPB-Exchange was ahead of the Moscow Exchange on the equity market for the first time.[1]

The competition between the stock exchanges on the market of equities of foreign companies led to investment demand shift - it concerns primarily individual investors – from equities of domestic publicly-traded companies (PAO) to foreign equities. As shown in *Fig. 51*, the share of equities of foreign companies in the overall equity trading volume of the two Russian exchanges increased from 16.9% in Q4 2019 to 53.6% in Q4 2020 and 59.6% in January-February 2021. The bulk of trading operations with equities of foreign companies is carried out at the SPB-Exchange.

With equities of foreign companies becoming widely available to domestic individual investors, it is feasible for them to upgrade the diversification of their portfolios and protect their savings from the risk of the ruble depreciation. The localization of services as the trading authority and brokerage services with foreign financial instruments promotes the competitiveness of Russian financial

1 From 2020, the Moscow Exchange started to include in the listing equities of foreign issuers, too; in its turn the SPB-Exchange declared its intension to include in its listing equities of Russian PAOs.



Note. On-exchange equity volumes include market transactions and negotiated deals.

Fig. 51. The share of foreign companies' equities in the overall value of equity trading on the Moscow Exchange (MOEX) and the Saint-Petersburg Exchange (SPB-Exchange), %

Source: own calculations based on the data of the Moscow Exchange and the Saint-Petersburg Exchange.

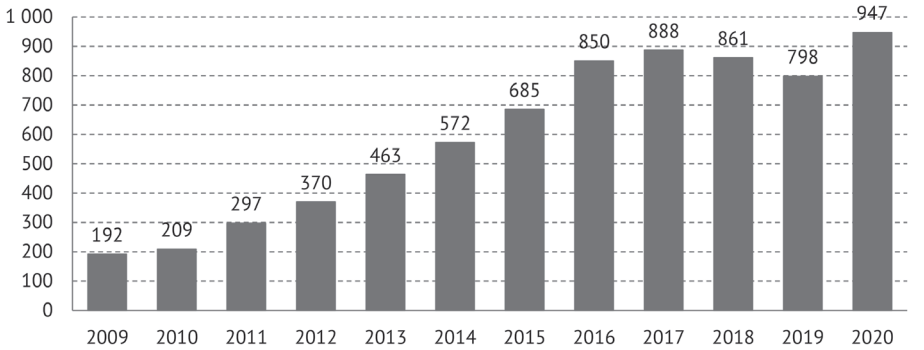


Fig. 52. The overall auction volumes of all instruments at the Moscow Exchange, 2009-2020, trillion rubles

Source: own calculations based on the data of the Moscow Exchange.

intermediaries. However, this process creates the risks of transfer of global financial markets' excessive volatility to the domestic market. Such risks should be dealt with not by prohibitive measures, but through the speed-up of the rates of development of the market of equities of Russian issuers and growth in the share of exchange traded funds (ETFs) - which make it possible to buy on exchanges shares in diversified securities portfolios - in exchange auctions.

In 2020, the Moscow Exchange tried to maximize its advantages on the market as the general organizer of auctions of various investment financial assets. The MOEX succeeded in overcoming the trend of downturn in overall on-exchange

transactions volumes seen in 2018–2019 (*Fig. 52*). Overall volumes of exchange auctions increased from Rb798 trillion in 2019 to Rb947 trillion in 2020 or by 18.7%.

One of the advantages of the Moscow Exchange as compared with global competitors is the diversification of market segments it serves. However, such a business model of the Exchange creates additional risks of reducing market-based incentives to develop less marginal segments. At present, it manifests itself in a decrease in the weight of the stock market and the derivatives market in overall exchange-traded volumes. As shown in *Table 9,* in 2010-2018 the share of the stock market in the overall volume of exchange transactions decreased from 13.2% to 4.4% and then started to grow slowly again, but failed to recover to the previous level. Within the past 14 months, this index rose from 5.1% in 2019 to 5.5% in January-February 2021.

The share of derivatives market was growing faster. In January-February 2021, it became equal to 17.4% and approached the 10-year maximum of 19.1% registered in 2011. It is noteworthy that forex derivatives were the main growth driver of this segment in 2020 and early in 2021.

Table 9

The pattern of the Moscow Exchange market, 2010 – February 2021, %

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021, February
Stock market	**13.2**	**10.3**	**6.5**	**5.2**	**3.6**	**3.0**	**2.8**	**4.0**	**4.7**	**5.1**	**5.8**	**5.5**
including:												
equities, RDR and equity units	8.0	6.6	3.1	1.9	1.8	1.4	1.1	1.0	1.3	1.6	2.5	3.3
Bonds	5.2	3.7	3.4	3.3	1.9	1.6	1.7	3.0	3.5	3.5	3.2	2.2
Secondary bidding	3.4	2.9	2.8	2.7	1.5	1.2	1.1	1.2	1.2	1.3	1.2	0.9
Offerings market	1.8	0.8	0.6	0.6	0.3	0.4	0.6	1.7	2.3	2.2	2.1	1.3
Forex market	**72.0**	**70.6**	**80.0**	**84.3**	**85.6**	**83.3**	**83.6**	**86.5**	**84.8**	**84.5**	**80.5**	**77.0**
including:												
Money market	33.9	41.3	48.3	50.7	45.7	38.0	44.8	47.3	44.3	45.9	45.7	42.6
REPO operations	31.5	38.3	45.8	44.8	32.0	26.4	34.8	38.3	36.0	36.7	40.0	37.1
Lending market	2.4	3.1	2.5	2.8	3.7	4.8	4.4	4.2	6.3	6.7	5.0	4.5
Currency market	38.1	29.3	31.6	33.7	39.9	45.4	38.8	39.2	40.5	38.6	34.7	34.4
Spot deals	18.0	15.8	16.6	12.4	13.6	15.1	12.6	8.8	10.1	8.4	10.2	11.5
Swap deals	20.1	13.4	15.0	21.3	26.3	30.3	26.2	30.3	30.4	30.2	24.5	23.0
Derivatives market	**14.8**	**19.1**	**13.5**	**10.5**	**10.7**	**13.7**	**13.6**	**9.5**	**10.4**	**10.3**	**13.7**	**17.4**
Derivative financial instruments (DFI)	**0.0**	**0.0**	**0.0**	**0.0003**	**0.0002**	**0.001**	**0.002**	**0.01**	**0.1**	**0.1**	**0.1**	**0.1**
Commodity market	**0.001**	**0.003**	**0.006**	**0.005**	**0.003**	**0.02**	**0.02**	**0.01**	**0.02**	**0.01**	**0.01**	**0.01**
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: own calculations based on the data of the Moscow Exchange.

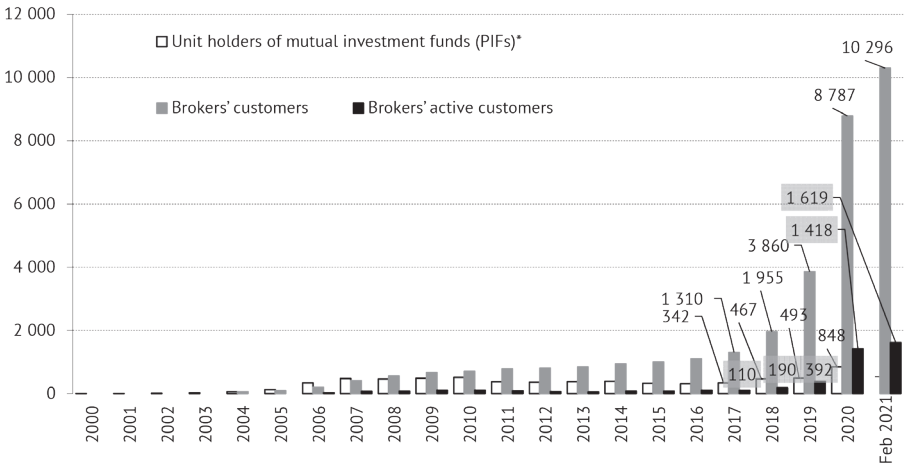
3.1.12. Investors

Private investors

In 2019-2020, the financial market saw the influx of numerous individual investors and it was the major event. The overall number of brokerage accounts of the Moscow Exchange registered investors increased 5.2-fold from 2.0 mn in 2018 to 10.3 mn in February 2021 (*Fig. 53*). Within the same period, the number of accounts of active customers transacting at least one deal a month increased from 190,000 to 1,619,000 or 8.5-fold. Also, the number of unit holders of tradable mutual investment funds grew considerably from 467,000 in 2018 to 848,000 in 2020 or 1.8-fold.

The main drivers of the inflow of millions of new individual investors to the stock market were as follows: a long-term decrease in the Bank of Russia key rate which reduced bank deposits' investment appeal; new technologies which simplified investors' access to risk assets (investment platforms of the Tinkoff Bank, Sber, VTB and other large financial institutions, the SPB-Exchange services and other); large retail banks' aggressive marketing of brokerage services; more spare time with some individuals during the pandemic; growth in households' savings amid economic uncertainty.

By the NAUFOR's estimates, in 2020 the balances of brokerage accounts and individuals' trust management accounts amounted to around Rb6 trillion, including: Rb4.8 trillion on ordinary brokerage accounts, Rb0.8 trillion on trust management accounts and Rb0.4 trillion on personal investment accounts (PIA)



*The data on the number of market unit holders of mutual investment funds in January-February 2021 is not available.

Fig. 53. The number of market retail customers and brokers

Source: own calculations based on the data of the Moscow Exchange and Expert RA.

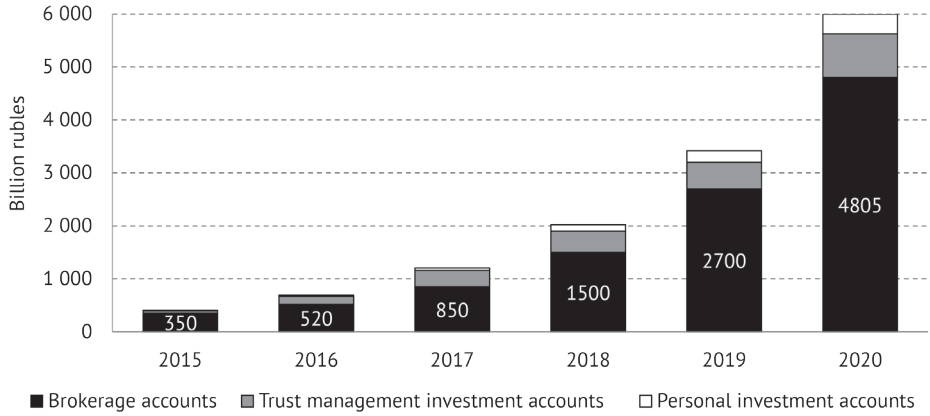


Fig. 54. The value of assets in individual investors' accounts, 2015–2020

Source: based on the data of the NAUFOR.

(*Fig. 54*). As compared with 2018, the volume of individual investors' funds with brokers and trustees (without pooled investments taken into account) increased by 200%.

Though in 2020 Rb6.0 trillion worth of customers' assets with brokers and trustees was definitely lower than the value of households' deposits with banks (Rb63.6 trillion), it was comparable with such forms of savings as the overall value of pension savings and reserves worth Rb6.3 trillion; insurance companies' reserves worth Rb2.4 trillion, as well as global portfolio investors' Rb4.8 trillion worth of investments in equities of Russian companies.[1]

The distribution of these funds in individuals' accounts is highly uneven; by the NAUFOR's estimates as of the mid-2020 only 36% of brokerage accounts were "funded" (that is, replenished with assets).

An upsurge in the competition between large Russian retail banks on the market of brokerage services for the mass-market customer started in May 2018 when the Tinkoff Bank entered this market segment as an independent market player (*Fig. 55*). Other competitor-banks (the Sberbank, VTB and Otkrytie) adopted quickly the new technologies of attracting customers on the stock market and this sped up further growth in brokers' customer base. This phenomenon can be explained by banks' determination to make up for revenue losses by selling to customers highly marginal products, such as conventional bank bonds, structured products, insurance products, unit investment funds and other.

As of February 2021, three large banks – the Tinkoff Bank, the Sber and the VTB – accounted for 58.4% of the registered brokerage accounts. Their share in the overall number of accounts was equal to 58.4%, including 25.6% of the Tinkoff

1 The estimate of Russian equities portfolios of global investment funds is based the data of Thomson ONE and the ruble exchange rate as of the end of 2020.

Fig. 55. The number of customers' registered (non-unique) brokerage accounts with Big-3 brokers at the Moscow Exchange, thousand accounts

Source: own calculations based on the data of the Moscow Exchange.

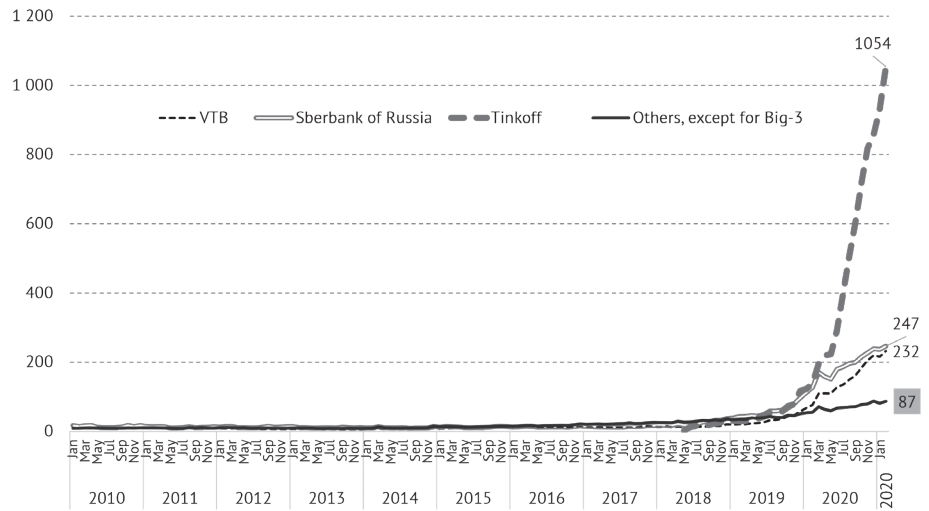


Fig. 56. The number of customers' registered active brokerage accounts with Big-3 brokers at the Moscow Exchange, thousand accounts

Source: own calculations based on the data of the Moscow Exchange.

Bank. The number of Tinkoff Bank brokerage accounts increased from 286,000 in 2018 to 4.3 mn in February 2021 or 15-fold.

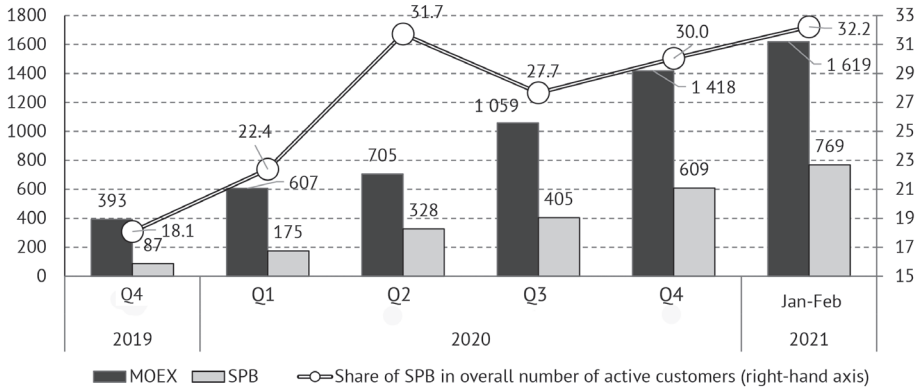


Fig. 57. The number of customers' active brokerage accounts on the Moscow Exchange (MOEX) and the Saint-Petersburg Exchange (SPB) (thousand, left-hand axis) and the share of active accounts on SPB in their overall number on Russian exchanges (%, right-hand axis)

Source: own calculations based on the data of the Moscow Exchange and the Saint-Petersburg Exchange.

The maintenance of active customers' brokerage accounts is a more concentrated business (*Fig. 56*). The Tinkoff Bank, the Sber and the VTB account for 94.6% of the overall number of accounts, including 65.1% of the Tinkoff Bank. The number of the Tinkoff Bank's active brokerage accounts increased from 33,000 in 2018 to 1.1 mn in February 2021 or 31.9-fold.

The increasing competition between the Moscow Exchange and the Saint-Petersburg Exchange led to growth in the number of active customers on the SPB-Exchange. The number of brokers' active customers at the SPB-Exchange increased from 87,000 in 2019 to 769,000 in February 2021 or 8.8-fold (*Fig. 57*). The share of the Saint-Petersburg Exchange in the overall number of brokers' active customers on both the exchanges rose from 18.1% in 2019 to 32.2% in February 2021.

The introduction of personal investment accounts (PIA) with personal income tax privileges and no serious limitations on investment of funds from such accounts was the most remarkable event in the field of private savings in the past six years. As per the data of the Moscow Exchange, as of February 2021 the number of brokerage PIAs amounted to 3.7 mn (*Fig. 58*). This growth in the number of brokerage PIAs was mainly driven by banks carrying out brokerage activities. In December 2018-February 2021, their share in the overall number of specified accounts rose from 73.9% to 89.5%, while the share of non-bank financial institution-brokers shrank from 26.1% to 10.5%.

In the business of opening and maintaining PIA, the Tinkoff Bank, the Sber and the VTB account for 83.5% of the overall number of accounts, including 65.1% of the Sberbank, the unchallenged leader in this segment (*Fig. 59*). The number of

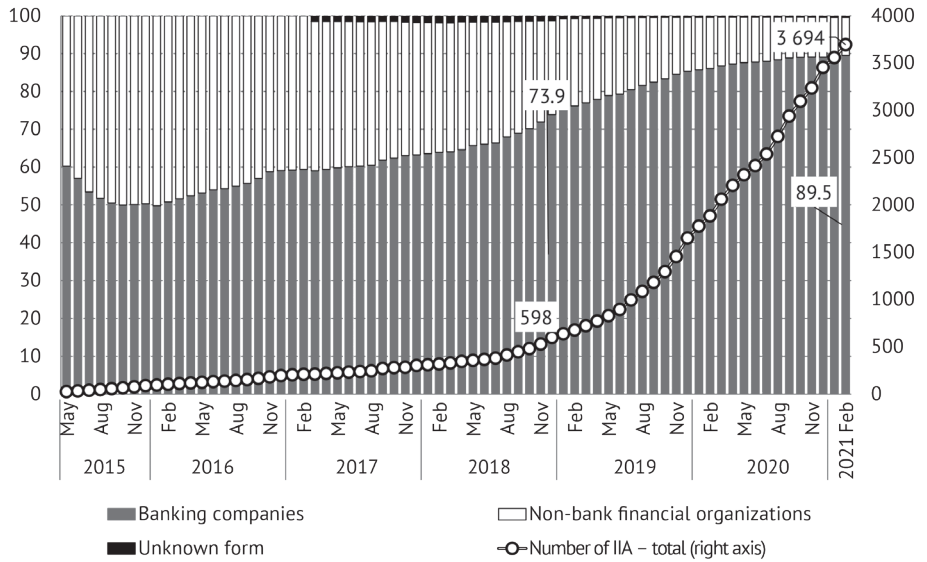


Fig. 58. The overall number of brokerage personal investment accounts (PIA), May 2015-February 2021, thousand accounts

Source: own calculations based on the data of the Moscow Exchange.

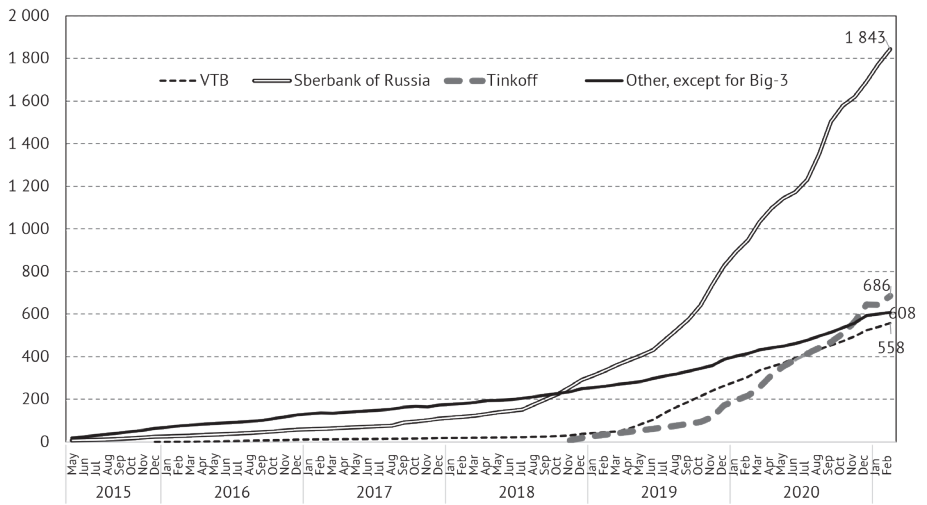


Fig. 59. The number of PIAs with Big-3 brokers, thousands of accounts

Source: own calculations based on the data of the Moscow Exchange.

PIAs maintained with the Sberbank increased from 291,000 in 2018 to 1.8 mn in February 2021 or 6.3-fold.

As per the data of the NAUFOR[1], in 2020 individual investors' savings in PIA balances, including brokerage and trust management account balances amounted to about Rb375bn; as compared with 2018, their value increased 3.1-fold. By the estimate of the RF Central Bank, in 2020 the average PIA balances within the brokerage service framework amounted to Rb88,000 (Rb92,000 a year before), while within the trust management framework, to Rb263,000 (Rb301,000 a year before).[2]

According to the outputs of the NAUFOR's survey, in 2020 28.0% of assets in brokerage PIAs were held by their owners in equities of public joint-stock companies (PAOs); 21.2% in money market instruments, 19.0% in ruble-denominated corporate bonds, including structured and bank bonds; 13.7% in foreign equities; 6.8% in OFZs; 6.2% in ETFs and exchange-traded mutual investment funds (exchange-traded PIFs); 1.5% in mutual investment funds (PIFs) and 3.6% in other assets.

The funds were distributed in trust management PIAs as follows: 37.0% in exchange-traded PIFs and ETFs; 25.4% in units of PIFs; 16.1% in corporate bonds, including bank bonds; 7.0% in OFZs; 6,0% in monetary funds; 1.4% in foreign equities and 7.1% in other assets, that is, as compared with brokerage PIAs these accounts were largely meant for pooled investments.

In 2020, the distribution of the portfolio in terms of brokerage PIAs changed considerably as compared with the previous year. Investments in equities of foreign companies increased from 4.0% in 2019 to 13.3% and those in foreign currency-denominated bonds, primarily, Eurobonds, from virtually the zero level to 17.1%. At the same time, investments decreased in equities of Russian PAOs from 30.0% to 18.3%; OFZs from 12.0% to 3.9% and ruble-denominated corporate bonds from 11.0% to 4.9%.

In 2020, perceptible changes took place in the distribution of the PIA portfolio in terms of trust management accounts as compared with the previous year. The share of investments in exchange-traded PIFs and ETFs increased from 10% to 37% and that of investments in ruble-denominated corporate bonds, from 10.0% to 16.1%. At the same time, investments in PIF decreased from 51.0% to 25.4% and those in OFZs, from 10.0% to 7.0%.

So, though active PIAs have failed to become a long-term private savings instrument and assets in such accounts are much smaller than in conventional brokerage accounts and trust management accounts, personal investment account holders took more interest in instruments which make it feasible to diversify better their portfolio and protect it from the risk of the volatile ruble. A pickup in PIAs results in increased demand for effective pooled investment products, primarily, index-linked ETFs and exchange-traded PIFs.

1 NAUFOR. The Annual Survey of Individuals' Activities on the Stock Market. February 24, 2021.
2 The RF Central Bank. The Review of Key Indicators of Professional Securities Market Participants. 2020. Analytical and Information Review. Issue No.4, 2021.

Domestic institutional investors

The influx of individual investors to the domestic market made up partially for the outflow foreign investors' funds. However, no such breakthroughs took place in the segment of domestic pooled investments in 2019–2020. Growth in pension savings with the Pension Fund of the Russian Federation and fund managers were restrained by the "freezing" of the system of mandatory pension savings since 2014. No alternative solutions as regards corporate and individual plans have been made. Owing to low interest rates on deposits and high volatility on the equity market, there is a sustainable inflow of investors' funds, however, this segment's growth was hindered by investors' high costs, obsolete unit distribution system and insufficient transparency of the information on funds' activities.

In 2020, vigorous growth in exchange-traded PIFs combining the advantages both of low costs and sale of units on exchange can be attributed to the most positive events in the segment of pooled investments. The value of exchange-traded PIFs and ETFs increased from Rb39 bn in 2019 to Rb146 bn in 2020 or 3.7-fold.

The share of bank assets in GDP increased from 87.8% in 2019 to 106.0% in 2020 (*Fig. 60*), and this can be largely explained by appreciation of the value of financial instruments owned by banks and bank lending growth amid the declining key rate. Apart from deposits, banks use actively other funding instruments, including bond issues.

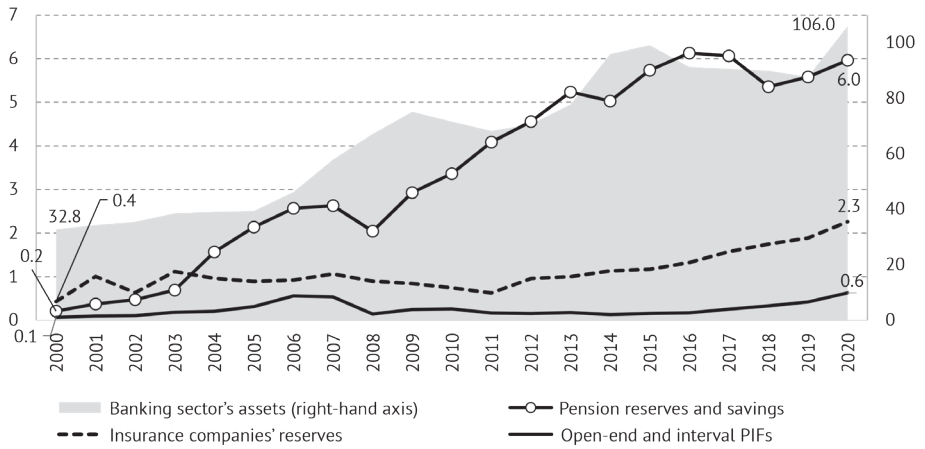


Fig. 60. The share of bank assets (%, right-hand axis), pension reserves and savings, insurance companies' reserves and the value of net assets of open-end and interval PIFs (%, left-hand axis) in GDP in Russia in 2000–2020

Source: own calculations based on the data of the RF Central Bank, the Pension Fund of the Russian Federation and the Rosstat.

The share of pension savings and reserves in GDP increased from 5.6% in 2019 to 6.0% in 2020. The share of the value of net assets of open-end and interval PIFs in GDP rose from 0.4% to 0.6% and that of insurance companies' reserves in GDP, from 1.9% to 2.3%.

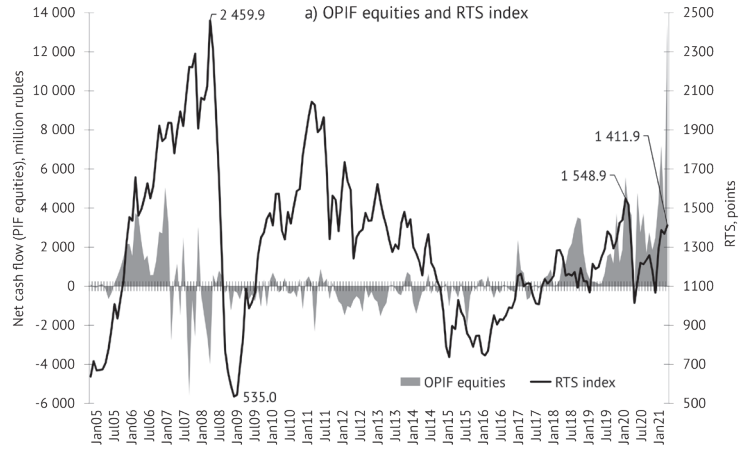
Some important and interesting trends in the development of open-end mutual investment funds (OPIFs) can be seen in *Fig. 60*. As shown in *Fig. 61a*, individual investors' behavior in respect of PIF equities was normally of a procyclical nature: a drop in the RTS index brought about sales of units of such mutual investment funds, while index growth facilitated the inflow of investors' funds. Despite the RTS index negative return of -10.4% in 2020, the net inflow of investors' funds in PIF equities amounted to Rb38.4 bn as compared with Rb18.0 bn in 2019. This investors' behavior is in harmony with a wide-spread behavioral finance assumption that investors most commonly prefer to invest new funds on bull market, but withdraw them more reluctantly on bear market. Expecting RTS index growth based on economic recovery in 2021, only in January-February investors invested Rb16.9 bn in OPIF equities, that is, a bit less than in the entire 2019.

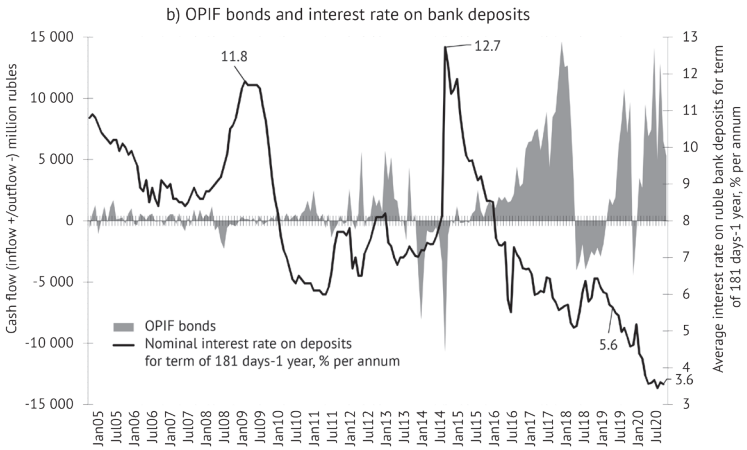
On mid-term horizons, investors' cash flows in OPIF bonds depend on interest rates on bank deposits (*Fig. 61b*). In 2020, the reduction in interest rates from 3.6% per annum to 5.1% per annum on bank deposits for the term of 181 days -1 year led to a vigorous inflow of new cash funds in OPIF bonds. This indicator grew from Rb17.2 bn in 2019 to Rb72.9 bn in 2020. In January-February 2021, these funds received additional Rb11.8 bn worth of investors' money. However, in future if after the RF Central Bank's decision of March 2021 to raise its key rate by 0.25 p.p. this trend continues, unit holders of PIF bonds are likely to withdraw their money from these funds.

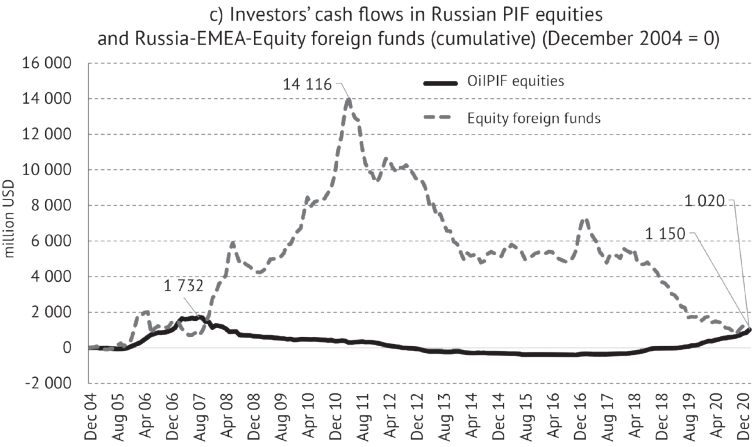
As shown in *Fig. 61b,* amid the outflow of funds of private investors of foreign mutual investment funds specializing in equities of Russian companies (Russia-EMEA-Equity), the accumulated volumes of domestic investors' funds in Russian OPIF equities are becoming comparable with those of the specified foreign investment funds. In December 2004 – February 2021, investors' accumulated funds in Russia-EMEA-Equity amounted to $1.1 bn, which is almost comparable with the indicator of $1.0 bn worth of investments in Russian PIF equities. And yet, this trend can hardly be regarded as positive because this equality was achieved mainly owing to the stable outflow of foreign investors' savings from funds investing in Russian equities, rather than the inflow of large amounts of funds in PIF equities.

Finally, shown in *Fig. 61d* is the difference in behavior of foreign and domestic private investors as regards their investments in the same equities of Russian companies through investment funds. The point is that foreign private investors sought to invest when Russian equity prices were low and withdrew at the first signs of risks of their equities being overvalued and weakening of the national currency.

In terms of the rate of return on long-term investments, the Russian equity market is cyclic and for this reason investors have to pay more attention to global diversification of such individual portfolios.


a) OPIF equities and RTS index
Net cash flow (PIF equities), million rubles
RTS, points
2 459.9
535.0
1 411.9
1 548.9
OPIF equities
RTS index


b) OPIF bonds and interest rate on bank deposits
Cash flow (inflow +/outflow -) million rubles
Average interest rate on ruble bank deposits for term of 181 days-1 year, % per annum
11.8
12.7
5.6
3.6
OPIF bonds
Nominal interest rate on deposits for term of 181 days-1 year, % per annum


c) Investors' cash flows in Russian PIF equities and Russia-EMEA-Equity foreign funds (cumulative) (December 2004 = 0)
million USD
14 116
1 732
1 020
1 150
OilPIF equities
Equity foreign funds

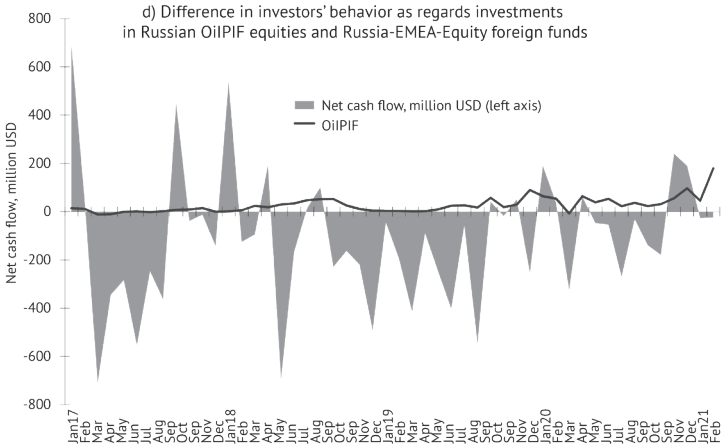


Fig. 61. The specifics of behavior of private investors in various mechanisms of pooled investments in equities and bonds of Russian issuers, including:

a) investors' monthly net cash flows in open-end PIF (OPIF) equities, billion rubles (left-hand axis) and RTS index, points (right-hand axis);
b) investors' monthly net cash flows in OPIF bonds, billion rubles (left-hand axis) and average interest rates on households' deposits with banks for the term of 181 days - 1 year, % per annum (right-hand axis);
c) investors' monthly net cash flows in open-end and interval PIF (OilPIF) equities and equities of foreign equity funds specializing in equities of Russian companies, cumulative, million USD (December 2004 = 0);
d) investors' monthly net cash flows in Russian OilPIF equities (right-hand axis) and foreign equity funds specializing in equities of Russian companies (left-hand axis), million USD.
Source: own calculations based on the data of Investfunds.ru and Emerging Portfolio Fund Research (EPFR Global) web resource [URL: https://www.epfrglobal.com/].

So, the year 2020 saw different trends in the segment of pooled investments. The development of pension savings and reserves is hindered by relevant key legislative issues which remain unsolved. In the segment of traded unit investment funds, there is moderate growth in domestic savings which unlike brokerage accounts is not accompanied by large retail banks' aggressive sales. However, the segment of retail PIFs remains rather small with high costs for investors and insufficient investment appeal to a wide range of investors.

Foreign investors

On various emerging markets, foreign portfolio investors often follow similar scenarios. They take decisions to invest or withdraw from such funds based on the general cyclic pattern and weight of one or another country in global stock indices, rather than the individual specifics of economies and issuers of different countries.[1]

1 For more details about the investment strategy of such funds in terms of Russia, refer to *Abramov A.* Differences in Behavior of Domestic and Foreign Private Investors on the Russian Stock Market // Russia's Economic Development, Issue No.11, 2014.

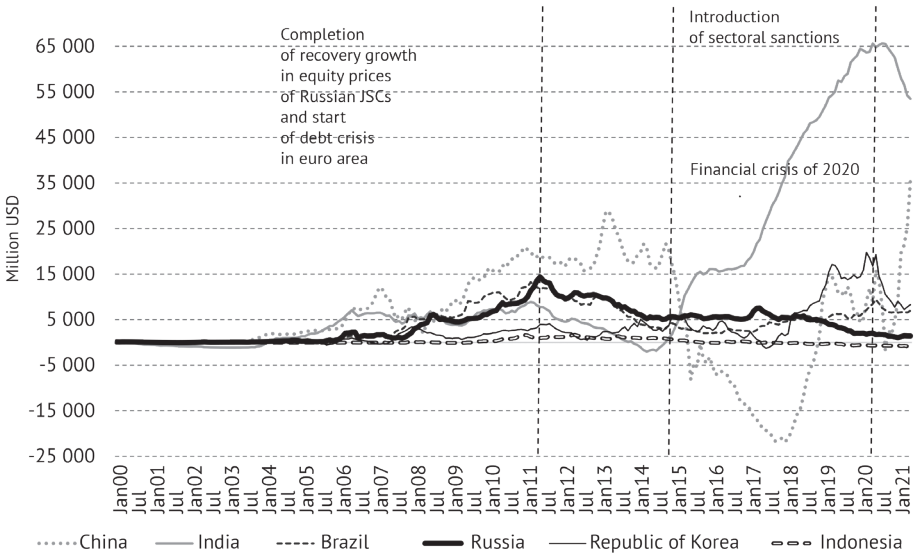


Fig. 62. Cumulative cash flows of foreign investment funds specializing in investments in equities of one or another country with emerging market, January 2000-February 2021

Source: own calculations based on the data of the EPFR web resource.

According to the data of the EPFR web resource, the Russian equity market has faced large-scale withdrawal of foreign investment funds since the mid-2011 (*Fig. 62*). The comparison with other five large emerging equity markets – Brazil, India, China, South Korea and Indonesia – reveals that they all encountered a similar phenomenon at the same period of time. As the year 2020 was quite complicated for emerging capital markets, foreign investors were withdrawing funds from them: $18.8 bn were withdrawn from funds of 8 developing countries, including $0.3 bn from Russia-EMEA-Equity funds.

The behavioral specific of investors in Russia-EMEA-Equity funds as compared with other seven emerging markets consists in the fact that in the past 20 years the largest amount of funds was withdrawn from "Russian funds." In 2011 – February 2021, $8.6 bn were withdrawn from funds; within complete 10 years on the 2011–2020-time horizon, positive cash flow was seen only in 2012 and 2015–2016.

Further, investors have been withdrawing consistently from Russia-EMEA-Equity funds since the mid-2011 which indicates their pessimism over investments in equities of Russian companies.

Further, investors have been withdrawing consistently from Russia-EMEA-Equity funds since the mid-2011 which indicates their pessimism over investments in equities of Russian companies. Probably, such pessimism of foreign investors is the reason for consistently low risk premium for equities of Russian issuers.

By estimates of the Thomson ONE web resource, the overall value of investments of large global investment funds in equities of Russian companies decreased from $83.3 bn in 2019 to $65.6 bn in 2020.

So, despite macroeconomic stability achieved by 2020 and risk premium reduction, the Russian market of equities and bonds, except for OFZ, still lacked investment appeal and the outflow from foreign investment funds specializing in equities of Russian issuers proves it.

3.1.13. Russian financial market risks

On the mid-term time horizon, investors on the domestic financial market may encounter serious risks: sudden outflow of investments from emerging markets if it is declared that monetary and budget policies are going to be tightened; domestic investors flight from markets of risk investment assets; partial losses of the value of investments in ruble-denominated assets owing to considerable depreciation of the ruble; stagnation of the equity market in case of the scenario of stabilization or decline of prices of oil, gas and other primary products on global financial markets; stock market stagnation in case of increasing government dirigisme in the economy, finances and social policy.

According to the Bank of America Fund Manager Survey carried out on March 5, 2021, the risks related to Covid-19 epidemic gave way to new concerns about inflation growth and repetition of "taper tantrum" of May 2013 on the bond market.[1] It is noteworthy that 37% of the respondents noted that the inflation rate was the main problem and 35% of the respondents feared "taper tantrum," a bond market strong reaction in case the Federal Reserve gave up unexpectedly its monthly buying of assets. Coronavirus-related risks cause concern with only 15% of the respondents, half as many as in February.[2]

Countries with high debts in foreign currency and a trade balance deficit are more prone to sudden outflow of global portfolio investors. Experts of the Economist[3] magazine believe that such countries include Brazil, India, Indonesia, Mexico, Turkey and South Africa. In this regard, the maintenance of financial stability in Russia - in terms of low public debt and its financing by means of ruble-denominated debt instruments, moderate foreign debt of Russian companies and trade balance surplus – is instrumental in preventing financial shocks in case of a new "taper tantrum" which global institutional investors believe is highly likely on emerging markets.

Taking into account the fact that private investments are normally procyclical, it is important to pay attention to the risk of sudden sales of assets by domestic

1 The definition "taper tantrum" denoting financial market participants' sudden "hysterics" emerged in May 2013 when the first statements by Federal Reserve representatives on gradual tightening of the monetary policy after the 2008 crisis in terms of reduction in the Fed balance and interest rate rise led to a sudden outflow of foreign portfolio investments from emerging stock markets and triggered financial assets price shocks and local currency exchange rate shocks.

2 *Cox Jeff*. Investors now fear inflation and the Fed more than Covid, Bank of America survey shows. CNBC news, March 16.2021; *Bruno Valentina*, *Shin Hyun Song*. Capital Flows and the Risk-Taking Channel of Monetary Policy. SSRN. July 6. 2012; *Hofmann Boris, Par Taejin*. The broad dollar exchange tare as an EME risk factor. BIS Quarterly Review, December,2020. P. 13–24.

3 The Economist. Free exchange. The fragile four. March 6th. 2021. P. 72.

investors. In future, such risks may arise on the bond market in case of upturn in inflation and, consequently, Bank of Russia key rate. It is noteworthy that sales may affect the market of foreign companies' equities, too.

The Russian market problem consists in the fact that the bulk of individual investments is made beyond the framework of pooled investment schemes and corporate and individual pension plans which make it feasible to invest on a more diversified basis and use professional investments protection methods recommended by pension plan managers.

In 2019-2020, exponential growth in the number of brokerage accounts and activities of holders thereof was driven by 3–4 large retail banks' aggressive marketing aimed at reorientating their customers to brokerage service. Specifically, banks gave preference to direct investments, rather than beginner investors' less risky pooled investments. Such practice was not accompanied by substantial upgrading of the standards of sales of financial products and instruments, for example, utilization of the open architecture principles of sales as well as fiduciary standards for sellers and investment advisors. These factors entailed higher risks of unscrupulous sales of financial products which may materialize in the mid-term.

Recurring risks of depreciation of the national currency are a key obstacle on the way to formation of domestic savings in Russia. Most commonly, depreciation of the ruble proceeds along one and the same scenario. A decline in prices of oil and capital outflow give rise to depreciation of the ruble followed by a period of 6-8 years when the ruble remains stable and even appreciates a little (*Fig. 63*). Depreciation reduces domestic savings motivation. Though the exchange rate liberalization measures and the fiscal rule introduced in the past few years facilitated reduction in depreciation risks, structural economic changes are required to manage them in full.

Russia has seen four waves of depreciation of the ruble since September 1995. During the first wave (from September 1, 1995 till August 31,1998) the average exchange rate amounted to Rb5.7 per $1. After the crisis of August 1998 till August 2008, the average exchange rate was equal to Rb27.5 per $1. Starting from the 2008 crisis and during the subsequent period of lower prices of oil till September 2014, the average exchange rate remained at the level of Rb31.1 per $1. The currency crisis of 2014 and the subsequent long-term depreciation of prices of oil up till now led to the stabilization of the exchange rate at the level of Rb61.7 per $1. Finally, as a result of the financial crisis of 2020 the average ruble exchange rate amounted to Rb74.2 per $1 starting from the beginning of this year.

Russian companies' equity prices depend largely on prices of oil. From September 1995 till February 2021, the determination coefficient (R^2) between monthly values of the RTS index and Brent oil prices was equal to 0.75 (*Fig. 64*), which indicates close correlation between these indicators. The price of oil still has a considerable effect on the exchange rate, too, particularly, in case of one or other price shocks on the market.

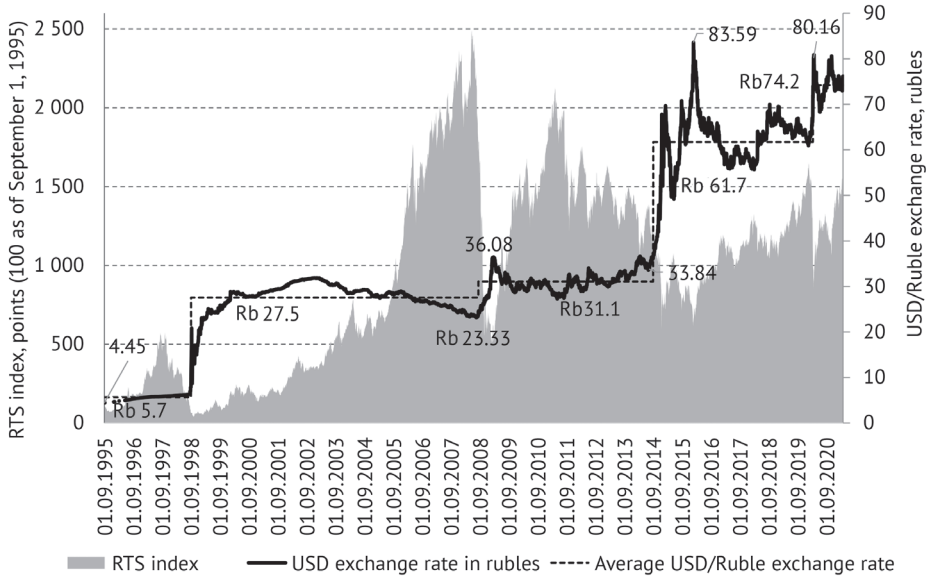


Fig. 63. RTS index and the ruble exchange rate, September 1, 1995 – March 25, 2021

Source: own calculations based on the data of the RF Central Bank and the Moscow Exchange.

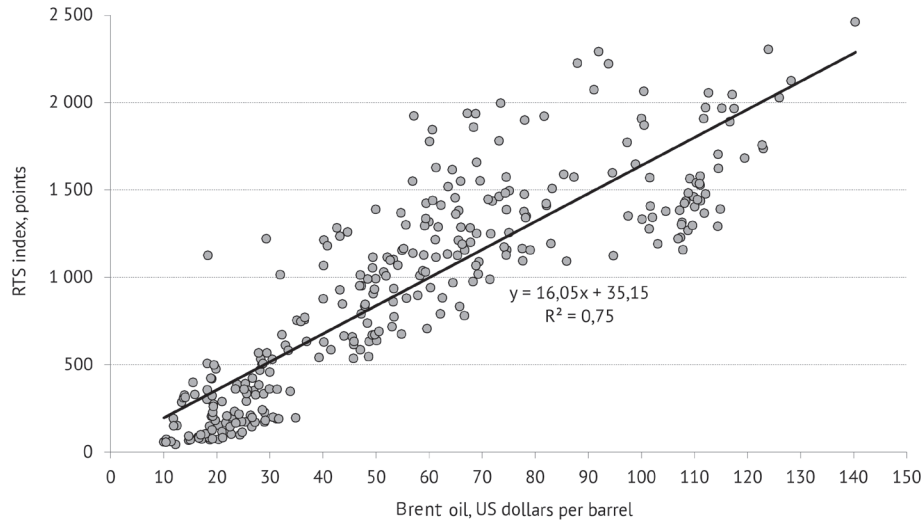


Fig. 64. Correlation between the RTS index and Brent oil price, September 1995-February 2021

Source: own calculations based on the data of the Finam company and the Moscow Exchange.

Substantial risks to the financial market are still posed by sanctions though their impact on market participants' behavior is rather limited at the moment. The main channels of sanctions' impact on the financial market are limitations on the volumes of borrowings by Russian companies, appreciation of the cost of borrowed funds and outflow of foreign investments from the equity market. The existing sanctions and current expectations of tougher sanctions prevent large companies and the government to borrow on global markets and consequently hinder investment activity of the business.

Finally, one of the risks of the Russian stock market is an increase in the load of state regulation of the market when households' main savings are used for funding investment projects selected by various agencies and a direct ban is imposed on individual investors' investments in foreign assets. On the back of these measures, households may lose interest in investments and paternalism of individuals as regards financing of their own pension schemes will increase.

3.2. Municipal and sub-federal debt market[1]

3.2.1. Market development dynamic

The crisis phenomena in the global and Russian economy directly related to the introduction of quarantine measures in 2020, led to the deficit of the consolidated regional budget.

At end-2020, the consolidated regional budget and the budgets of territorial state extra-budgetary funds ran a deficit of Rb667.4 bn, or 0.63% of GDP.

To compare, in 2019 the consolidated regional budget and the budgets of territorial state extra-budgetary funds ran a surplus of Rb17.4 bn, or 0.02% of GDP.

In 2020, the budgets of the subjects of the Russian Federation ran a deficit of Rb708.4 bn, urban districts' budgets ran a surplus of Rb8.1 b, federal-status cities' inner-city municipalities' budgets ran a surplus of Rb2.9 bn, municipal areas' budgets ran a surplus of Rb17.7 bn, urban settlements' budgets ran a surplus of RUB 0.8 bn, rural settlements budgets ran a surplus of RB1.8bn, and the budgets of territorial state extra-budgetary funds ran a surplus of Rb9.2 bn.

In 2019, the budgets of the subjects of the Russian Federation ran a surplus of Rb15.5 bn, urban districts' budgets ran a deficit of Rb16.3 b, federal-status cities' inner-city municipalities' budgets ran a deficit of Rb0.5 bn, municipal areas' budgets ran a surplus of Rb 16.0 bn, urban settlements' budgets ran a surplus of 0.9 bn, the budgets of territorial state extra-budgetary funds ran a surplus of Rb12.7 bn.

As of January 1, 2021, the consolidated budget (including territorial state extra-budgetary funds) of 56 subjects of the Russian Federation and the city of Baikonur (35 regions and the city of Baikonur in 2019). The total deficit amounted to Rb720.5 bn, or 5.3% of the revenue side of their budgets (Rb227.5 bn in 2019, or 2.6% of the revenue side of the regional budgets that ran deficit).

1 This section was written by: *Shadrin A.*, Senior Director on Innovation Policy NRU HSE; Researcher, Center for Macroeconomics and Finance, Gaidar Institute.

Table 10

Ratio of surplus (deficit) of the consolidated regional and regions' budgets to budget expenditure in 2007–2020, %

Год	Consolidated regional budget*	Regional budgets
2020	-3.7	-5.1
2019	0.11	0.13
2018	3.7	4.7
2017	-0.5	-0.2
2016	–	0.003
2015	-1.6	-1.3
2014	-4.6	-4.9
2013	-6.4	-8.1
2012	-3.0	-3.5
2011	-0.2	-0.3
2010	-1.4	-1.6
2009	-5.3	-5.3
2008	-0.7	-0.7
2007	0.8	0.6

*Taking into account state extra-budgetary funds.
Source: own calculations based on the data released by Federal Treasury.

Table 11

Ratio of surplus (deficit) of territorial budgets to budget expenditure in 2007–2020, %

Year	Inner-city municipalities' budgets in federal-status cities	Urban districts' budgets	Municipal areas' budgets	Urban and rural settlements' budgets
2020	9.7	0.3	1.0	0.7
2019	1.5	-0.7	0.4	-0.2
2018	-1.2	0.04	1.0	1.0
2017	-1.9	1.6	0.4	- 0.3
2016	1.3	-0.9	0.8	-1.5
2015	6.7	-3.0	-0.7	-0.6
2014	6.0	-2.2	-1.4	0.7
2013	-3.47	-2.61	-5.59	2.24
2012	2.26	-2.01	-0.08	1.34
2011	6.15	-2.10	1.13	0.64
2010	-1.12	-1.16	-0.11	1.72
2009	-0.63	-3.32	-1.88	2.63
2008	-1.47	1.09	-0.26	2.72
2007	5.34	1.23	-0.04	2.34

Source: own calculations based on the data released by the Federal Treasury.

The median budget deficit value stood at 1.3% relative to given budget revenue. The highest ratio of the budget deficit to budget revenue was recorded

in Tyumen region (17.7%), in Kemerovo region (17.5%), in Yamal-Nenets AO (13.2%), in Udmurt Republic (12.8%), in the Republic of Bashkortostan (11.7%), and in Arkhangelsk region (11.1%).

Furthermore, Moscow accounted for 18.0% of the total consolidated regional budget deficit or Rb129.5 bn, Moscow region accounted for 12.0%, or Rb86.4 bn, Kemerovo region accounted for 5.9%, or Rb42.3 bn, Tyumen region accounted for 5.3%, or Rb38.0 bn, and the Republic of Bashkortostan accounted for 5.2%, or Rb37.4 bn (*Table 12*).

Table 12

Execution of the consolidated budgets of the subjects of the Russian Federation (including state extrabudgetary funds) in 2020

	Budget revenues, rubles in billions	Budget deficit (surplus) rubles in billions)	Deficit (surplus) to revenues ratio, %	Borrowing to revenues ratio, %	Net borrowing to revenues, %	Redemption costs to revenues, %	Net borrowing to deficit (surplus), %
1	2	3	4	5	6	7	8
Central Federal District							
Belgorod region	153.3	-0.2	-0.1	11.0	2.1	8.9	-1952.0
Bryansk region	101.4	-1.2	-1.2	6.6	-1.2	7.8	102.9
Vladimir region	108.6	-2.3	-2.1	1.0	-0.1	1.1	5.5
Voronezh region	197.7	-8.4	-4.3	15.2	-5.5	20.7	128.3
Ivanovo region	79.8	-2.3	-2.8	19.3	-2.3	21.5	79.2
Tver region	110.7	-2.7	-2.5	13.5	0.4	13.1	-15.4
Kaluga region	108.4	5.3	4.9	2.0	0.0	2.0	0.4
Kostroma region	55.7	-0.7	-1.3	23.6	1.3	22.4	-94.8
Kursk region	98.1	-0.5	-0.5	24.2	2.7	21.5	-574.9
Lipetsk region	101.2	0.1	0.1	9.9	1.4	8.5	1223.9
Moscow region	934.7	86.4	9.2	33.8	10.1	23.6	109.8
Orel region	58.8	1.6	2.7	53.2	4.0	49.2	150.3
Ryazan region	92.8	1.2	1.3	14.2	1.8	12.5	135.9
Smolensk region	76.6	0.5	0.7	39.6	0.0	39.6	0.4
Tambov region	77.3	0.1	0.1	29.5	-0.1	29.6	-173.7
Tula region	131.9	2.2	1.7	23.9	1.0	22.9	56.6
Yaroslavl region	113.1	2.0	1.8	43.6	1.9	41.7	106.4
City of Moscow	3180.6	129.5	4.1	0.0	0.0	0.0	0.0
City of Baikonur	4.0	0.0	1.2	0.0	0.0	0.0	0.0
Total	**5784.8**	**210.6**	**3.6**	**10.9**	**1.7**	**9.2**	**45.9**
North-West Federal District							
Republic of Karelia	81.0	6.9	8.5	50.3	6.5	43.8	76.6
Republic of Komi	122.1	12.0	9.8	24.8	8.5	16.3	87.1
Arkhangelsk region	137.7	15.2	11.0	62.6	6.6	56.1	59.7
Vologda region	132.4	0.3	0.2	4.2	-0.1	4.3	-53.1

Cont'd

1	2	3	4	5	6	7	8
Kaliningrad region	152.9	-0.2	-0.1	14.4	0.9	13.5	-587.0
Leningrad region	216.6	12.4	5.7	0.0	0.0	0.0	-0.3
Murmansk region	126.1	-1.7	-1.4	43.8	-0.2	43.9	11.9
Novgorod region	57.1	2.9	5.2	36.7	5.3	31.4	103.2
Pskov region	56.9	3.2	5.6	45.0	3.6	41.3	63.9
St. Petersburg	785.6	37.2	4.7	7.0	7.0	0.0	147.6
Nenets Autonomous Okrug	25.8	1.4	5.5	15.8	2.7	13.1	50.1
Total	**1894.2**	**89.5**	**4.7**	**18.2**	**4.6**	**13.7**	**96.5**
Southern Federal District							
Republic of Kalmykia	26.4	2.0	7.7	29.6	7.6	22.0	99.1
Krasnodar krai	460.3	0.3	0.1	11.5	1.5	10.0	2242.8
Astrakhan region	77.4	1.8	2.3	8.6	2.3	6.3	100.5
Volgograd region	184.7	3.1	1.7	24.5	3.2	21.3	187.4
Rostov region	310.4	4.2	1.4	10.1	2.0	8.1	149.2
City of Sevastopol	65.1	-2.8	-4.3	0.0	0.0	0.0	0.0
Republic of Crimea	249.5	-0.8	-0.3	0.0	0.0	0.0	0.0
Republic of Adygea (Adygea)	41.0	0.8	1.9	12.7	1.3	11.4	66.7
Total	**1414.8**	**8.7**	**0.6**	**10.6**	**1.7**	**8.9**	**270.8**
North-Caucasus Federal District							
Republic of Dagestan	215.8	-1.7	-0.8	0.0	0.0	0.0	0.0
Kabardino-Balkar Republic	65.6	-1.9	-3.0	17.1	-0.9	17.9	29.8
Republic of Northern Ossetia-Alania	58.1	-0.6	-1.0	15.0	0.0	15.0	1.2
Republic of Ingushetia	41.6	0.6	1.6	3.1	0.0	3.1	0.0
Stavropol krai	198.2	-0.3	-0.2	25.6	2.1	23.4	-1272.2
Karachay-Cherkess Republic	40.3	-0.1	-0.2	12.8	0.5	12.3	-263.8
Chechen Republic	145.9	1.3	0.9	0.0	0.0	0.0	0.0
Total	**765.5**	**-2.7**	**-0.4**	**10.1**	**0.5**	**9.6**	**-141.3**
Volga Federal District							
Republic of Bashkortostan	319.6	37.4	11.7	3.2	2.4	0.8	20.2
Republic of Mariy-El	56.3	-0.1	-0.2	11.8	-0.1	12.0	62.3
Republic of Mordovia	67.4	-1.8	-2.6	37.5	-2.8	40.2	107.5
Republic of Tatarstan (Tatarstan)	390.6	21.6	5.5	4.0	0.5	3.4	9.4
Udmurt Republic	119.7	15.3	12.8	74.7	15.2	59.5	118.9

Cont'd

1	2	3	4	5	6	7	8
Republic of Chuvashia-Chuvashia	93.1	-0.5	-0.5	6.5	-2.3	8.8	428.9
Nizhniy Novgorod region	292.6	11.2	3.8	31.3	3.9	27.3	102.9
Kirov region	101.5	-0.5	-0.5	27.8	0.0	27.8	0.6
Samara region	290.3	-2.3	-0.8	12.1	-0.7	12.8	90.1
Orenburg region	160.4	2.2	1.4	1.4	-0.6	1.9	-41.2
Penza region	98.7	0.2	0.2	22.8	0.6	22.2	237.1
Perm krai	227.1	22.6	9.9	20.6	10.1	10.5	101.3
Saratov region	178.5	3.6	2.0	19.1	2.9	16.2	143.4
Ulyanovsk region	97.1	9.0	9.2	34.9	9.2	25.7	99.9
Total	**2492.9**	**117.9**	**4.7**	**17.9**	**2.8**	**15.1**	**59.1**
Urals Federal District							
Kurgan region	73.0	0.8	1.1	20.2	0.6	19.6	51.5
Sverdlovsk region	412.5	29.6	7.2	28.3	9.0	19.3	125.1
Tyumen region	214.6	38.0	17.7	0.0	0.0	0.0	0.0
Chelyabinsk region	290.3	28.3	9.7	7.9	3.9	4.0	40.5
Hanty-Mansiysky Autonomous Okrug – Yugra	362.1	10.5	2.9	0.9	-0.4	1.3	-12.9
Yamal-Nenets Autonomous Okrug	245.2	32.2	13.2	0.0	-2.5	2.5	-18.7
Total	**1597.7**	**139.5**	**8.7**	**9.9**	**2.6**	**7.3**	**29.8**
Siberia Federal District							
Republic of Tyva	55.5	0.2	0.4	7.8	0.4	7.4	94.9
Altai krai	189.6	-6.0	-3.2	0.0	0.0	0.0	0.0
Krasnoyarsk krai	394.8	-5.1	-1.3	2.9	-1.3	4.2	98.3
Irkutsk region	286.8	16.7	5.8	24.4	4.6	19.7	79.7
Kemerovo region	242.1	42.3	17.5	16.0	12.4	3.5	71.2
Novosibirsk region	274.4	4.5	1.6	36.6	1.8	34.7	112.9
Omsk region	160.9	1.4	0.9	64.0	1.7	62.4	189.7
Tomsk region	107.9	10.0	9.2	46.7	9.8	36.9	105.8
Republic of Altai	34.6	0.6	1.7	3.5	0.5	3.0	26.6
Republic of Khakassia	53.4	5.1	9.5	24.8	7.5	17.3	78.7
Total	**1800.1**	**69.5**	**3.9**	**21.8**	**3.4**	**18.4**	**87.7**
Far East Federal District							
Republic of Buryatia	112.7	1.9	1.7	48.9	1.9	47.0	111.8
Republic of Sakha (Yakutia)	311.7	1.4	0.4	5.8	0.3	5.5	60.6
Primorsky krai	207.7	14.0	6.7	2.7	-1.7	4.4	-25.1
Khabarovsk krai	178.3	4.1	2.3	33.5	1.7	31.8	75.9
Amur region	120.3	-2.3	-1.9	9.0	-0.1	9.1	5.4
Kamchatka krai	117.7	1.3	1.1	5.6	2.2	3.4	194.5
Magadan region	59.3	-0.8	-1.3	83.6	-1.7	85.3	130.9

Cont'd

1	2	3	4	5	6	7	8
Sakhalin region	196.5	16.5	8.4	5.4	4.8	0.6	57.4
Jewish Autonomous Region	24.4	-0.8	-3.3	25.9	-1.2	27.1	36.6
Chukotka Autonomous Oblast	56.4	-4.5	-7.9	0.0	0.0	0.0	0.0
Zabaikalsky krai	115.6	3.4	2.9	12.9	2.3	10.6	78.2
Total	**1500.6**	**34.4**	**2.3**	**15.8**	**1.1**	**14.8**	**46.4**
Total Russian Federation	**17250.6**	**667.4**	**3.9**	**14.1**	**2.3**	**11.8**	**59.7**

Source: own calculations based on the data released by the Federal Treasury.

In 2020, the consolidated budgets of 29 subjects of the Russian Federation ran a surplus (compared to 50 regions in 2019). These regions ran the total budget surplus of Rb55.9 bn, or 1.3% of their budgets' revenue side (Rb244.9 bn, or 1.9% of the budget revenue side in 2019). The median budget surplus stood at 1.3% relative to the budget revenue side.

The biggest ratio of surplus to the consolidated budget revenues was recorded in Chukotka AO (7.9%), Voronezh region (4.3%), Jewish AO (3.3%), and Altai Krai (3.2%).

The Voronezh region accounted for 15.1% of the total regional budgets surplus, or Rb8.4 bn, Altai Krai accounted for 10.8%, or Rb6.0 bn, and Krasnoyarsk Krai accounted for 9.2%, or Rb5.1 bn.

3.2.2. Borrowing structure

According to the data released by the Russian Finance Ministry, the debt piled up by the subjects of the Russian Federation in 2020 went up by Rb383.0 billion, or by 4.2% totaling Rb 2,113.0 billion as the debt accumulated by the municipalities rose by Rb8.6 bn or by 2.3 percent amounting to Rb380.5 bn (*Table 13*).

Regions and municipalities borrowed in 2020 a total of Rb2,435.8 bn. The top-ranked borrowers were: Moscow regionь (Rb315.9 bn.), Sverdlovsk region (Rb116.7 bn), Omsk region (Rb103.0 bn), Novosibirsk region (Rb100.3 bn), and Nizhniy Novgorod region (Rb91.5 bn).

Bond issues accounted for 11.0% of the total consolidated regional budget borrowing, loans from higher level budgets (fiscal credits) constituted 36.1%, and loans from commercial banks amounted to 52.9%.

Total net debt of the consolidated regional budget in 2020 came to Rb398.7 bn (in 2019 it was negative and amounted to Rb70.5 bn). The highest ratio of net debt to budget revenues was recorded in Udmurt Republic – 15.2%, Kemerovo region – 12.4%, Moscow region and Perm Krai – 10.1%.

The largest net borrowers were: Moscow region – Rb94.9 bn, St. Petersburg – 54.9 bn, Sverdlovsk region – 37.1 bn, and Udmurt Republic – Rb18.2 bn.

Table 13

Volume and structure of public debt of the subjects of the Russian Federation and debt of municipalities as of January 1, 2020 and 2021, Rb bn.

Types of debt instruments	State debt of RF subjects			Debt of municipalities		
	2020	2021	Increase/decrease 2021 to 2020, %	2020	2021	Increase/decrease 2021 to 2020, %
Government bonds	588.5	769.9	30.8	21.3	24.7	16.0
Loans issued by credit institutions, foreign banks and international financial organizations	575.8	568.1	-1.3	259.5	264.7	2.0
Public budget loans from other budgets of the budgetary system of the Russian Federation	886.2	1102.9	24.5	92.1	91.2	-1.0
Government guarantees	55.4	48.4	-12.6	7.6	7.2	-5.3
Other debt instruments	7.1	6.7	-5.6	0.0054	0.0054	–
Total	**2113.0**	**2496.0**	**18.1**	**380.5**	**387.3**	**1.8**

Source: own calculations based on the data released by the Federal Treasury.

Table 14

Net borrowing of regional and local budgets, % of GDP

Год	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Net borrowing by sub-federal and local governments Including:	0,17	0,29	0,74	0,51	0,21	0,33	0,61	0,53	0,33	0,10	-0,01	-0,08	-0,06	0,37
repayable loans from budgets of different levels	-0,01	0,03	0,33	0,37	0,15	0,01	0,06	0,24	0,21	0,21	0,02	-0,07	-0,05	0,20
sub-federal (municipal) bonds	0,08	0,17	0,24	0,07	-0,11	0,06	0,12	-0,01	-0,01	0,04	0,11	–	0,04	0,17
Other borrowings	0,10	0,09	0,17	0,07	0,17	0,26	0,43	0,30	0,13	-0,15	-0,14	-0,01	-0,05	0,002

Source: own calculations based on the data released by the Federal Treasury.

Regions had their accumulated debt reduced to the maximum by repaying more for outstanding debt instruments compared to new fundraising, were: Voronezh region — by Rb10.8 bn, Krasnoyarsk krai — by Rb5.0 b, and Primorsky krai — by Rb3.5 bn.

3.2.3. Domestic bonded market

In 2020, 21 subjects of the Russian Federation and 4 municipalities had their bonded debt prospectus registered (as compared to 13 regions and 2 municipalities

which issued bonded debt in 2019). The following regions had their bonded debt prospectus registered with Russia's Ministry of Finance in 2020: St. Petersburg, Krasnoyarsk and Stavropol krais, Udmurt Republic, Republic of Sakha (Yakutia), Bashkortostan, Belgorod region, Ryazan region, Sverdlovsk region, Samara region, Yaroslavl region, Nizhny Novgorod region, Moscow region, Lipetsk region, Irkutsk region, Kaliningrad region, Omsk region, Orenburg region, Tomsk region, Ulyanovsk region, Chelyabinsk region, the city of Novosibirsk, the city of Tomsk, the city of Krasnodar, and Nizhniy Novgorod.

In 2020, the volume of bonded debt issuance totaled Rb267.1 bn going up compared to 2019 (Rb114.5 bn) by 2.5 times in nominal terms. Thus, during the year the volume of issuance of sub-federal and municipal bonds increased from 0.10% to 0.25% of GDP (*Table 15*).

Table 15

Amount of issued sub-federal and municipal bonded debt, % of GDP

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Issuance	0.26	0.43	0.41	0.25	0.10	0.19	0.23	0.16	0.12	0.19	0.23	0.08	0.10	0.25
Redemption	0.18	0.26	0.16	0.18	0.21	0.13	0.12	0.17	0.13	0.15	0.13	0.08	0.07	0.08
Net financing	0.08	0.17	0.24	0.07	-0.11	0.06	0.12	-0.01	-0.01	0.04	0.11	–	0.04	0.17

Source: own calculations based on the data released by Russia's Ministry of Finance.

The top-ranked bonded debt issuers were: Moscow region – Rb74.0 bn or 27.7% of the total domestic bond issuance, St. Petersburg – Rb54.9 bn or 20.6%, Sverdlovsk region – Rb43.0 bn or 16.1%, Ulyanovsk region – Rb10.5 bn or 3.9%, Belgorod region – Rb10.2 bn or 3.8%, Nizhniy Novgorod region – Rb10.0 bn or 3.7% (*Table 16*).

Hence, the top-6 issuers accounted for 75.8% of the total regional and municipal bonded debt placed.

Table 16

Sub-federal and municipal bond placement in 2020

Subject of the Russian Federation	Amount issued, rubles in millions	Issuer's percentage of total amount issued, %	Amount issued to domestic borrowing ratio, %
Central Federal District			
Belgorod region	10200.0	3.8	60.5
Lipetsk region	2500.0	0.9	25.1
Moscow region	74000.0	27.7	23.4
North-Western Federal District			
Kaliningrad region	1405.3	0.5	6.4
St. Petersburg	54906.1	20.6	99.9
South Federal District			
Krasnodar krai	1600.0	0.6	3.0

Subject of the Russian Federation	Amount issued, rubles in millions	Issuer's percentage of total amount issued, %	Amount issued to domestic borrowing ratio, %
North-Caucasus Federal District			
Stavropol krai	7000.0	2.6	13.8
Volga Federal District			
Republic of Bashkortostan	5000.0	1.9	49.3
Nizhniy Novgorod region	10000.0	3.7	10.9
Samara region	5000.0	1.9	14.2
Ulyanovsk region	10500.0	3.9	31.0
Urals Federal District			
Sverdlovsk region	43000.0	16.1	36.9
Chelyabinsk region	7000.0	2.6	30.5
Siberian Federal District			
Krasnoyarsk krai	3000.0	1.1	25.8
Novosibirsk region	9155.7	3.4	9.1
Omsk region	5000.0	1.9	4.9
Tomsk region	8350.9	3.1	16.6
Far-East Federal District			
Republic Sakha (Yakutia)	5500.0	2.1	30.5
Russian Federation	**267118.1**	**100.0**	**11.0**

Source: own calculations based on the data released by Federal Treasury.

The highest level of securitization was observed in St. Petersburg – 99.9%, Belgorod region – 60.5%, and Republic of Bashkortostan – 49.3%.

In 2020, the amount of bonds issuance by subjects of the Russian Federation and municipalities exceeded by Rb184.6 bn the amount of redeemed bonds, while in 2019 – solely by Rb40.4 bn. That said, the volume of placed binds surged by 2.3-fold totaling Rb267.1 bn (*Table 17*).

Table 17

Net borrowing in the domestic market for sub-federal and municipal bonds, Rb billion

	Consolidated regional budget	Regional budgets	Municipal budgets
2019			
Net borrowings	40,4	37,2	3,2
Raised funds	114,0	107,9	6,1
Principal repayment	73,6	70,7	2,9
2018			
Net borrowings	0,02	2,96	-2,94
Raised funds	86,95	86,84	0,11
Principal repayment	86,92	83,88	3,04
2017			
Net borrowings	97,03	91,43	5,60

	Consolidated regional budget	Regional budgets	Municipal budgets
Raised funds	215,33	205,21	10,12
Principal repayment	118,30	113,77	4,53
2016			
Net borrowings	31,98	26,70	5,29
Raised funds	160,50	153,66	6,85
Principal repayment	128,52	126,96	1,56
2015			
Net borrowings	-5,81	-7,11	1,29
Raised funds	98,45	94,25	4,21
Principal repayment	104,27	101,36	2,92
2014			
Net borrowings	-9,24	-7,41	-1,83
Raised funds	111,49	110,09	1,40
Principal repayment	120,73	117,50	3,23
2013			
Net borrowings	77,61	75,45	2,16
Raised funds	154,64	149,64	5,00
Principal repayment	77,03	74,19	2,84
2012			
Net borrowings	38,17	36,80	1,38
Raised funds	119,85	115,95	3,90
Principal repayment	81,68	79,16	2,52
2011			
Net borrowings	-58,20	-57,11	-1,09
Raised funds	55,05	53,37	1,68
Principal repayment	113,25	110,48	2,77
2010			
Net borrowings	29,77	28,61	1,16
Raised funds	111,11	105,85	5,25
Principal repayment	81,33	77,24	4,09

Source: own calculations based on the data released by Federal Treasury.

Most of the regions that issue bonded debt on a regular basis continued doing so in 2020 (*Table 18*).

Table 18

Sub-federal and municipal bonds prospectus registration in 2007–2020

Issuer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Subjects of the Federation														
Krasnoyarsk krai	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Nizhniy Novgorod region	*	*	*	*	*	*	*	*	*	*	*	*	*	*
St. Petersburg	*	*		*	*	*	*	*	*	*	*	*	*	*
Republic of Sakha (Yakutia)	*	*		*	*	*	*	*	*	*	*	*	*	*

Issuer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Yaroslavl region	*	*		*	*	*	*	*	*	*	*	*	*	*
Samara region	*	*	*		*	*	*	*	*	*	*	*	*	*
Belgorod region		*				*	*	*	*	*	*	*	*	*
Sverdlovsk region				*	*	*		*		*	*	*	*	*
Moscow region	*	*								*	*	*	*	*
Lipetsk region	*	*				*	*	*			*	*	*	*
Ryazan region				*		*							*	*
Tomsk region	*	*		*	*	*	*	*	*	*	*	*		*
Orenburg region						*	*	*	*	*	*	*		*
Irkutsk region	*	*	*			*			*	*	*	*		*
Udmurt Republic	*	*		*	*	*	*	*	*	*		*		*
Omsk region							*	*		*	*			*
Ulyanovsk region	*	*									*			*
Kaliningrad region											*			*
Stavropol krai		*			*	*	*	*		*				*
Republic of Bashkortostan	*				*	*	*	*	*					*
Chelyabinsk region														*
Novosibirsk region	*						*	*		*	*	*	*	
Krasnodar krai	*			*		*			*		*	*	*	
Republic of Karelia	*	*	*	*	*	*	*	*		*	*	*		
Magadan region							*	*			*	*		
Khabarovsk krai												*		
Kirov region												*		
Kamchatka krai												*		
Komi Republic		*		*	*		*	*	*	*	*			
Khanty-Mansi AO			*				*	*		*	*			
Yamal-Nenets AO										*	*			
Tambov region										*	*			
Volgograd region	*	*	*	*	*	*	*	*	*		*			
Republic of Chuvashia	*	*	*		*	*	*	*			*			
Republic of Mary-El						*	*	*			*			
Kemerovo region							*				*			
Ivanovo region	*				*						*			
Nenets AO											*			
Kursk region											*			
Saratov region											*			
Orel region											*			
Karachaevo-Cherkassia Republic											*			
Republic of Mordovia							*	*	*	*				
Republic of Khakassia				*		*	*	*	*	*				
Tyumen region										*				
Tula region						*	*	*	*					

Issuer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Tver region	*	*	*	*	*	*	*	*						
Voronezh region	*					*	*	*						
Smolensk region							*	*						
Leningrad region							*	*						
Kostroma region	*				*		*							
Moscow		*	*	*			*							
Kaluga region	*	*			*	*								
Vologda region					*	*								
Republic of Buryatia					*									
Murmansk region				*										
Penza region	*	*												
Kurgan region		*												
Republic of Kalmykia	*													
Kabardino-Balkar Republic														
Briansk region														
Sakhalin region														
Primorsky krai														
Municipalities														
Primorsky krai				*	*	*	*	*	*	*	*	*	*	*
Томск	*	*		*		*		*	*	*	*	*	*	*
Нижний Новгород											*			*
Krasnodar				*	*									*
Omsk								*		*				
City of Volzhskiy in Volgograd region								*						
Krasnoyarsk	*	*	*	*	*	*								
Kazan	*		*	*	*									
Ufa				*										
City of Elekrostal in Moscow region	*		*											
Smolensk			*											
Lipetsk	*	*												
Magadan	*	*												
Bratsk		*												
Novorossiysk		*												
Ekaterinburg	*													
Klin district in Moscow region		*	*	*										
Noginsk district in Moscow region	*		*	*										
Blagoveshensk			*	*										
Cheboksary		*		*										
City of Balashikha in Moscow region				*										
Odintsovo district in Moscow region		*	*											

Issuer	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Astrakhan			*											
Briansk			*											
Voronezh			*											
City of Orekhovo-Zuyevo in Moscow region			*											
Yaroslavl			*											
Voronezh			*											
Yuzhno-Sakhalinsk	*	*												
Novo Cheboksary	*	*												
Angarsk		*												
Vurnarsky district in Chuvash Republic		*												
City Shumerlia in		*												
Chuvash Republic	*													
Barnaul	*													
Perm														
Kostroma														
Arkhangelsk														
Dzerzhinsky														

Source: Finance Ministry of Russia.

3.3. Banking sector[1]

3.3.1. Main Indexes and Financial Banking Performance

As of end 2020, there were 406 credit institutions in Russia against 442 a year earlier. Over the year, the number of operating credit institutions decreased by 36 (in 2019 – by 42). At the end of the year, he number of banks with a universal license came to 248 (at the beginning of the year – 266), with a basic one - 118 (at the beginning of the year – 136). In 2020, the number of non-bank credit institutions did not change and amounted to 40 (*Fig. 65*). At the end of the year, there were 379 credit institutions subject to liquidation procedures.

The reduction in the total number of bank credit institutions is accompanied by the consolidation of the banking sector – in 2020, there was an increase in assets, equity and profits. Despite the pandemic, the total assets of credit institutions in the past year increased by 16.5% (in 2019 – 2.7%), the banks ' own funds – by 11.3% (in 2019 – by 7.6%).

Contraction of the total number of banking credit institutions comes with the banking sector consolidation – in 2020, we observed growth of assets, own assets, and profit. Despite the pandemic, total assets of credit institutions gained 16.5% last year (2.7% in 2019), own assets of banks gained 11.3% (7.6% in 2019).

1 This section was written by: *Zubov S.*, Candidate of Economic Sciences, Docent, Senior Researcher, Structural Research Department, IAES RANEPA.

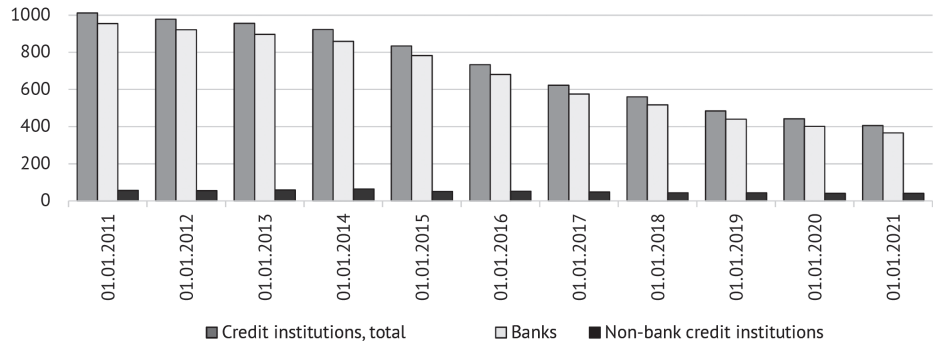


Fig. 65. The movement of the number of credit institutions during recent 10 years

Source: Bank of Russia.

As of January 1, 2021, 291 banks recorded profit worth Rb1.64 trillion, and losses of 75 banks were to the tune of Rb33.3 trillion. Thus, the number of loss-making banks rose to 20.5% against 15.6% in 2019.

In general, the Russian banking sector was prepared for the current crisis, largely due to the RF Central Bank's stabilization policy pursued in recent years. Maintaining a high level of liquidity, ending the activities of insolvent banks, as well as increasing the requirements for the quality of banking products and services through the implementation of the Basel Standards has made it possible to increase the stability of the domestic banking system.

That being said, in the context of high volatility of the financial markets and unpredictability of the pandemic fallout, Russian credit institutions have been forced to adjust their market policy of the previous years which led to a notable reduction in profitability of the banking system compared to the previous year.

Despite the unprecedented rise in the banking sector's assets, the total net profit has significantly decreased relative to 2019. As of January 1, 2021, it amounted to Rb1,608.1 bn, which is 6.2% lower than a year ago (as of January 1, 2020, the profit of the banking sector amounted to Rb1,715.1 bn)

The profitability of the banking business has significantly decreased compared to the previous year with the decline in the rate of profit growth and synchronized acceleration of the growth of assets and capital. The ROA[1] as of January 1, 2021 constituted 1.4% (1,9% a year ago), the ROE[2] stood at 15,1% (19.1% a year ago).

Interest rate decline is the principal reason for the relative decrease in profit margins and profitability. This fact was especially noticeable in Q2 2020, when the policy of the RF Central Bank contributed to a reduction in interest rates in the retail and corporate lending market, while relatively expensive funding for medium and long-term contributions and deposits remained in bank portfolios (*Fig. 66*), at the same time, in the face of competition many banks offered

1 ROA (Return on assets) – return on assets, ratio of net profit to total assets of a credit institution.
2 ROE (Return on equity) – return on equity, ratio of net profit to equity of a credit institution.

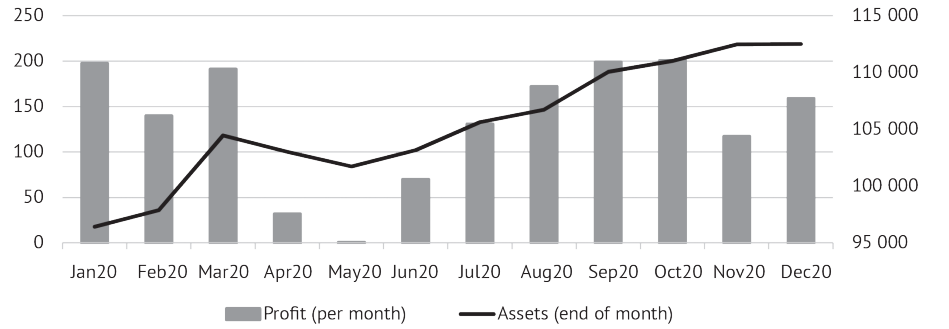


Fig. 66. Dynamic of profit and assets of the banking sector in 2020 (Rb bn)

Source: statistical bulletin of the Bank of Russia 2020–2021

increased rates on savings accounts to replenish their resource base and retain customers.

Another factor related to the reduction in bank profits was the growth of provisions for potential losses on loans and other active operations in the context of market instability and the expected decline in creditors' solvency. Despite the regulatory easing by the RF Central Bank, banks continued to ramp up spending on creation of provisions along with the growth of lending volumes. Thus, for instance, according to IFRS for 9 months of 2020, the Sberbank net interest income declined by 13.5% compared to the previous year taking into account the created reserve,[1] the respective indicator of Alfa Bank decreased by 16,2%,[2] and reduction of VTB constituted 23,8%.[3]

High volatility of the foreign currency market and ruble's depreciation have contributed to maintenance of a positive financial performance of the banking sector. One of the main factors behind the growth of bank income during the pandemic was the net income from operations with foreign currency and precious metals and their revaluation. For a year, this index gained 413.6% (it shed 31.3% over 2019).

Banks continue to master technologies to optimize business processes in order to reduce administrative and management costs. In 2020, significant changes were recorded in the dynamic of costs associated with supporting the activities of credit institutions. This indicator includes staff costs; operations with fixed assets; organizational and administrative expenses; as well as other types of non-operational expenses (legal costs, write-off of shortages, charity, etc.). At the year-end, this type of expenses decreased by merely 1.4% against the corresponding index of the previous year (it gained 8.1% in 2019). To the greatest extent, the reduction affected organizational and management costs (by 13.4%) and other

1 URL: https://www.sberbank.com/common/img/uploaded/files/info/ifrs2020/20/20209mruifrs9m_presentation.pdf
2 URL: https://alfabank.ru/f/3/about/annual_report/msfo/MSFO_20_3.pdf
3 URL: https://www.vtb.ru/-/media/Files/aktsioneram-i-investoram/finansovaya-informatsiya/msfo/ezhekvartalnye/2020/rus/3q/3q2020-ifrs-results-rus.pdf

expenses (by 15.5). Thus, cost management aimed at improving operational efficacy is becoming one of the ways to maintain a high level of bank profitability amid low interest rates. The indicator of administrative and management costs vs operating income (cost-to-income ratio, CIR) continues to decline, and as a whole, it should be less than 40% in the banking sector at the year -end (the CIR of Sberbank decreased to 27.2% in the mid of 2020).[1] This factor proves a rather high operational efficiency of Russian banks compared to European banks: in France, the CIR is above 60%, in Germany it is above 70%.

As it was mentioned in our previous publications[2], banks are forced to shift their focus towards increasing operations that generate fee income in the context of aggravated credit risks, as well as measures by the Central Bank aimed at lowering market interest rates (lowering the key rate). The trend reversed in Q3, and income growth resumed after a drop in fee income in H1 of 2020: thus, the most significant growth was recorded in income obtained from the following operations trust administration of property (up by 117.5% compared to the corresponding index as of end of 2019), provision of intermediary services under brokerage and similar agreements (up by 28.1%), issue of bank guarantees and sureties (an increase by 29.0%). The total increase in fee income amounted to 9.7% for 3 quarters compared to 13.8% for the same period in the previous year.

The gradual reorientation of banks to commission transactions led to a situation that the net fee income of banks specializing in settlement and intermediary operations exceeded the level of net interest income based on results of three quarters of 2020, taking into account the created reserve.

Several factors determine the maintenance of a stable growth in fee income:

- increasing the share of non-cash payments in settlements while maintaining sufficiently high acquiring rates[3];
- spreading the remote banking system (mobile wallet, telephone SMS-banking, electronic document flow systems, etc.);
- growing demand for brokerage services (transactions with financial assets on exchange and over-the-counter Russian and international markets).

In the near future, one should not expect a significant increase in the marginality of the banking sector. Interest rates on both loans and deposits will remain at a consistently low level in the absence of macroeconomic and political shocks. The quality of the loan portfolio will have a decisive influence on the financial results, i.e. the level of overdue debt, as well as the need for additional provisioning after the revocation of the Central Bank easing measures. Banks are likely to seek compensation for the decline in interest income by increasing operations that generate fee income. This process can accelerate with the intensive penetration of banks into non-banking services, further development of the remote service system, promotion of marketplace services for individuals and legal entities.

1 URL: https://www.sberbank.ru/en/press_center/all/article?newsID=f88d5580-c1dd-4fa7-9067-935f189abd09&blockID=1539&regionID=77&lang=en&type=NEWS
2 URL: https://www.iep.ru/ru/doc/35607/finansovye-rezultaty-rossiyskikh-bankov-v-yanvare-avguste-2020-goda.pdf
3 This type of service includes connection, installation and maintenance of payment terminals, Internet and mobile acquiring, connection of ApplePay and GooglePay, etc.

3.3.2. Corporate lending

After the introduction of restrictive measures in connection with the spread of the coronavirus infection, the Central Bank of the Russian Federation implemented a set of regulatory measures that helped to reduce banks ' spending on reserve formation and stimulate soft lending. The actions of the Bank of Russia, as well as the margin of safety of the banking system in terms of liquidity and capital provision, made it possible to avoid the credit shocks of 2008 and 2014 and to ramp up the volume of corporate lending.

The spike in activity on the corporate lending market during the pandemic is due to three main factors:

- the need to compensate for the decline in cash flows and possible unforeseen expenses of companies in the context of stagnant business activity;
- currency revaluation due to ruble's devaluation;
- a set of regulatory measures aimed at supporting targeted lending by banks to corporate clients.

As of January 1, 2021, the total corporate debt[1] before Russian banks was worth Rb44.8 trillion. The growth in 2020 totaled Rb5.8 trillion, or 14.8%. Thus, growth rates of corporate lending significantly exceed last year indexes (*Fig. 67*). A year earlier, the corporate loan portfolio of Russian banks for the same period increased by merely Rb1 trillion, or by 2.6%.

From the start of the year, the foreign exchange portfolio gained 11.4% and totaled Rb33.1 trillion or 74.0% of the total amount of corporate debt. A year ago, the ruble portfolio gained 8.2% and its share in the total credit portfolio came to 76.3%.

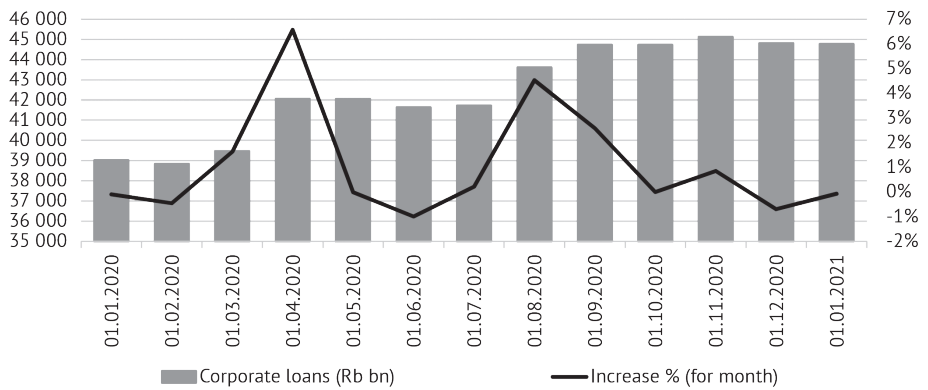


Fig. 67. Corporate lending dynamic in 2020

Source: Bank of Russia. URL: https://cbr.ru/banking_sector/statistics/.

1 Including non-financial, financial institutions (other than banks), individual entrepreneurs and enterprises belonging to non-residents (other than banks).

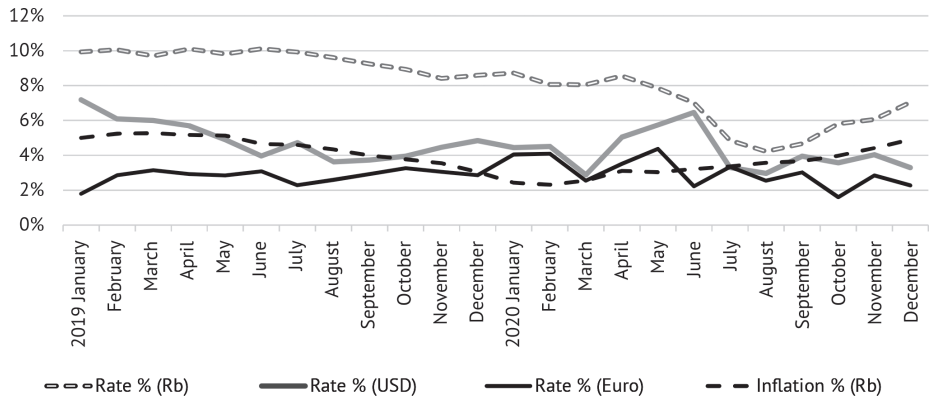


Fig. 68. Rates on corporate lending market (from 6 months to a year)

Source: Bank of Russia. URL: https://cbr.ru/statistics/bank_sector/int_rat/.

The foreign exchange portfolio in the past year grew primarily owing to changes in the ruble exchange rate, an increase of 25.5% as of January 1, 2021. In 2019, due to the strengthening of the ruble, this index dropped by 12.9%.

The term structure of the loan portfolio has undergone some changes. In the ruble portfolio, the share of short-term loans (up to 1 year, including loans on call) at the beginning of 2020 was approximately 75.8% of the total volume, in October this index fell to 66.2%. The structure of the foreign exchange portfolio demonstrated opposite trend: the share of short-term loans denominated in dollars went up from 69.6% at the beginning of 2020 to 91.1% in October.

Short-term pro-inflation risks at the outbreak of the pandemic had almost no negative impact on the cost of lending in the ruble segment. A slight increase was recorded in April during the period of self-isolation, however, in the following months, as inflation expectations stabilized and as a result of the Central Bank key rate cut, interest rates went down steadily, hitting an all-time low. By the end of the year, there was a slight uptick. In the foreign exchange segment, rates were subject to fluctuations due to the instability of the foreign exchange market, however, a downward trend in rates also took place (*Fig. 68*).

The corporate loans structure has not changed significantly. Manufacturing industries are the leaders in terms of debt (22.2% of the total loan portfolio of Russian banks), the share of the agricultural sector accounts for 6.2%, mining and quarrying sector accounts for 5.9%. Real estate transactions account for 17.1%, wholesale and retail trade - 9.8%, agriculture - 6.2%, mining and quarrying sector - 5.9%. At end-2020, the above-average rates were recorded in the extractive sector (up by 33.9% since the beginning of the year), as well as in the field of real estate transactions (21.0%). The decrease was recorded in the wholesale and retail trade (-9.8%).

Despite the measures taken by the Central Bank to support enterprises in terms of soft lending to vulnerable industries, many areas of activity have undergone

serious difficulties in attracting bank loans and were forced to reduce borrowing. As of January 1, 2021, 26 OKVED-2 codes (32.1% of all activities) exhibited a decrease in bank loan debt. The most substantial drop was recorded in the OKVED-2 codes "65 - Insurance, reinsurance, activities of non-state pension funds, except for mandatory social security" (a decrease of 82.1% relative to the debt at the beginning of the year), "53-Postal and courier activities" (a decrease of 62.4%), "74 - Professional scientific and technical and other activities" (a decrease of 55.4%).

The highest growth rates of accounts payable were recorded in the codes "09 - Provision of services in the field of mining" (an increase of 284.7%), "78 - Employment and recruitment activities" (an increase of 236.8%), "90 - Creative activities, activities in the field of art and entertainment" (an increase of 205.3%).

Under the circumstances, it is difficult to give an adequate assessment of the quality of the loan portfolio. As of January 1, 2021, the level of past-due debt stood at 7.1% of the total volume of lending. A year ago, this index also stood at 7.1%, however, it is impossible to conclude that the quality of the loan portfolio is stable, such stability is largely ensured by the introduction of a moratorium on bankruptcy, by the process of restructuring credit debt and provision of credit holidays. According to information[1] obtained from 33 credit institutions, in the period from March 20, 2020 to January 1, 2021, the volume of restructured loan debt (including SME entities in the amount of Rb 853.5 bn) exceeded Rb 6.2 trillion, or 13.9% of the total bank portfolio.

The current financial crisis brought about by the pandemic has led to abnormal growth in banks' corporate portfolios. Overall, the debt burden on the Russian business is quite in harmony with that of emerging market countries. However, in Russia a small number of large borrowers which are customers of major banks account for a larger portion of corporate debt. The high concentration of corporate debts may trigger off a system risk in the banking sector, so, it would be advisable for banks to revise and adopt more prudent requirements to financial dimensions and risk-based models. In the coming months, we should expect the possible realization of credit risks, and the timely identification of troubled borrowers and the implementation of a set of measures to compensate for losses become an important task for bank risk management.

At the initial stage of the pandemic, the Central Bank developed measures to support enterprises in potentially vulnerable industries, medical enterprises, and focused on supporting small and medium-sized businesses.

In March, with the introduction of quarantine measures, the Bank of Russia expanded the special program for refinancing SMEs, setting the program limit at Rb500 bn and cutting the rate from 6 to 4%, with allocation of Rb150 bn for lending to SMEs in order to support employment. Loans under this mechanism are provided for a period of 1 year at a rate of 4%. For banks with a high credit rating, loans are provided without collateral.

As an additional measure, the interest rate under the existing refinancing mechanism under the guarantee of JSC "SME Corporation" was reduced from 6 to

1 URL: https://cbr.ru/Collection/Collection/File/31944/drknb_15_2021.pdf

4%, and industry restrictions were lifted. At the same time, the final rate for the borrower should not exceed 8.5%.

From April 27, 2020, the interest rate on the Bank of Russia loans aimed at supporting lending to SMEs, including for urgent needs to support and maintain employment, was reduced from 4 to 3.5%, and from June 22, 2020 – to 2.5% per annum.

It was decided that the assessment of the borrower's financial situation and/or the quality of debt service on loans restructured in connection with the pandemic (enterprises of vulnerable industries) should not be downgraded. Subsequently, these regulatory easing was extended to enterprises in all industries, provided that the loans granted were classified as of March 1, 2020, no worse than in the II quality category. Banks are given the right to form reserves for corporate loans restructured before September 30, 2020, until April 1, 2021.

3.3.3. Retail lending

The total retail loan debt gained 13.6% and as of January 1, 2021 amounted to Rb20.0 trillion. In 2019, the increase was slightly higher – 18.5%. The ruble portfolio grew by 13.6% (18.8% in 2019), the foreign exchange portfolio in ruble equivalent grew by 13.9% (25.4% recorded in 2019).

In the consumer and automobile lending sector, the negative impact of the crisis was very pronounced, however, despite the fall in consumer demand, an increase of 8.8% and 7.9% was recorded, respectively. The most significant decline in volumes was observed in the unsecured consumer lending market, for which banks continued maintaining high margins despite the easing of the RF Central Bank monetary policy. In general, the interest rates demonstrated a steady downward trend during the year (*Fig. 69*).

In the wake of the pandemic the Bank of Russia measures were designed to protect the interests:

- citizens affected by the pandemic and unable to service the debt;
- citizens who faced a reduction in incomes following the imposition of self-isolation measures;

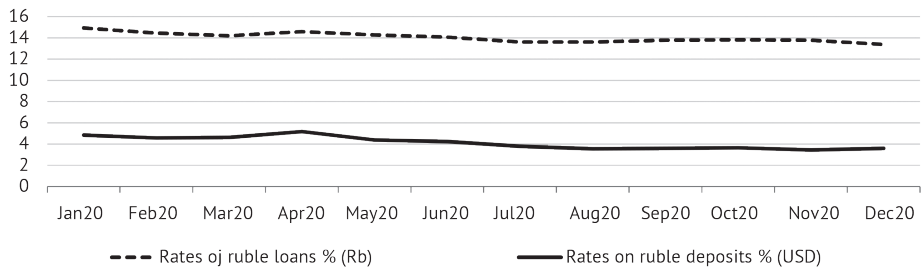


Fig. 69. Interest rates dynamic on operations with the population (loans and deposits from 6 months to 1 year) in 2020

Source: Bank of Russia. URL: https://cbr.ru/statistics/bank_sector/int_rat/.

— credit institutions on the back of raised credit risks.

The central bank has adopted the following measures:

— when the borrower confirms coronavirus infection, recommend that banks, microfinance organizations and consumer credit cooperatives take measures to defer payments on the loan. Such measures may include various restructuring schemes, deferrals on repayment of the loan body and interest, credit holidays, as well as the abolition of fines and penalties on loans;

— borrowers-individuals who find themselves in a difficult situation, are given the opportunity to take advantage of credit holidays, i.e. to postpone payments on loans for up to 6 months from April 1 to October 1, 2020. According to the Bank of Russia recommendations, the borrower can send a request for repayment holiday, and the bank is obliged to consider it within five days. In this regard, the Bank of Russia sent recommendations on the procedure for calculating the decrease in the borrower's income during the pandemic, and also recommended that lenders restructure loans using their own methods.

In order to support lending, in April the Central Bank of the Russian Federation dissolved the accumulated macroprudential capital buffer and reduced the allowances for newly granted loans.

In order for lenders to develop uniform approaches to informing citizens about the terms and conditions of the credit holidays, to differentiate the state program from their own restructuring programs, and to prevent violations of the borrowers' rights, the Bank of Russia sent an Information Letter to lenders dated 15.05.2020 No. IN-06-59/89. It recommends familiarizing borrowers with all existing restructuring options, as well as with the procedure for calculating interest and returning to the payment schedule, all the rules and features of registration of various types of credit holidays, deferrals and benefits. This gave the borrower an opportunity to assess the difference between alternative ways of restructuring and choose the best option. In the event of a refusal to satisfy the borrower's claims for restructuring, creditors were advised to inform the debtor of the reasons for such a decision.

In order to reduce the negative fallout of the ruble's weakening and given possible fluctuations in the exchange rate, the Bank of Russia allowed the restructuring of the debt with respect to change the loan currency from foreign to Russian until September 30, 2020 timeframe, if the borrower applied to the bank accordingly.

The deterioration of the financial situation of most borrowers negatively affected their credit history and their ability to borrow in the future. In this regard, the Central Bank of the Russian Federation recommended that credit institutions and credit bureaus do not downgrade the assessment of the borrower's creditworthiness if the reason for the debt restructuring was related to the spread of coronavirus infection. This regulation applied to all types of restructuring, both in accordance with the recommendations of the Central Bank of the Russian Federation, and within the framework of credit institutions' own programs.

In mid-April, after the extension of the self-isolation regime, the Bank of Russia enabled banks not to increase reserves for loans to borrowers whose financial situation deteriorated due to the pandemic, as well as for all restructured loans. This decision has reduced the burden on the capital of credit institutions. The Bank of Russia temporary entitled the banks to postpone the provision of additional reserves, expecting that most of the borrowers will be able to return to normal debt service, and those restructurings that will prove problematic will be gradually reserved by the banks.

Overdue debt increased by 22.0% against 0.5% in 2019 and reached Rb932.4 bn, but its share in the loan portfolio has increased considerably since the start of the year – by 0.4% to 4.7% (as of 01.01.2020, the share of overdue debt stood at 4.3%).

Loan reserves have grown markedly, since the beginning of the year their growth gained 15.3% against 2.4% in the previous year, which demonstrates a deterioration in the financial situation of some borrowers' expectations for the near future.

By the end of 2020, the situation in the retail banking sector had significantly improved compared to the beginning of the pandemic. At the same time, the economic downturn and the reduction in households' real incomes lead to the realization of credit risks. The regulatory easing implemented by the Central Bank of the Russian Federation contributed to the restructuring of loans, enabled some borrowers to restore their financial situation, and also ensured the stability of bank deposits. The way out of the easing largely depends on epidemiological factors and will be implemented over a long timeframe. However, the gradual elimination of temporary measures is necessary for an adequate risk assessment and restoration of financial stability.

3.3.4. Mortgage lending

Despite the coronavirus pandemic induced decline in business activity, the Russian housing mortgage lending (HML) market reported record levels in 2020. In total, over the past year, credit institutions originated 1.71 million mortgage loans, up by 34.9% compared to 2019 with 1.27 million loans, and up by 16.4% against relatively record high 2018 with 1.47 million loans. The volume of loans issued in the past year hit Rb4.30 trillion, up by 50.8% on 2019, and up by 42.6% on 2018).

By the end of 2020, the total amount of hypothecary debt exceeded Rb9 trillion. The annual loan debt growth hit 21.4% against 17.1% in 2019, and 23.9% in 2018. The total share of mortgage loans constituted 45.2% of the total bank retail loan portfolio. Thus, the share of mortgage loans in the total portfolio went up within a year, it stood at 42.3% at the beginning of 2020.

Refinancing of credit remains an important factor behind the mortgage market growth. At 2020 year-end, it totaled 13.7% of the overall value of mortgage lending (in 2019, refinancing amounted to 6.8%).

Mortgage lending remains the best retail credit segment, overdue debt is at a consistently low level: at the end of the year, the share of overdue debt on

mortgage loans was merely 0.8% (0.9% at the end of 2019, and 1.0% at the end of 2018 – 1.0%), meanwhile the outstanding debt comes to 7.8% in other segments of retail ending. The share of non-performing loans (NPL 90+) was at 1.4%[1] staying unchanged over the year.

Mortgage loans denominated in foreign currency are in little demand. The value of debt denominated in foreign currency stood at Rb16.1 bn at the year-end or around 0.2% of total amount of housing mortgage debt dropping by 24.6% within a year. The quality of foreign currency credit portfolio is way below the ruble denominated loans: the share of outstanding debt came to 39.9% at the end of 2020.

The average loan maturity upward trend remains unchanged - in December 2020, the weighted average loan maturity constituted 225.1 months, up by 6.7 months or by 3.0% over year.

The launch of the soft mortgage loan program "6.5%" and reduction in the market interest rates (*Fig. 70*) are behind the peak indicators of the mortgage market in 2020. The average interest rate on the ruble loans dropped to 7.36% against 9.68% year earlier. In October-November last year, mortgage deals in the foreign currency segment were at 5% interest rate.

Credit rates on the primary market (new-built housing) remain around 2 p.p. below those seen on the secondary market (secondary housing) owing to the implementation of a number of soft mortgage loan programs (soft mortgage loan program 6.5%, household mortgage, Far-Eastern mortgage). Nevertheless, the high housing demand unfolding on the secondary residential market is primarily behind the mortgage lending growth. Out of the total number of issued housing mortgage loans, 71.7% account for the purchase of new-built housing.

Originally, the state soft mortgage loan program was to be effective through November 2020, however it was extended in late October 2020 through July 1, 2021.

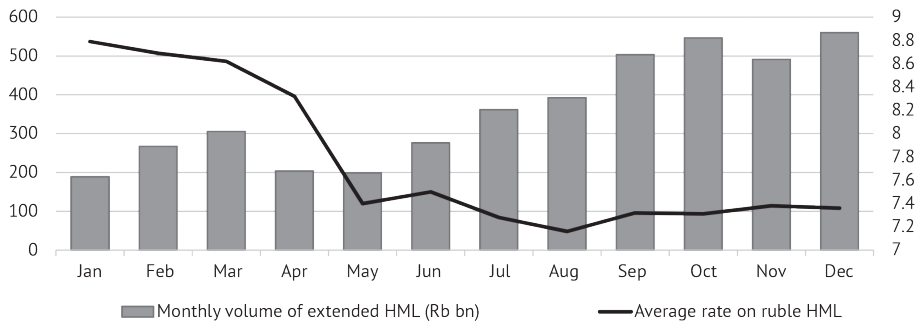


Fig. 70. Monthly lending volumes and interest rates dynamic on the housing mortgage lending market in 2020

Source: Information on housing mortgage lending market in Russia. Information Bulleting No. 8. Statistical Indexes January 01.2018 – January 01.2021.

1 In contrast to the amount of overdue debt, this index takes into account the total volume of loans for which payments have not been made for over 90+ days.

Mortgage lending was less exposed to the pandemic-induced shocks (3.1% of past due debt was restructured) including thanks to the timely kick start of the state program to subsidize the interest rate to 6.5%. Already in Q3 2020, mortgages became a driver of retail lending growth, which was also facilitated by the Bank of Russia's transition to the monetary policy easing.

The reduction in mortgage rates due to the Bank of Russia monetary easing coupled with the launch of soft mortgage loan programs have boosted demand for housing and mortgage. This being said, the unprecedented growth in mortgage lending has not created a housing bubble, the mortgage lending remains the best segment of the retail lending market.

Despite the implementation of stimulus measures, the completion of the transition of housing construction financing to a new model that provides a full state guarantee for citizens who invest their money in housing under construction was the main event of 2020. In December 2020, the volume of housing built using escrow accounts exceeded the volume of housing built under the old rules. The transition of housing construction to project financing has allowed avoiding the issue of hoodwinked investors even in the most difficult months of self-isolation, when construction and sales of housing in many regions of Russia have actually stopped. As a result, since the beginning of the reform, there have never been any problems with the use of escrow accounts. The new construction financing scheme has solved the problem of unfinished construction, which used to be one of the main and painful problems in the field of housing construction.

In early November 2020, Federal Law No. 368-FZ of November 09, 2020 "On Amendments to Parts One and Two of the Tax Code of the Russian Federation" came into force, which introduced numerous changes to the legislation on taxes and fees. This law regulated the most important issue of taxation for developers of cost sharing construction – the possibility of recognizing funds in escrow accounts as targeted financing. This will allow most developers to safely exclude from the tax base the funds received in escrow accounts, and tax only the difference – the excess of funds received from the investor over the cost of construction of the cost sharing construction object transferred to this investor under the Acceptance Act.

According to Russia's central bank[1], as of January 1, 2021:

- over 303,000 escrow accounts have been opened for cost sharing housing construction;
- the value of escrow funds deposited has exceeded Rb1.19 trillion, which is 8.5-fold than at end-2019;
- Rb126.7 bn have been released from the escrow accounts on construction completion in 64 subjects of the Russian Federation, i.e. have been transferred to the developers' accounts or directed to repayment of credits obtained for projects construction;
- there are 2,242 active mortgage credit agreements worth Rb 2.72 trillion signed between banks and developers which is 200% more than a year earlier.

1 URL: https://cbr.ru/analytics/finansirovanie-dolevogo-stroitelstva/2021-01-01/

Subsequently, the new project financing scheme which the industry officially adopted from July 1, 2019, engulfs construction across the country at a rapid pace.

Despite the positive market dynamic and the relatively high quality of the total loan portfolio, a number of undesirable effects let themselves known at the end of 2020, in particular, a high increase in the cost of housing (the growth was around 10.5% for 9 months of 2020), which is significantly above the inflation rate and is compounded by a reduction in household incomes, and this largely negates the benefits for borrowers from lower rates.

In H2 2020, transactions for refinancing loans under the top up scheme became more frequent, when the principal debt increases on the back of the interest rate drop. In Q1 2020, the difference between the amount of new and old loan (top up) was 3.8%, and by Q3 the difference went up to 5.6%.

In addition, banks have become more likely to provide loans with a low (less than 20%) down payment: 35% of issued loans in Q3 2020, compared to 28% in Q2 2020. Moreover, this share increased even more from 24% to 40% in the housing mortgage lending for the purchase of housing on the primary market (the benefits apply to this part).

The intention of households to preserve their savings in the face of the ruble's depreciation, low rates on bank deposits and the uncertainty about the further development of the crisis, led to the erosion of the marketable supply from the market.

The accelerated growth of mortgage lending in the wake of economic and socio-political turbulence raises risks of the housing market crisis as well as raises credit risks and trigger negative macroeconomic fallout. The experience of many countries shows that the initial effect of increasing the availability of mortgage finance by lowering the interest rates eventually leads to the opposite effect: lower affordability of housing. In this regard, ensuring high and sustainable growth in real incomes of households which should at least be brought into line with the growth in housing prices should become the main macroeconomic task that contributes to the growth of a high level of housing affordability.

3.3.5. The Banking System Resources

The credit institutions still form their reserves primarily from the funds of customers (individuals and legal entities) whose share as of January 1, 2021 amounted to 71.2% of the total bank liabilities (71.4% a year earlier).

The principal bank resources are funds received from individuals[1] which constitute 32,7% of the total bank liabilities, deposits from legal entities[2] except credit institutions, constitute 23,5%, and funds of organizations on settlement accounts[3] come to 14,9%, raised funds from banks including from the Bank of Russia – 12,0%. The share of equity amounted to 10,3%.

1 Including deposits, funds on accounts, and escrow accounts of individuals opened for cost sharing construction.
2 Including state organizations.
3 Including accounts receivable, fund on brokerage, factoring, and forfeiting transactions.

By the end of 2020, the total volume of retail deposits was Rb32.8 trillion worth, up by Rb2.4 trillion in absolute terms or up by 10.9% over the past year (up by Rb2.0 trillion or 6.9% in 2019).

Last year, the ruble's depreciation propelled the retail deposits growth. The increase in the total number is largely due to the increase in foreign currency deposits by 13.8% (up by 2.2% at the end of 2019). Funds denominated in rubles went up by 6.5% (up by 9.3% in 2019). However, given the US dollar exchange rate dynamic (ruble's appreciation in 2019 and its devaluation in 2020), foreign currency deposits in dollar terms declined by 7.9% against up by 9.8% in 2019.

The level of retail deposits dollarization[1] as a whole remains moderate, during the year the share of foreign currency deposits in the overall amount of retail deposits increased to 25% (at the end of last year – 19.6%). However, this increase is primarily due to the weakening ruble.

One of the most important events of 2020 in the retail deposit market was the adoption of a law[2] that defined a new procedure for collecting tax on retail deposits. Before the introduction of the new procedure, ruble deposits were subject to taxation, the interest on which exceeded the key rate of the Central Bank of the Russian Federation by 5 pp., as well as foreign currency deposits with a rate above 9%. According to the new rules, personal income tax in the amount of 13% is paid when the total amount of interest on all deposits exceeds the non-taxable minimum, which depends on the current value of the key rate of the Bank of Russia, and is determined by the formula:

Rb 1 000 000 × Key rate of the bank of Russia as of January 1

Banks after the end of the year and until February 1, must transmit to the Federal Tax Service data on the amount of interest that was credited to the retail accounts. Based on this data, the tax authorities will sum up all the interest income on deposits and calculate the annual personal income tax. For the first time, citizens will have to pay this tax only in 2022 (no later than December 1, 2022) on the basis of tax notifications received from the tax authority.

In 2020, under the influence of the policy of the Bank of Russia and the reduction of interest rates, the trend to redistribute the savings from term deposits to savings accounts prevailed. In H1 2020, a considerable number of people amassed cash reserves at the beginning of the introduction of restrictive measures, but in the middle of the year, as the situation stabilized and income gradually recovered, the number of deposits stabilized. At the same time, the flow of funds was facilitated by the banks themselves, offering more attractive rates on savings accounts. At the end of the year, the total worth of term retail deposits amounted to Rb21.2 trillion, the annual outflow from the term deposits amounted to Rb1.68 trillion, or 7.3%, while funds on current accounts (excluding funds in escrow accounts) increased by Rb4.1 trillion, or by 54.5% to the tune of Rb11.6 trillion, demand deposits and short-term deposits for up to 30 days gained 25.3%.

1 All foreign currency deposits.
2 Federal Law dated April 01, 2020 No. 102-FZ.

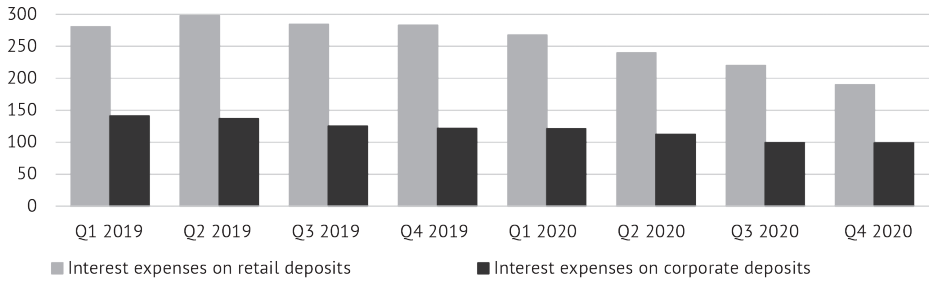
By the end of the year, despite rising inflation, falling real disposable incomes of the households and worsening wage dynamic, the Russian people invested in the currency and increased savings. At the same time, there was a slight revival of public interest in real estate investments and stock market operations. At end-2020, bank profits from the provision of intermediary services under brokerage and similar contracts to individuals and foreign nationals increased by 144.4%, against only 31.1% in 2019. The growth in demand for mutual fund shares from retail investors was due to both lower deposit rates and positive returns on funds. At the end of Q3, the total number of registered mutual funds increased by 4.6% since the beginning of 2020, while the increase in assets over the same period was 7.7%.

The other paramount component of the resource base of Russian banks – corporate customer funds gained Rb6.9 trillion, or 21.0% in 2020, hitting Rb39.6 trillion. The growth rate of funds in accounts has increased significantly in the past year, in 2019 the growth was Rb0.6 trillion, or 2.0% year-on-year. The growth of funds in the ruble segment was 14.6%, in the foreign currency segment-37.8. The share of foreign currency funds in the total volume for the year increased from 27.6% to 31.4%.

The level of interest rates on ruble deposits of legal entities and individuals decreased by an average of 27-30% (the decrease in 2019 was approximately 15-18%), the main reason was the policy of cheap money pursued by the Central Bank of the Russian Federation and measures aimed at increasing the volume of soft lending, which encouraged banks to reduce deposit rates to maintain a stable level of interest margins. The decrease in interest rates affected the dynamic of banks ' interest expenses on retail deposits and legal entities, which decreased throughout 2020 (*Fig. 71*).

Rates on foreign currency deposits (US dollar, euro) fluctuated slightly with a predominant downward trend, throughout the year they were in the range below 1%. At the end of 2020, some banks (in particular, Alfa-Bank, Gazprombank, and Saint Petersburg) introduced new rules for servicing accounts in European currency, which came into force on January 1, 2021. Under the new rules, banks charge a monthly fee for maintaining an account in euros. Tariffs can be set as a percentage of the deposit balance or as a fixed commission in absolute terms. Thus, the expenses of the individual client for servicing the bank account may exceed the interest income received, which is actually equivalent to the introduction of a negative interest rate. This policy of banks is due to the fact that the European Central Bank has set a negative rate on deposits in the euro as an anti-crisis measure (as a result of which liabilities in this currency began to bring losses to banks), as well as the strengthening of the euro against the US dollar.

Banks' debt obligations remain not very attractive financial instruments for customers: compared to interest-bearing deposits, the volume of issues is insignificant. The total volume of issued bonds at the end of 2020 hit Rb2.3 trillion (Rb1.9 trillion in 2019), an increase of 19.2% over the year (43.3% over the previous year). The volume of promissory notes issued amounted to Rb397.7 bn, for the year it increased by 4.0% (down by 12.8% in 2019). The total volume of issued



* Non-governmental commercial organizations.

Fig. 71. Dynamic of bank interest expenses on retail and corporate deposits* in 2019–2020, Rb bn.

Source: Bank of Russia. URL: http://www.cbr.ru/banking_sector/otchetnost-kreditnykh-organizaciy/.

deposit and savings certificates dropped by 64.6% (down by 75.8% for 2018) and remains at a low level – Rb13 bn.

The financial crisis affected the liquidity of the banking sector, which, in turn, had an impact on the movement of funding volumes on the interbank market. Over the year, the volume of loans and deposits drawn on the Bank of Russia lending facilities grew by 17.4% (down by 76.0% in 2019). Especially noticeable was the increase in loans from the BoR – by 46.8% (down by 6% in 2019), which indicates a deterioration in bank liquidity and increased dependence on loans from the Central Bank of the Russian Federation.

The level of concentration of banking resources remains high. The share of the 5 largest assets of credit institutions accounts for 67.7% of retail deposits (65.5% in 2018) and 58.3% of corporate deposits (59.2% at the end of 2019). The share of funds raised by the 5 largest banks through loans from the Central Bank of the Russian Federation increased significantly again -49.5% (in 2019 – 24.7%).

In 2021, the strengthening of inflationary trends at the beginning of the year does not imply a further reduction in the key rate, so the growth of the bank deposit market will stabilize and will largely be determined by the level of income of the population. At the same time, there is a high probability of an increase in demand for alternative instruments and the emergence of new hybrid deposits with elements of an investment product, as well as the development of insurance products (investment life insurance, cumulative life insurance).

Section 4. Real Sector of the Economy

4.1. Dynamic and structure of GDP and investments[1]

4.1.1. Internal and external demand

Internal epidemiological restrictions and external shocks have had a significant impact on economic growth in Russia. Unfavorable changes in the global market environment increased the impact of external factors on economic dynamic: starting from 2019, the scale of exports in terms of value and physical volume decreased; the decline in the contribution of net exports to GDP dynamics was partially offset by an increase in domestic demand on the back of the outstripping growth of manufacturing industry and the segment of paid services to the population.

From the outset of the spread of coronavirus infection, there was a simultaneous reduction in demand and supply in the domestic market. The situation was complicated by a drop in demand and prices on the world market of hydrocarbons, which came amid a decline in the ruble exchange rate and an increase in the level of inflation. The negative effects of the uncertainty and potential risks of the pandemic affected the nature of business structures, consumer behavior, and led to changes in the structure of government spending, the corporate sector, households, and the demand for financial resources (*Table 1*).

In Q1 2020, the nature of economic processes was determined by the impact of the trends of the previous year, GDP dynamic remained within positive values. At GDP growth rate of 1.6% in Q1 2020, household consumption gained 1.4%, fixed capital investment gained 2.2% and exports dropped by 2.4% compared to the corresponding period of the previous year. It should be noted that a sharp increase in consumer demand seen at the end of Q1 2020 was determined by the influence of soared inflation expectations of the population and high demand in response to the anxiety of the epidemiological situation. At 2020 Q1-end, the retail sales turnover in both the food and non-food markets was at the highest level over the last five years.

1 This section was written by: *Izryadnova O.*, Leading Researcher, IAES RANEPA; Head of Structural Policy Department at the Gaidar Institute.

Table 1

Main factors of the development of the Russian economy in 2017–2020, in % to corresponding period of the previous year

	2017	2018	2019	2020	Quarters 2020			
					I	II	III	IV
GDP	101.8	102.8	102.0	96.9	101,4	92,2	96,5	98,2
External factors								
Foreign trade turnover (on balance of payments)	125.0	117.2	97.4	84.7	91.9	76.1	82.3	88.5
Export	125.3	125.8	94.6	79.0	87.0	69.5	76.0	83.1
Import	124.5	104.4	102.3	94.2	100.8	87.0	92.1	97.1
Balance	127.0	170.2	84.7	55.7	70.6	41.9	48.2	58.8
Oil prices, USD/bbl.	54.39	70.07	64.03	42.30	50.53	31.43	42.72	44.52
Official exchange rate (RUB/USD), at the period-end	57.60	69.47	61.91	7388	77.73	69.95	79.68	73.88
Internal factors								
Fixed capital investment	104.8	105.4	102.1	98.6	103.5	94.7	95.0	101.2
Consumer demand	103.7	104.3	103.2	91.4	103.3	77.8	91.6	98.4
Retail sales turnover	101.3	102.8	101.9	95.9	104.4	84.0	98.4	97.2
Paid services to the population	100.2	101.4	100.5	82.7	98.1	63.9	82.7	86.8
Output of goods and services by basic types of economic activity	103.6	103.6	102.0	97.3	102.8	91.5	97.0	98.2
Industry	103.7	103.5	103.4	97.1	102.6	93.3	95.2	97.5
Extraction of natural resources	102.1	104.1	103.4	93.0	101.0	91.0	88.5	91.6
Manufacturing industry	102.5	102.6	103.6	100.3	105.6	94.9	99.0	101.1
Production of electricity, gas and vapor; air conditioning	99.6	101.6	99.2	97.5	96.0	96.7	97.5	99.5
Agriculture	102.9	99.8	104.3	101.5	103.0	103.1	103.3	97.0
Construction	98.8	106.3	102.1	100.1	102.8	96.1	101.1	100.8
Transportation	105.6	102.7	100.7	95.1	96.1	91.8	94.7	97.8
Social parameters								
Real disposable income of the population	99.5	100.1	101.0	96.5	101.0	92.1	94.7	98.3
Real accrued wages	102.9	108.5	104.8	102.5	106.2	99.9	101.8	102.2
Real amount of assigned pensions	100.3	100.8	101.5	102.3	103.2	102.7	102.2	101.3
Share of the population with cash income below the subsistence level, in % to the total number of the population	12.9	12.6	12.3	n/a	12.6	13.2	13.3	n/a
Labor market								
Number of employed	99.7	100.3	99.2	98.1	99.8	97.9	97.4	97.5
Unemployment rate	5.2	4.8	4.6	5.8	4.6	6.0	6.3	6.1
Financial conditions								
Key rate (at period-end)	7.75	7.75	6.25		6.0	4.50	4.25	4.25
Consumer price index (to December of the previous year)	102.5	104.3	103.0	104.9	101.3	102.6	102.9	104.9

Source: Rosstat.

The spread of coronavirus infection in Q2 2020 required the imposition of stringent restrictive measures on economic and social activities, as well as put in place special relief measures to support the population and businesses. The shutdown in the segment of paid services to the population led to the deepest drop in the household private consumption over 25 years of observations – by 21.7% compared to Q2 2019. As a result of the contraction of domestic demand, the decline in GDP in Q2 2020 hit 7.8% compared to a year earlier. In Q3 2020, GDP dynamic emerged from the steep plunge of the previous quarter on the back of an easing of domestic demand and export constraints and a reduction in the pressure of epidemiological restrictions, and an increase in oil prices. In the last quarter of 2020, despite the return of partial lockdown measures, the economy seems to have adapted to the COVID-19 pandemic, which was also reflected in GDP dynamic (*Fig. 1*). Overall, real GDP fell by 3.1% in 2020.

The change in the structure of the formation and use of resources in 2019-2020 was driven the shift towards growing importance of the domestic market. The change in the share of imports in the resources of the domestic market with an increase in the imports of producer durable goods supported the domestic market and expanded opportunities for economic diversification (*Fig. 2*).

The concentration of activities in industries that displace the more expensive imports from domestic market, and the buildup of export potential for the development of niches in the foreign market that are emerge amid sanitary and epidemiological restrictions becomes the mechanism of adaptation of domestic producers to the simultaneous contraction in demand and supply and to the devaluation of the ruble. The increase in the share of intermediate demand

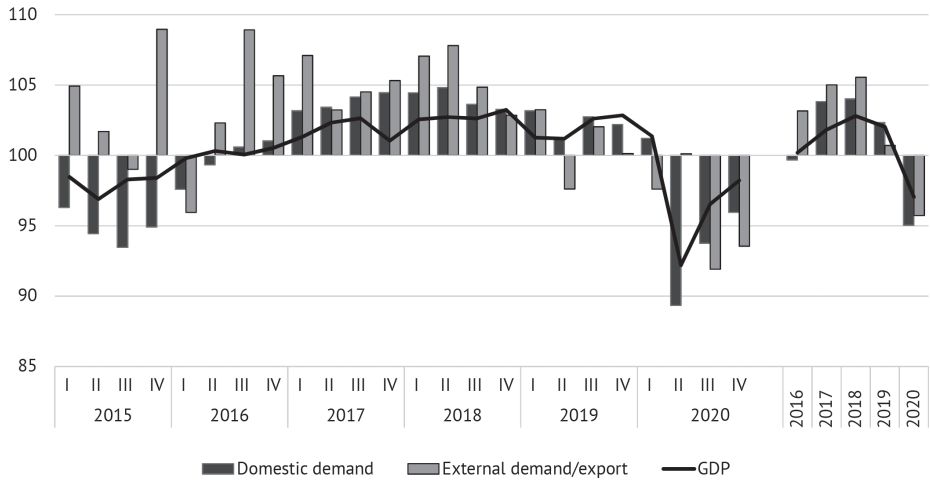


Fig. 1. GDP dynamic by components of domestic and international demand 2015–2020, in % on the corresponding period of the previous year

Source: Rosstat.

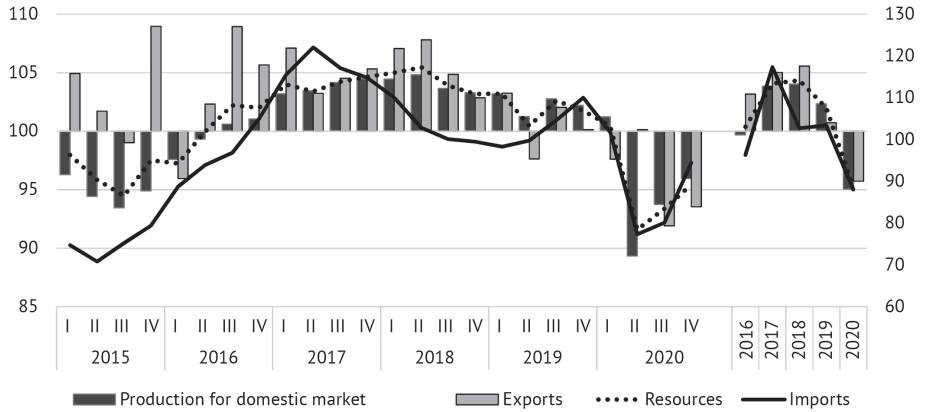


Fig. 2. Dynamic of formation and use of resources in 2015–2020, in % on the corresponding period of the previous year

Source: Rosstat.

goods in imports to values exceeding indexes of the last decade, supported the domestic output dynamic in 2018-2019. However, the tough conditions of competition in the world markets of goods and services, sanctions restrictions on the movement of capital and investment goods, changes in the ruble exchange rate relative to foreign currencies determined the weakness and instability of the export-oriented import substitution processes. Despite the fact that in 2019-2020, exports for the group of high-tech goods grew faster than imports, the Russian economy remained a net importer (*Table 2*). In 2020, the growth of non-primary exports by 17.8% and the acceleration of exports of high-tech goods to 116.2% against 107.3% a year earlier was a positive factor for the economic recovery after the 2015 crisis. In the wake of a general trend of a 5.8% drop in imports in 2020, imports of high-tech goods decreased by 5.0%, while investment goods stabilized at the level of the previous year.

Table 2

The pattern of imports by the functional use of goods and foreign trade of high-tech products in 2016–2020

	Pattern of imports by functional use of goods, in % to total			High-tech products			
				USD billions		Ration in total volume, %	
	Consumer	Investment	Intermediary	Export	Import	Export	Import
2016	35.6	26.5	37.9	36.0	118.8	12.8	67.0
2017	33.6	27.5	38.9	44.4	155.3	12.4	68.3
2018	33.2	25.4	41.4	49.3	160.2	11.0	67.2
2019	33.8	24.4	41.8	74.7	183.3	11.1	72.0
2020	32.8	25.3	41.9	86.7	174.1	26.1	72.6

Source: Rosstat.

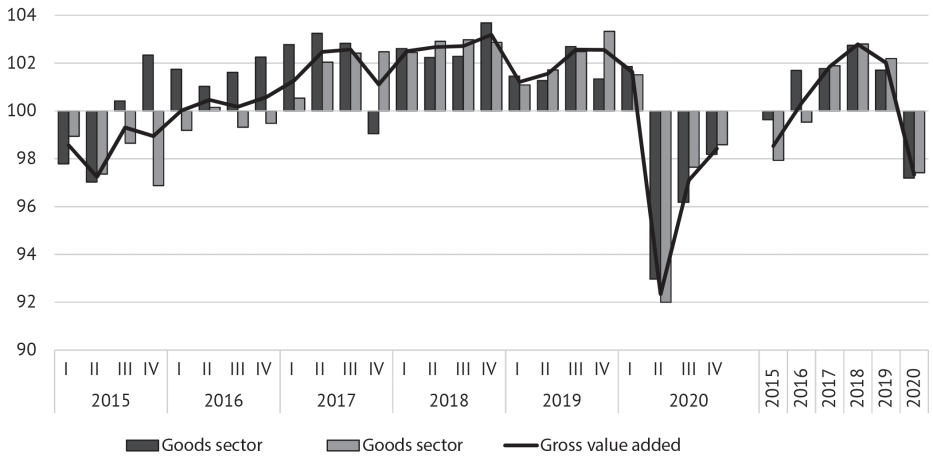


Fig. 3. Dynamic of goods and services sector in 2015–2020, in % on the previous year

Source: Rosstat.

Economic performance in the wake of the spread of the coronavirus pandemic in 2020 was marked by specific structural features. If the recovery of GDP upward trend in 2017-2019 with simultaneous growth in the goods and services sectors was supported by an increase in the latter's contribution, then the volume of the services sector declined considerably in 2020 (*Fig. 3*).

Against the background of the pandemic measures of social distancing and self-isolation were recorded in the segment of services focused on the household consumption. Retail sales turnover at end-2020 amounted to 95.9% compared to the previous year, including food products – 97.4% and non-food products – 94.8%, and regarding the Q2 dynamic (84.0%) was at the lowest level over 20 years of observations in the markets of both food (93.0%) and non-food (73.6%) products. Against the backdrop of the uncertainty of the economic development, strengthening of the downward trend in the household real incomes, changes in consumer behavior and a sharp drop in consumer spending, critically low performance indexes were recorded in the following sectors: passenger transportation, tourism, hospitality, sports and recreation, leisure and entertainment business, and household services. The situation was also aggravated by the fact that small and medium-sized businesses and individual entrepreneurs, whose economic activity has fallen sharply under the pressure of an unprecedented drop in public demand, prevail in the segment of consumer market services.

With the gradual easing of restrictive measures, the recovery in economic activity in Q3 2020 was extremely heterogeneous in terms of the types of services provided and consumer behavior. It should be noted that the dynamic of consumer activity and the partial recovery of the paid services sector were positively

affected by the increase in budget expenditures within the implementation of relief measures for the population and the economy, including small and medium-sized businesses. The lifting of administrative restrictions on the activities of non-food retail sales, hospitality business, and parts of the consumer services sector has led to a revival of supply and demand in those segments of the consumer market. An additional factor in the recovery of supply in the service sector was the opening of domestic tourist and resort destinations, which supported activity in related services, but activity indicators remained at a critically low level over the past decade. In Q4 2020, despite the strengthening of the requirements for social distancing, the use of gained experience in adapting to epidemiological rules helped to weaken the negative trends in the market of paid services. At end-2020, the volume of paid services rendered to the population amounted to 82.73%, including public catering – 79.32%, transportation services – 60.9%, tourism – 46.7%, hotel – 64.9%, culture – 46.7%, sports and recreation - 67.4% compared to the previous year (*Fig. 4*). The recovery of the market of paid services to the population in 2021-2022 following its large-scale decline in 2020 will be slow moreover given the restrained trends in changes in the household cash incomes.

The decline in Russian industrial production as a whole displayed a relatively restrained rate of decline – by 2.9% by 2019. The decline in the production of goods in 2020, in addition to the lockdown, was affected by the instability of the situation on the global hydrocarbon market, changes in the foreign trade environment associated with a reduction in the scale of trade in goods and services and the disruption of interaction in value chains. The longer than anticipated effect of internal and external sanitary and epidemiological restrictions at the

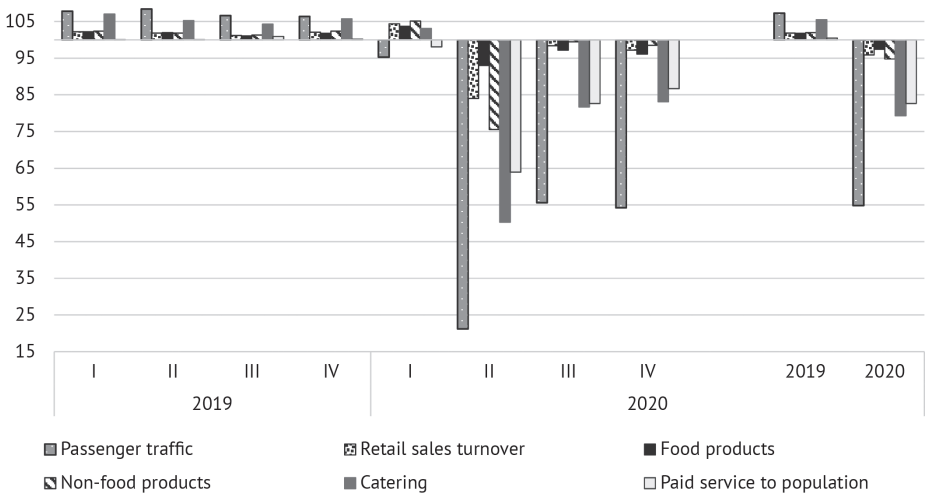


Fig. 4. Dynamic of consumer market of goods and services in 2019–2020, in % on the corresponding period of the previous year

Source: Rosstat.

initial stage of the pandemic has led to a decline in economic activity, with the extent of the decline greatly varying by type of activity.

The decline in production in extraction of mineral resources was noted for all types of observed aggregated positions. In Q2 2020, the volume of mineral extraction stood at 91.2%, in Q3 – 88.7% of the previous year. The main contribution to the reduction in extractive production output was made by the contraction in oil and natural gas production by 33.5% compared to January – September 2019, which was due to the fulfillment of commitments under the OPEC+ deal. Despite the fact that in Q4 2020 there was a slight recovery in the global mineral commodities market, at the year-end the decline in mineral production came to 7.0%, including 8.1% in oil and gas production, which was the highest drop since 1993 (*Fig. 5*).

In 2020, the manufacturing industry was marked by a more moderate reduction dynamic relative to extractive production. The main peak of the decline in manufacturing production occurred in Q2 2020, when production volumes were only 94.9% against the last year. The recovery of economic activity after the spring lockdown led to a gradual weakening of the rate of production decline, and at end-2020, the manufacturing output even exceeded the level of the previous year (100.3%). The structure of manufacturing production following a steep drop in output in April 2020 changed under the impact of an increase in the contribution of consumer goods production and intermediate demand.

Against the backdrop of weak upward trend of consumer-oriented industries, the proportion of domestic products in retail trade marketable resources in 2020 stood at the previous year level of 63%, which, amidst the demand compression, helped to mitigate the impact of a reduction in imports of consumer goods in the total volume of imports by 1.0 p.p. compared to the previous year.

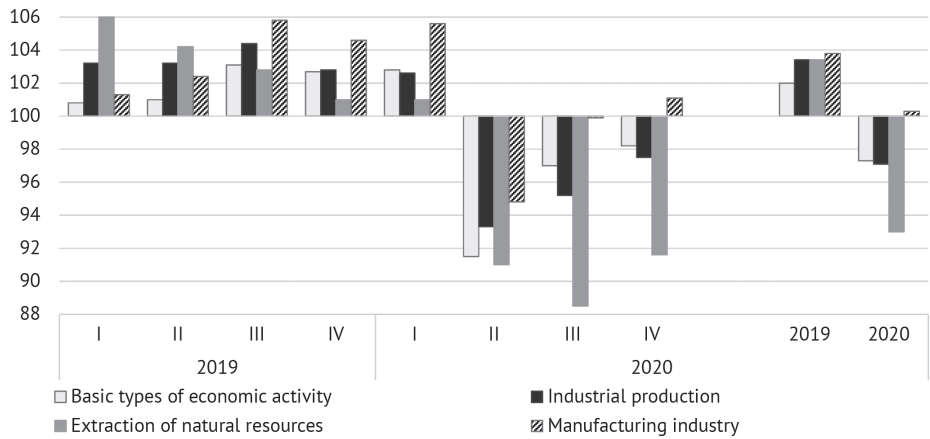


Fig. 5. Indexes of extraction of natural resources and manufacturing industry in 2019–2020, in % on the corresponding period of the previous year

Source: Rosstat.

The snowballing growth in the pandemic induced demand for medicines and sanitary materials gave a boost to a rise in the contribution of intermediate and final demand goods for medical use in the associated industries of machine-building and chemical industries, textile, clothing, and pulp and paper industries (*Table 3*).

Table 3

Dynamic of manufacturing industry by types of economic activity in 2019–2020, in % to corresponding period of previous year

	2019	2020	Quarters 2020			
			I	II	III	IV
Manufacturing	103.6	100.3	105.6	94.8	99.9	101.1
Including:						
Food production	104.1	103.5	109.2	103.6	101.5	100.6
Production of textile articles	101.8	108.9	108.2	104.3	110.0	112.4
Production of clothing	103.5	100.6	101.1	92.8	104.2	105.5
Production of leather and leather articles	98.4	87.6	100.2	71.3	89.8	91.3
Wood-processing and manufacturing of wood articles	106.2	100.2	101.3	91.8	102.5	105.2
Production of paper and paper articles	104.6	101.9	103.5	98.2	102.5	103.4
Production of charred coal and petrochemicals	101.6	97.0	105.8	96.3	93.8	92.5
Production of chemical products	103.4	107.2	108.2	103.4	107.1	109.9
Production of medicines and materials	127.4	123.0	112.0	123.5	121.1	134.2
Production of rubber and plastic articles	98.7	103.2	105.6	93.2	104.3	110.0
Production of other nonmetal mineral products	109.0	97.7	104.4	90.6	95.6	101.8
Metallurgical production	103.8	97.6	101.4	92.8	96.7	99.9
Manufacture of metal products	107.3	102.0	112.0	101.6	104.0	98.7
Manufacture of computers and electronic and optical products	110.6	98.4	116.0	80.4	107.9	100.0
Manufacture of electrical equipment	101.3	99.0	106.9	86.6	99.8	103.0
Manufacture of machinery and equipment	113.5	105.9	110.9	98.6	108.5	108.2
Manufacture of motor transportation vehicles	96.3	87.3	88.7	59.6	93.2	107.7
Manufacture of other means of transportation	99.0	98.9	97.1	84.9	97.8	108.2
Furniture making	102.1	103.7	104.0	86.1	111.5	109.8

Source: Rosstat.

The most difficult situation of all the manufacturing industries was in machine-building where the drop in output in Q2 2020 exceeded 25% compared to the corresponding index a year earlier. The manufacture of motor vehicles reacted in the most acute form to the irregularity of economic activity and the drop in demand down by 59.8% against Q2 2019, which amidst a developed system of manufacturing tides, had an extremely painful effect on the output dynamic of related machine-building enterprises, structural materials and components. At end-2020, the pace of manufacturing production stabilized at the level of the previous year.

In 2020, the output index of goods and services by basic types of economic activity stood at 97.3%. The dynamic of basic economic activities in 2020 was considerably affected by the contraction of demand for transportation and logistics services. The dynamic of cargo turnover and haulage of cargo since early 2020 compared to the previous year was in the region of negative values for almost all types of cargo transportation and amounted to 95.1% of the index a year earlier. Railway (97.8%) and pipeline (92.0%) types of transport that provide the dominant share of cargo turnover, as well as the haulage of goods by road (94.1%) responded most acutely to the change in the conditions of economic activity. If in Q1 2020, the demand for transportation and logistics services was supported by upward trend of wholesale and retail trade and industrial production, in Q2 the development of downward trends in these same types determined a sharp drop in the volume of activity of the transportation complex. Cargo turnover dynamic in Q2 2020 was determined by a reduction in the volume of transportation of export mineral commodities against the background of a significant increase in grain transportation by sea and rail.

In 2020, the volume of construction works stabilized at the level of the previous year, which is not typical for the crisis-led situations of the investment sector of the Russian economy. The output stabilization in this type of activity is associated, firstly, with mild sanitary-epidemiological and administrative restrictions in construction and, secondly, with pro-active government approach aimed at maintaining the potential of the construction complex as one of the conditions for economic recovery and the real estate market incentivization.

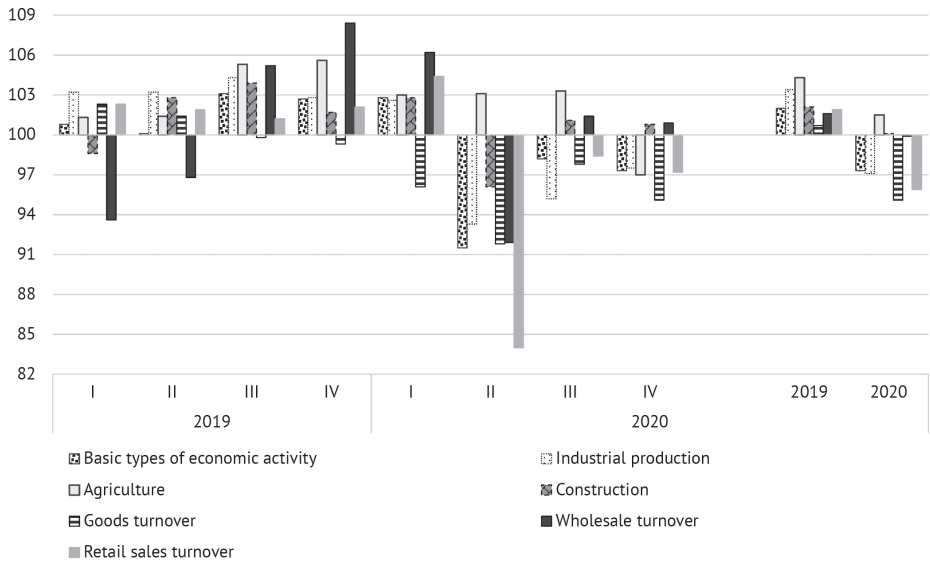


Fig. 6. Output indexes by basic types of economic activity in 2019–2020, in % on the corresponding period of the previous year

Undoubtedly, the trend of a steady increase in the contribution of agriculture to the dynamic of the domestic and foreign markets had a positive impact on the economic situation. Agricultural production generates resources for the sustainable growth of agro-industrial food production, for the market of final demand food products and the market of non-food agricultural products of intermediate demand. Under the difficult 2020 conditions, agriculture not only supported the domestic market, but also helped to scale up the volume of agricultural exports. In 2020, the position of agriculture in the world market has strengthened: exports of food products and agricultural raw materials gained 19.2%, while imports, on the contrary, decreased by 0.9% compared to a year earlier (*Fig. 6*).

4.1.2. Use of GDP: final household consumption

The analysis of GDP by end-use components enables us to identify the features of the crises of 2008-2009 and 2014-2015, as well as the specifics of 2020 in a critical medical and biological situation. A common feature of the three crises over the past 20 years has been a steeper drop in fixed capital investment relative to household final consumption expenditure. The investment crisis of 2009 was the most profound, but the implementation of the anti-crisis program to support the real and financial sectors of the economy determined the nature and dynamic of construction and investment activities. The active policy of supporting the household income and the recovery of household final consumption in 2010 at the pre-crisis level created an additional momentum to the growth of fixed capital investment, supported by the implementation of large-scale infrastructure and socially significant projects. With an annual lag, overcoming the investment downturn fallout in 2011 determined economic recovery to pre-crisis levels.

The distinguishing feature of the 2015 crisis was an unprecedented deep drop in the household final consumption, which forerunner was the decline in real incomes of the population observed a year earlier, as well as the resumption of the decline in the construction and investment complex. With the increasing effect of external factors, the investment and consumer crisis took on a protracted character, and the 2020 starting conditions were determined by the indexes of household final consumption at the level of 96.8% and in fixed capital investment at 99.2% of the pre-crisis index of 2013-2014.

The coronavirus pandemic has enhanced the impact of accumulated structural imbalances, but in contrast to previous critical situations, the 2020 crisis was marked by a restrained decline in household consumption and fixed capital investment, while implementing systemic measures to support the population and businesses by boosting government spending (*Fig. 7*).

The epidemiological crisis of 2020 and the response of political institutions to the introduction of measures to restrict economic activity have significantly changed the role of household consumption. If the cyclical downturn is marked by a relatively weak reaction of household consumption compared to other GDP end-use components, then in the crisis of 2020, the fall in private consumption in Q2 hit 21.7% compared to the corresponding period of the previous year, which was the deepest drop over 25-year span of observations.

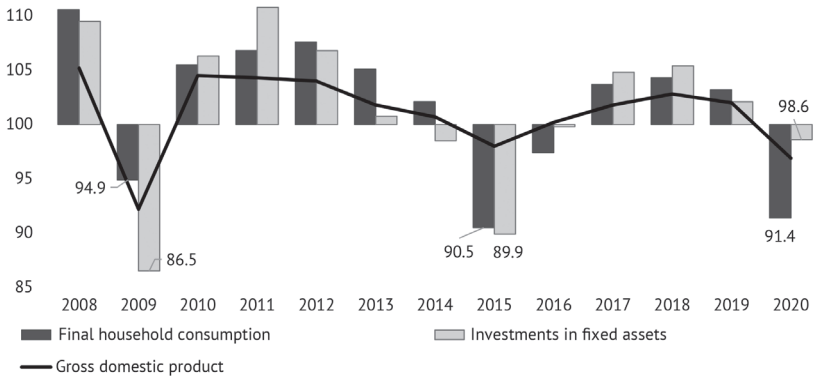


Fig. 7. Dynamic of domestic demand by the end-use components in 2008–2020, in % on the corresponding period of the previous year

Source: Rosstat.

In the wake of a sharp deterioration in the indexes of the sanitary and epidemiological situation and stringent restrictions on economic and social activities in April – May 2020, the government's measures to support the population, businesses and certain types of economic activities and enterprises reached their maximum values. During this period, the increase in government spending on final consumption played a key role in social support of the population, reducing tension in the labor market. Growth in the share of government spending on individual and public consumption in Q2 2020 up to 23.3% of GDP, with an average long-term value of this index at 18.2% of GDP, helped to mitigate the shock of falling labor incomes of the population and guarantee the fulfillment of social obligations (*Table 4*).

Table 4

Dynamic and structure of final consumption expenditure in 2015–2020

	2015	2016	2017	2018	2019	2020	Quarters 2020			
							I	II	III	IV
% on previous year/quarter										
Gross domestic product	98.0	100.2	101.8	102.8	102.0	96.9	101,4	92,2	96,5	98,7
Final consumption expenditure	92.0	98.5	103.4	103.5	103.9	94.8	102,6	85,4	94,4	96,8
- households	90.5	97.4	103.7	104.3	103.2	91.4	102,2	78,3	90,9	94,3
- public administration	96.4	101.4	102.5	101.3	102.4	104.0	103,6	104,1	104,2	104,1
% to total, in current prices										
Gross domestic product	100	100	100	100	100		100	100	100	100
Final consumption expenditure	70.4	71.7	71.1	68.1	69.6	70.4	76,9	69,8	69,5	65,5
- households	52.3	52.8	52.5	50.0	50.8	49.1	54,5	46,1	48,9	46,9
- public administration	17.8	18.5	18.2	17.7	18.4	20.8	21,9	23,3	20,1	18,2

Source: Rosstat.

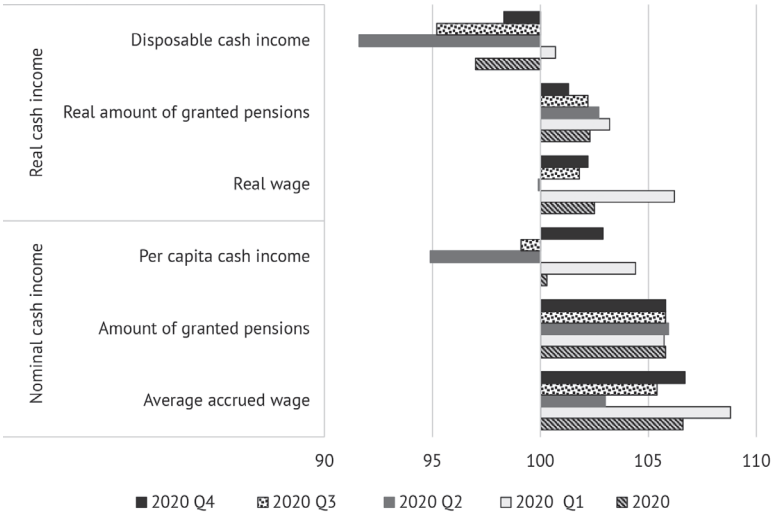


Fig. 8. Dynamic of real and nominal incomes of the population in January-September 2020, in % on the corresponding period of the previous year

Source: Rosstat.

On the back of the recovery in economic activity, wage growth accelerated in H2 2020, which helped to slow down the downward trend of nominal cash and real disposable incomes (*Fig. 8*). Nevertheless, in 2020 the real disposable cash incomes shed 3.5% compared to the previous year.

The response of the population to changes in the level of income during 2020 was extremely heterogeneous.

If in Q1 2020, consumers responded to the uncertainty of the epidemiological situation with a surge in activity in the goods market amidst increased inflation expectations, then in Q2, spending on the purchase of goods decreased by 26.7% and on payment for services – by 31.4% compared to a year earlier, and their proportion in total household spending at the period-end corresponded to the lowest level during observations since 2013.

Stringent administrative measures to regulate activities in the market of paid services to the population, retail sales, and passenger transportation have led to a change in the model of private consumption with the dominant share of spending on essential goods and services. Given the uncertainty of the development of the economic situation, changes in consumer expectations and a reduction in irregular incomes, the volume of retail sales in Q2 2020 constituted 83.4% compared to a year earlier (for food products – 92.9%, for non–food products – 74.5%), the volume of paid services – 63.9%, public catering - 50.3% and stood at the lowest level over a period of 20-year observation.

The opening of non-food retail, hospitality business, domestic tourism and resort destinations in May-September 2020 and the implementation of the

announced government measures to support consumers led to a revival in demand and an increase in spending on goods and services.

In Q3 2020, amid the easing of epidemiological restrictions, opportunities for the realization of pent up demand for non-food products, recreational and leisure services went up. The growth in demand for the services of the tourist and recreational complex was supported by both the accumulated funds of the population and the government's measures to partially reimburse the costs of tourist packages. The economy displayed a recovery in retail, hospitality business, public catering and passenger transportation. At 2020 Q3-end, structure of the total income of the population demonstrated expenditures on the purchase of goods to go up to 63.35% (+9.3 p.p. relative to Q2) and services - to 16.3% (+3.5 p.p.) (*Table 5*).

Table 5

Structure of the use of household income for current expenses and savings 2015–2020, %

	2015	2016	2017	2018	2019	2020	Quarters 2020			
							I	II	III	IV
Revenue, total	100	100	100	100	100	100	100	100	100	100
Current expenses	77.2	77.5	79.1	80.7	80.8	76.1	87.1	67.4	80.4	71.0
Purchase of goods					59.8	59.0	65.3	54.0	63.3	54.7
Payment for services					18.0	15.9	19.6	12.8	16.3	15.1
Mandatory payments and contributions	13.7	13.8	14.1	15.1	15.3	15.5	15.5	14.5	16.4	15.6
Savings	9.1	8.7	6.8	4.3	3.9	8.4	-2.6	18.1	3.2	13.4
Deposits, securities, purchase of real estate, change in debt on loans and on accounts of individual entrepreneurs	10.1	6.6	4.6	1.8	3.4	4.0	-4.8	10.3	-1.2	10.0
Cash in hands	-1.0	2.1	2.2	2.5	0.5	4.4	2.2	7.8	4.4	3.4

Source: Rosstat.

Throughout 2020, the savings behavior of the population changed. Changes in the level of household consumption were reflected in the indicator of the population's propensity to save. The decrease in savings in Q1 was replaced by their increase in the following periods - firstly, due to forced savings/savings amidst the supply curtailing in the domestic market, and secondly, due to increased credit activity of the population, boosted by financial and monetary policy.

Given the uncertainty of the development of the situation and lowered expectations regarding labor income the accumulated monetary resources of households fueled consumer confidence in selection of the current consumption model (in Q3), but at the same time expanded the investment potential of the population (in Q4) and boosted activity in the real estate market on the back of the implementation of the government's package of measures on mortgage lending.

The peculiarity of generation of reserved funds in 2020 was determined by the increase in the share of cash in hands to the highest values over the past 7 years, which probably reflected the preservation of unspent income in cash due to the precautionary motive in the face of growing uncertainty and fear of new risks (*Table 6*).

Table 6

Investment potential and investment activity of the population in 2015–2020

	2015	2016	2017	2018	2919	2020
% of GDP						
Retail deposits	27.9	28.3	28.3	27.4	28.0	30.8
Retail loans	12.9	12.6	13.3	14.3	16.2	18.8
Including housing mortgage loans	1.41	1.73	2.21	2.91	2.62	4.03
% on cash incomes of the population						
Retail deposits	43.7	44.5	46.2	48.7	49.2	52.7
Retail loans	10.94	13.71	16.66	20.25	16.21	21.43
Including housing mortgage loans	2.20	2.73	3.61	5.16	4.61	6.90
% on banking sector assets						
Retail deposits	30.0	32.7	33.3	33.0	34.4	31.6
Retail loans	13.8	14.6	15.6	17.3	19.9	19.3
Including housing mortgage loans	1.51	2.00	2.60	3.50	3.22	4.14
For reference:						
Weighted average interest rate	12.89	11.56	9.79	9.66	9.00	7.36
Share of outstanding debt on IHC to total debt on IHC, %	1.66	1.57	1.33	1.14	0.97	0.78
Housing market price index, in % on the previous year						
Primary housing market	99.7	99.6	101.0	106.3	108.0	112.0
Secondary housing market	96.8	97.0	98.4	104.1	103.8	109.5

Source: Rosstat.

In 2020, the nature of consumer behavior was shaped on the back of the household high credit activity. In 2020, the share of bank loans originated to households hit the maximum value for the period of ten-year observations and came to 18.8% of GDP and 32.2% of cash incomes of the population.

4.1.3. GDP formation by sources of income: wages and labor productivity

The government relief measures aimed at retention of jobs and wages while reducing the tax burden have significantly reduced the impact of quarantine restrictions on the economic activity and on the level of nominal wages, which ultimately led to higher labor costs and lower production profitability. The share of wages in Q2 2020 at 54.6% of GDP was the highest since 2013. The redistribution of income between the population and business has avoided labor market shocks and social discontent (*Table 7*).

Table 7

GDP formation by sources of income in 2015–2020, % to total

	2015	2016	2017	2018	2019	2020	Quarters 2020			
							I	II	III	IV
Gross domestic product	100	100	100	100	100	100	100	100	100	100
Including:										
Earnings of employees (including latent)	47.8	48.2	47.8	45.3	46.3	49.5	51.9	54.6	46.1	46.7
Net taxes on production and import	11.1	11.0	10.9	11.7	11.3	10.8	11.3	11.0	10.0	11.1
Gross profit of economy and gross mixed income	41.1	40.8	41.3	43.0	42.4	39.7	36.8	34.4	43.9	42.1

Source: Rosstat.

In 2020, the change in the structure of cash income of the population was defined by a simultaneous growth in the share of labor income to 58.9.8% (+1.2 p.p. compared to 2019) and social benefits to 21.0% (+2.1 p.p.). The growth rate of average monthly wages in the past year was quite significantly differentiated, but the ratio of wages by type of economic activity remained in the range of long-observed values. In 2020, wages in such sectors as public health and social services (114.5% compared to 2019), information and communications (109.6%), public administration (106.7%), finance and insurance (107.8%), education (106.2%), agriculture (107.0%), and mining (106.5%) grew at a rate exceeding the national index. Manufacturing industries as a whole exhibited a restrained dynamic in this respect (104.4%): the acceleration of the rate of labor remuneration compared to the same period of the previous year was observed in the production of medicines and materials used for medical purposes (110.9%), in the production of medical textiles (108.3%) and came amid an increase in government orders. In the segment of machine-building industries, the rate of change in wages was lower than the combined indexes for manufacturing and the economy as a whole.

In the transport and logistics complex, nominal wages gained 3.6% compared to the 2019 index with a positive dynamic of wages in the freight transportation segment. Despite the measures taken to support the transport sector, the decrease in wages was recorded in the types of activities with a high level of passenger traffic – in railroad transportation (98.2%) and air service (90.0%).

Measures to support the labor market and retain jobs in the event of a decline in business activity resulted in an increase in business costs. The share of the gross profit of economy in GDP in 2020 dropped to 39.7% (-1.4 p.p. compared to 2019), and in Q2 stood at a minimum level (34.4%) for the period of ten-year observations, the financial results of the economy as a whole constituted 77.9% of the 2019 index. The high differentiation of the profitability level by type of economic activity was driven by the structure of domestic prices, the movement of the ruble exchange rate, the redistribution of production factors between types of economic activity, domestic and international demand. Profitability in the economy as a whole in January – September constituted 8.9% and shed 2.4 p.p. compared to a year earlier (*Table 8*). The decline in financial results in extractive

industry was determined by the combined impact of the factors of changes in world prices for fuel and energy products and the reduction in their production volumes. An extremely difficult financial situation was observed in hospitality business and tourist and leisure complex, in the passenger transportation segment of the transport complex. At the same time, it should be noted that the vigorous activity of government agencies in implementing measures to support mortgage lending has led to an increase in the efficacy of the financial, credit and insurance markets as well as real estate operations.

Table 8

Profitability of goods, works, and services sold by types of economic activity in 2017–2020, %

	2017	2018	2019	2020
Total in the economy	7.5	12.3	11,4	9,9
Agriculture, hunting and forestry	17.3	20.2	18,6	22,9
Extraction of natural resources	24.6	33.6	29,6	23,0
Manufacturing	10.9	12.8	12,1	12,2
Electricity, gas and vapor production, air-conditioning	8.3	8.8	9,2	8,4
Construction	3.8	6.1	7,0	8,1
Wholesale and retail trade	4.1	7.3	6,4	5,1
Hotels and catering	7.0	7.1	5,9	-0,9
Transportation and storage	3.4	8.8	8,7	3,4
Information and communications	12.0	14.6	16,0	12,8
Finance and insurance	0.8	11.2	11,8	34,7
Real estate operations	18.5	15.9	13,7	24,3
Public administration and military security; social security	-1.5	2.4	15,2	19,3
Education	2.7	4.2	6,7	9,5
Public health and social services provision	7.0	10.4	9,8	9,9

Source: Rosstat.

The decline in business profitability has become a factor limiting the pace of the economic recovery from the pandemic crisis. The movement of financial results was formed amid the temporary suspension of economic activity and the retention of wage commitments in compliance with government decisions on social support for those employed in the economy. The economic recovery is likely to require a change in the structure of the use of production factors, with the possible option of a painful restructuring of the labor market and cutting labor costs.

4.1.4. Investment in the wake of the pandemic

In 2020, changes in financial and credit regulation indexes markedly affected the nature of investment activity. Compared to 2019, the terms for financing investment activities were determined by a reduction in the key rate from 7.5% to 5.5% (June 19, 2020) and to 4.25% (September 3, 2020). The threat was the increase in the scale of private net capital outflow to $47.8 bn against $22.6 bn

in 2019, while the volume of foreign direct investment in the Russian economy and abroad decreased.

In 2020, the proportion of gross fixed capital formation in GDP remained close to the previous year's figure, and the share of fixed capital investment in GDP in 2020 increased to the maximum over the last five-year index of 18.9% (*Table 9*).

Table 9

Investment activity in 2014–2020: dynamic, conditions, factors

Index	2014	2015	2016	2017	2018	2019	2020
Dynamic of construction and investment activity, in % on the previous year							
GDP	100.7	98.0	100.3	101.8	102.8	102.0	96.9
Fixed capital investment	98.5	89.9	99.8	104.8	105.4	102.1	98.6
Volume of construction works	97.7	96.1	97.9	98.8	106.3	102.1	100.1
Share of construction and investment complex in GDP, %							
Fixed capital investment	17.6	16.7	17.2	17.5	17.1	17.7	18.9
Construction	6.8	6.3	6.4	6.0	5.6	5.5	5.7
Real estate operations	10.6	10.2	10.2	10.0	9.5	9.8	10.4
Financial conditions							
Key rate (at period-end), %	17.0	11.0	10.0	7.75	7.75	6.25	4.25
International reserves of the Russian Federation (at year-end), USD bn	385.5	368.0	376.3	432.1	468.5	549.8.	597.4
Price indexes on December of previous year, %:							
Consumer	111.4	112.9	105.4	102.5	104.3	103.0	104.9
Industrial producer	106.3	112.1	107.5	108.4	111.7	95.7	103.6
Investment purpose products Including:	107.2	110.3	103.2	103.1	107.3	105.1	104.8
Construction products	104.6	104.1	106.6	104.9	106.5	105.0	102.9
Purchase of machinery and equipment	112.3	120.1	97.8	101.1	108.9	107.1	109.3
Official exchange rate USD/RUB (at year-end)	56.26	72.88	60.66	57.60	69.47	61.91	73.88

Sources: Rosstat, Bank of Russia.

The growth of budget expenditures on investment programs to 2.7% of GDP had a positive impact on the level of investment activity in 2020 (*Table 10*). Furthermore, the activity of the corporate sector and households in the monetary market has increased. Corporate and retail deposits in 2020 moved up to 62.8% of GDP (+9.0 p.p. compared to 2019) and corporate loans and retail loans, including outstanding debt – to 60.7% of GDP (+8.9 p.p.).

Table 10

Key features of investment sources in 2015–2020, in % of GDP

	2015	2016	2017	2018	2019	2020
% of GDP						
Gross savings	24.6	24.2	26.6	33.2	31.2	31.6
Gross capital formation in main funds	20.6	21.9	22.0	20.7	21.1	21.4
Gross profit and other mixed income	41.1	40.8	41.3	43.0	42.4	39.7
Consolidated budget revenue	32.3	32.9	33.8	35.8	36.2	35.5

	2015	2016	2017	2018	2019	2020
National Wealth Fund	6.1	4.7	3.6	3.7	6.8	11.7
Budgetary investment funds	2.3	2.2	2.2	2.0	2.2	2.7
Of which federal budget funds	1.4	1.2	1.1	1.0	1.0	1.2
Loans issued to:						
Corporate clients	42.1	38.4	36.8	36.6	35.7	42.0
Individuals	12.9	12.6	13.3	14.3	16.2	18.8
Deposits:						
Corporate	32.6	28.4	27.0	27.0	25.8	32.0
Retail	27.8	27.9	28.3	27.4	28.0	30.8
USD bn						
Direct investment in Russian economy	6.9	32.5	28.6	8.8	32.0	3.4*
Direct Russian investment abroad	22.1	22.3	36.8	31.4	21.9	1.0*
Private sector financial operations (net lending (+)/borrowing (-))	57.1	18.5	24.1	65.5	22.6	47.8

* January - September.
Sources: Rosstat, bank of Russia.

An unfavorable combination of economic performance factors in 2020 – such as the contraction of the domestic market, the drop in the ruble exchange rate, and the financing of emergency measures in the public health sector and related economic activities - had a considerable impact on the dynamic and structure of investment. In 2020, in fixed capital investment dropped by 1.4% in real terms. As a result of the impact of quarantine restrictions, in fixed capital investment fell by 5.3% in Q2, but these indexes did not decline to the lowest values over the last decade (2009 and 2015). A feature of 2020 was the relatively restrained reaction

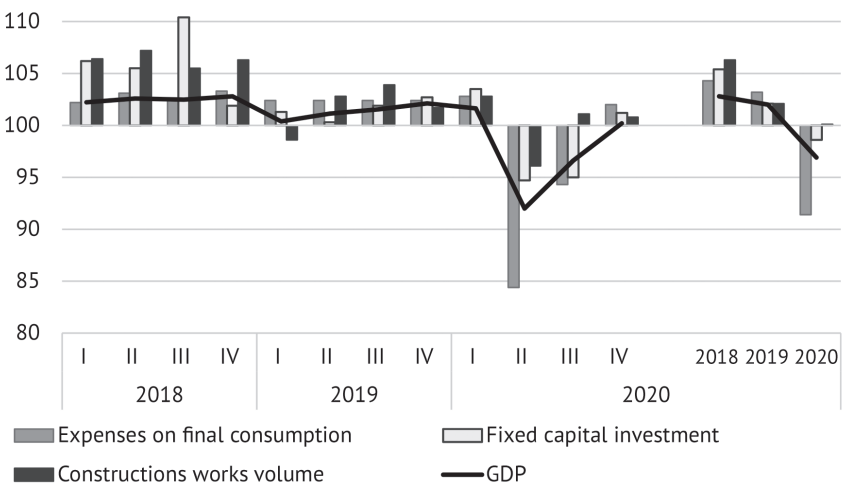


Fig. 9. Dynamic of GDP, fixed capital investment and household final consumption in 2018–2020, in % on the corresponding period of the previous year

Source: Rosstat.

of the investment and construction complex in comparison with the compression of consumer demand and the dynamic of production of goods and net exports, which is due to the faster exit of the construction complex from quarantine restrictions (*Fig.* 9).

The formation of investment resources retained the dominant role of the own funds of enterprises and organizations. In 2020, the share of investments made from organizations' own funds reached the maximum level of 56.7% of the total fixed capital investment over the period of 20-year observations. It should be noted that the increase in the share of own funds of enterprises and organizations in the sources of financing in 2020 came amid a decrease in the share of profit and other mixed income to 39.7% of GDP, financial performance of the economy as a whole – by 23.5% year-on-year, and the level of profitability – to 8.9%.

The participation of the banking sector in the financing of investment activities in January–September 2020 was marked by an increase in the share of loans by 0.3 p.p. compared to the previous year. In the structure of financing sources of fixed capital investment, the volume and share of loans from foreign banks decreased to 2.0% (-0.8 p.p. compared to 2019), while the share of foreign investments remained at 0.4%. Loans from Russian banks in the amount of investment resources fully compensated for the absolute reduction in the volume of foreign loans and the flow of foreign investment.

The scale of budget financing of investment programs has gone up. The share of budget funds in the total volume of investment resources in 2020 increased to 18.7% (+2.5 p.p. compared to the previous year) with a change in the proportions across budgeting levels. Investment financing from the budgets of the federal subjects and local budgets has increased the most relative to the investment expenditures of the federal budget. In 2020, the increase in the share of budget funds in the structure of financing sources of fixed capital investments was recorded in most federal districts, but with a high level of differentiation by territory. Budget financing of investments was focused on expanding the capacity of healthcare institutions, updating technologies for providing educational and cultural services, and supporting the technological base of information and communication services (*Table 11*).

Table 11

Structure of fixed capital investment by financing sources in 2015–2020, in % to total (less small businesses and informal activity parameters)

	2015	2016	2017	2018	2019	2020
Fixed capital investment	100	100	100	100	100	100
Own funds	50.2	51.0	51.3	53.0	55.0	56.7
Raised funds	49.8	49.0	48.7	47.0	45.0	43.3
Including: Bank loans	8.1	10.4	11.2	11.2	9.8	9.5
Of which: Foreign banks loans	1.7	2.9	5.4	4.4	2.0	2.0
Russian banks loans	6.4	7.5	5.8	6.8	7.8	7.5

	2015	2016	2017	2018	2019	2020
Borrowed funds of other organizations	6.7	6.0	5.4	4.3	4.8	4.6
Foreign investments	1.1	0.8	0.8	0.6	0.4	0.4
Budget funds	18.3	16.4	16.3	15.3	16.2	18.7
Of which: Federal budget	11.3	9.3	8.5	7.6	7.6	8.4
Budgets of subjects of the Russian Federation	5.7	6.0	6.7	6.6	7.4	9.1
Local budgets	1.3	1.1	1.1	1.1	1.2	1.2
Funds of extrabudgetary funds	0.3	0.2	0.2	0.2	0.2	0.2
Funds raised for shared equity construction (organizations and population)	3.2	3.0	3.3	3.5	4.3	3.0
Including funds of the population	2.4	2.3	2.5	2.5	3.2	2.5
Other	12.1	12.2	11.5	11.9	9.3	7.0

Source: Rosstat.

In 2017-2020, the role of the state as a subject of the investment process increased, and the share of state-owned investments in 2020 rose to 22.5%, mainly on the back of a decrease in the share of private Russian and foreign property (*Table 12*).

Table 12

Structure of fixed capital investments by forms of ownership in 2016–2020, in %, in current prices

	For a full range of businesses				Less small businesses and informal activity parameters	
	2016	2017	2018	2019	2019	2020
Fixed capital investment, total	100	100	100	100	100	100
Including by forms of ownership						
Russian	83.1	83.8	85.1	85.6	82.7	84.2
State	15.2	14.4	14.8	15.6	20.0	22.5
Municipal	2.7	2.5	2.3	2.7	3.4	3.8
Private	55.9	58.1	58.9	59.9	50.3	50.0
Mixed Russian	7.8	7.5	7.9	6.4	7.7	6.8
State corporations	1.4	1.2	1.2	1.0	1.2	1.0
Foreign	7.4	7.4	6.6	7.0	8.0	6.9
Joint Russian and foreign	9.5	8.8	8.3	7.4	9.3	8.9

Source: Rosstat.

4.1.5. Fixed capital investment by types of activity

Fixed capital Investments of large businesses, which form 4/5 of investments in the national economy, in 2020 amounted to 98.9% of the previous year.

Extractive industry reacted most acutely to the change in the macroeconomic conditions of investment activity – a decrease of 3.1% compared to 2019. In the extractive industry, investments in crude oil and natural gas production increased

in 2020 to 102.0% compared to the previous year, while investment activity in coal production decreased to 66.1%.

In manufacturing, fixed capital investment gained 1.7% in 2020, compared to a 0.4% increase a year earlier.

The leader in investment activity in 2020 was the production of medicines and medical supplies: the growth rate of 183.3 % compared to a year earlier, the share in the total volume of in fixed investments in the economy increased to 0.6% (+0.3 p.p.).

As in 2019, the upward trend in construction and investment activity remained in the oil refining complex (115.0% against 2019). The growth of fixed investment of the metallurgical complex in 2020 came amid a change in the proportions between metallurgical production and the production of finished metal products. Capital investments in the machine-building complex and in the production of construction materials declined. In the machine-building complex, the drop in fixed capital investment in manufacture of motor vehicles by 21.8%, and electrical equipment by 30.0% results in curbing the processes of technical and technological update of these industries. The decline in investment in manufacture of computers and electronic-optical products is also alarming – by 3.9%, in the wake of growing demand for these types of products (*Fig. 10*).

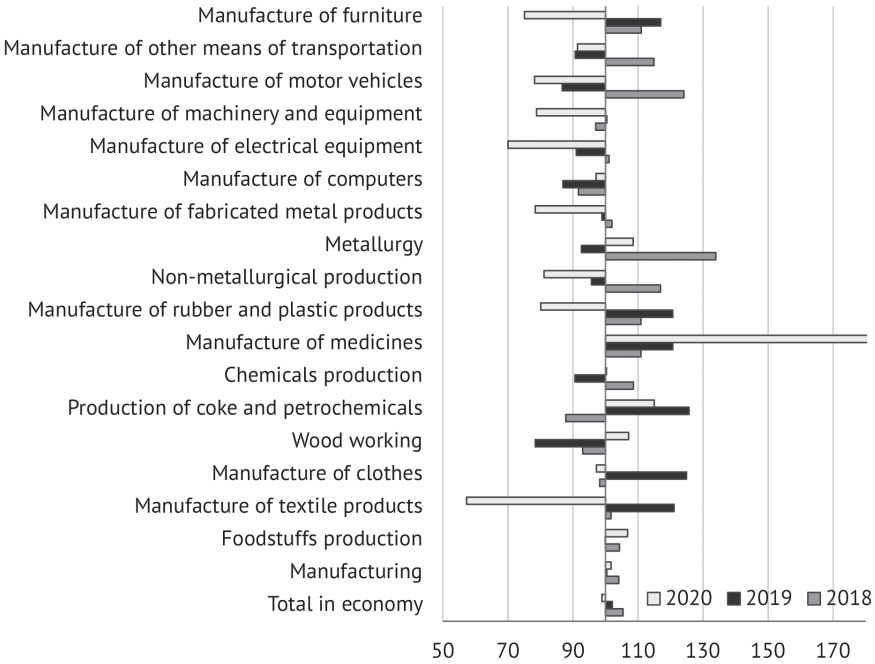


Fig. 10. Fixed investment dynamic in manufacturing industry in 2018–2020, in % to the previous year

In the service sector, in 2020, there was an acceleration in the growth of fixed investments in education, public health, and tourism. It should also be noted such positive aspects as the outstripping growth of investments in information technology, in professional and scientific and technical activities (*Fig. 11*). At the same time, investments in the development of transportation and logistics and trade and sales services declined, which is especially important in the context of the implementation of plans for modernization and expansion of trunk infrastructure (*Fig. 12*).

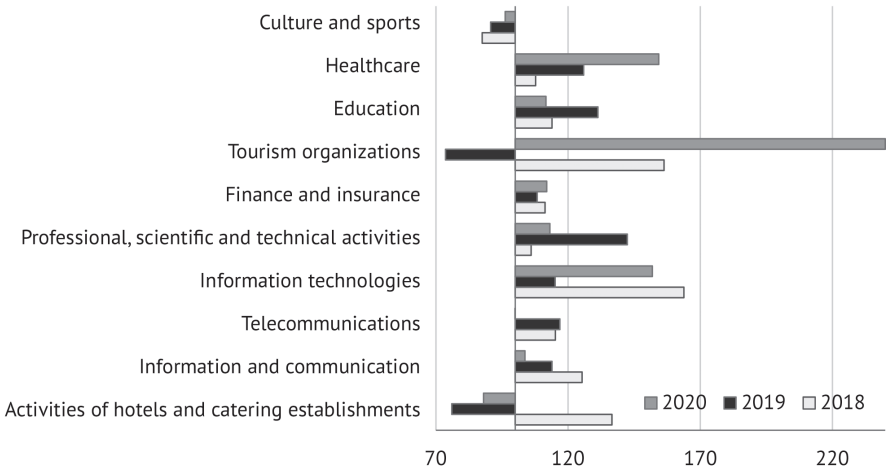


Fig. 11. Fixed investments in service sector in 2018–2020, in % to the previous year

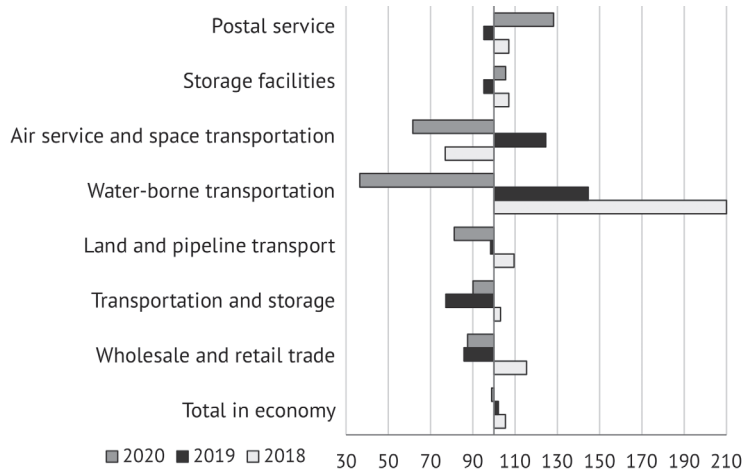


Fig. 12. Fixed investments in transportation and marketing complex in 2018–2020, in % to the previous year

The pandemic induced decline in freight and passenger traffic had a negative impact on the financial results of the transportation complex and raised difficulties with the maintenance of infrastructure, rolling stock and wages. In this regard, in 2020, the industry was granted direct subsidies for the payroll fund and the maintenance of property complexes, subsidizing rates under credit agreements, including small and medium-sized enterprises. Priority measures to support transportation companies relate to the settlement of current lease payments: for suburban passenger companies - Rb3,240 mn; for cruise river and marine companies - Rb320 mn (federal budget); for leasing contracts for buses, trams, and trolleybuses – Rb5.8 bn (budgets of the federal subjects).

In 2020, the volume of construction work almost remained at the level of the previous year. With a general trend to weaken the financing of construction works and services, their structure by type of capital stock showed a trend to stabilize the proportion of expenditures on machinery, equipment, and vehicles. The increased demand for new equipment in most cases is due to active measures to provide health facilities and related types of activities. The increase in the share of investments in information, computer and telecommunications equipment was also positive, which provided conditions for the rapid resolution of issues in the social sphere and acceleration of the introduction of digital technologies.

Table 13

Structure of fixed investments by types of capital stock in 2017–2020, in % to total

	For a full range of businesses			Less small businesses	
	2017	**2018**	**2019**	**2019**	**2020**
Fixed investment, total	100	100	100	100	100
Including:					
Residential buildings and structures	13.6	13.1	14.4	6.5	5.5
Buildings (minus residential) and facilities	43.8	42.4	38.4	43.7	43.4
Expenses on land reclamation				0.1	0.1
Machinery, equipment, means of transport	33.7	35.3	37.0	38.1	38.6
Of which information, computer and telecommunications (ICT) equipment				4.2	4.4
Intellectual property items	2.8	3.1	3.3	4.2	5.3
Other	6.1	6.1	6.9	7.4	7.1

Source: Rosstat.

In 2020, the overall share of investment in residential and non-residential buildings continued to decline (*Table 13*). In 2020, the decline in residential construction by 1.8% compared to a year earlier is particularly alarming for regions where the housing construction dynamic was around negative rates in the previous year.

The redistribution of investment funds by type of capital stock in 2020 happened on the back of an increase in the share of raised funds of the population in shared-equity construction. With the general trend towards a decrease in

current expenditures and an increase in the savings rate, the investment activity of the population was significantly affected by an increase in demand for housing and mortgage loans.

The development of housing construction and housing services in government and program documents is defined as a priority direction for improving the quality of life and a condition for the modernization of the social sphere and the economy. Given the current level and structure of income and expenditure of the population, the implementation of mortgage programs for individual social groups is the main problem in housing construction.

Both growing demand of the population and the need to reduce the share of dilapidated and hazardous housing affect the dynamic and structure of housing construction costs. This set of issues drew the attention of the Russian Government to the issues of the performance of the construction complex and housing construction in the context of the post-pandemic recovery of economic activity.

Business activity in housing construction this year will be supported by such measures as the implementation of the program of subsidizing the interest rate on loans for the purchase of housing in newly constructed buildings, the program of preferential mortgages.

The unstable recovery of the investment complex, while maintaining the downward trend in domestic and external demand, leads to a revision of investment plans. In this regard, the combination of measures taken by the government to support the economy with the instruments of fiscal and monetary policy is of particular importance. In the same direction operate new financial instruments for investment support, the implementation of a system for supporting regional investment projects and the provisions of the agreement on the protection and promotion of capital investments.

4.2. The industrial production dynamic in 2020[1]

The imposition of the restrictive measures to contain the spread of the coronavirus infection (self-isolation regime, shutdown of public facilities, etc.) adversely affected the dynamic of Russian industrial sectors in H1 2020. The manufacturing industries that produce consumer durable goods, which sales most strongly depend on changes in the income of the population, suffered the most. The collapse of the OPEC+ deal and its subsequent renewal on tougher conditions for daily oil production adversely affected the extracting sector dynamic. The decomposition analysis has demonstrated that the Russian economic recession was relatively small, the ownership structure of major industrial enterprises, the weak integration of Russian industrial sectors into global value added chains and a significant share of industrial production in the economy played a positive role.

1 This section was written by *Kaukin A.*, Candidate of Economic Sciences, Head of Sectoral Market and Infrastructure Department, Gaidar Institute, Center for Real Sector, Gaidar Institute; Head of Sectoral Market System Analysis Department, IORI RANEPA; *Miller E.*, Senior Researcher, Sectoral Market System Analysis Department, IORI RANEPA. The authors express their gratitude to *M. Turuntseva* and *T. Gorshkova* for their help in conducting statistical analysis.

To correctly interpret trends in certain industries, it is necessary to perform decomposition of their output into components: calendar variations, seasonal variations, irregular movements and trend. The interpretation of the latter is of particular interest, that is why the Gaidar Institute experts cleared the series of indexes of all industrial production sectors for 2014-2020 from the seasonal and calendar components and filtered out the trend component[1] by using the latest statistical data released by Rosstat across production indexes in industrial sectors of the economy.

The results of time series analysis for the industrial production index on the whole are presented in *Fig. 13*. *Fig. 14* exhibits the results of the aggregate indexes

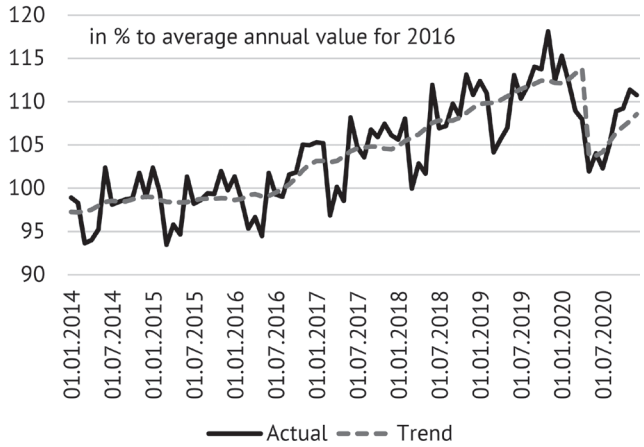
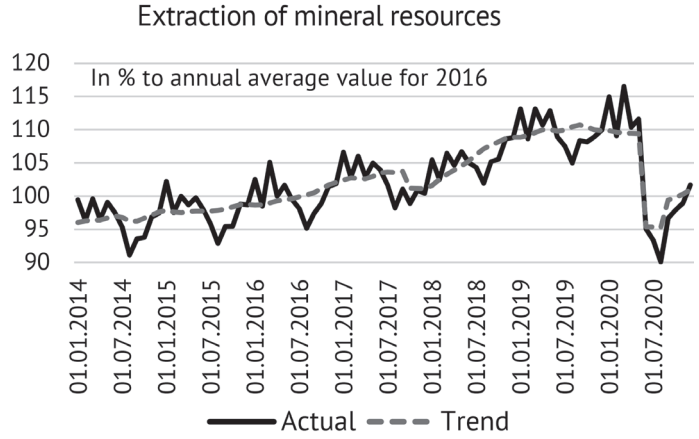


Fig. 13. Industrial production index dynamic in 2014–2020 (actual data and the trend component), in % to annual average value 2016

Sources: Rosstat, own calculations.



1 The trend component was filtered out by applying Demetra packet and procedure X12-ARIMA.

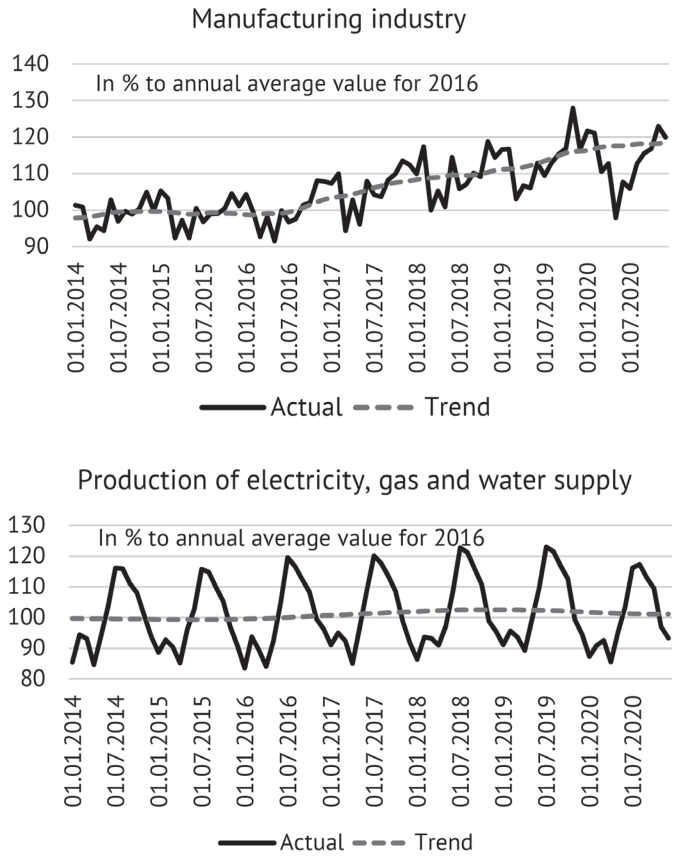


Fig. 14. Production index dynamic in extractive industries and industrial manufacture, production of electricity, gas and water supply in 2014–2020 (actual data and the trend component), in % to annual average value for 2016

Sources: Rosstat, own calculations.

of the extracting sector, the manufacture sector, and the production and supply of electricity, gas, and water. In case of other time series, the decomposition results are represented in *Fig. 15* as well as in *Table 14*.

4.2.1. The industrial production index dynamic in Q1[1]

In Q1 2020, the industry producing fuel and energy resources continued to be affected by the factors of 2019: sluggish demand for energy resources from the main consumer countries due to the policy of reducing solid fuel consumption and switching to renewable energy sources (RES), warm weather conditions, and

1 *Zhemkova A.M., Kaukin A.S., Miller E.M.* Chapter 5.6. Industry, transport, construction: crisis and support // Society and Pandemic: experience and lessons of facing COVID-19 in Russia. – Moscow: 2020.–744 p.

high occupancy of gas storage facilities in Europe. Suspension of the three-year OPEC+ deal to adjust downwards crude oil production[1] which resulted in further unbalance of the crude oil market due to price war between Saudi Arabia and Russia. The OPEC and non-OPEC oil producers signed a new deal in early April on tougher terms for all oil producers, which translated into a reduction by 9.7mb/d [2] against 3.2 mb/d cut until the end of 2020 proposed at OPEC+ meeting in early March.

The following industries of the manufacturing sector (including results of Q1 2020) exhibited growth trend, in particular:

- production of food and beverages owing to stable growth in the production of agricultural raw materials and increasing export shipments;
- chemical engineering, including due to the growing demand in the CIS countries for domestic generics (antibiotics, antimicrobial drugs);
- metallurgical production and production of fabricated metal products due to the growth in production of pipes, profiles, structures and aluminum parts, as well as gold mining.

Reduction in production volumes was recorded in wood processing and woodwork due to slump in timber prices, introduction of new phytosanitary requirements and border closure with major consumer – China.

The slow growth in retail sales was due to panic buying of foodstuffs and essential goods, and in wholesale trade due to the growth in the production of chemical and pharmaceutical products against the backdrop of the situation with the coronavirus. The decrease in the provision of paid services to the population is a decrease in its activity owing to the imposition of restrictive measures: self-isolation regime on arrival from foreign countries (the measure was effective on a voluntary basis from early March 2020), shutdown of public facilities (schools, sports and cultural venues, restaurants, etc.) from mid-March 2020, and imposition of "regime of non-work days" from end of March 2020.

Thus, at Q1-end 2020, the industries did not exhibit any signs of a crisis resulting from the introduction of "regime of non-work days", since the commencement of the reduction in domestic and external demand fell at the end of the period under review, and the deployment of available industrial inputs allowed to offset the pressure of rising prices for imported components.

4.2.2. Index dynamic in Q2[3]

The "non-work days" regime was effective from March 30 until May 8, 2020[4], followed by easing of measures to contain the spread of the coronavirus infection:

1 *Bobylev Yu, Kaukin A., Miller E*. Current state and prospects of the global oil market // Monitoring of Russia's Economic Outlook: trend and challenges of socio-economic development. 2020. No. 7 (109), pp. 28–34.

2 The 10th (Extraordinary) OPEC and non-OPEC Ministerial Meeting concludes// OPEC. 12.04.2020. URL: https://www.opec.org/opec_web/en/press_room/5891.htm

3 *Zhemkova A.M., Kaukin A.S., Miller E.M.* Chapter 5.6. Industry, transport, construction: crisis and support // Society and pandemic: experience and lessons of facing COVID-19 in Russia. – Moscow. 2020. –744 p.

4 Executive Order of the President of the Russian Federation No. 206 published on March 25, 2020 imposed non-work days with full wages from March 30 until April 3, 2020. Later, Executive order

the resumption of work of industrial enterprises, the reopening of organizations operating in services business, non-food shops, etc. The timing and list of measures depended on the epidemiological situation, vacant beds available and testing rollout in each specific region of Russia.[1]

The extractive industries continued demonstrating a downward trend in Q2. Russia strictly adhered to its commitments on cutting crude oil production in June (production decline amounted to 2.47 mb/d, and according to the OPEC+ deal, the reduction had to be 2.53 mb/d). The reduction in of external demand affected decline in gas and coal production.

Industrial production was not evenly hit by the spread of coronavirus infection: the production of durable consumer goods (household appliances, furniture, jewelry, leather products) was the most affected due to the hypersensitivity of these sectors to changes in household incomes.

As many enterprises during the pandemic began to review their investment programs and cut costs related to modernization and technological re-equipment in order to reduce costs, the machine-building industry, in particular, railway, road construction, and oil and gas engineering, was hit the hardest.

Among the slightly less affected industries was the production of materials and components. The industry has managed to move sales online and to courier delivery.

The pharmaceutical industry and the manufacture of medical equipment and instruments were virtually unaffected, and in some ways even benefited from the pandemic. The chemical and food industries suffered little, and the demand for their products also moved up during the "regime of non-work days."

The positive dynamic in retail sales remained on the back of the easing of the self-isolation regime and the reopening of non-food stores in certain Russian regions from mid-May 2020, as well as the surge in the online consumer goods market. The recession went on in the transportation sector due to a reduction in international and interregional operations, as well as in logistics operations in trade.

Thus, in Q2 2020, the industries that make the largest contribution to GDP (metallurgy, chemistry, energy and food industry) were either not affected by the crisis triggered by the spread of the coronavirus infection, or had a small adverse impact. The main concern at the end of H1 2020 was a further development of the unfavorable situation in the fuel and energy industry, as a sharp reduction in demand for the main export products - oil and gas - combined with a collapse in prices for them and increased competition with other producers on the shrinking market began to lead to a reduction in export revenues (both budget revenues and free cash flow of companies), investments and orders from the fuel and energy sector, respectively, to a notable contraction of the country's GDP.

of the President No. 239 dated April 2, 2020 extended non-work days regime for the period from April 4 to 30 and by Executive Order No. 294 dated April 28, 2020 for the period from May 6 to 8.

1 Roadmap for exit from self-isolation // Стопкоронавирус.рф. August 7, 2020. URL: https://стопкоронавирус.рф/information/.

4.2.3. Dynamic in Q3[1]

In September 2020, Rosstat recalculated the production indexes for 2019-2020, which was owing to the receipt of updated information from respondents.[2]

The trend component of the extractive sector continued to exhibit close to zero growth rates in Q3 2020, the reasons remained the same: almost complete compliance with the terms of the OPEC+ deal to adjust downward daily oil production, a reduction in global energy demand, including stemmed from the spread of the coronavirus infection.

At end-Q3, the manufacturing sector saw a rise in the trend component. A significant contribution to the current dynamic was made by: chemical production on the back of the demand growth for medicines and materials for medical purposes, chemical and mineral fertilizers (mineral fertilizers were included in the list of goods whose railway transportation is subsidizet;[3] the introduction of a preferential tariff for routes to the Far East increased the export rates of phosphorus fertilizers from Russia to China); metallurgical production driven by export volumes to South-east Asia that recovered faster from the "first wave" of the pandemic, as well as owing to the depreciated ruble that allowed Russian companies to ramp up shipments of galvanized steel to Europe; manufacture of electrical equipment due to an increase in production of radio-location and radio navigational devices and medical equipment; manufacture of means of transport on the back of railroad passenger cars rollout growth (in particular, for the renewal of the fleet in suburban areas in Russian regions), automobiles and minibuses due to pent-up demand and expansion of state support.[4]

The manufacture of machinery and equipment exhibited a downward trend in Q3 2020. That was sparked by a contraction in the investment programs aimed at the modernization and technological re-equipment of production facilities, as well as to losses incurred in H1 2020 stemming from the imposition of restrictive measures.

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1 *Kaukin A.S., Miller E.M.* Dynamic of Industrial Production in Q3 2020. // Russian Economic Developments. 2020. Vol. 27. No. 11 pp. 28–32.

2 Revision was conducted on the following grounds:
- Preferential treatment of the provision of statistical information for certain producers, because of which, the calculation of the production volumes of these categories of producers were traditionally conducted on the latest available data. Such enterprises comprise: micro businesses that report once a year; non-small enterprises that have an average number of employees of no more than 15 persons in the previous 2 years, and an annual turnover of no more than Rb 800 mn, which report once a quarter;
- switchover from the beginning of 2020 to the new base year-2018. As a result, the recalculation of the retrospective indexes for 2019 was conducted on the basis of the production data available at the time;
- provision of operational reports by large and medium-sized enterprises on the 4th working day (often an estimate value) and their update in subsequent periods;
- in September 2020, Rosstat received annual reports from respondents (large and medium-sized organizations, micro businesses, and small enterprises) that update previously provided operational data on the production and shipment of goods, works, and services.

3 RF Government Decree dated May 21, 2020. No. 715 "On Amendments to the Decree of the Government of the Russian Federation dated April 6, 2019. No. 406."

4 *Vladimir Putin* unveiled relief measures for automobile sector // Kommersant. April 24, 2020. URL: https://www.kommersant.ru/doc/4331699.

According to Rosstat, real incomes of the population went on falling in Q3 2020, which took a toll on the retention of negative dynamic in other sectors of Russian economy - in retail sales and paid services to the population. The drop in freight turnover was due to a decrease in crude exports in the wake of global trends of falling demand for energy resources. The growth was demonstrated by such industries as construction on the back of the extension of subsidized mortgages and construction of new roads and crossroads; wholesale commerce driven by deliveries of grains, medicines, and chemical fertilizers.

Consequently, the analysis of trend components in Q3 2020 did not allow to talk about a notable industrial recovery after a plunge induced by the spread of the coronavirus infection and the implementation of restrictive measures. At the moment, one of the main risks of ongoing decline in industrial output was the further aggravation of the epidemiological situation, the potential tightening of containment measures in certain industries or regions, and the formation of corresponding adverse expectations among businesses and the population.

4.2.4. Q4

In Q4 2020, the negative impact of factors related to the implementation of the terms of the OPEC+ deal to cut daily crude oil production continued, which adversely affected the dynamic of the trend component of the mining sector.[1] The growth of external demand for Russian coal from China and Europe had a positive effect on the sector. In the first case, growth was driven by the ban on the import of Australian coal from November 2020,[2] in the second, it was due to a hike in prices on natural gas and decrease in domestic production volumes.

According to the results of the fourth quarter of 2020, the substitution of imported products, including due to the shift in consumer demand to a lower price segment, had a positive impact on a number of industries in the manufacturing sector, including: production of medical equipment; food industry, tech-style and clothing production, furniture production.

The drop in demand for leather from external and domestic markets reinforced the negative dynamic of the trend component of the production of leather, leather products and footwear in Q4 2020. Export volumes feel owing to restrictive measures to counter the spread of the coronavirus infection and the shutdown of production facilities in the countries that consumer Russian leather products. The domestic demand sank following lower incomes of consumers, who reduced their spending on goods related to the leather industry (production of cars and furniture) and switched over to a lower price segment (products made of artificial materials).

1 *Kaukin A.S., Miller E.M.* Crude Oil Market in Late 2020. // Russian Economic Developments. 2021. No. 1 (28), pp. 7–10.

2 On November 6, the Chinese authorities announced the suspension of coal imports from Australia: in November 2020, the order was made orally to large traders, the embargo officially began to take effect on December 14, 2020. The conflict between the countries started in August 2018 because of the obstacles to the introduction of Chinese-made 5G technology in the Australian market: the ban on the use of Huawei and ZTE telecommunication solutions. The escalation of the conflict took place, among other things, after Australia accused China of spreading the coronavirus infection.

The reason for maintaining the negative dynamics of the trend component of pulp-and-paper industry in Q4 2020 can be a reduction in packaging consumption amid the suspension of manufacturing processes in a number of industrial sectors and in the services sector, as well as a reduction in demand for writing and printing types of paper due to the transition of the main consumers to a remote format of work and, consequently, to electronic document flow.

The retail sales and paid services to households exhibited the negative dynamics because of a drop in households' real disposable incomes. After being negative, the trend component of cargo turnover picked up a little following an increase in exports of coal and fertilizers. The wholesale trade showed a slight uptick in Q4 2020 owing to sales of grain, medicine and chemical fertilizers.

The analysis of decomposition findings and identification of the trend component has revealed that despite the slump caused by the coronavirus pandemic, the decline in the Russian industry was relatively small (*Table 14*). Among the possible causes of this effect, the following factors can be mentioned:

- large industry-forming and strategically important enterprises are directly related with the state either through the state-guaranteed order system or by virtue of their ownership pattern; consequently, the problem of falling consumer demand for such enterprises is not an acute problem for independent small and medium-sized enterprises;
- the weak involvement of Russian industries in global value-added chains (except for the extraction of fuel and energy commodities) during global recession has a positive effect (however, in the longer-term this factor may slow down development during the global economic recovery);
- in the structure of Russian economy, a notable proportion is occupied by industry, whose enterprises operate in a continues mode, which means that they cannot be stopped even if epidemiological restrictions are imposed on other companies.

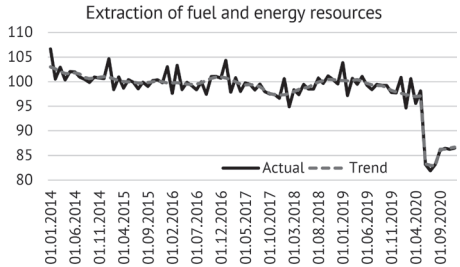
Table 14

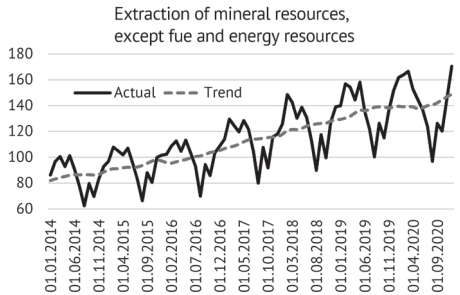
Change in the output index across industrial production, %

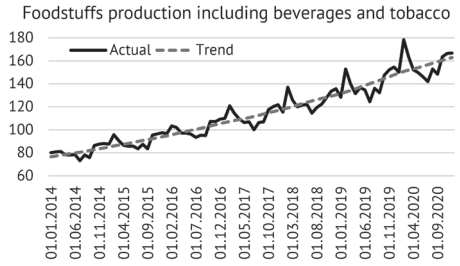
Sector	Share in industrial production index, %	December 2020 to June 2020, %	December 2020 to December 2019, %	Last months' change
The industrial production index		104.63	96.77	Growth
Extraction of natural resources	34.54	105.85	91.89	Growth
Manufacturing, including:	54.91	100.79	102.09	Stagnation
Food production, including beverages, and tobacco	16.34			Growth
Textile and sewing industry	1.14	104.93	110.21	Growth
Manufacture of leather, leather products, and footwear	0.27	108.05	118.70	Recession
Wood-working and wood products manufacture	2.02	95.05	95.60	Stagnation
Pulp and paper industry	3,35	103,44	108,78	Recession

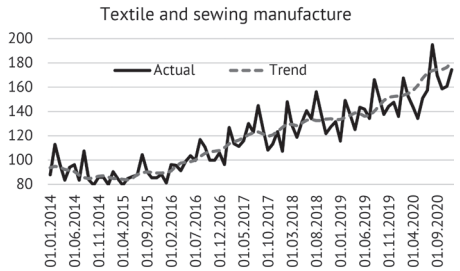
Sector	Share in industrial production index, %	December 2020 to June 2020, %	December 2020 to December 2019, %	Last months' change
Coke and petroleum products production	17.25	89.27	77.40	Slow growth
Chemical industry	7.56	102.03	92.70	Growth
Manufacture of rubber and plastic products	2.14	106.75	120.56	Growth
Manufacture of other non-metallic mineral products	4.02	107.42	110.59	Stagnation
Manufacture of primary metals and fabricated metal products	17.42	100.94	102.73	Growth
Manufacture of machinery and equipment	6.97	109.25	121.80	Growth
Manufacture of electric, electronic and optic equipment	6.27	106.55	109.47	Stagnation
Manufacture of transport means and equipment	6.75	100.66	103.05	Growth
Other industries	2.42	109.12	111.22	Stagnation
Electricity, gas, and water	13.51	118.79	112.57	Stagnation
Wholesale trade		101.93	102.06	Slow growth
Retail sales		97.02	100.67	Recession
Goods turnover		101.32	96.95	Slow growth
Construction		100.04	99.68	Stagnation
Paid services to population		99.66	92.53	Slow growth

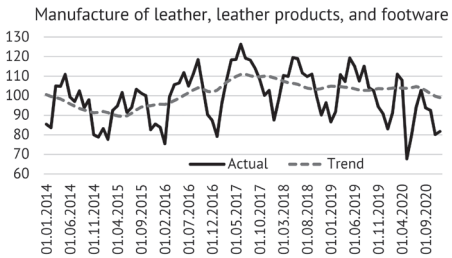
Sources: Rosstat, own calculations.

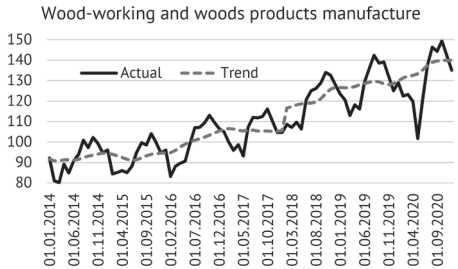


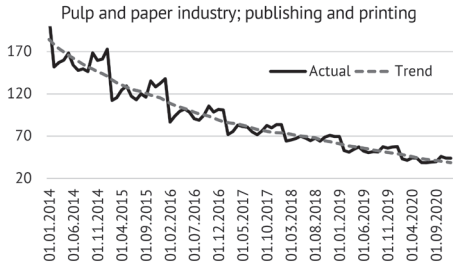


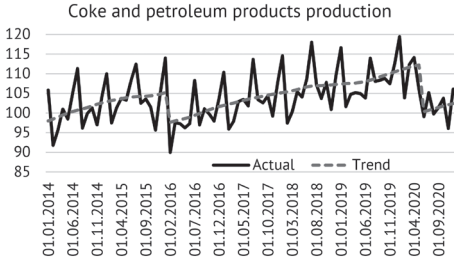


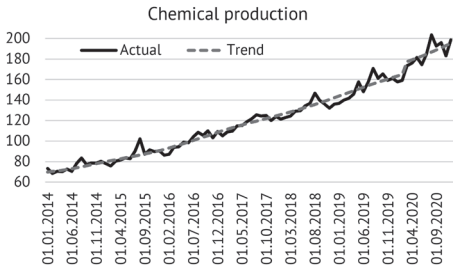


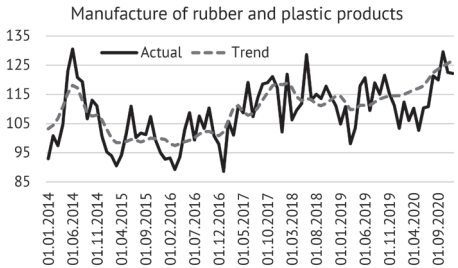

Manufacture of leather, leather products, and footware
Actual
Trend

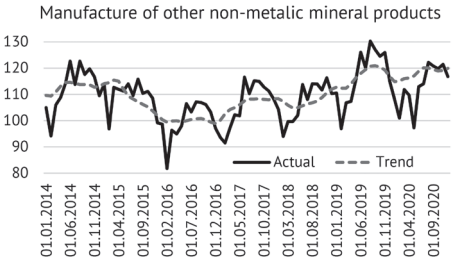

Wood-working and woods products manufacture
Actual
Trend

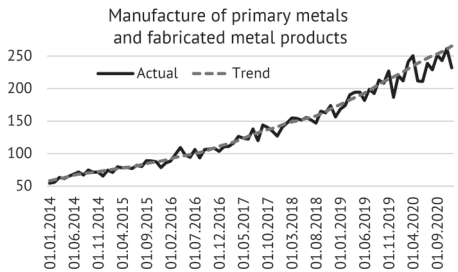

Pulp and paper industry; publishing and printing
Actual
Trend

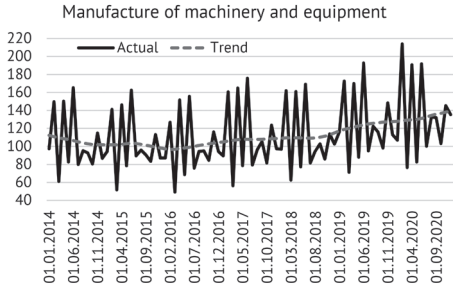

Coke and petroleum products production
Actual
Trend

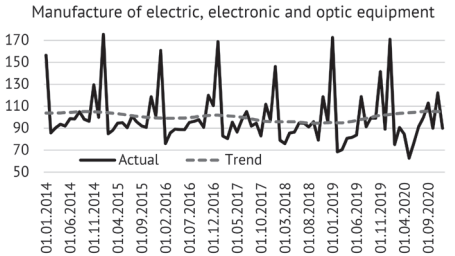

Chemical production
Actual
Trend

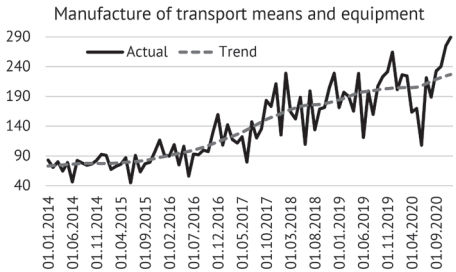

Manufacture of rubber and plastic products
Actual
Trend

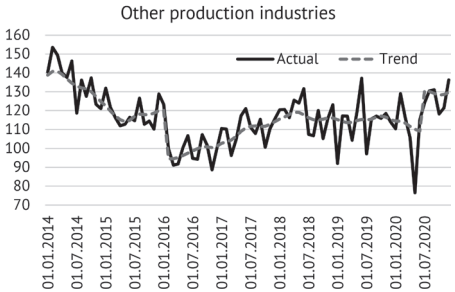

Manufacture of other non-metalic mineral products
Actual
Trend

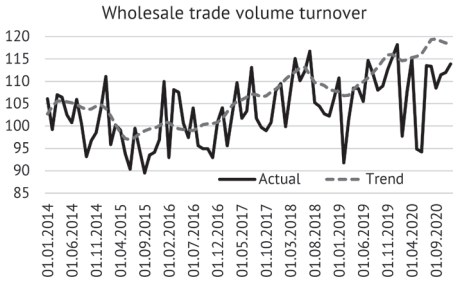

Manufacture of primary metals
and fabricated metal products
Actual
Trend

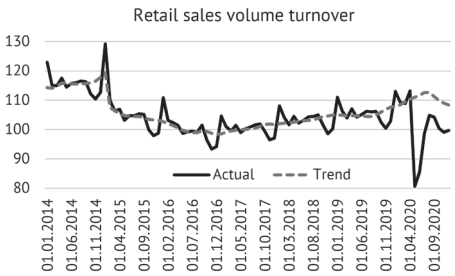

Manufacture of machinery and equipment
Actual
Trend

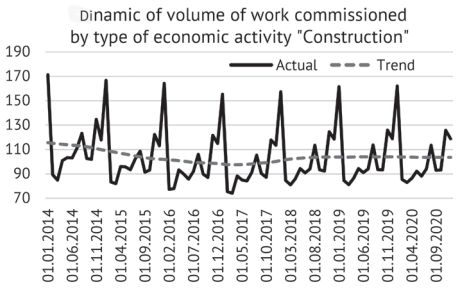

Manufacture of electric, electronic and optic equipment
Actual
Trend

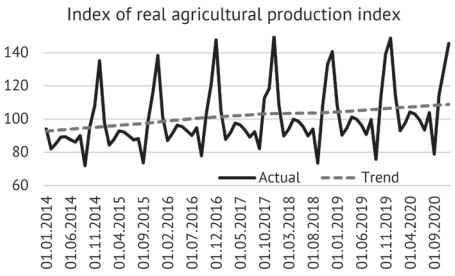

Manufacture of transport means and equipment
Actual
Trend


Other production industries
Actual
Trend


Wholesale trade volume turnover
Actual
Trend


Retail sales volume turnover
Actual
Trend


Dinamic of volume of work commissioned
by type of economic activity "Construction"
Actual
Trend


Index of real agricultural production index
Actual
Trend

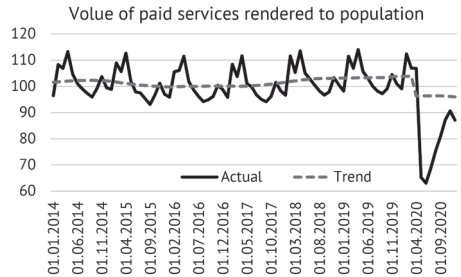


Fig. 15. Industrial production indexes dynamic in 2014–2020 (fact and trend component), in % to average annual value in 2016

Sources: Rosstat, own calculations.

4.3. Russian industrial sector in 2020[1]
(based on business survey findings)

This Chapter has been prepared on the findings of business surveys of industrial enterprises, which have been conducted by the Gaidar Institute using a European harmonized method in monthly cycles since September 1992.

Business survey questionnaire contains a limited number of questions (not more than 15-20). The original composition of questions of the IEP questionnaire was developed in 1992 on the basis of recommendations from the Organization of Economic Cooperation and Development that monitor business surveys in all countries of the world. Present IEP business questionnaire numbers not only the minimum set of questions recommended by OECD but includes other questions developed on the many years' experience of monitoring the state of the Russian economy and allowing to better understand the features of the dynamic and state of the industry. It became especially important in recent years.

The questions in the business survey questionnaire deal with actual and projected changes in the key indexes of enterprises performance as well as with assessment of the current state. Enterprises are offered to give responses across scale "go up", "no changes", "go down" or "above normal", "normal", and "below normal." We use specific derived index, which we call balance, for the analysis of business surveys' findings. Balances are calculated as difference between the percent of those who answered "go up" (or "above normal") and percent of those who answered "go down" (or "below normal"). The obtained difference allows us to present responses to each question by one number with "+" or "- ". Business survey questionnaires practically lack classic quantitative questions (customary for economists).

A simple construction of questions and responses gives the respondents the chance to fill out questionnaires quickly and without turning to consult documentation. It is paramount that the respondent at each enterprise be a

1 This section was written by: *Tsukhlo S.*, Candidate of Economic Sciences, Head of Business Surveys Laboratory, Gaidar Institute.

manager of the highest rank having complete idea about the state of affairs at the enterprises and be directly involved in the administration.

4.3.1. First quarter. Waiting for a crisis

The slow slowdown in demand that commenced in late 2019 forced the industrial sector to hold back output growth in early 2020. Furthermore, in January, the expectations (plans) and forecasts of enterprises maintained a stable level of optimism. And the shortage of personnel forced businessmen to make every effort to retain workers and to plan to expand hiring.

In January 2020, the negative trends in the demand dynamic for industrial products that formed at the end of 2019 remained – the balance of sales changes continued declining. However, it is extremely slow and difficult to catch: if this indicator lost 3.5 points in the 12 months of 2019, then in January it added another 0.4 points. Sales forecasts, which displayed an amazing stability in the range of +3..+4 points during the 11 months of 2019, still symbolically fell to +2 points in December and remained there in January 2020.

In January 2020, the industry managed to cope with the December jump in excess inventory of finished goods. Then the balance of estimates rose immediately by 5 points and hit a 28-month high. At the beginning of the new year, the index returned to its previous levels. Having said that, the absolute majority of enterprises considered their stocks of finished goods "normal". In January 2020, such responses were received from 76% of the surveyed enterprises, which was another all-time (1992-2020) maximum of this index – the share of normal stock estimates.

The slowdown in output was quite a natural reaction of the industrial sector to the nominal deterioration in demand dynamic and the December increase in the surplus of stocks of finished goods. In January, the balance (or in the usual terms for economists – the growth rate) of actual output lost another half-point (this accuracy has to be used to describe the then Russian stagnation) and shifted slightly "in the negative".

However, since July 2019 production expectations (plans) have remained remarkably stable (being in the range of +11..+12 points) and remarkably optimistic. The latter was indicated by the excess of the balance of expectations over the balance of actual changes in output. In early 2020, it reached 12 points, despite the fact that the maximum gap between the expectations and the actual dynamic was 15 points and was registered in 2015.

In Q1 2020, the recruitment policy of the Russian industrial sector continued to be formed amid a shortage of personnel, even with relatively modest business forecasts of the demand. Since July 2019, the share of "not enough" responses in assessing the headcount has consistently exceeded the share of "more than enough" responses. In this context, the industrial sector tried to retain workers and achieved some success in this endeavor: the actual headcount dynamic at the end of 2019 did not look as gloomy as at the end of 2018, and January 2020 even demonstrated an increase in the headcount. The second consequence of the

shortage of personnel seen at the beginning of 2020 was an unusually high for recent years desire of enterprises to recruit new workers.

If the enterprises were short of workers, then the industrial sector was boasting surplus of provision of capacities. The capacity shortage for all 29 years of our surveys was registered only in 2007-2008. With the onset of the 2008–2009 crisis, the shortage instantly disappeared (it was logically replaced by a significant overhang of excess capacity) and did not appear until 2020. It should be noted that the official crisis of 2015-2016 did not cause a drastic change in enterprises' assessments of their existing capacities. The scale of redundancy in 2015 remained the same, "pre-crisis". In January 2020, surveys have registered an unusually sharp shift in capacity estimates by businesses over the past three years. The share of "more than enough" responses increased by 11 points on the back of the same decrease in the share of "enough" responses. As a result, the balance of capacity estimates reached a 15-quarter high of surplus headcount.

This aspect was one of the reasons for the sharp and negative revision of investment expectations by enterprises. The balance of these intentions at the beginning of 2020 lost 8 points and went "into the negative", which was abnormal for the beginning of the calendar year.

In February, a slight uptick in demand dynamics provided an equally symbolic improvement in output dynamic and helped the industrial sector to finally cope with the surge in excess inventory of finished goods. However, the sales forecasts and output expectations of the enterprises continued to lose optimism. The balance of the industry's investment expectations remained close to zero mark.

The positive demand dynamic helped the industrial sector to exhibit better production movement than before. In February, the balance (growth rate) of output nominally (which then was the norm of Russian stagnation) went up. However, the output expectations subsequent to the demand forecasts and that is very logical, continued to lose optimism. In February, they fell by another 3 points, although they remained "in the black", i.e. there were still more expectations for output growth than expectations for its decline. However, the February balance of these 2020 expectations was a 25-month low.

After the traditional for the Russian economy January jump in prices, the industrial sector straightaway moved to an absolute price reduction in February. Note that the January increase in selling prices in 2020 was extremely modest and amounted to only +4 balance points. Smaller values of this index over the past 20 years were recorded only during January 2009 crisis. Then the balance was -4 points. Price forecasts for the end of 2019 and the beginning of 2020 were also moderate. In December 2019, they rose only to +18 points (a 10-year low in December), and in February they already fell to +5 points

In the face of a continuing shortage of workers reported for three consecutive quarters, the industrial sector has made efforts to retain staff. In late 2019 – early 2020, the usual decline in the headcount number was not so large-scale (intensive) as in previous years. As a result, the balance of changes in the number of headcount in January-February demonstrated an increase that has not been seen since the end of 2010. The optimism of forecasts of changes in the headcount

number also reached a multiyear high. However, in February, the optimism of forecasts stopped growing, which was probably due to a negative adjustment in demand forecasts.

Enterprises stubbornly adhered to the balance of investment expectations close to zero mark. This situation has been observed for 6 months in a row, and if we exclude the one-time (and, apparently, accidental) August rise in investment optimism, then it has been observed since March 2019. During this period, the balance of investment expectations for 11 months out of 12 was in the range of -4..+4 points.

In the pre-crisis March of 2020, the Russian industrial sector reported a slight deterioration in the dynamic of demand for manufactured products: the balance fell by a token 2 points in the lieu of the upcoming "events". However, the achieved sales volumes in the context of the impending plague of the XXI century and the possible complete shutdown of the entire economy were highly appreciated by the industry – 60% of its enterprises considered them "normal".

In March, the balance of estimates of stocks of finished goods deteriorated and reached +13 points. Such a high level of surplus has not been recorded by surveys since 2013. The March balance sheet value (and the enterprises' view of the near future) most likely did not reflect all the features of the upcoming months.

A moderate deterioration in demand dynamic and an increase in excess inventory of finished goods logically triggered a negative trend in output dynamic, which was a relatively small one. The balance of real production changes decreased by only 2 points in March. Slightly larger changes were registered in the production expectations of the enterprises. In March, the balance of these expectations shed 3 points, and the final decline for the first 3 months of the year came to 8 points. As a result, the index fell to the worst values of the previous full-fledged crisis of 2008-2009.

The personnel shortage forced the industrial sector to recruit workers even in March. The rate (balance) of the increase in the number of workers reached +10 points. Such a high value of this index in March has not been recorded since 2011. But the industry seemed unlikely to maintain such a recruitment policy in April-May. The balance of expected changes in the number of workers in March collapsed by 11 points and stood at zero mark.

In March, the industrial sector was able to keep its investment expectations within the previous, near-zero corridor formed 12 months earlier. Moreover, the balance of investment expectations increased by 8 points and moved from the negative closeness to zero to the positive trend. Perhaps the viral shutdown of the Chinese "workshop of the world" gave hope to Russian enterprises to replace its products with domestic analogues.

4.3.2. Second quarter. Crisis and rebound from the bottom of the crisis

The result of the first crisis month for the industry was quite predictable according to the traditional set of indicators. And it is specific for a number of other indicators. The logical and expected decline in demand surpassed the "fallout"

of 2008-2009 and entailed an equally strong decline in output. However, the forced shutdown of production saved the industry from the problem of excessive stocks of finished goods and the long-standing shortage of personnel. The logical curtailment of investments in the face of real uncertainty did not spark a shortage of capacities - the estimates of their sufficiency did not change in April. As well as the rate on ruble loans offered to the industry. However, forecasts of demand, output and financial standing witnessed to the expectations of exacerbation of crisis in the months following April.

In April, the industrial sector fully felt the arrival of the virus crisis and the consequences of the anti-epidemic measures taken by the authorities. Demand for industrial products collapsed on a scale comparable to the events of late 2008. And maybe even more. Then, in 2008, the decline in demand commenced in September and reached 60 points at the crisis peak according to the benchmark data, and solely in April 2020 the decline constituted 45 points. That said, in January-March 2020, surveys did not register any crisis decline in sales. Demand forecasts for the first crisis month of 2020 shed 30 points according to the initial data.

The anti-epidemic (full or partial) shutdown of production allowed the Russian industrial sector to cope with the surge in surplus stocks of finished goods registered by surveys in March. In the first crisis month of 2020, the balance of their estimates ("above normal" – "below normal") decreased by 5 points, which is unusual for the beginning of the classic overproduction crisis. Such a classic crisis surge in inventory surplus was registered in early 2009, and nothing like this happened in early 2015. Now the situation is also unusual: stocks of finished goods in the context of forced production stoppage can be a valuable resource for businesses, and not a burden.

A sharp decline in demand on the back of the anti-epidemic measures introduced by the authorities led to a sharp drop in output in April 2020. The initial balance (growth rate) lost 50 points in the first month of the crisis. In November 2008, this index decreased "solely" by 39 points, but then the reduction in the balance sheet commenced in September, and the total amount of decline by November stood at 60 points.

In April, the industry moved to a large-scale reduction of headcount. The balance (rate) of change in the actual number of workers fell to 30 points after +10 points in March. Our surveys have not yet registered such a sharp decline in the indicator in one month. At the end of 2008, it took 6 months to achieve a comparable change in the industrial balance. Forecasts of changes in the number of workers in April fell only to -12 points. The industry, therefore, was ready to reduce the scale of layoffs in May-June after their April spike. Meanwhile, the full-blast staff reduction did not trigger a shortage of personnel at the enterprises. Rather, the opposite is true. In industry, for the first time since the 2008-2009 crisis, a significant overhang of excess "due to the expected demand constraints" of the number of headcount was formed. The balance of estimates of the headcount after demonstrating -4 points in January rose to +9 points in April, i.e. the shortage of personnel was replaced by their surplus. At the same time, solely

6% of enterprises reported a shortage of personnel in April – the minimum since the default of 1998.

The investment expectations of the Russian industrial sector responded duly to the crisis only in April. Over a month, the balance of investment expectations dipped by 40 points and exceeded the nadir of the 2015-2016 crisis. Then, to note, the decline in investment optimism commenced after Russia entered the war of sanctions. Changes in this index in January-February 2015 (i.e. after the official announcement of the crisis outbreak) only slightly "aggravated" the situation – the balance for two months decreased by 13 points.

In April 2020, the industrial sector managed to maintain the previous, pre-crisis structure of assessments of its financial and economic situation with predominantly "good" and "satisfactory" responses over "bad" and "extremely bad" ones. The balance of these estimates remained positive. This situation has been recorded by surveys since 2017 – from the exit out of prolonged 2012-2016 stagnation. However, business forecasts regarding financial condition suffered an unprecedented collapse in April 2020. After quite favorable January expectations for recent years (with a balance of +11 points), in April the index plunged to -33 points. Neither such a drop, nor such a survey findings have been recorded since 1993.

However, in May, the Russian industrial sector weathered the shock of the first crisis month. The real changes in demand, output, and employment demonstrated unmistakably positive dynamic (for the crisis). And the forecasts and expectations of enterprises highlighted the readiness to restore the former business activity. In May, the industry's investment expectations began making a U-turn. However, the lending conditions offered by banks continued to tighten.

Following a sharp April decline in the rate of change in demand, this index gained 11 points in May. According to enterprises' estimates, the first (April) impact of the coronavirus crisis on the industrial sector was comparable in terms of sales plunge to the 2008-2009 crisis. Business demand forecasts also began to recover in May: the balance of these expectations rose by 18 points and almost reached its pre-crisis March values.

The 2020 crisis outbreak in April was coupled for the Russian industrial sector with a strange, at first glance, decrease in the surplus inventory of finished goods. This index exhibited its local maximum in March 2020, when the industry was bracing for a classical recession, traditionally triggered by a decline in oil prices. However, the partial or total shutdown of production to face the pandemic and logistics issues forced enterprises to rethink the role (and not just reevaluate the volume) of stocks of finished goods in such extraordinary conditions. As a result, by May, the surplus of finished goods stocks had already decreased by 8 points.

Positive changes in demand dynamic helped enterprises to adjust likewise their actual output. In May, the balance of changes in production volumes also improved by 10 points. Enterprises made even more significant changes in their production expectations. After April's 30-point dip, the May survey recorded an unprecedented 31-point increase in the balance. As a result, all April losses of

optimism were recouped – the industry was ready to restore its former production activity.

The next planned (quarterly) question related to the limits of output growth, which we have been asking since 1993, fell for April 2020, which was the peak of the current crisis (or its first wave). At least – for the industrial sector. As a result, we received the assessment of views of industrial enterprises about the obstacles to the output growth in the context of a unique crisis.

The 2020 crisis has brought to the fore such obstacle as "the uncertainty of the current situation and its prospects". In Q2 2020, this obstacle was mentioned by 72% of respondents following 30% of such responses recorded in January 2020. The previous local maximum of responses of ambiguity was recorded in January 2016 – nowhere near the beginning of the 2015-2016 crisis, as it should have been. In April 2020, demand constraints took a back seat in the industrial sector. Sixty-six percent of enterprises pointed to insufficient domestic demand (plus a modest 12 percentage points compared to January), to low export demand – 31% (+3 points).

The weak ruble and non-payments share the fourth place with 25% of responses. The latest ruble's devaluation increased its negative impact on Russian industrial growth from 6% of responses in January to 25% in April 2020. However, the same factor reduced the negative impact of competition with imports by 10 points – from 28% of responses to 18% (rated 6th on the list). And it brought the issue of the "expensive ruble" to the nadir of the negative impact on industrial growth – up to 2% (last, rated 17th).

In April, non-payments as a constraint of industrial growth were quite dramatically spread in the Russian industrial sector. True – only by the standards of not quite the 2015-2016 crisis and came a modest 25%. In 2009, the negative impact of this factor hit 41%, and in the 90s of the twentieth century - 75%. Non-payments have not yet led to issues with working capital. In the wake of state support, only 11% of businesses indicate the shortage of the latter in April 2020, which is the absolute minimum for the entire period of our surveys. The lack of a negative impact of lending on ensuring the current volume of industrial production is a logical addition to the previous thesis. Solely 5% of respondents mentioned this factor in April 2020

In May, enterprises weathered the April shock of recruitment policy. Then, the industry reported such large-scale layoffs that the initial balance values (growth – decline) were the worst since the beginning of the 2008-2009 crisis, and seasonally adjusted index demonstrated compatibility of headcount cuts in January 2009 and April 2020. But in May, the scale of layoffs in the industry decreased by 3-fold, and the balance of expectations to change the workforce number came to zero mark.

In May, the investment expectations of the Russian industrial sector also began to make a U-turn. Following the April plunge by 40 points (from a nominal optimism of +2 points to a full-fledged crisis pessimism of -38 points), in May the balance of these expectations rose to -29 points.

Bank lending terms and conditions offered to industry continued to tighten. In May, only 46% of businesses rated the availability of loans as normal. Although in February, 73% of enterprises adhered to such estimates. The decline in the optimism of forecasts of changes in financial and economic condition of enterprises adversely affected the options of producers to service existing loans. In Q2, this index shed 10 points and stood at 83%, although in Q1 2020 it reached an all-time high of 93% of the number of enterprises with loans.

In June, the industrial sector continued to recover from the 2020 coronavirus crisis. The recovery in actual sales and improved demand forecasts, with a modest surplus in finished goods stocks, paved the way for further deceleration in output decline. And in the following months, the industry was ready to raise production volumes. The recovery and investment expectations of enterprises continued getting momentum, but in May-June they managed to "win back" only 10 points out of 40 lost in April.

In June, according to enterprises' estimates, the recovery in demand continued after the April collapse. Then the balance (rate) of change in demand plunged by 44 points after seasonal adjustment. In May-June, the index gained 36 points, thus recouping a significant part of the April losses. The forecasts attested to the hopes of enterprises for further recovery in sales: in June, the balance of demand forecasts increased by another 10 points.

The coronavirus induced 2020 crisis, which in case of the industrial sector commenced in April, still did not entail a crisis increase in the excess inventory of finished goods. Rather, the opposite is true. In April, the share of surplus inventory estimates dipped to 15% and stood at this level in May, and in June dropped to 12%. Thus, the crisis maximum of this index fell on the pre-crisis March of 2020 and came to a modest 21% and very quickly was gone. Moreover, in June 2020, the absolute (1992-2020) maximum of normal estimates of stocks of finished goods was reported: 78% of enterprises estimated their stocks as "normal".

The recovery in demand and the modest level of surplus stocks of finished goods have created conditions for further slowing down the decline in industrial output. If in May the balance (rate) of production decline increased from the peak for this crisis -38 points to -28 points, then in June the index already went up to -6 points. Thus, the decline in output continued in June, but less rapidly. In June, the production expectations of enterprises already came out "in plus" – the industry was set for an output growth in the following months.

The recruitment policy of enterprises bears out the robust industrial recovery. In June, the rate of layoffs decreased by another 9 points and almost stood at zero mark. And the balance (rate) of expected changes in the number of workers negotiated the crisis-related downturn of personnel forecasts.

Investment expectations of the industrial sector following the crisis-led collapse in June continued to recover. However, they were able to "win back" solely 10 points in May-June out of 40 point lost in April. In June, the balance of these expectations remained markedly negative (-28 points) - i.e., the industry demonstrated intentions to reduce investment activity in Q3 2020 compared to the same period in 2019. And even in the context of a logical decrease in satisfaction

with investments in Q2 down to 45%, when 60% of enterprises considered the investments as sufficient in Q1 2020.

In June, the availability of credit for the industrial sector stopped declining and increased by 4 percentage points. As a result, by mid-2020, 50% of enterprises considered availability of credit as normal. Thus, during the current crisis the minimum of this index occurred in May 2020 and constituted 46%. In the previous 2015-2016 crisis, the normal estimates of availability of loans decreased to 34%, and in the 2008-2009 crisis – to 19%.

4.3.3. Third quarter. Weathering the crisis

At the beginning of Q3, a representative set of survey statistics displayed positive trends in the Russian industrial sector to remain after the April collapse. Demand and output continued to rebound, with stocks of finished goods showing minimal surplus. The newly recorded shortage of workers could be easily neutralized in the context of maintaining "normal" wages in industry. However, forecasts and expectations have stopped gaining optimism, which indicates an adjustment in the perception of enterprises regarding the speed of recovery from the coronavirus induced crisis in 2020.

In July, according to enterprises' estimates, the dynamic of demand continued to recover from the April plunge. Seasonal adjustment displayed an increase by 27 points in the balance (rate) of actual change in sales in May-July. However, the recovery of demand forecasts has slowed. In July, the balance of this index gained only 2 points on an increase of 11 points in June and 14 points in May.

Already 49% of enterprises considered the sales volumes restored by July as normal. The April collapse of this estimated figure ("above normal", "normal", "below normal") was the all-time high during the entire history of 343 business surveys and hit 23 points. At the beginning of the previous 2015-2016 crisis, the decline in the share of "normal" responses in the estimate of demand came to 1 (one!) percentage point in January 2015, and the nadir of the crisis was in January 2016, when the frustrated industry degraded the level of normal demand estimates by 11 points to 39%. In the 2008-2009 crisis the index fell by a maximum of 17 points in one month, in the 90s of the XX century the maximum one-month decline in demand satisfaction was 13 points.

The balance of estimates of stocks of finished goods ("above normal" – "below normal") fell in July to +3 points, and thus continuing to signal the firm business control over the supply-demand ratio. This situation is developing for the second crisis in a row: the previous crisis of 2015-2016 was met by the industrial sector even with a lack of finished goods inventory, and the worst balance figure was obtained in February 2016 and demonstrated a modest +9 points. In the 90s of the twentieth century, the balance of estimates of finished goods inventory rose to +55 points

The July business estimates of output dynamic exhibited an increase in industrial production compared to June 2020: the seasonally adjusted balance (rate) of output change reached +5 points. However, the output expectations have stopped gaining optimism. The industry has made adjustments to its understanding of the

speed and trajectory of the exit from the coronavirus crisis in 2020. In May-June, the balance of output expectations gained 45 points after losing only 30 points in April. Such a leap of optimism, apparently, seemed excessive to enterprises.

In July, enterprises maintained the lowest rate of layoffs recorded in June. Hiring expectations fell by 3 points and as a result stayed at near zero mark for 3 consecutive months – the industry was still not ready to resume hiring workers, which it planned in early 2020.

Meanwhile, a cautious recruitment policy is coupled with the expected shortage of personnel, which surveys again recorded in July 2020. At the beginning of Q3, the balance of estimates of the current workforce number again turned negative "due to expected changes in demand" – there were again more responses "less than enough" against "more than enough" responses. However, the most of the industrial sector (84% in July 2020) had a sufficient supply of personnel.

However, the Russian industrial sector can easily do away with the deficit of workforce in the face of rising unemployment and declining real household incomes by maintaining an acceptable level of wages in times of crisis. In mid-2020, 86% of enterprises rated their workers' salaries as normal. This result was the maximum of the 13-year monitoring of our estimated index. Thus, there was no crisis-led collapse (relative, of course) in the compensation rate in the industrial sector. Although in April 2020, there were forecasts of a reduction in wages. Then the balance of expected changes in real wages shed 34 points and fell to a historic (though only 2014-2020) low. But already in Q3, the salary expectations of the industry "won back" 23 points.

While output expectations, demand and employment forecasts stopped growing in July, investment expectations in July showed the highest increase since the April dip. As a result, for the first 3 post-crisis months, the index gained 23 points (10 of which were in July), but still remained in the red. The industry maintained its logical investment caution in the face of an unpredictable crisis.

In July, the industrial sector reported a significant increase in the normal availability of loans. During the month, the index gained 14 points and hit 64% – this is the percentage of enterprises that considered their access to bank lending normal at that time. This led to the fact that at the beginning of Q3 2020, only 2% (two!!!) of enterprises considered the lack of credit as a hindrance to their output growth.

In August, the Russian industrial sector decelerated its exit from the 2020 coronavirus crisis. Ensuring the gains in growth rates of demand under the nadir of the surplus of finished goods inventory and an increase in the optimism of sales forecasts helped the industrial sector to maintain positive production dynamic and contributed to maintaining high optimism of output expectations. According to enterprises, the recovery of the pre-crisis structure of restrictions on industrial growth has begun. By August, the availability of loans for industry reached its pre-crisis level.

In August 2020, the industrial sector reported retaining the previous July (and very good by the standards of previous stagnant years) growth rates of demand.

And the balance of sales forecasts gained 10 points in August and reached the pre-crisis level.

Such dynamic of actual and expected changes in demand led to an improvement in satisfaction with sales volumes up to 60%. Business surveys recorded similar value of this index in March 2020, when the industrial sector was just bracing for the onset of the coronavirus crisis, watching from the outside the decisive actions in China.

In the context of growing optimism of sales forecasts, enterprises reduced the share of "surplus" estimates of finished goods inventory to the all-time (!) low for all 339 previously conducted business surveys, and the share of "normal" estimates of inventory raised to the all-time high. In still crisis August 2020, business surveys reported 9% of the former estimates and 78% of the latter ones. The share of "insufficient" estimates of finished goods inventory accounted for 10% (3% of enterprises found it difficult to answer this question). As a result, the balance ("above normal" minus "below normal") ceased to be positive – in the fifth month of the crisis, the industrial sector got rid of a modest surplus of inventory, which, among other things, fell on the formally pre-crisis March 2020.

The current crisis, as well as the previous one in 2015-2016, did not cause problems with the provision of industrial inputs to the Russian industrial sector. Quarterly monitoring of enterprises' estimates of industrial inputs exhibited a nominal decrease in the share of "normal" responses in the crisis-related May by 4 points following an all-time high reported in February 2020, and an equally nominal increase by 3 points against August. As a result, in Q3 2020, 84% of enterprises had sufficient provision of industrial inputs.

Good (by crisis standards!) sales volumes, the lack of surplus of finished goods inventory and continued growth of optimism in demand projections helped the industrial sector to maintain an upward trend in output. In August, according to surveys, the industry again managed to produce more goods than in the previous month. For the first time (after the April collapse), this ratio was recorded in July. However, a sharp rise in the optimism of output expectations seen in May-June seemed excessive to enterprises, and the industry decided not to further increase its output projections. Throughout the summer months, the balance of the index remained at the same level – the best since April 2019 and surprisingly stable.

By August 2020, industrial enterprises, together with the Russian banking system, under the leadership of the Central Bank of Russia, restored the normal availability of loans for the industrial sector. The scale (prevalence) of easy access to credit has reached 70% and has completely got over the next credit crisis. Unless there is another wave of the coronavirus, this credit crisis will be the most short-lived. It took 3 months to reach pre–crisis credit availability in 2020, 24 months in 2015, and 18 months in 2008.

If the availability of loans in the summer months reached the pre-crisis level, the investment expectations of the industry recovered only 25 points by August out of 40 lost in April and remained in the negative zone. At the same time, they improved by only 2 points in August. The industry was still not ready to invest in

the wake of the second to none crisis and a ample provision of capacity for both the current output and the expected changes in demand.

In September, the Russian industrial sector attempted to continue its recovery from the coronavirus crisis. Improved demand dynamic with an increasing shortage of finished goods inventory helped enterprises to produce more goods in September than in August. However, the output expectations began to lose optimism gained in the previous months. And hiring expectations have not gained optimism, although in September the industry already started (unplanned) to raise the number of workers. In anticipation of the second wave of the coronavirus crisis, the industry refused to restore investment projections.

In September, the industrial sector reported a resumption of positive changes in the demand dynamic. Following the August slowdown in growth, in September, the balance of actual sales changes increased, however, by a modest 4 points. However, even this result helped the index to reach a 26-month high. Following the August jump, demand projections stood in a positive area and displayed enterprises' expectations to maintain upward trends.

In the meantime, a steady decline in the balance of estimates of finished goods inventory on the back of an increase in the share of responses "below normal" indicated the uncertainty of enterprises in the implementation of their own projections. By September 2020, the share of such estimates rose to 17%, which was a 10-year high. The industry, thus, even with a significant overhang of surplus capacity, was in no hurry to use them to replenish empty, in its opinion, finished goods warehouses.

In September, the industry again produced more goods than in the previous month. The balance (growth rate) of actual output changes remained positive for the third consecutive month without significant growth. Meanwhile, the balance of enterprises' projections shed 5 points in September, but remained positive: expectations of industrial output growth were still more than expectations to reduce it.

The pricing policy of the industry underwent a sharp change in September: enterprises abandoned the extremely restrained and non-recurrent growth and showed the upsurge in selling prices for the previous 26 months. The seasonally adjusted balance of actual price changes gained 15 points over the month. In September, the balance of projected price changes rose by 8 points and turned out to be an 18-month high.

The industry's vigorous exit from the first wave of the coronavirus crisis prompted enterprises to recruit staff only in September. The balance of actual changes in the workforce number became positive for the first time since April and amounted to +4 points. In April 2020, this index collapsed from the March +1 point to -36 points. There has never been such a one-time plunge in hiring and such a quick recovery from the personnel crisis in the entire history of our business surveys. In the generally recognized crisis of 2008-2009, the balance downward trend lasted 8 months, and the recovery from the crisis (transition to recruitment) took 16 months. During the official crisis of 2015-2016, the industry did not resort to either crisis-related layoffs or post-crisis headcount reduction. However, the

balance of hiring expectations after the May (again surprisingly fast!) recovery, remained close to zero mark for 5 months. The industry could not move to the projected hiring of workers and solved its workforce issues as they arose.

In anticipation of the second wave of the coronavirus crisis, the industry backed down from the return of investment projections in September. Following a not too rapid increase in the balance of investment expectations in May-August, in September the index again slipped down outright by 14 points. In the meantime, satisfaction with the actual volume of investments in Q3 2020 rose to 56% following the crisis-led collapse of Q2 estimates, when only 44% of survey enterprises recognized it as "normal". The latest result is comparable to the assessment of investment activity seen in Q1 2015.

4.3.4. Fourth quarter. Pause and continuing recovery from 2020 crisis

A clear slowdown in the post-crisis recovery of demand and output in the face of an obvious deterioration in the epidemiological situation and unobvious actions of the authorities forced the industry to continue getting rid of surplus finished goods inventory and held back the recovery of investment activity in October. However, the demand projections and especially the output expectations of enterprises had no obvious signs of the imminent onset of the second wave of the crisis. Against this backdrop, the Russian industrial sector continued to recruit workers and swung the balance of hiring expectations to the pre-crisis mark.

At the beginning of Q4, demand, according to enterprises' estimates, again demonstrated a halt to the post-crisis recovery. The seasonally adjusted balance (growth rate) of actual sales decreased by 1 point in October after rising by 3 points in September. Such a modest and multidirectional dynamic of this index has been recorded by business surveys since August. During this period, the index was able to improve only by 3 points. While in May-July, the balance gained 46 points. Sales projections reached a post-crisis high in August, increasing by 38 points in the first four post-crisis months and reaching a "good" pre-crisis level as a result. But in September-October, they fell by 4 points. On the back of these dynamics of actual sales and demand projections, satisfaction with sales began to fall. The share of normal demand estimates for September-October dropped to 53% after reaching a post-crisis high of 59% in August.

Estimates of finished goods inventory continued to indicate minimal expectations of the industrial sector for demand growth in the face of growing unpredictability of the authorities' actions with an obvious increase in the number of coronavirus cases. In October, the balance of inventory estimates fell by another 4 points and turned out to be a 10-year low. Such a large shortage of stocks has not been recorded since October 2010, when the industry was not fully confident of completing the recovery from the 2008-2009 crisis. But the biggest shortage of stocks in the entire history of the Russian industrial sector occurred after the 1998 default. Then the industry for a very long time – more than 30 months (from September 1998 to the beginning of 2001) – could not believe in the end

of the protracted crisis of the 90s and, having learned from bitter experience, deliberately minimized warehouse inventory.

In October, for the first time since May 2020, the balance of actual changes in output stopped growing, shed 5 points and stood at zero mark. That is, in October, according to the enterprises ' estimates, the industry produced as much as in September. In May-July, the balance gained 38 points and became positive, and in August-September, it could only gain 4 points. However, production expectations improved by 5 points in the face of a growing shortage of finished goods inventory and even with a decrease in the optimism of demand projections.

In October, the industry continued to recruit workers and swung the balance of hiring expectations to pre-crisis marks. The surveys recorded the growth of actual employment in the Russian industrial sector for the second month in a row. In April, this index plunged to -36 points, at the beginning of Q4 it was +6 points. In October, the balance of hiring expectations for the first time during the current crisis climbed into positive territory, however, could only reach +3 points.

Industry investment projections, which declined by 14 points in September after an extremely weak recovery, lost another 2 points in October. The strategy of a quick exit from the April 2020 collapse, which was demonstrated by enterprises in relation to demand, output and employment, was not implemented in terms of investment. The industrial sector was definitely not ready to return even to the extremely moderate pre-crisis investment expectations of 2019.

The share of enterprises with "normal" credit availability, after a quick restoring in August the usual pre-crisis level of 69%, tried to evade from sliding into the second wave of tightening credit conditions in September-October. In September-October, this index decreased by only 3 percentage points: in October, 66% of enterprises reported "normal" credit availability.

The resumption of positive dynamic of actual sales and demand projections in November improved satisfaction with their achieved volumes, helped the industry to restore output growth, and improved the optimism of production projections and hiring expectations. In November, investment projections of enterprises also demonstrated growth after a two-month decline. The tightening of credit conditions did not affect the dynamic of industrial output, as the lack of credit still was at the bottom of the rating list of constraints to industrial growth according to a host of enterprises. The main constraint to the output growth in 2020 for the industry were demand, uncertainty of the situation, competition with imports and ... weak ruble.

In November, the Russian industrial sector reported a resumption of positive demand dynamic. The balance of sales for the month gained 9 percentage points after a pause in August-October, when this index remained almost unchanged. A pause in the recovery of demand projections occurred in September-October, and by October the balance of expected sales changes even decreased by 4 percentage points. However, in November, the index gained 12 points and reached an 8-year high – such optimistic projections of demand have not been recorded since the beginning of 2013.

Having said that, in November the balance of estimates of finished goods inventory continued to decline – the share of "below normal" responses increasingly exceeded the share of "above normal" responses. The industry was well aware that its inventory holdings were falling further behind the current demand and its possible and, most likely, positive changes, but it was not ready to move on to maintaining a small manageable surplus of stocks in the wake of a very unusual crisis.

The resumption of demand growth with a growing shortage of finished goods inventory helped the industrial sector to continue output expansion, which halted in October. The balance of actual production changes gained 12 points in November, after a decline of 5 points and a return to almost zero growth in October. Output expectations for October-November fully recovered from the September decline and returned to the pre- and post-crisis level of optimism lost by the industry in the period from February to May 2020.

The quarterly monitoring of constraints to output growth, which we kick started in 1993, makes it possible to assess the significance of the constraints to industrial growth in the 2020 crisis year from the point of view of a wide range of enterprises. In general, at the end of 2020, insufficient domestic demand topped the rating list of constraints. However, the reference to this factor during the crisis year went up only from 50 to 54%. Besides, there have been more remarkable situations in the history of our surveys. Thus, in the officially recognized crisis year 2015, insufficient demand was mentioned even less often than in the officially non-crisis year 2014: 48% against 52%.

"Uncertainty of the current economic situation and its prospects" triggered the surge in insufficient domestic demand references in 2020. An average of 50% of enterprises mentioned this factor against 33% in 2019. Having said that, the April survey findings primarily contributed to the average annual growth of references to this factor, when 72% of enterprises ranked it to top the list. In Q1 2020, its mention was the usual 30% for previous pre-crisis quarters. In Q3, in the course of dynamic recovery from the April collapse, "the uncertainty of the situation" factor reduced its adverse impact to 50%, nevertheless, staying at the top of the list. At the beginning of Q4, when the industrial recovery paused in order to understand the authorities' reaction to the apparent increase in morbidity, the uncertainty increased the negative impact on the Russian industrial sector to 61% and still remained at the top of the list. However, there is traditionally a significant excess of "insufficient demand" over "the uncertainty of the situation" in Q1 2020 (54 against 30%) and a small gap in mentions in the other three quarters (5-8 points) did not allow the factor of "uncertainty of the current situation and its prospects" to top the list of constraints by the end of 2020.

Enterprises ranked "low export demand" third on the list even in the context of the ruble's weakening increased in 2020 compared to 2019. The reason, most likely, lies in the global COVID-19 crisis, which has had a strong negative impact on traditional consumers of Russian exports. The Russian industry competition with imports was fourth on the list, which at first glance is surprising with a weakening national currency. However, the smooth nature of the devaluation has intensified

the outstripping demand for imported products or for Russian goods with a significant share of imported components. To the detriment, apparently, of sales of purely Russian goods.

"The weakening of the ruble exchange rate and the rise in price of imported equipment and raw materials" closes the top-5 constraints to industrial growth in 2020 according to the enterprises' responses. The mention of this factor exhibited the second largest (after the "uncertainty of the situation") growth: from 9% in 2019 to 19% in 2020. As a result, the "weak ruble" rose from the 15th place in the rating of 17 constraints to the 4th place and for the third quarter in a row strongly holds in the top-5 constraints, displacing the "lack of qualified personnel" from there. That said, the "strong ruble" was able to achieve only 9% of responses (at the end of 2019 - early 2020) and reached only the 13th place (out of 17) in this rating as a negative factor for Russian industrial sector growth.

In the last, 17th place on the rating list of constraints to growth of output, enterprises put the still popular lack of credit. The industrial sector as a whole (and not its media representatives) for the third consecutive year ranks this factor last with only 3% of references.

After a robust recruitment in September-October (the balance reached +5 points in these months, which was the highest value of the index after the April dip to -36 points), in November the industry decided to adjust the speed of hiring – the balance fell to +3 points. However, enterprises' hiring expectations of qualified personnel continued to gain momentum and rose in November to +8 points, which was a 10-year high. The resumption of recruitment and projections for its continuation were formed by the Russian industrial sector in 2020 under the influence of "lack of qualified personnel" factor at the top on the sub-rating list of input constraints to industrial growth. In the meantime, the current crisis helped the industry to do away with the shortage of headcount recorded in 2019, and to close 2020 with a zero balance of estimates of provision of personnel amid the expected change in demand.

At the end of the two-month pause, the industrial sector resumed restoring investment projections. However, it was very restrained: in November, the balance gained only 4 points. Though, after a two-month drop in this index, the November growth gave hope that there will be no second lockdown. In April, the lockdown led to a collapse of the investment expectations of the industrial sector by outright 40 points.

In December, the balance of change (growth rate) in demand after seasonal adjustment gained another 2 points and reached values that have not been recorded by business surveys since 2010. Thus, the demand for Russian industrial goods continued to rebound after a pause in August-October. However, sales projections for the first months of 2021 demonstrated a sharp decline in optimism of the Russian industrial sector. In December, the balance of these expectations collapsed outright by 31 points – from the level of very good optimism to the level below only to that recorded in April 2020.

The average annual balances of changes in demand demonstrate that the crisis-led decline in the index in 2020 was a continuation of the negative dynamic

that formed in 2018. Then, the industry could not continue to emerge from the 2012-2016 stagnation and began to be drawn into a slump, interrupted by the COVID-19 crisis of 2020.

The balance of estimates of finished goods inventory fell to -13 points by December. Surveys have not registered such a predominance of "below normal" responses over "above normal" responses for twenty years – since December 2000.

The consistent minimization by enterprises of their stocks of finished goods provided an amazing result amid the 2020 crisis – the average annual balance of stock estimates is almost no different from zero (+1.6 points). However, such a modest result amid a crisis year is recorded for the second time in the past decade: in the 2015 crisis year, the final balance was equal to +3 points, and at the beginning of that crisis (January 2015), there was even a shortage of stocks of finished goods.

Rising demand and a growing shortage of finished goods inventory helped the industry to maintain output growth in December. The balance (growth rate) of actual changes in production remained positive (retained growth compared to the previous month) and gained 5 points (growth, according to enterprises ' estimates, became more robust). However, the December output projections lost all the optimism gained by the industry in May-November 2020. The balance of expected changes in output decreased to +1 point. The surveys recorded worst expectations only in April 2020.

Despite pessimistic expectations for the beginning of 2021, long-term recruiting challenges are forcing the industry to recruit personnel. In December 2020, the balance of changes in the actual number of workers displayed robust growth, which has not been seen for many years. On the other hand, the workers themselves were convinced that the authorities would not again risk forced restrictions on work or shutdown of industrial enterprises. In this context, industrial jobs have become very attractive. This saved the industry from the traditional December mass outflow of personnel.

The robust post-shock recovery of recruitment and the unique (in the context of pandemic restrictions on the activities of other industries) opportunity to resolve their long-term staffing issues at the expense of "neighbors" kept the annual balance of changes in the number of industrial workers away from a crisis-led collapse. As a result, 2020 "did not make it" even to the worst years of 2012-2016 stagnation, not to mention the 2008-2009 crisis.

In December, the industry decided to continue restoring investment optimism after a pause in September-October. The balance increased by another 14 points and reached the highest values since the beginning of the coronavirus crisis. However, it remained "in the red" – that is, there are still more expectations to reduce investment in the industrial sector than there are expectations for their growth. In this context, it is more correct to speak not about the growth of investment optimism, but about the decrease in investment pessimism.

The decline in the normal availability of credit for the industrial sector, which enterprises reported in September-November, has stopped. In December, the

index gained 2 percentage points and went up to 62%. The best result of the year was recorded in February 2020 and was equal to 73%.

The credit crisis of 2020 was the weakest for the Russian industrial sector compared to three crises that occurred in the first 20 years of the XXI century. The normal availability of loans according to the average annual data decreased only to 62%, whereas in 2015 it fell to 44, and in 2009 – to 37%.

4.4. The transportation industry[1]

The transportation industry is not only a key sector of the economy, but also its indispensable glue. The development of transport infrastructure is a major factor of economic growth and a key driver of exit from the economic crisis.

In the past few years, the transportation industry demonstrated upturn dynamic both in terms of the development of infrastructure and the volumes of transportation. In 2020, the COVID-19 pandemic and the relevant restrictions aimed at fighting the spread thereof led to substantial changes in the supply and demand situation on numerous markets, not only affecting directly freight and passenger traffic, but also making a sizable portion of the population revise their views on the need and required parameters of the infrastructure (not only transport infrastructure, but also social-information and communication ones).

The transportation industry and logistics are among the sectors which were hit the hardest by the pandemic. On the back of restrictions on international traffic introduced early in 2020 and the decline of business activity, the volumes of hauling operations, passenger traffic and freight turnover decreased and logistic chains changed.

As of the end of 2020, the list of the hardest -hit sectors[2] included motor transportation and air carriage; sea, inland-water, air and other overland passenger services; intercity and international railway passenger services, bus terminals and auto stations, as well as auxiliary activities related to air and space transportation.

At the same time, it is noteworthy that effect of the pandemic on the situation in the transportation industry is not quite homogeneous in terms of the pattern of effects broken down by the sub-sectors and their indicators' dynamics during 2020.

So, the restrictions aimed at fighting the spread of the pandemic, particularly during the period of non-work days and the mandatory stay-at-home regime in April-May 2020, the limitation of international mobility[3] and the shift to remote work affected dramatically the volume of passenger traffic by all types of transport. It started to recover, as shown below, only in H2 2020.

1 This section was written by: *Borzykh K.*, Junior Researcher of the Infrastructure and Spatial Studies Department, IAES RANEPA; *Ponomaryev Yu.*, Candidate of Economic Sciences, Head of the Infrastructure and Spatial Studies Department, IAES RANEPA; Senior Researcher of the Center for Real Sector Studies, Gaidar Institute.

2 URL: http://base.garant.ru/73846630/#block_1000

3 RF Government Order No.763-r of March 27, 2020 on Temporary Suspension of Traffic via Russia's State Borders.

At the same time, the impact on freight traffic was also negative, but not so much homogeneous. Fast growth in online sales of goods led to higher demand for freight services (particularly, trucking) on the part of logistics companies, retailers and distributers. To deliver essential goods to some cities, the authorities had to assign the taxi service a new function.[1] Also, a pickup in the online segment of sales increased a load on transport industry-related entities providing warehousing services: in 2020 demand for such services doubled and renewed the record-high level of the busiest period preceding New Year's Day.[2]

It is noteworthy that the impact of the coronavirus has brought about globally similar trends in transport systems all over the world, specifically, a substantial decline of activities of large international transportation hubs and global cargo and passenger traffic. The volumes of reduction in the transportation industry's activities differ from country to country and depend on the specifics of approach to dealing with the pandemic's implications. However, the common trend consists in switching over freight flows to railways and reorientate the transport system to the domestic market (internal traffic growth).[3] For example, China used railways as the main mode of transportation of goods, including medical supplies: railways which operated 24/7 replaced trucking at individual supply chain parts which functioning was disrupted. In the euro area, the introduction of incentives for freight companies (tax breaks and cancellation of rentals owing to a decrease in the volume of intra-European and International freight traffic) failed to prevent the contraction of the market of transport and logistics services (a decrease of over 30% at year-end). According to the OECD's preliminary estimates, a drop in the global freight traffic was equal to 36% in 2020.[4]

A rapid recovery of the transportation industry is largely hindered by international traffic restrictions (albeit eased gradually) which are in effect till the end of the year. On the back of these restrictions, in 2020 the international tourist flow decreased by 74% as compared with the previous year.[5] According to the UNWTO, an international tourism organization, in December 2020 out of 217 destinations (countries) 27% of countries kept their borders completely closed and 70% of countries eased partially international travelling restrictions.[6] The International Air Transport Association (IATA) assessed that air traffic decreased by 66% at year-end as compared with 2019. At the same time, the IATA notes that owing to internal air service growth of 3.8% in summer as compared with August 2019, the Russian market was the first one to see growth since the beginning of the pandemic (*Table 15*). Upward dynamics of the air transportation industry's indicators were driven by the reduction in the cost of air flights in combination with growing demand for internal holiday trips.[7]

1 URL: https://www.vedomosti.ru/partner/articles/2020/06/16/832460-pandemiya-zastavila
2 URL: https://www.rzd-partner.ru/logistics/reviews//pandemiya-rasshirila-spros-i-trebovaniya-k-skladam/
3 URL: https://www.retail.ru/articles/logisticheskie-trendy-2020-2021-goda-vliyanie-pandemii-covid-19-na-perevozki/
4 URL: https://www.itf-oecd.org/sites/default/files/global-freight-covid-19.pdf
5 URL: https://www.e-unwto.org/toc/wtobarometereng/19/1
6 URL: https://www.unwto.org/covid-19-travel-restrictions
7 URL: https://www.iata.org/en/pressroom/pr/2020-09-29-02/

Table 15

Dynamics of indicators of air traffic on developed countries' internal markets, August 2020 as compared with the corresponding period of 2019, %

	Share in global traffic volume	Revenue passenger kilometers	Passenger load factor (increase)	Passenger load factor (level)
Internal traffic	36.2	-50.9	-21.5	64.2
Australia (internal)	0.8	-91.5	-44.9	37.1
Brazil (internal)	1.1	-67.0	-6.4	76.1
China (internal)	5.1	-19.1	-12.3	75.3
India (internal)	1.3	-73.6	-19.1	66.2
Japan (internal)	6.1	-68.6	-45.6	35.6
Russia (internal)	1.5	3.8	-4.6	86.4
USA (internal)	14.0	-69.3	-37.7	48.9

Source: The International Air Transport Association (IATA).

Below we review in detail the dynamics of the transportation industry's main indicators in 2020.

4.4.1. Transportation dynamic in 2020

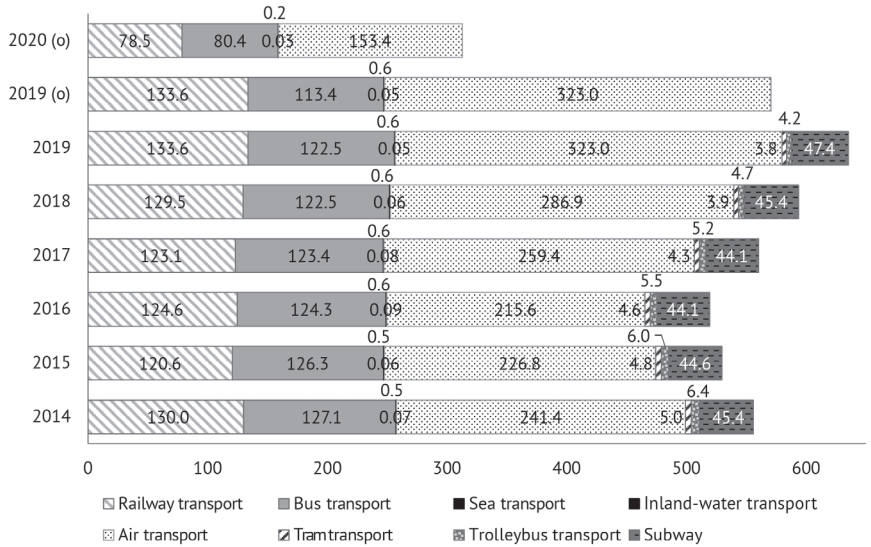
Passenger traffic

The year 2020 saw a huge slump in passenger traffic in Russia: as per the data of the Rosstat it was equal to 45.2% as compared with 2019 and took place largely during the stay-at-home regime in April-May. Passenger traffic decreased substantially as regards inland water service (-59.5%), air service (-52.5%, including international air service (-85.9%) and internal air service (-13.5%)), railway service (-41.3%) and sea service (-39,5%). Bus passenger traffic, mostly intra-city and inter-city bus services, fell by 29%. In summer, passenger traffic by all types of transport increased, but owing to the prevailing restrictions on international traffic and relatively lower demand for transportation services failed to embark on the former trajectory comparable with the previous year.

At the same time, based on the results of four quarters of 2020 it can be stated that the passenger traffic pattern did not undergo serious changes; the share of air traffic is declining, while that of railway and bus traffic is on the rise relative to 2019 (*Fig. 16*).

In 2020, the overall volume of passenger traffic decreased by 29%. The largest contraction took place in the air transportation industry: air passenger traffic fell by 46%. In particular, passenger traffic of the Moscow Air Cluster decreased by 52.3%.[1] Owing to the restrictions on the international air service between Russia and other countries, in 2020 the volume of regular and occasional flights was equal to 23.8% of the volume seen in 2019. As regards internal flights, this indicator is higher – 76.9%, however it does not exceed the volume of the previous year. In

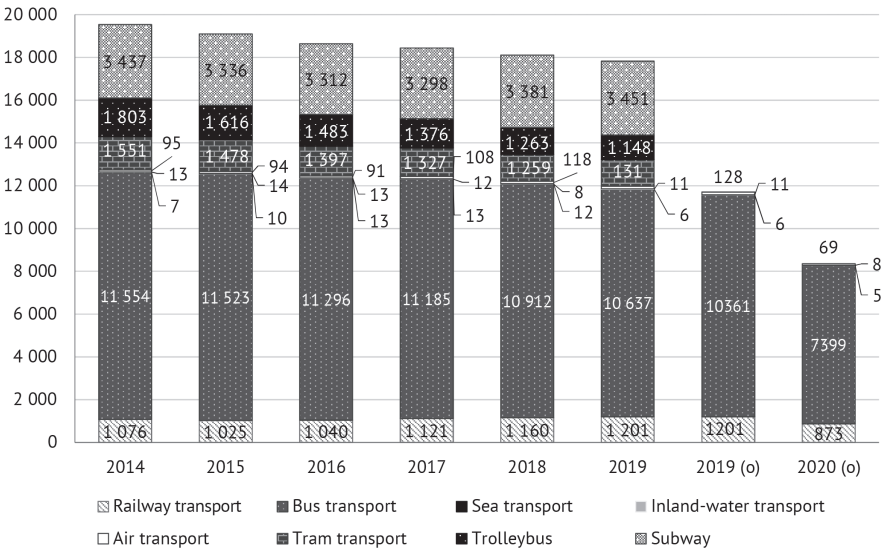
1 URL: https://www.aviaport.ru/news/2021/01/26/665055.html



Note. 2020 and 2019 (for comparison) are represented by the on-line data ("**o**" next to the year) without taking into account tram and trolleybus traffic and subway.

Fig. 16. Passenger traffic by the type of transport (billion passenger kilometers), 2014–2020

Source: The Rosstat, own calculations.



Note. 2020 and 2019 (for comparison) are represented by the on-line data ("**o**" next to the year) without taking into account tram and trolleybus traffic and subway.

Fig. 17. Passenger traffic by the type of transport in 2014-2020, million passengers

Source: The Rosstat, own calculations.

addition, passenger load factor in the industry as a whole decreased by 6.7% in 2020 on 2019.[1]

There was almost an equal decrease in passenger traffic by sea transport (-23.9%), railway (-27.3%), bus (-28.6%) and inland water transport (-31.8%) (*Fig. 17*).

Freight traffic

As per the Rosstat's data, in 2020 the share of the transportation industry in gross value added[2] was equal to 6.5% (a decrease of 0.3 p.p. as compared with 2019). By estimates of the RF Ministry of Economic Development, the cargo traffic dynamic throughout 2020 remained negative. Overall, in 2020 freight turnover fell by 4.9% relative to 2019 with the largest drop of -8.2% based on the results of Q2 2020.[3]

A decrease in freight turnover and cargo traffic volume in nominal terms based on the results of H1 2020 led to growth in transport cargo capacity[4] (54.6). However, at year-end a downward trend observed since 2014 was registered and this is evidence of higher efficiency in utilization of transport (*Fig. 18*).

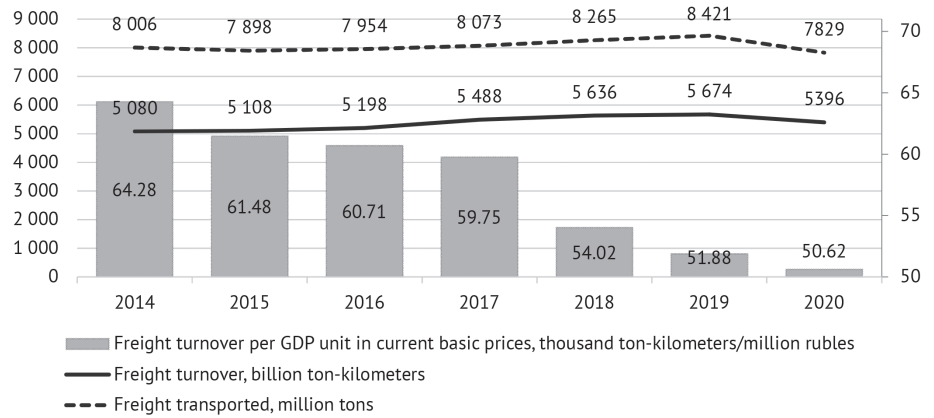


Fig. 18. The dynamic of freight turnover per GDP unit in current prices (thousand ton-kilometers/million rubles), cargo traffic volume (million tons) and transport freight turnover (billion ton-kilometers), 2014–2020

Source: The Rosstat, own calculations.

1 URL: https://favt.gov.ru/dejatelnost-vozdushnye-perevozki-osnovnye-proizvodstvennye-pokazateli-ga/

2 The Rosstat. (GDP produced. The annual data on OKVED 2 (NAC Edition 2) (since 2011) in current prices. URL: https://rosstat.gov.ru/accounts; URL: https://www.gks.ru/storage/mediabank/osn-12-2019.pdf

3 URL: https://www.economy.gov.ru/material/file/f6ba6608b92d30df520e89cdf7ec16cf/210128.pdf

4 Cargo capacity is the value of freight turnover (sum of productions of weight of each freight shipment by a transportation distance) per GDP unit and shows the extent of the "load" on the economy by the work of transport.

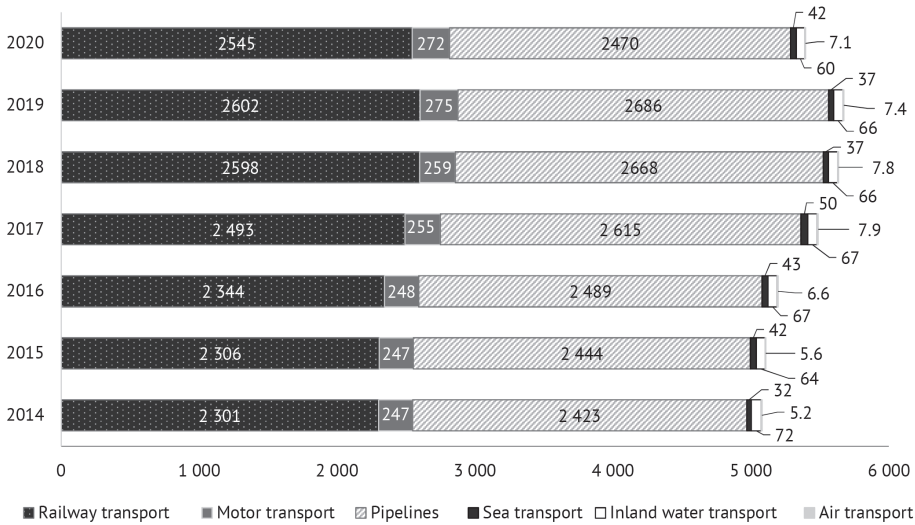


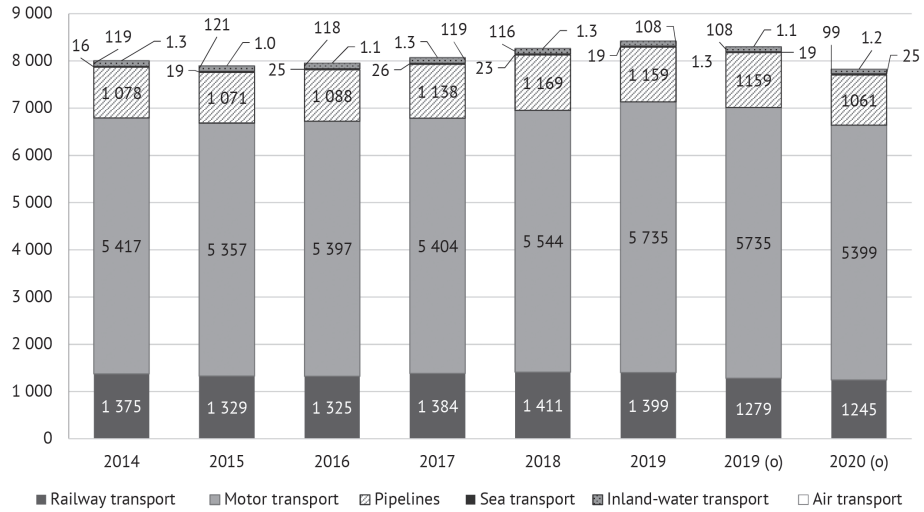
Fig. 19. Freight turnover by the type of transport (billion ton-kilometers), 2014–2020

Source: The Rosstat, own calculations.

As per the Rosstat's data, in 2020 the monthly dynamic of freight turnover did not surpass the indicators of the previous year. The smallest deviation relative to 2019 was registered in February (99.5%), while the highest gap, in May and June (90.8% and 90.5%, respectively), but it was narrowed considerably based on the results of Q3 and Q4. In terms of the types of transport, freight turnover decreased as follows: inland-water transport (-8.6%), pipelines (-8%), air transport (-3.8%), railways (-2.2%) and motor transport (-1.4%). In November-December, air carriage succeeded in increasing substantially the volume of freight turnover and surpass the relevant indicators of the previous year. The sea transport became the only one which achieved a positive dynamic of freight turnover and surpassed by 16% the volume seen in 2019. In addition, in 2020 air carriage saw upward freight turnover dynamics on Russian internal routes (+10.6%), including local traffic (+29.2%). In freight turnover across the country as a whole, the share of motor transport increased, while that of pipelines became smaller (*Fig. 19*).

In 2020, the freight traffic volume in nominal terms decreased by 5.7%. Specifically, it concerned all types of transport, except for sea transport (32.9%), which can be explained by growth in transit and the volume of grain shipments which made up for a drop in other components of freight traffic (*Fig. 20*). In addition, foreign trade which Russian sea carriers are oriented at was hit slightly less by the crisis than other sectors and this could not but influence the dynamic of freight turnover and sea freight.[1] At year-end, air freight increased and embarked

1 URL: http://www.morvesti.ru/analitika/1691/86483/



Note. 2020 and 2019 (for comparison) are represented by the on-line data ("**o**" next to the year).

Fig. 20. Freight traffic dynamic by the type of transport (million tons), 2014–2020

Source: The Rosstat, own calculations.

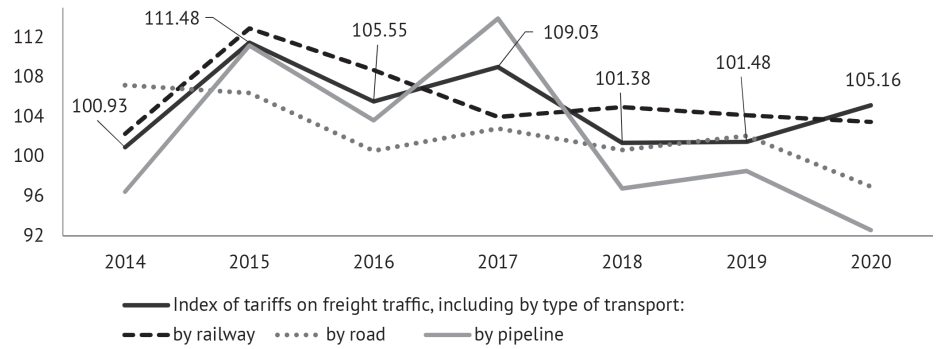


Fig. 21. Growth rates of freight carriage tariffs (aggregate and by the type of transport), December on December of the previous year, %

Source: The Unified Interdepartmental Statistical Information System, own calculations.

on the positive dynamic: 1.9%, while based on the results of January-October it saw negative growth (-1.4%).

The largest decrease in freight traffic was registered with pipelines (-8.5%), inland-water transport (-8.3%) and motor transport (-5.9%). Railways saw a relatively small drop (-2.7%) in freight traffic.

Overall dynamics and changes in the freight traffic pattern were affected to some extent and driven by the dynamics of freight tariffs (*Fig. 21*). Generally, the overall level of freight tariffs on freight carriage has been declining since 2015. Explosive tariffs growth on the back of nearly three-fold increase in tariffs from 105.2% to 288.9% on air freight in November-December 2020 compared with the relevant period of 2019 was an exception. Throughout the entire observation period, the dynamics of tariffs on transportation by pipelines were the most volatile with a dramatic slump registered in 2020. The growth rates of tariffs on freight transportation by road demonstrated a downward trend, while those on freight transportation by railway remained on a consistently high level relative to other types of carriage.

Transportation infrastructure

Apart from limitations and losses caused by the pandemic, there is an acute need of upgrading and replacing nearly one third of the entire rolling stock and bringing the transportation infrastructure in compliance with the relevant standards.

To maintain the rates of development of the transportation infrastructure, the authorities had to take prompt and systemic steps, that is, the optimization[1] of procedures for implementation of projects and provision of additional financing for the sector. With the breakdown into the type of transport, the following trends can be highlighted in 2020. First of all, amid the pandemic the start of implementation of large railway infrastructure projects on external markets (for example, the RZhD's and the Transmashholding's projects in Argentina and Egypt) was postponed. To implement railway infrastructure projects on commissioning 400 kilometers of additional main trunk routes and new railway lines primarily in the Eastern test range and approaches to seaports of the Azov sea and the Black sea, it required to increase the RZhD's investment program by 1.5%.

The year 2020 saw the contraction of shipbuilding activity in Russia: at year-end maximum 60 civil ships are expected to be put into service, a decrease of 20% compared with the previous year.[2] The development of refueling infrastructure and building of natural gas refueling transport facilities slowed down: the building of 10% of such facilities was postponed from 2020 to the beginning of 2021.[3]

The road building dynamic is positive: in the current year the volume of road building jobs has increased and surpassed actually the planned targets, including those set in the "Safe and Quality Highways" national project (SQH).

1 Federal Law No.254-FZ of July 31, 2020 "On the Specifics of Regulation of Individual Relations for the Purpose of Upgrading and Expanding the Trunk Infrastructure and Amending Individual Statutory Acts of the Russian Federation." URL: http://kremlin.ru/acts/bank/45782

2 Shipbuilding on a High Note // The Kommersant daily. URL: https://www.kommersant.ru/doc/4442575

3 Anton Inyutsyn held a meeting on the ways of speeding up the development of the market of natural gas as petrol // The RF Ministry of Energy. URL: https://minenergo.gov.ru/node/18661

As of November, 7.000 road facilities were brought in compliance with relevant standards, that is above the 2020 target indicator of 6,000 road facilities; the area of asphalt cover milling was equal to 142 mn sq. meters (instead of 123 mn sq. meters).[1] Early in December, the annual plan of commissioning roads in Moscow was accomplished ahead of schedule,[2]while in the Nizhny Novgorod Region the overall area of wearing coat milling was equal to 98.8% of the annual volume.[3] Within the framework of the SQH national project, in 12 metropolitan areas the public transport rolling stock was upgraded with 511 transport vehicles provided among other things on preferential terms (with a price discount of 60%).

From among large infrastructure projects in the transportation sector in 2020, the Tavrida Highway project was completed, the building of the bridge across the Zeya river in the city of Blagoveschensk was started ahead of schedule, the period of building of the bridge across the Ob river in the city of Novosibirsk was reduced by a year and the work proceeded on building the bridge across the Sheksna river in the city of Cherepovets, the northern bypass of the city of Kaluga and the M-12 Moscow-Kazan highway.

Port infrastructure saw further development: at year-end production capacities of Russian ports increased by 27 mn tons. In addition, inland-water service launched new cruise routes on the Yenisei river and the Volkhov river; also, the Mustai Karim cruise liner built at the Russian shipyard was put into service.

4.4.2. The transportation industry's losses and state support measures

By estimates[4], in 2020 the transportation industry's losses owing to the pandemic amounted to Rb1.27trillion or 66% of the overall volume of Russian infrastructure companies' losses.

Among different types of transport, air infrastructure service companies were hit the hardest: airline companies and airports short-received Rb600 bn and Rb113 bn, respectively. In terms of the relative ratio of losses as the share of lost annual revenues, the public transport, particularly, carsharing services, the subway and city overland transport services were hit hard, too (*Fig. 22*).

The transportation industry which is critically important to the economy managed to avoid substantial cuts in personnel and bankruptcies thanks to state support measures worth about Rb200 bn.[5] Amid the COVID-19 pandemic, the complex of anti-crisis measures aimed at maintaining transport companies'[6] operations included primarily the support of systemic companies by means of

1 Road building has surpassed the planned target this year – Marat Khusnullin // Dorinfo. URL: https://dorinfo.ru/star_detail.php?ELEMENT_ID=87667
2 Bochkaryev: Moscow Has Accomplished the Annual Plan of Commissioning of New Roads // The website of the Town-Planning and Construction Complex of the City of Moscow. URL: https://stroi.mos.ru/news/bochkariov-moskva-vypolnila-ghodovoi-plan-po-vvodu-dorogh
3 Kilometers of roads repaired in the Nizhny Novgorod Region in 2020 // The website of the Strategy of Development of the Nizhny Novgorod Region. URL: https://2035.government-nnov.ru/ru-RU/news/skolko-kilometrov-dorog-bylo-otremontirovano-v-2020-godu-v-nizegorodskoj-oblasti
4 InfraOne Research of 01.2021 URL: https://infraone.ru/sites/default/files/analitika/2021/infrastruktura_i_pandemiya_poteri_otrasli_v_2020_infraone_research.pdf
5 URL: https://regnum.ru/news/economy/3118554.html
6 URL: https://www.mintrans.gov.ru/activities/289/291

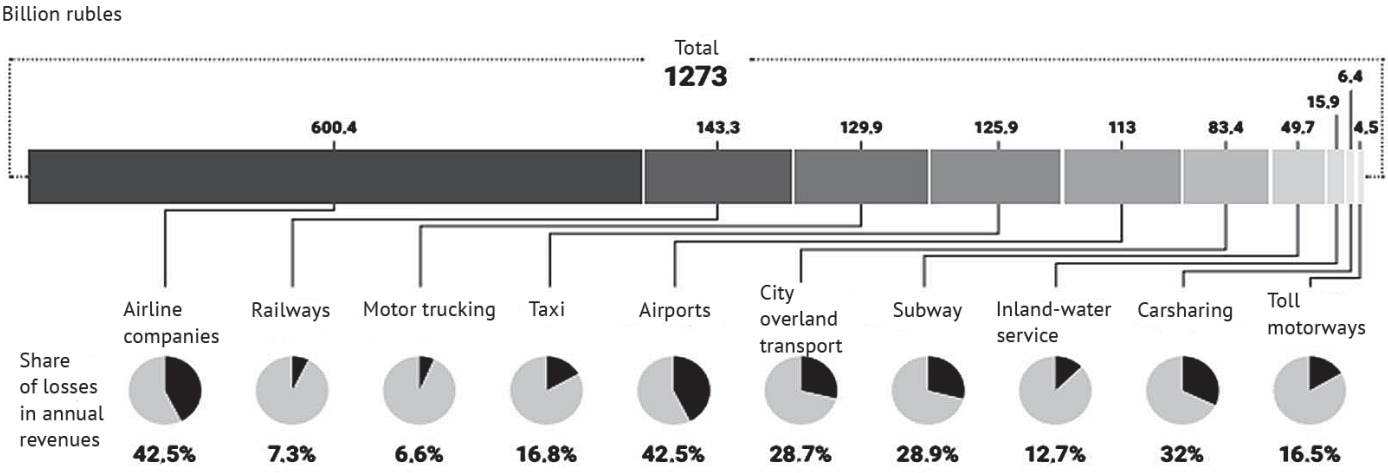


Fig. 22. The transportation industry's revenue losses in 202, billion rubles

Source: InfraOne Research.

subsidies to finance costs, tax deferrals and government loan guarantees.[1] Transport companies were granted extended deadlines for making advance payments and insurance payments, including mandatory social insurance payments provided that the company's revenues decreased by more than 10% or in case of profit tax losses in 2020.[2] In addition, the government reimbursed airline companies for their costs related to the transportation of RF citizens from countries with an unfavorable epidemiologic situation and provided subsidies to airline companies and airports for partial compensation of transportation expenses to Kaliningrad at special tariffs (in the volume of Rb36.1 bn). River and maritime cruise companies received subsidies to support their operations, preserve jobs and make payments under lease contracts (Rb5 bn). Rb443.7 bn worth financing of railway companies (including the placement of OAO RZhD's irredeemable bonds) is aimed at subsidizing the project on the development of the Tran Siberian and Baikal-Amur railway main lines, transshipments via Far Eastern seaports, lease payments by suburban public transport operators and labor remuneration of the AO FPK personnel, as well as reimbursing of expenses on services related to the utilization of the railway transport infrastructure of the OOO Airoexpress and the AO "Transport Company "Grand Service Express".

Also, to underpin and motivate demand for transportation services in future, it was decided to freeze the AO FPK's ticket prices of railway passenger trips in compartment cars in March 2020 with the number of routes reduced[3]; large airline companies cut their tariffs on internal flights (this measure facilitated air passenger traffic growth in August)[4]; the reduced tax rate of 10% on Russian internal flights via the Moscow transportation hub was extended till the end of 2021– this measure facilitated affordability of air passenger service amid high prices of jet fuel and airport services and high operating losses of Russian airline companies; the reduced tax rate of 1.6% on the property of entities operating public railway tracks was extended till the end of 2021. The scheme of subsidizing Rb835 mn worth of internal air flight tickets for families with children was developed (from January 1, 2021).[5] Within the framework of the Nationwide Plan of Activities, it is envisaged to create a "single ticket" for all types of the public transport and uniform standards of payment of fares for passengers from different regions.[6]

4.4.3. The outlook for development and recovery of the transportation industry in 2021–2023

The transportation industry's mid-term dynamic is justified by other sectors' targets and furthermore its recovery depends largely on the scenarios of the

1 RF Government Decree No.651 of May 10, 2020
2 RF Government Decree No.409 of April 2, 2020
3 URL: https://www.rbc.ru/society/26/03/2020/5e7b8f5d9a794710988ec5c2
4 URL: https://www.vedomosti.ru/business/articles/2020/08/21/837295-aviakompanii-iz-za-plohogo-sprosa
5 URL: http://www.finmarket.ru/news/5368346
6 The nationwide plan of activities facilitating the recovery of employment and households' incomes, economic growth and long-term structural economic changes (approved at the RF Government meeting on September 23, 2020 (Record No.36, Section VII) No. P13-60855 of October 2, 2020. URL: https://www.garant.ru/products/ipo/prime/doc/74678576/

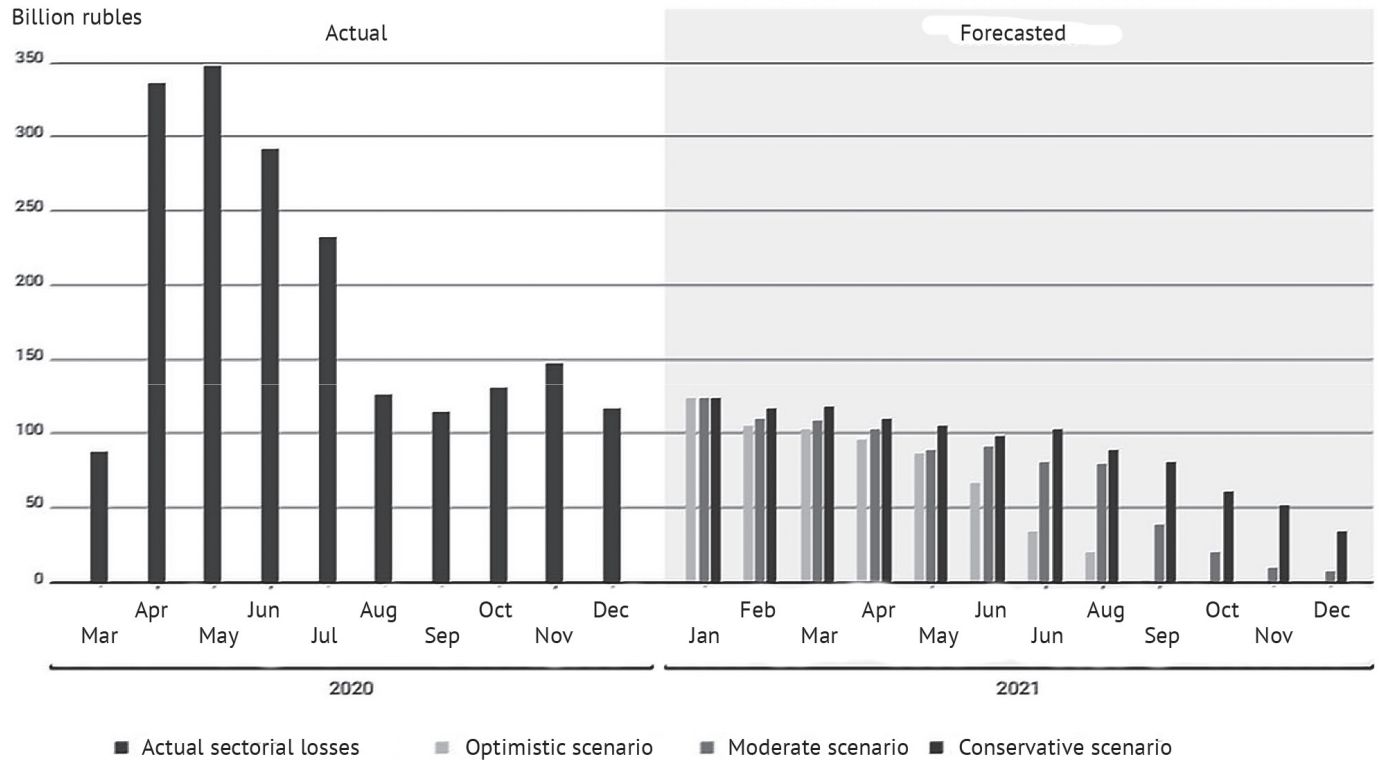


Fig. 23. Forecast scenarios of distribution of infrastructure companies' revenues losses

Source: InfraOne Research.

pandemic's growth/decline. In case of worsening of the epidemiologic situation and the repeated introduction of quarantine restrictions, the recovery of the global and national economies will be protracted and this cannot, but slow down the growth rates of various sectors of the economy, including the transportation industry.

According to the forecasts[1] of the RF Ministry of Economic Development, the global economic activity is expected to recover gradually in 2021. The rates of recovery of the transportation industry and its return to the former volume of functioning will depend directly on when quarantine restrictions are lifted completely, herd immunity is effectively formed in different countries and international travelling is renewed. Overall, the indicators are expected to recover to pre-crisis levels by 2022. By estimates, in case of the optimistic scenario,[2] the transportation industry's overall pandemic-related losses will be minimum. In case of the moderate-pessimistic scenario[3] and the critical scenario,[4] the rates of recovery of infrastructure industries, including the transportation industry will be low (*Fig. 23*).

Though state borders are being gradually opened, lots of countries still require individuals to self-isolate on arrival and/or undergo tests for COVID-19. Tourist trips abroad are still limited, but some countries allow tourists in if they have got complete vaccination. Entry to some "closed" countries is possible for Russian citizens only via third countries.

As per the Rosaviation's order[5], Russian airline companies are permitted to make charter and passenger/cargo flights[6] to "closed" countries which include Austria, Bulgaria, Hungary, Germany, Israel, Spain, Italy, Cyprus, China, Malta, the Netherlands, Saudi Arabia, Turkmenistan, Uzbekistan, France and the Czech Republic. In 2021, international air service has renewed with a number of countries (Finland, Vietnam, India, Qatar, Greece and Singapore). European countries' borders are expected to be open for Russian citizens not earlier than August-September 2021.[7]

1 URL: https://www.economy.gov.ru/material/directions/makroec/prognozy_socialno_ekonomicheskogo_razvitiya/prognoz_socialno_ekonomicheskogo_razvitiya_rf_na_2021_god_i_na_planovyy_period_2022_i_2023_godov.html
2 No tough restrictions, such as the shutdown of economic sectors, the start of the nationwide vaccination in Q1 2021 and the number of new coronavirus cases per day not exceeding 6,000 persons.
3 The period of new restrictive measures applied to a half of the population lasts for maximum six weeks and the number of new coronavirus cases per day is in the range of 6,000-12,000 persons.
4 The period of new restrictive measures applied to 85%–95% of the population lasts for over eight weeks and the number of new coronavirus cases per day exceeds 12,000 persons.
5 Order No.1244-P of October 05, 2020 of the Rosaviation "On Granting and Withdrawal of Permit to Air Carriers Having the Relevant License to Carry out International Passenger and (or) Cargo Flights." // URL: https://favt.gov.ru/dejatelnost-vozdushnye-perevozki-dopusk-perevozchikov-k-vypolneniju-mezhdunarodnyh-perevozok/?id=6964
6 For certain categories of individuals which are allowed entry to the territory of the recipient country (not for tourism).
7 URL: https://tourism.interfax.ru/ru/news/articles/75353/

4.5. Housing market of Russian cities[1]

The past year in the Russian real estate market was unique. Some of the trends that emerged earlier have noticeably intensified (the decline in the developers' profitability, the digitalization of technical and business processes, increase in size and consolidation of the industry as a response to the pre-bankruptcy state of a significant part of market participants, the expansion of state support for developers and its participation in the completion of many uncompleted projects). Other trends impact the spread of remote work format, migration from megacities, the systemic revival of the individual housing construction (IHC) segment as an alternative to apartment buildings, the easing of requirements for the level of income of borrowers and their reliability, the unprecedented expansion of state-subsidized mortgages - have only just begun to take shape.

The price dynamics of the housing market was influenced by multidirectional factors: on the one hand, the fall in real disposable incomes of the population and the general depressive mood in the market acted in the direction of reducing demand, and on the other hand, state support for the industry and subsidized mortgages, on the contrary, caused a commotion, which was clearly manifested in the second half of the year in the form of rising prices for all types of real estate.

4.5.1. Market price indexes

First of all, let's consider the data of professional market analysts from a number of well-known companies under the Russian Guild of Realtors (RGR).[2]

The main indexes of the prices dynamic in the housing market in Russian cities in 2020 are presented in *Table 16*.

According to RGR experts, the leaders in price growth (20% or more) in 2020 in the secondary market were Ryazan and Krasnodar, and in the primary market – Ryazan, Krasnodar, Irkutsk, Moscow, and St. Petersburg.

There were more cities where prices for newly constructed buildings were higher than in the secondary market. However, among the cities that have prices on the secondary market higher than the primary ones, are Moscow, St. Petersburg and Vladivostok, which form the top three in terms of absolute price levels (more than Rb100,000 per sq. m).

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2 URL: http://rgr.ru/news/itogi-rynka-nedvizhimosti-rossii-2020-goda-i-prognoz-na-2021-god Voronezh: Moskalev A., General Director of LLC Invest Otsenka; Saint Petersburg: Bent M., General Director LLC BN Expert; Syktyvkar: Prosheva E., chief expert on determining cadastral value GBU RK RUTIKO; Sevastopol: Pichuev I., Managing paqrtner LLC Analiticheskaya korporativnaya gruppa; Perm: Skorobogach A., Director ATs KD Consulting; Ekaterinburg: Khorkov M., Head of Analytical Department the Urals Chamber of Real estate; Tyumen: Molodkina S., independent analytic-consultant of the real estate market; Irkutsk: Galuschenko T., Marketing Director business district Irkutsk-Citi UK Irkutsk-Citi GK Aktiv; Novosibirsk: Ermolaeva E., Director of RID Alalytics; Vladivostok: Dymchenko S.N., Director of LLC INDUSTRIA-R; Khabarovsk: Shvalova A., specialist KGBU Khabkraikadastr; other cities: aggregator of real estate offers Restate.ru.

Table 16

Prices in apartment buildings in Russian cities in 2020

Federal district/city	Secondary market		Primary market		Price difference between primary and secondary markets, %
	Average asking price, Rb/m2	Change for the year, %	Average asking price, Rb/m2	Change for the year, %	
Central FD					
Moscow	260200	12.0	230039	20.2	13.1% higher in the secondary market
Tambov	58800	5.0	46000	11.0	27.8% higher in the secondary market
Voronezh	57136	16.4	60517	14.6	5.9% higher in the primary market
Ryazan	49450	26.0	54500	37.0	10.2% higher in the primary market
Kostroma	45000	5.0	46000	15.0	2.2% higher in the primary market
North-Western FD					
Saint Petersburg	148000	13.0–15.9	145400	19.0–22.5	1.8% higher in the secondary market
Syktyvkar	52505	2.0	59000	7.0	12.4% higher in the primary market
Sothern FD					
Sevastopol	90488	5.0	73593	8.0	23.0% higher in the secondary market
Krasnodar	65000	20.0	70000	30.0	7.7% higher in the primary market
Volga FD					
Perm	59960	4.7	71626	13.6	19.5% higher in the primary market
Saratov	45000	15.0–20.0	38000	10.0–12.0	18.4% higher in the secondary market
Urals FD					
Ekaterinburg	77270	7.0	87430	12.0	13.1% higher in the primary market
Tyumen	74804	10.0	77125	15.0	3.1% higher in the primary market
Siberian FD					
Irkutsk	76310	17.0	81000	24.0	6.1% higher in the primary market
Novosibirsk	73400	5.0	80000	12.0	9.0% higher in the primary market
Far-Eastern FD					
Vladivostok	135973	9.5	122334	9.7	11.1% higher in the secondary market
Khabarovsk	96822	13.2	92985	11.3	4.1% higher in the secondary market

Source: Russian Guild of Realtors.

If we talk about the degree of excess of prices of one market segment over another, the most noticeable advance in prices in the secondary market compared

to the primary one was observed in Tambov and Sevastopol (more than 20%). They were followed by Saratov, Moscow and Vladivostok (with a difference of 11 to 18%). The excess of prices for newly constructed buildings relative to the secondary market by more than 10% was noted in Perm, Yekaterinburg, Syktyvkar, and Ryazan.

RGR analysts work with the offer prices, however local realtors noted an increase by 40-50% in the number of real transactions in many cities of the country in the second half of the year compared to the results seen in the first half of the year. The specifics of the 2020 situation affected not only the market itself, but also the representativeness and quality of professional analysis on it. The number of analysts who personally provide data to the RGR has markedly decreased, and a number of cities use statistical processing of samples of the aggregator of offers on the Internet with an erratic error.

In this regard, it is advisable to consider for comparison the data of another aggregator of offers - CIAN, which is larger and has more experience in its own analytical division, but analyzes data only on the secondary market.[1]

The sample of CIAN included 107 cities with a population of 100,000 people and the sale offer of 100 apartments.[2] Subsidized mortgages have fueled a surge in the cost not only in the segment of newly constructed buildings, but also in the secondary market, where the price increase was twice as high as in 2019. In December 2020, average cost of 1 sq. m. in the secondary market totaled Rb90,200 against Rb77,700 at the end of 2019.[3] For the year, the increase was 16.1% against 7.5% at the end of 2019 (*Table 17*).

Table 17

Dynamics of average asking prices of 1 sq. m in apartment buildings on the secondary market in Russian cities in 2018–2020

Year	Average price of 1 sq.м, Rb thousand	Increase on previous year, %
2018	72.3	
2019	77.7	7.5
2020	90.2	16.1

Source: CIAN.

Therefore, in two years, the average prices in the secondary market gained 24.8% (by almost Rb18,000 per 1 sq. m).

Let's take a closer look at how the price dynamic developed over the past year (*Table 18*).

1 URL: https://www.cian.ru/stati-vtorichka-sdaet-pozitsii-i-proigryvaet-novostrojkam-po-tsene-313548/

2 Given the high representativeness of the sample, it is worth noting that more than 40% of all the cities included in it are located in the Volga (25 cities) and Central (22 cities) federal districts. The other three districts (Southern, Ural, and Siberian) are represented by 12 cities each, while the North-Western, Far-Eastern, and North Caucasian districts are represented by 10, 9, and 5 cities, respectively.

3 Hereinafter, the annual price dynamic is estimated based on a comparison of prices at the end of the month (December).

Table 18

Movement of average prices in apartment buildings on the secondary market in Russian cities in 2020

Month	Average price of 1 sq. m. at month-end, Rb thousand	Change		
		Month-on month, %	Quarter-on-quarter, %	Year-on-year, %
December 2019	77.7			
January 2020	77.3	-0.5		
February 2020	77.8	0.6	-0.4	
March 2020	77.4	-0.5		
April 2020	77.5	0.1		
May 2020	76.5	-1.3	2.7	
June 2020	79.5	3.9		16.1
July 2020	78.0	-1.9		
August 2020	82.9	6.3	5.2	
September 2020	83.6	0.8		
October 2020	83.6	0.0		
November 2020	83.9	0.4	7.9	
December 2020	90.2	7.5		

Source: CIAN.

In Q1 2020, the average price of 1 sq. m. in the secondary market of Russia slightly decreased by 0.4% (to Rb77,800).

The second quarter was almost completely in self-isolation regime. And if the developers managed to quickly switch to remote sales, then the secondary market actually stopped operating. The decline in demand led to a drop in prices in May 2020 (by 1.3% compared to April). In June, due to the expansion of the pent-up demand accumulated during the quarantine period, prices went up, compensating for the May drop. Overall, the average unit price gained 2.7% in Q2.

In Q3 2020, the secondary market was still in a fever: in July, average prices declined (by 1.9%), in August, an increase of 6.3% was recorded against the background of a rise in the price of newly constructed buildings due to subsidized mortgage programs. As a result, the average price of 1 sq. m. gained 5.2% for the third quarter.

Q4 2020 was marked by a record price growth in December (by 7.5%). The reasons for this accumulated throughout the second half of the year: the ruble's devaluation, low rates on bank deposits, which made some of the depositors to go to the real estate market. The inability to travel and lack of vacation trips gave time and money to resolve the housing problem, which was in line with one of the traditional stereotypes of many Russians: aspirations to resolve all the major issues before the end of the year. It is in November–December that the highest price increase is observed in the primary market, pushing up the cost in the secondary segment as well.

Consequently, the main price growth occurred during the period of the subsidized mortgage rate in the primary market, thanks to which (in combination with greater availability of mortgage loans to a number of categories of the

population) developers were able to significantly increase the cost of housing. The reaction of the owners in the secondary market was an increase in prices relative to the primary market.

At the end of the year, the pricing of ready-made housing was also affected by the emotional component, which was not bolstered by real demand. On the news about the general rise in the price of goods and services, some sellers began to raise prices for real estate, taking advantage of the decline in supply on the back of the pandemic.

The average price tag of an apartment on offer on the secondary market in Russia as a whole (cities with a population of 100,000 people or more) is equal to Rb5.4 mn as of year-end 2020 (*Table 19*).

Table 19

Average price tag for an apartment on offer on the secondary market of apartment buildings in Russian cities in 2018–2020

Year	Average price tag for an apartment on offer, Rb million	Increase year-on-year	
		%	Rb mn.
2018	4.57		
2019	4.83	5.7	0.26
2020	5.5	13.9	0.67

Source: CIAN.

Over the year, the apartment price on the offer increased by Rb670,000, over two years - by Rb930,000 or 20.4%. In other words, for two years (2019-2020), the average apartment offered on the secondary market has risen in price by almost Rb1 mn.

Table 20

Dynamics of the average unit of asking price of 1 sq. m in apartment buildings on the secondary market in Russian cities by federal districts

Federal District	Weighted average price of 1 sq. m., Rb thousand			Increase, %	
	2018	2019	2020	over 2020	over 2019–2020
Central	110.0	108.0	109.2	1.1	- 0.7
North-Western	101.8	102.8	106.2	3.3	4.3
Far-Eastern	67.5	65.4	79.2	21.1	17.3
Sothern	62.6	64.6	77.2	19.5	23.3
Urals	56.6	57.4	64.9	13.1	14.7
Siberian	55.7	58.7	66.8	13.8	19.9
Volga	50.6	51.9	54.1	4.2	6.9
North-Caucasus	43.5	46.9	53.2	13.4	22.3

Source: CIAN.

The largest price increase was recorded in the Far-Eastern (more than 21%) and Southern (about 20%) Districts. At the other pole were the Central, North-Western

and Volga Districts, where the price growth did not exceed 5%. The intermediate position is occupied by the North-Caucasus, the Urals and Siberian Districts with a price increase of 13-14% (*Table 20*).

When considering the dynamics for 2019-2020, the leaders are the Southern and North- Caucasus Districts (an increase of more than 22%-23%), the Siberian District is slightly behind (about 20%). The composition of the outsider group did not change, the price growth there did not exceed 7%, and in the Central District prices even slightly decreased. The intermediate position was taken by the Urals and the Far-East Districts, where the price growth exceeded 14% and 17%, respectively.

The price dynamic for different groups of cities is most indicative (*Table 21*).

Table 21

Dynamics of the average unit of asking price of 1 sq. m in apartment buildings on the secondary market in Russian cities by city groups

Location	Average price of 1 sq. m., Rb thousand			Increase, %	
	2018	2019	2020	over 2020	over 2019–2020
Capital agglomerations* as a whole	134.3	137.9	158.6	15.0	18.1
Moscow	204.0	210.4	237.0	12.6	16.2
Moscow region	91.5	97.5	113.4	16.3	23.9
St. Petersburg	116.3	123.2	139.2	13.0	19.7
Leningrad region	65.6	70.7	75.8	7.2	15.5
City outside of capital agglomerations, including	54.5	56.1	64.6	15.2	18.5
Cities with over 1 mn people (major)	57.7	61.0	67.9	11.3	17.7
Cities with 500,000 to 1 mn people (large)	51.3	54.0	62.8	16.3	22.4

**Moscow,* St. Petersburg, Moscow and Leningrad regions.
Source: CIAN.

Average cost of 1 sq. m. on the secondary market in the Moscow and St. Petersburg agglomerations in 2020 hit Rb158,600, which is 15% higher than a year ago. The largest growth was recorded in the Moscow region (more than 16% for the year, up to Rb113,400). Prices in Moscow and St. Petersburg increased to a lesser extent: by 12.6% (to Rb237,000) and 13% (to Rb139,200), respectively. The smallest increase was recorded in the Leningrad Region by 7% (up to Rb75,800).

In other regions, the price of residential real estate on the secondary market gained 15.2% (to Rb64,600 per 1 sq. m.). At the same time, in cities with a population of more than 1 million people (without Moscow and St. Petersburg), it increased to a lesser extent (by 11.3%), while the price per square meter in cities with a population of 500 thousand to 1 million people, it grew significantly (by 16.3%). Among the cities with million+ people, prices increased most markedly in Omsk (20.6%), Nizhny Novgorod (16%), Voronezh (15.7%), and Krasnoyarsk (14.8%). On the contrary, in Samara, Volgograd and Perm, their growth did not

exceed 5%. CIAN notes a relatively small difference in the cost per square meter for both categories: due to a larger price increase, cities with a smaller population are catching up in price with the largest cities. The price per square meter in large cities (Rb62,800) in 2020 was higher than in the largest cities in 2019 (Rb61,000).

This effect is even more pronounced in the 2-year span (2019-2020). The increase in housing prices in metropolitan agglomerations was comparable to the price dynamic in other cities (more than 18%). If we consider the dynamic within these locations, the cities with a population of 500,000 to 1 million people in terms of price growth (by 22.4%) were ahead not only of the cities with a population of more than 1 million people (17.7%), but also of Moscow (16.2%), and St. Petersburg (19.7%). The only region of the metropolitan agglomerations where the price growth in two years has overtaken the value of this index in large cities is the Moscow region (about 24%). On the opposite pole of the Moscow region was the Leningrad region, where the price growth was 15.5%.

Table 22

Dynamics of the average unit of asking price in apartment buildings and the average price tag for an apartment on offer on the secondary market in Russian cities in 2019–2020

Federal District / city	Average price of 1 sq. m., 2020, Rb thousand	Price increase, %		Average price tag of an apartment on offer, Rb million	
		over 2020	over 2019–2020	2019	2020
Central FD					
Moscow	237.0	12.6	16.2	13.17	14.58
Tula	73.1	13.3	15.1	3.64	4.33
Belgorod	67.0	13.8	15.3	3.56	4.41
Kaluga	60.2	2.9	4.0	3.19	3.28
Vladimir	60.3	9.2	15.1	3.10	3.45
Yaroslavl	56.1	8.3	14.0	2.78	3.16
Voronezh	58.3	15.7	21.5	2.85	3.37
Tver	54.8	7.0	15.1	2.93	3.21
Tambov	55.2	17.9	23.5	2.65	3.28
Kursk	56.4	20.0	30.0	2.68	3.45
Kostroma	52.7	10.3	19.8	2.52	2.91
Orel	53.2	17.7	22.9	2.46	3.19
Lipetsk	50.9	8.8	13.9	2.62	2.84
Ryazan	48.1	6.2	7.8	2.51	2.76
Ivanovo	47.7	7.7	11.7	2.36	2.63
Staryi Oskol	48.6	12.5	16.5	2.43	2.90
Smolensk	45.8	6.0	8.3	2.40	2.69
Briansk	44.4	13.3	14.7	2.16	2.54
Novomoskovsk	42.9	8.1	2.6	2.14	2.19
Murom	42.4	8.4	10.7	1.95	2.25
Kovrov	38.1	9.8	13.7	1.83	2.08
Rybinsk	34.7	2.7	-2.3	1.67	1.68

Federal District / city	Average price of 1 sq. m., 2020, Rb thousand	Price increase, %		Average price tag of an apartment on offer, Rb million	
		over 2020	over 2019–2020	2019	2020
North-Western FD					
Saint Petersburg	139.2	13.0	19.7	7.78	9.01
Kaliningrad	77.3	25.3	31.7	3.59	5.02
Severodvinsk	73.7	6.8	10.7	3.87	4.36
Arkhangelsk	63.3	3.8	3.6	3.19	3.33
Petrozavodsk	61.2	26.7	25.2	2.70	3.76
Syktyvkar	59.4	3.5	2.6	3.01	3.21
Murmansk	58.4	9.8	10.0	2.86	3.25
Cherepovets	53.2	33.0	39.3	2.16	3.11
Vologda	49.7	9.7	13.2	2.42	2.72
Velikiy Novgorod	48.1	7.4	6.7	2.49	2.80
Sothern FD					
Sochi	158.6	9.6	12.0	9.42	9.54
Sevastopolь	108.7	15.1	17.5	5.66	6.78
Simferopol	83.9	6.7	8.5	4.45	4.96
Novorossiysk	73.0	7.5	14.4	3.94	4.26
Krasnodar	70.6	6.6	18.3	4.13	4.26
Rostov-on-Don	66.6	5.5	7.4	3.63	3.85
Bataisk	52.2	5.7	7.0	2.7	2.82
Volgograd	51.3	3.8	6.0	2.73	2.87
Astrakhan	45.5	11.0	13.8	2.40	2.78
Volzhskiy	44.0	8.1	10.8	2.13	2.33
Taganrog	39.9	2.8	6.1	2.16	2.15
Volgodonsk	33.2	0.0	3.8	1.96	1.92
North-Caucasus FD					
Pyatigorsk	59.1	4.8	9.6	3.52	3.71
Kislovodsk	56.2	6.2	12.9	3.17	3.34
Essentuki	53.8	11.6	13.5	3.02	3.38
Stavropol	52.7	12.4	22.0	2.72	3.14
Nalchik	50.7	16.0	6.1	2.14	2.97
Volga FD					
Kazan	90.5	12.4	18.3	4.84	5.66
Nizhniy Novgorod	79.7	16.0	22.0	3.88	4.71
Ufa	75.5	5.6	8.6	4.10	4.31
Samara	62.2	2.6	4.4	3.40	3.53
Perm	60.7	3.8	9.2	3.30	3.34
Almetievsk	59.2	12.1	14.5	3.03	3.56
Naberezhnye Chelny	56.9	5.4	12.5	2.95	3.27
Izhevsk	54.7	5.2	13.7	2.75	2.90
Penza	54.7	14.2	18.9	2.58	2.98
Cheboksary	49.4	4.7	4.2	2.53	2.80
Oktiabskiy	47.3	3.7	-8.3	2.25	2.47
Orenburg	47.0	3.5	2.8	2.38	2.50

Federal District / city	Average price of 1 sq. m., 2020, Rb thousand	Price increase, %		Average price tag of an apartment on offer, Rb million	
		over 2020	over 2019–2020	2019	2020
Kirov	46.8	5.2	4.7	2.31	2.49
Ulyanovsk	46.7	9.6	15.6	2.40	2.64
Saratov	46.4	5.5	7.4	2.45	2.61
Tolyatti	44.1	5.0	5.5	2.28	2.50
Yoshkar-Ola	42.8	4.4	4.9	2.32	2.43
Engels	42.6	3.4	6.0	2.33	2.45
Dzershinsk	42.3	5.2	3.7	2.03	2.11
Neftekamsk	39.3	1.8	-26.7	2.18	2.06
Novocheboksarsk	37.7	2.7	5.0	1.95	2.06
Votkinsk	37.0	-0.5	-1.9	1.77	1.87
Balakovo	32.6	3.5	3.2	1.64	1.71
Dimitrovgrad	32.0	3.6	7.4	1.79	1.71
Orsk	26.4	-1.1	3.1	1.52	1.44
Urals FD					
Nefteyugansk	86.7	8.6	19.9	4.6	5.2
Surgut	84.2	7.8	12.9	4.76	5.34
Ekaterinburg	76.6	7.4	9.7	4.07	4.48
Tyumen	72.8	9.5	17.4	4.05	4.6
Nizhnevartovsk	65.1	10.5	14.2	3.39	3.93
Sterlitamak	45.0	7.1	9.2	2.27	2.38
Chelyabinsk	42.9	6.5	3.6	2.25	2.42
Kurgan	40.7	5.7	7.7	2.04	2.18
Pervouralsk	38.6	2.4	3.8	1.91	2.05
Nizhniy Tagil	37.4	3.3	2.7	1.94	1.95
Magnitogorsk	35.0	9.0	14.0	1.78	1.87
Miass	33.8	6.6	7.6	1.74	1.85
Siberian FD					
Irkutsk	81.9	18.4	30.2	4.15	4.88
Novosibirsk	77.7	9.7	14.8	4.02	4.43
Krasnoyarsk	70.6	14.8	19.3	3.58	4.32
Tomsk	67.6	17.2	22.5	3.11	3.93
Abakan	58.4	13.0	18.9	3.01	3.63
Barnaul	58.1	16.7	20.8	2.87	3.3
Omsk	56.2	20.6	27.1	2.50	3.11
Kemerovo	55.0	13.6	15.3	2.7	3.31
Angarsk	49.5	12.8	19.3	2.34	2.88
Novokuznetsk	48.6	14.4	29.6	2.37	2.76
Norilsk	40.4	20.2	28.7	1.87	2.37
Biysk	38.6	12.2	8.7	1.95	2.02
Far-Eastern FD					
Yuzhno-Sakhalinsk	142.9	15.1	29.7	6.62	8.1
Vladivostok	132.6	11.0	22.0	6.74	7.34
Khabarovsk	94.2	12.7	20.9	4.63	5.27

Federal District / city	Average price of 1 sq. m., 2020, Rb thousand	Price increase, %		Average price tag of an apartment on offer, Rb million	
		over 2020	over 2019–2020	2019	2020
Blagovechshensk	90.3	20.4	36.2	4.45	5.21
Yakutsk	87.7	1.0	7.7	5.10	5.44
Chita	65.6	26.4	35.5	3.02	4.07
Nakhodka	64.5	16.0	13.2	2.9	3.4
Ulan-Ude	64.3	20.4	29.9	2.92	3.72
Komsomolsk-on-Amur	44.0	3.8	3.8	2.23	2.3

Source: CIAN.

Only in three Russian cities out of 107 surveyed by CIAN (with a population of 100,000 people and from 100 apartments on offer for sale), at the year-end 2020 the average cost of 1 sq. m. decreased or remained the same (*Table 22*). Among them, not a single city with a population of more than 250,000 people. The fall in prices was recorded in Orsk (Orenburg region, by 1.1%) and Votkinsk (Udmurtia, by 0.5%). In Volgodonsk (Rostov region) prices remained the same.

In 2020, the group of leading cities in terms of price growth comprises Cherepovets (Vologda Oblast, 33.0%), Petrozavodsk (26.7%), Chita (26.4%), and Kaliningrad (25.3%). In five other cities (Kursk, Norilsk, Blagoveshchensk, Ulan-Ude, and Omsk), the price for the year gained 20-21%. In the next group, the price increase was from 15 to 20% (11 cities). The most numerous was the part of the sample with a price increase in the range from 5 to 10% (39 cities). Roughly equal were the groups with price increases of up to 5% (23 cities) and from 10 to 15% (22 cities).

If we consider the 2-year span (2019-2020), the following picture is observed. The group of leading cities where the price increase was at least 30% is represented by 6 cities (Cherepovets, Blagoveshchensk, Chita, Kaliningrad, Irkutsk, and Kursk). At the other pole were Votkinsk, Rybinsk (Yaroslavl region), Oktyabrsky and Neftekamsk (both in Bashkortostan), where prices exhibited a negative trend. In 15 cities, the price increase was in the range of 20 to 30%. Roughly equal were the groups with price increases of up to 10% (39 cities) and 10 to 20% (43 cities).

With an almost universal price growth of a square meter of housing in almost all cities in 2020, there was an increase in the average price tag for an apartment on offer. The exceptions were Neftekamsk, Dimitrovgrad (Ulyanovsk region), as well as the aforementioned Volgodonsk and Orsk, where, contrary to the all-Russian trend, housing prices fell or remained unchanged, which can be explained by the poor quality of housing offered for sale.

The largest absolute value of the average price tag for an apartment on offer in 2020 was expected to be in Moscow (about Rb14.6 mn). It was followed by Sochi (Rb9.5 mn), St. Petersburg (Rb9.0 mn), Yuzhno-Sakhalinsk (Rb8.1 mn), Vladivostok (Rb7.3 mn), and Sevastopol (Rb6.8 mn). In several other cities: Kazan, Surgut (Tyumen region), Yakutsk, Khabarovsk, Blagoveshchensk, Nefteyugansk (Tyumen region), and Kaliningrad, the average price tag for an apartment on offer

was more than Rb5 mn, and in almost all of them (except Yakutsk) a year earlier it was lower.

4.5.2. Construction and newly built housing commissioning

According to preliminary data released by Rosstat, 80.6 million square meters of housing were commissioned in Russia in 2020, which is 1.8% less than in 2019 (*Table 23*).

Table 23

Commissioning of new housing in Russia in 1999–2020

Year	Gross floor arear, million sq. m.	Growth rates, %	
		Year-on-year	Relative to 2000
1999	32.0	104.2	105.6
2000	30.3	94.7	100.0
2001	31.7	104.6	104.6
2002	33.8	106.6	111.5
2003	36.4	107.7	120.1
2004	41.0	112.6	135.3
2005	43.6	106.3	143.9
2006	50.6	116.0	167.0
2007	61.2	120.9	202.0
2008	64.1	104.7	211.5
2009	59.9	93.4	197.7
2010	58.4	97.5	192.7
2011	62.3	106.6	205.6
2012	65.7	104.7	216.8
2013	70.5	107.3	232.7
2014	84.2	119.4	277.9
2015	85.3	101.3	281.5
2016	80.2	94.0	264.7
2017	79.2	98.8	261.4
2018	75.7	95.1	248.5
2019	82.0/81.0*	108.3/107.0*	270.6/267.3*
2020	80.6/75.5*	98.2/93.2*	266.0/249.2*

* Without taking into account commissioning of houses on allotments, which volume is given according to the initial data released by Rosstat.
Sources: Rosstat, own calculations.

Contrary to initial fears, the depth of the housing crisis was also small in comparison with the economy as a whole (the decline in GDP was 3.1%), and especially in comparison with the decline in previous crises. (6.6% in 2009 and 6% in 2016).

However, the past year was the first full validity span of the provisions of Federal Law No. 217-FZ of July 29, 2017 “On Gardening by Citizens for Their Own Needs and on Amendments to Certain Legislative Acts of the Russian Federation”, which led to the start of accounting for houses commissioned on allotments from

August 2019. As a result, in 2019 about a million square meters of real estate were reported by Rosstat from this source,[1] and in 2020, the value of this index was already 5.1 million square meters (or 6.3% of the total commissioning).[2] Without taking this category into account, the depth of the decline (6.8%) is quite comparable to the indexes of 2009 and 2016.

If we consider the housing construction dynamic in the regional context, the number of subjects of the Russian Federation with a positive dynamic of commissioning slightly exceeded the number of territories where it decreased. Approximately the same pattern was observed in the group of regions with a total volume of housing commissioning of more than 1 million square meters (*Table 24*).

Table 24

Housing commissioning dynamic in Russian regions in 2020 (ranked by commissioning rate)

Region	Housing commissioning rates, in % on 2019
Kaliningrad region	120.6
Novosibirsk region	110.3
Tyumen region (with autonomous okrugs)	105.3
Irkutsk region	105.0
Nizhniy Novgorod region	104.7
Bashkortostan	103.5
Stavropol krai	102.7
Perm krai	101.9
Chelyabinsk region	101.5
Ulyanovsk region	101.5
Moscow region	101.2
Tatarstan	100.2
Rostov region	100.1
Krasnodar krai	99.8
Sverdlovsk region	98.3
Saint Petersburg	97.1
Saratov region	96.4
Moscow	96.2
Lipetsk region	96.0
Voronezh region	91.7
Krasnoyarsk krai	91.6
Belgorod region	91.2
Leningrad region	81.1
Samara region	76.1

Source: On residential construction in 2020. URL: http://rosstat.gov.ru/

As follows from *Table 24*, the housing commissioning growth by over 3% was recorded in the Kaliningrad, Novosibirsk, Tyumen, Irkutsk, and Nizhny Novgorod

1 URL: https://gks.ru/bgd/free/B19_00/IssWWW.exe/Stg/dk12/2-4.doc
2 URL: https://rosstat.gov.ru/bgd/free/b04_03/IssWWW.exe/Stg/d05/201.htm

regions and Bashkortostan. Another 7 regions (including the Moscow Region) exhibited positive dynamic of housing commissioning, but less than the specified value. At the same time, the fall in housing commissioning occurred in 11 regions, including Moscow, St. Petersburg, and the Leningrad region, and in the latter the depth of the fall was almost 19%. It was even more serious only in the Samara region (around 24%).

The Moscow region, with an increase in housing commissioning by 1.2%, naturally retained its leadership among Russian regions in terms of the absolute value of housing commissioning (more than 8.7 million square meters). Moscow, after an unprecedented growth seen in 2019, demonstrated a slight decline (3.8%), taking second place (about 5 million square meters). The five leading regions also included: Krasnodar Krai (about 4.5 million square meters), St. Petersburg (about 3.4 million square meters) and Tatarstan (about 2.7 million square meters). The share of the capital region in the total volume of residential construction in the country stood at 17% (including the Moscow region - 10.8% and Moscow - 6.2%), approximately staying at the 2019 level.

4.5.3. Shifts in the structure of individual housing construction

The main trend of shifts in the structure of housing construction in Russia in the last decade has been an increase in the share of commissioned individual houses on the back of a reduction in the share of apartment building construction.

In the economic terms, these categories of housing construction have significantly different requirements in terms of the mechanism of permanent extended reproduction: construction carried out by individuals is aimed at meeting the individual needs of citizens (households) in the quantitative and/or qualitative improvement of existing housing conditions. After that, as a rule, there is no sustainable construction business to meet the similar needs of other citizens (households). This process, therefore, is irregular (often one-time) in nature, without requiring the formation of a mechanism for extended reproduction of the housing stock on a large scale. And its promotion can be targeted and quite flexible, tied to the needs of a specific category of citizens, with due regard for the peculiarities of a particular region.

The share of individual housing construction (IHS) in the indexes of annual housing commissioning, which previously did not fall below 40%, has grown markedly in the last two years, approaching half (47-48%) (*Table 25*).

According to Rosstat, the area of individual housing construction (IHS) facilities commissioned in Russia at the year-end 2020 totaled 38.7 million square meters, which is 0.5% more than in the previous year. The indexes of 2019-2020 exceed the values provided for in the technical passport of the national project "Housing and Urban Environment" for this category not only for the specified 2-year period, but also for all subsequent years, with the exception of 2024. The volume of commissioning of individual homes should increase by less than 1/4: from 33 million square meters. m in 2017 to 40 million sq. m in 2024 (*Fig. 24*).

Table 25

Structure of commissioning residential housing in the Russian Federation in 2010–2020

Year	Total, million sq. m	Apartment building construction (ABC)		Individual housing construction (IHC) fro own and attracted funds	
		Million sq. m	Share in total commissioning, %	Million sq. m	Share in total commissioning, %
2010	58.4	32.9	56.3	25.5	43.7
2011	62.3	35.5	57.0	26.8	43.0
2012	65.7	37.3	56.8	28.4	43.2
2013	70.5	39.8	56.5	30.7	43.5
2014	84.2	48.0	57.0	36.2	43.0
2015	85.3	50.1	58.7	35.2	41.3
2016	80.2	48.4	60.3	31.8	39.7
2017	79.2	46.2	58.3	33.0	41.7
2018	75.7	43.3	57.2	32.4	42.8
2019	82.0	43.5	53.0	38.5	47.0
2020	80.6	41.9	52.0	38.7	48.0

Sources: Rosstat, own calculations.

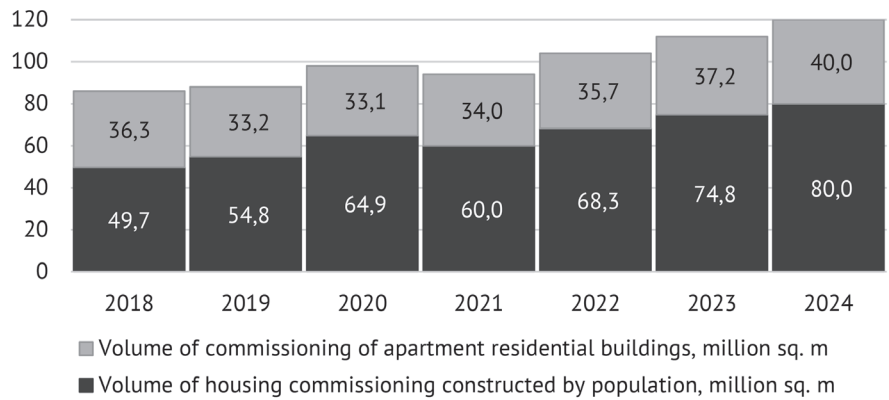

Fig. 24. Parameters of commissioning of apartment buildings until 2024 under national project "Housing and Urban Environment"

Source: technical passport of national project "Housing and Urban Environment" [URL: https://base.garant.ru/72192510/].

The interpretation of this trend may be different. On the one hand, it is possible that many households have come to view suburban life as more attractive than the habitual pattern of life in large cities.

Last year, Russia saw a significant increase in demand for private homes. According to RBC,[1] based on the report of the Unified Institute for Housing

1 URL: https://realty.rbc.ru/news/5fe268539a79473875fdd3a0

Development of JSC "DOM. RF", the findings of the survey demonstrated that almost 40% of Russians in self-isolation began to prefer the construction of an individual house as a more suitable and promising housing option, considering it as an alternative to buying an apartment in a new residential building not only in the metropolitan agglomeration, but also in other cities and regions of the country.

For the first time in a very long time, there was a negative migration growth in Moscow, according to Rosstat, in January-September 2020, almost 27 thousand more people left the capital than arrived.[1] There is no doubt that this is due to the pandemic fallout, and most importantly to the transition to the remote work format, which allowed many workers, especially qualified ones, to leave the metropolis without losing their income and quality of life. Of course, one year, especially such an atypical one, is not enough to predict the shaping of a stable trend for de-urbanization. However, we cannot exclude the beginning of a process that can stop and possibly reverse the concentration of various resources and business activity including construction in several prosperous regions amidst minimal activity of developers throughout the rest of the country.

Secondly, individual construction represents an obvious reserve for the use of statistical tools in order to improve the indexes of housing commissioning in certain regions and the implementation of the national project for the country as a whole. In the IHS, in contrast to commissioning of apartments built in the framework of ABC, there are two aspects for indexes improvement: (1) recording real estate built earlier, but registering it only in the reporting period, and (2) recording residential houses built by the population on land plots for gardening, which were not previously taken into account. The latter used since August 2019 has already affected the results achieved by the construction industry as a whole. Commissioning of housing built on garden plots in 2020 (5.1 million sq. m) accounted for more than 13% of the total volume of individual housing construction, being much more than the total increase in individual housing construction, i.e. it compensated for the fall in its other main volume. Without due regard for this factor, the dynamic of individual housing construction looks much less rosy.

Meanwhile, the technical passport of the national project "Housing and Urban Environment" provides for an increase in the volume of residential construction to 120 million square meters per year for the period until 2024, mainly due to an increase in the volume of construction of apartment buildings, which should almost double: from 46.2 million sq. m in 2017 to 80 million sq. m in 2024. So far, we can talk about the noncompliance with the national project in this part. The volume of commissioning of the ABC in 2020 fell by 3.7% compared to 2019, coming to around two thirds of the planned amount.

More than half of the housing commissioning volume (excluding those built by the population)[2] was accounted for 10 regions (with commissioning of at least

1 URL: https://mosstat.gks.ru/folder/64634
2 There is no such index in the official reports of Rosstat. However, it can be calculated as the difference between the total volume of housing commissioning and housing commissioning by

1 million sq. m in each of them), and the share of the top five (Moscow Region and Moscow, St. Petersburg, Krasnodar Krai and Tyumen Region with autonomous districts) accounted for about 39% of the total volume of apartment buildings commissioning.[1] Its concentration is in the largest megacities is obvious, where the opportunities for residential construction growth are limited by a shortage of land resources. And in other regions, developers do not exercise due activity given insufficient effective demand.

The unfavorable prospects for the segment and the industry as a whole are also indicated by the reduction in the volume of ABC under construction in 2020 from 107.5 million sq. m to 94.0 million sq. m (or 12.5%), which is due to the lack of new projects launched in the first half of the year against the background of the coronavirus pandemic and falling demand for housing.[2]

The mass proliferation of the new housing finance scheme continued. According to the Central Bank of the Russian Federation, as of January 1, 2021:

- over 303,000 escrow accounts have been opened for shared-equity housing construction;
- the volume of funds deposited on these accounts by shareholders exceeded Rb1.19 trillion that is 8.5-fold more than at end-2019;
- Rb126.7 bn have been released from escrow accounts for construction projects completion in 64 regions of the Russian Federation, i.e. have been transferred to developers or sent to repay the loans they received for the construction;
- there are 2,242 active mortgage loan agreements concluded by banks and developers worth Rb2.72 trillion, which is about 200% more than a year earlier.

A positive result is that since the beginning of the reform, no problematic situations with the use of escrow accounts have ever been recorded, in other words, in the context of the pandemic it was possible to avoid exacerbating the long-standing problem of defrauded homebuyers.[3]

According to "DOM.RF" by reference to the Unified Information System of Housing Construction (UISHC) apartment building construction using escrow accounts for the first time exceeded half of the total construction area: 48.6 million sq. m of 95.8 million sq. m (or 50.7%) as of December 30, 2020. According to this indicator, the top ten leading regions comprised Udmurtia, Perm and Primorsky Krai, Voronezh and Sverdlovsk regions, Stavropol Krai, Tatarstan, Rostov, Tyumen and Kaliningrad regions. In Moscow, its value was at the average Russian level (51.4%), and the gap between the two leaders in terms of housing

the population built from their own and attracted funds.

1 URL: https://rosstat.gov.ru/folder/14458, own calculations

2 Review of the apartment housing construction market in the Russian Federation. December 2020, p. 1. URL: https://дом.рф

3 *Zubov S.* Mortgage credit in 2020 // Monitoring of Russia's Economic Outlook. Trends and Challenges of Socio-Economic Development. 2021. No. 3 (135). February. Gaidar Institute, RANEPA, pp. 17–20. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3793820 URL: http://www.iep.ru/files/text/crisis_monitoring/2021_03-135_Feb.pdf

commissioning was noticeable: Krasnodar Krai and St. Petersburg (about 45 and 39%, respectively).[1]

4.5.4. State support of apartment housing construction in the context of anti-crisis policy

The financial and economic problems that suddenly emerged in the spring of 2020 on the back of a temporary but steep decline in world oil prices and the COVID-19 pandemic forced the Russian authorities to start ensuring the functioning of residential construction in the wake of lockdown and its fallout from April.

First of all, we are talking about boosting the demand for housing:

- state subsidization of mortgage rates for apartments in newly constructed buildings originated in 2020-2021 (subsidized mortgage according to the Resolution of the Government of the Russian Federation of April 23, 2020 No. 566);
- amendments to Article 241 of the Budget Code of the Russian Federation, allowing regional and municipal authorities to apply budget funds towards escrow accounts;
- easing by the Bank of Russia of the requirements for the minimum rating of credit institutions for participation in the mortgage lending program down to the level not lower than "A-(RU)" according to the classification of the rating agency ACRA or " ruA -" according to the classification of the rating agency "Expert RA";
- cancellation of the premium to risk ratios for mortgages originated prior to April 1, 2020, and its reduction for loans granted after that date;[2]
- introduction of a new methodology for assessing credit risk on mortgage loans, which allows more accurately assessing capital adequacy premiums depending on the loan-to-collateral ratio and debt burden;
- provide a possibility for pension funds to invest pension funds in mortgage-backed bonds with a set limit of 5%.

Put in place measures contributed to the growth of mortgage lending.

A special importance was assigned, of course, to the opportunity for borrowers to receive funds from banks at a rate of no more than 6.5% per annum for the purchase of new housing. The operator of the program was the Integrated Housing Development Institution, JSC "DOM. RF", which reimburses creditors for lost income up to the amount of "key rate plus 3 percentage points", receiving allocations from the federal budget without increasing its authorized capital. Credit holidays were also of some importance for those who, due to falling incomes, faced difficulties in servicing previously taken out mortgages. For federal and regional authorities, the opportunity has opened up to select projects of interest of certain developers and buy out the housing under construction from

1 Review of the apartment housing construction market in the Russian Federation. December 2020, p. 1, 5. URL: https://дом.рф

2 For mortgages with a low loan-to-collateral ratio that are repaid at the expense of the maternal capital, the reduction in allowances is linked to the repayment of the loan.

them at the expense of the corresponding budgets. The effect on banks from the cancellation of risk factor premiums on loans issued before the crisis, which consisted in eliminating negative consequences for compliance with capital adequacy standards, eliminating losses on loans, and partially compensating for potential losses from a decrease in interest income, amounted to more than Rb100 bn. The introduction of a new methodology for assessing credit risk on mortgage loans due to the reduction in the values of premiums allows to release around Rb300 bn more of the capital of banks.

DOM.RF began to act in the same direction, when in June 2020 it began the next stage of apartments purchase from developers in newly constructed buildings as part of state support for the industry. In addition to the Voronezh region and the Krasnoyarsk Krai, which became pilot sites of the state program, it comprises Kaluga, Lipetsk, Novosibirsk, Rostov, Smolensk, Tyumen, Ulyanovsk, and Yaroslavl regions, Bashkortostan and Stavropol Krai. The program for the purchase of standard housing under construction from developers is being implemented on the initiative of the President of the Russian Federation as one of the measures to support the construction industry and resolve the housing problem in the wake of the crisis.

The procedure for the program implementation provides for an auction. Within its framework, regional developers should offer a discount to the average market selling price (in each particular residential building), which emerged over the past six months. Accordingly, those for which the highest discount is offered will be considered primarily for redemption. In addition, the proposed residential buildings must be commissioned by June 30, 2021. The buyer is a closed-end mutual investment fund (CEMIF) "Comfortable Housing" under the management of "DOM.RF Asset Management", which, in turn, is one of the subsidiaries of JSC DOM. RF. The total amount of funds earmarked for direct purchase of apartments aimed to support the construction industry during the crisis period comes to Rb150 bn. One third of this amount (Rb50 bn) is secured by state guarantees provided to the company by the Ministry of Finance. In this way, according to DOM.RF estimates up to 3 million square meters can be purchased, or about 3% of all residential housing built in the country.

Another measure of support for developers was the identification of strategic enterprises as part of the package of anti-crisis measures adopted by the Russian government in the spring of 2020. These include organizations that have exceeded the minimum industrial indexes, with due regard for the affiliation within their group (holding) structures (i.e. when calculating indexes for a group of companies). Initially, in the construction industry, the volume of construction in accordance with the current permits was determined as an indicator in the amount of 400 thousand sq. m of residential and non-residential buildings. As of April 1, 2020, according to the portal ERZ.RF 32 developers from 1,300 organizations in the country had the volume of current construction exceeding the specified amount, most of which were in pre-bankruptcy.

The Decree of the RF Government dated April 3, 2020 No. 428 imposed a moratorium on the initiation of systemic companies' bankruptcy proceedings,

which, after being extended in autumn, terminated in early 2021. At the same time, these organizations on the basis of the Decree of the RF Government dated May 10, 2020 No. 651 could apply for the following state support measures:

- subsidies for financial support (reimbursement) of costs (part of costs) in connection with the production (sale) of goods, performance of works, provision of services;
- deferred payment of taxes and insurance premiums (advance payments);
- guarantees for loans and bonded loans raised for the purposes established by the Government of the Russian Federation as part of measures aimed at solving urgent tasks to ensure the sustainability of economic development, in accordance with the procedure and under the terms provided for by the Decree of the Government of the Russian Federation No. 549 of May 10, 2017.

An integral part of the "National Action Plan for Restoring Employment and Incomes, Economic Growth and Long–term Structural Changes" (hereinafter referred to as the "National Plan"),[1] which is in force until the end of 2021 is the "Agenda for Action for the Development of Housing Construction and Mortgage Lending", submitted by the Ministry of Construction to the government and is under approval. It comprises more than 200 initiatives of the Ministry of Construction, "DOM. RF", industry associations NOSTROY and NOZA and other market participants.

The proposed support measures required for the implementation of the national project stay within the framework of three strategic directions of institutional reforms and modernization of the management of the construction industry and real estate markets:

1. "New rhythm of construction": acceleration of construction procedures, reform of the regulatory framework for urban development and construction.

2. Digitalization of the construction industry: creating a single digital space in construction, deployment of a digital model of an object during its life.

3. Creation of a program mechanism for accelerating the socio-economic development of urban agglomerations and cities that are centers of economic growth. These strategic directions comprise a number of specific medium-term institutional stimulus measures, including:

- development of saving instruments for the down payment for a mortgage loan;
- absorption in the turnover of federal land plots for the purposes of housing construction;
- enhancing the importance of federal development institutions - JSC DOM. RF, PPK "Fund for the Protection of the Rights of Citizens Participating in Shared Construction", Housing and Utilities Fund;
- improving the efficiency of providing land plots with the necessary infrastructure;
- development of the institute of integrated individual housing construction;

1 Approved at the meeting of the RF Government of September 23, 2020. URL: https://www.economy.gov.ru/material

- development of the rental properties institution;
- optimization of technological connection processes to engineering networks;
- reduction of failing housing stock;
- improving the quality of major structural repairs of apartment buildings.

Operational monetary measures of emergency support for the industry and the market are as follows:

- extension of the subsidized mortgage lending program;
- lower mortgage rates for young families on waiting lists;
- state subsidized interest rates on loans issued to developers to finance new projects with low profitability;
- additional advance financing of the state program "Stimul" in 2020-2021 through disbursement of funds planned for 2022-2023.

The federal program "Stimul", which has been operating in Russia since 2016, helps developers to build infrastructure facilities from the budget funds. According to its terms, the developer participating in the project of integrated urban development (IUD) must draft a proposal and receive an endorsement from the government expert review panel, as well as transfer the site on which the objects of social, transportation, and engineering infrastructure will be built. The customers of the construction works are the municipal authorities that choose the contractor, although the main source of funding is the federal budget. Currently "Stimul" is an integral part of the national project (NP) "Housing and Urban Environment".

An important positive aspect of the National Plan is the fact that among the system-wide measures there is a mutual link between the activities of this NP and other national projects, which potentially allows us to synchronize efforts to achieve the NP targets with other priority projects and higher-level strategic planning documents.

4.5.5. Preferential mortgage as the main reason for new trends

The sharp increase in demand for real estate in the past year (mainly through mortgage lending) was impossible without the easing monetary policy of the Bank of Russia, which, in contrast to its policy during the past crises, has reduced the key rate several times.

So, at the beginning of the year, it was 6.25%, falling to 4.25% by the end of the year, while deposit and mortgage rates fell in parallel. According to the Central Bank, the average mortgage rate stood at 9.01% on January 1, 2020 against 7.36% - on January 1, 2021 (the minimum level was recorded in September - 7.17%).[1] The already extremely attractive terms of purchase (by Russian standards) were also accompanied by active PR program of subsidized mortgage rates for newly constructed buildings in the mass media, aggressive advertising by banks, as well as streamlining of the mortgage loan procedure (for example, the practice of remote application for a loan has expanded).

1 URL: https://cbr.ru/statistics/bank_sector/mortgage/

In July 2020, the disbursement limit under the preferential mortgage program was raised from Rb740 bn to Rb900 bn. The down payment amount was reduced from 20% to 15%, and the maximum loan amount was doubled to Rb6 mn (Rb12 mn in Moscow, St. Petersburg, Moscow and Leningrad regions).

Since then, the speed of mortgage origination has increased dramatically, and the average monthly volume of loans exceeds Rb500 bn, which is an unprecedented amount for the banking system.

In mid-autumn, by the Decree of the Government of the Russian Federation No. 1732 of October 24, 2020, the program was extended until July 1, 2021, with an increase in the disbursement limit by more than twice (up to Rb1,850 bn).

Mortgage rates have been declining over the past few years, accompanied by an increase in: (1) the amount of the mortgage loan, (2) the loan term, and (3) the number of loans with a low down payment. All this points to an increase in systemic risks for mortgage, even despite the extremely low overdue debt of the population.

The share of mortgage loans with 90+ days overdue payments in December remained at the level of the beginning of the year (1.3% of the mortgage portfolio), including in the primary market - decreased from 1.2 to 1%. At the same time, this indicator for other loans to the population went up from 7 to 8.5%. It should be noted that the quality of the loan portfolio was largely supported by an increase in the number of restructurings, including under the laws on credit (No. 106-FZ of March 3, 2020) and mortgage holidays (No. 76-FZ of May 1, 2019). This helped borrowers to maintain their solvency, and helped banks not to raise their reserves for potential losses on these loans. According to the Bank of Russia, 3.1% of mortgage loans were restructured.[1]

In 2020, a record volume of mortgages was originated for the entire history of observations: more than 1.7 million loans, which is 35% more than a year earlier. And their amount totaled around Rb4.3 trillion, exceeding the figure of the previous year by one and a half times. At the same time, the share of refinancing has almost doubled: if in 2019 6.8% of mortgage loans issued were refinanced, then in 2020 – already 13.7%. In absolute terms, the number of refinanced loans went up almost 2.7 times (to 234,000 against 88,000 in 2019). However, this procedure does not generate new demand for real estate and, excluding refinancing, the increase in mortgage lending stayed at about 25%.

Among them loans for the purchase of ready-made housing predominated (around 58% of all loans issued). Their growth compared to 2019 was 18% (995,000 against 841,000). Much more (by 42%) increased the number of loans for the conclusion of co-investment agreements (CIA) (up to 484,000 against 340,000 a year earlier).[2]

However, the outstripping growth rate of this category of loans does not imply the same growth of the primary market as a whole. Part of this segment is represented by ready-made housing sold in newly constructed buildings, as well as individual houses. In addition, mortgages are also used in the secondary market,

1 URL: https://дом.рф: Review of the mortgage lending market in 2020. February 2021, p. 7.
2 URL: https://дом.рф: Review of the mortgage lending market in 2020. February 2021, p. 3, 5

which, on the one hand, is marked by the alternative nature of a significant part of transactions within the proceeds, and on the other, by the frequent purchase of real estate by sellers in newly constructed buildings.

Therefore, taking into account these factors, as well as the growth in the share of transactions with mortgages in the primary market as a whole,[1] putting out other transactions, we can conclude that the growth of the primary market in unit terms in 2020 was not so significant. Since the volume of commissioning of MAC and its current construction in Russia does not grow, the increase in the number of transactions could only be achieved by reducing the available lots for sale from developers, including those who, taking advantage of the stir in the market, reassigned previously purchased lots.

As a result, by the end of 2020, the mortgage portfolio of banks (according to the reports of the Bank of Russia) approached Rb9 trillion, and the entire mortgage portfolio, which characterizes the total debt of the population on mortgages (according to DOM.RF) comes to Rb10 trillion. The difference is due to the write-off of part of the mortgage bonds from the balance sheets of banks as a result of the repurchase by the mortgage agent DOM. RF, which, in turn, issues bonds secured by these assets.

Of course, the catalyst for housing lending in the past year was loans issued at concessional rates, subsidized by the state (*Table 26*).

Table 26

Concessional mortgage lending in 2020

Credit category	Number of loans		Total amount	
	thousand	%	Rb bn	%
Total	1713.0	100	4296.0	100
Concessional mortgage at the rate of 6,5%	345.6	20.2	1003.0	23.3
Family mortgage*	78.8	4.6	214.9	5.0
Far-Eastern mortgage**	14.8	0.9	52.4	1.2
Preferential loans (in total)	439.2	25.7	1270.3	29.6

* It exists since 2017, in 2020 the down payment is reduced from 20 to 15%.
** It exists since the end of 2019, but it has been fully operational since 2020 (the possibility of purchasing housing on the secondary market and a reduction in the loan rate).

Sources: Review of the mortgage lending market in 2020. February 2021, p. 5–6, own calculations. URL: https://дом.рф

The share of soft loans accounted for about 30% of the total volume of mortgage lending. Among them, the program of issuing loans at a rate of 6.5% (79% of the total volume of soft lending) dominated. The "Family Mortgage" and "Far-Eastern Mortgage" programs were complementary (about 17% and 4%, respectively).

A distinctive feature of soft lending was its focus on the primary market, represented by new buildings under construction, which involves the conclusion

1 According to DOM.RF up to 70% of transactions in the primary market are made with mortgages. URL: https://дом.рф/upload/iblock/065/0656b03286094221e71b484ecfb9d347.pdf

of co-investment agreements (CIA). In general, this segment accounted for more than 28% of all mortgage loans origination, and their volume amounted to almost Rb1.5 trillion, an increase of more than 60% compared to 2019. Having said that, almost 3/4 of all loans issued under the co-investment agreements, and more than 70% of their amount were concessional.

The structure of concessional lending was dominated by loans issued under co-investment agreements (more than 80% of the number and volume), while the vast majority of other mortgage loans were issued for the purchase of ready-made housing (more than 90% of the number and 85% of the volume). At the same time, the situation within concessional lending was not homogeneous by category. For "Family mortgage", the share of ready-made housing was more significant than for preferential loans in general (more than 45% of loans and 35% of their volume). For the "Far Eastern mortgage", the share of ready-made housing was about 1/3. However, due to the rather modest size of these programs, the structure of concessional lending was determined mainly by the indexes of the standard subsidized mortgage at the rate of 6.5%, for which the share of loans issued under the co-investment agreements was slightly less than 90%.

When assessing the impact of the state on the housing market, do not forget about the direct subsidization programs, the most well-known of which is the maternity capital (about 80% of its value is used for the purchase of real estate). So, in 2019, according to Rosstat, these funds were handled by 647,998 people,[1] which in terms of money is about Rb250 bn, potentially poured by the state into the real estate market.[2] From 2020, on the initiative of the President of the Russian Federation, this amount will increase significantly, since the maternity capital for the first child in the amount of Rb466,000 will be introduced, for the second child, it increases by Rb150,000 to Rb616,000.[3] Also, since 2019, there is a program to support multiple children borrowers who receive a subsidy of Rb450,000 to pay off the principal debt.

Returning to the events of 2020, we note that the original stated goal of the concessional lending program (compensation for lost demand induced by restrictions imposed during the lockdown period) was already achieved by the summer. The further increase in mortgage demand naturally led to an unbalanced market. A record demand growth on the back of reduced supply led to an increase in ruble prices.

At a time when the volume of mortgage loans alone far exceeded the level of previous years, the total inflow of funds on the residential real estate market for the purchase of housing (taking into account subsidies and buyers' own funds) allowed developers to raise prices, reducing the volume of housing offered. We can expect the upward price dynamic to continue, since the preferential mortgage programs have been extended until mid-2021, and developers cannot quickly raise the supply due to the sector-specific issues.

1 URL: https://rosstat.gov.ru/folder/13807?print=1
2 However, it is impossible to simply sum up mortgage loans with the maternity capital, since the latter is very often used for early repayment of the mortgage.
3 URL: https://pfr.gov.ru/branches/tver/news/~2020/03/11/201343

Not surprisingly, by the end of the year, there was some cautious opposition from the financial authorities to the expansion of the preferential lending program.[1] In a concentrated form, it found expression in the position of the RF Central Bank, which consists in the advisability of transforming preferential mortgage into a tool for selective support of individual groups of the population and regions.

Accordingly, a new systemic trend in 2020 was that real estate pricing was determined not so much by the market as by the state through its policy (primarily through mortgage incentives). Without formal or informal guarantees from the state, banks would not be able to issue impressive long-term loans at low rates (if just for the structure of the liabilities side of the balance-sheet, where banks are dominated by short-term liabilities).

The distorting impact of the state on the formation of demand for residential real estate and market pricing in this real estate market is especially evident when comparing the dynamic of mortgage and consumer loans origination. Unlike mortgages, which grew in both ruble and quantitative terms, consumer lending has been stagnating all year. Thus, according to the National Bureau of Credit Histories (NBCH), in 2020, the number of loans decreased by 25.9% compared to 2019.[2] Its obvious difference from mortgages is that there are no subsidized rates, and institutional support for borrowers is much weaker, therefore, both rates and lending volumes are more in line with those formed in the context of the free market.

4.5.6. Investment attractiveness of real estate as a factor of demand for mortgage products from the population

In 2020, the growth of prices in the real estate market significantly outstripped the official level of inflation in the consumer market. For example, according to the Moscow Exchange DomKlik index, prices for metropolitan real estate increased gained 14.4% over the year.[3] In the primary market, the growth was even higher – by 19.1%.[4] In the country, the growth in the primary market was recorded at the level of 15.7%.[5] At the same time, bank deposit rates fell from 5.92% to 4.48% over the year.[6] Since the real deposit rates became negative, the population, fearing for the safety of their funds, could direct part of the funds from the deposits to the real estate market. However, a much more significant factor in the stir was negative real mortgage rates. It is obvious that obtaining a loan at a rate of 6-8% with an increase in real estate prices of 15-20% becomes an extremely profitable operation, and more and more people are involved in speculative investments, hoping for further price rise.

1 "Nabiullina called for" timely " curtailment of the preferential mortgages program". URL: https://www.rbc.ru/finances/25/11/2020/5fbe2c2b9a79470de03c7bde.
2 URL: https://www.nbki.ru/company/news/?id=248930
3 URL: https://www.moex.com/ru/index/MREDC
4 URL: https://erzrf.ru/images/repfle/16913735001REPFLE.pdf
5 URL: https://erzrf.ru/images/repfle/16877631001REPFLE.pdf
6 More precisely, "the maximum rate for the 10 largest institutions that attract the largest volume of retail deposits." URL: https://cbr.ru/statistics/avgprocstav/

The trend to outstrip the growth of prices in the primary market compared to the secondary segment after 2015, which was clearly manifested in the past year, is associated not only and not so much with subsidizing mortgage interest rates in the primary market (it did not exist in 2016-2019), but with a change in the model of financing shared-equity construction and a general decline in rates in the economy.

Until 2019, developers financed their projects at the expense of equity holders, providing them with significant discounts at the construction stage. Owing to the difference between the price of an unfinished residential building under construction and the price of such a property in an already commissioned residential building, private investors received a high investment income, significantly exceeding the deposit rates, which determined their interest in participating in such a risky scheme. The double-digit yield covered all the risks of the developer's bankruptcy or postponing the commissioning of the residential building to a later date.

While in transition to project financing, where the bank becomes the main lender of the developer, the latter loses the economic sense to provide discounts to the co-investor at the construction stage, which is visually expressed in the outstripping "growth in prices for newly constructed buildings." De facto, we are talking about reducing discounts at the construction stage, and not about increasing prices for real estate. Further reduction (up to the complete disappearance) of discounts at the construction stage calls into question the rationale of investment purchases of newly constructed buildings for the purpose of their further resale, where private investors were actively engaged since the early 2000s.

The purchase of real estate for investment purposes against the background of the economic crisis led to another important phenomenon: almost for the first time in recent Russian history, real estate prices and apartment rental rates not only demonstrated different dynamic, but moved in opposite directions. Recap that the growth of nominal ruble prices for housing on sale was in the range of 14-20%. At the same time, according to the portal CIAN, rental rates in some cities have fallen. For example, Moscow recorded a decrease of 3%, and in St. Petersburg – a drop by 7%.[1] It is obvious that rental rates are devoid of the speculative and investment component inherent in apartment prices, the demand for rent is not subsidized in any way, and, therefore, the rental situation more accurately shows the real state of affairs in the economy.

The simultaneous decline in the profitability of renting out real properties and the reduction in the attractiveness of investments in newly constructed buildings for resale undermines the stability of the housing market financing model in the medium term. In the context of low profitability of investments in real estate, the only significant motive for buying it for investment purposes can only be an increase in real estate prices, which comes on the back of the corresponding demand. Accordingly, with any pause in price growth, the reverse effect rapidly

1 URL: https://www.cian.ru/analitika-nedvizhimosti-online/

occurs (sale of investment apartments, lower prices, further sales and even greater price reductions), whereby the developers will lose most of the demand.

The fundamental nature of the existing housing problems in Russia (lagging behind developed countries in terms of housing security and quality), in itself does not create important reasons for purchases. And it's not just the low level of real incomes of the population. Demographic problems are beginning to play an increasingly important role. With the risk of depopulation in general, the age structure of the population is expected to reduce the share of the working-age population, and especially the share of the population aged 25-40 years.[1] It is young people of childbearing age who are most interested in buying and expanding living space, and while reducing the number of such people the fundamental need for housing decreases. Only investment demand remains, but it does not make sense when growth stops and real estate prices decline. Damping this process on the back of the general increase in prices and lower mortgage rates on newly constructed buildings is possible, but it is unable to promote residential construction to the role of the driver of the Russian economy.

4.5.7. Projection of the construction market development and sale of apartment residential housing

On the supply side, there are no objective grounds to predict significant growth driven by an increase in the number of new projects being implemented and an increase in the indexes of commissioning of ready-made apartment buildings in most regions of Russia. Probably, the supply will still grow, but slowly and very unevenly. At the same time, the relative share of supply in the individual housing construction segment will increase in many regions, partially offsetting for the lack of supply and preventing excessive price increases in the apartment building construction segment. It can be assumed that, contrary to the National Project, it is more likely that the share of individual housing construction will grow, and not the share of apartment building construction.

The crisis of 2020 adjusted the usual logic of cyclical movement of real estate prices, when the growth phase resumes, and real estate prices also grow with a certain lag. However, the past year in Russia was fundamentally different from the previous crises. When the Central Bank lowered the key rate, the ruble exchange rate remained relatively stable, and inflation remained moderate. Despite the alarming spring expectations, world oil prices, after certain fluctuations, reached a level far from historical lows, which was an important factor that supported the domestic economy. With massive government support for demand, banks increased mortgage lending. Therefore, construction was not particularly affected, and real property prices in ruble terms went up, remaining in foreign currency terms at the level of 2017-2019.

However, such dynamic has an unstable basis in the form of mortgages, reduced in price owing to state support measures, and low consumer inflation. Maintaining lending at the same level is very difficult given the lack of banks' own

1 See "Demographic projection of the population until 2035" by Rosstat. URL: https://rosstat.gov.ru/folder/12781

resources, budget constraints, and increased inflationary risks after the easing of restrictive measures.

Therefore, the scenario where the issuance of mortgage loans will sharply slow down by the summer of 2021 looks quite realistic. In this case, we can say that the delayed effect of the crisis on prices has worked. Much will depend on the format chosen by the state for further selective support of individual groups of population and regions. With a high probability, it is possible to predict that the preferential mortgage programs will be significantly reduced. If the total volume of issuance is expected to fall to Rb2-2.5 trillion after a short period of high demand, the housing prices in apartment buildings will gradually slide down over the course of one to two years.

4.6. The pandemic and food security[1]

Early in 2020, Russia adopted the new Food Security Doctrine,[2] which included the entire range of amendments as compared with the previous Doctrine-2010:

- the section dealing with the national interests in the field of food security includes the list both of traditional interests (upgrading of the standard of living, ensuring of food safety, sustainable development and modernization of agriculture, fishery and the domestic market infrastructure, promotion of livestock breeding and plant selection and recovery and boosting of soil fertility) and the new ones (the prohibition of the importation of genetically modified organisms and biological control agents to the territory of the Russian Federation);
- along with traditional tasks, the section dealing with the Doctrine's strategic goal and main objectives includes a number of new ones: the achievement of a positive balance in exports and imports of agricultural products, primary products and food and ensuring of food security within the framework of formation of healthy food ration;
- the list was expanded in respect of products on which the threshold levels of food sovereignty were set: threshold levels were added in respect of vegetables and cucurbits, fruits and berries, as well as seeds of the main agricultural crops of domestic plant selection;
- in respect of three types of products, the Doctrine 2020 raised the threshold levels of food sovereignty as compared with the Doctrine 2010: as regards sugar and vegetable oil – from 80% to 90%; as regards fish and fish products – from 80% to 85%;
- the methods of calculation of the threshold level of food sovereignty regarding individual products were changed as "the correlation of

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2 Executive Order No.20 of January 21, 2020 of the RF President "On Approval of the Food Security Doctrine of the Russian Federation."

the volume of the domestic output of agricultural products, primary products and food to the volume of domestic consumption." By contrast with the Doctrine-2010, this calculation algorithm does not require to give up the importation of those products which are in demand in the Russian Federation. This interpretation correlates to the Doctrine's abovementioned strategic goal, that is, the facilitation of the positive export-import balance as a whole across the entire group of agro-food products;

- the criteria of economic availability of food were established in respect of the main groups of food. They are calculated as "the ratio of the actual consumption of the main food products per capita to the reasonable norms of consumption meeting the healthy nutrition requirements and has the threshold value of 100%"[1];
- it was determined that the physical availability criterion should be established.

Such an interpretation of food sovereignty not only allows the importation of those products which are in demand in the Russian Federation, but not produced there (or which have poor quality and cost more as compared with foreign analogs), but also provides for an increase in imports on condition that exports grow to the same extent. This interpretation correlates to the Doctrine's abovementioned strategic goal, that is, the facilitation of the positive export-import balance across the entire group of agri-food products. This strategic goal has a priority over the objectives to achieve food sovereignty in respect of each product.

In compliance with the new doctrine, the level of food sovereignty as a whole in respect of the group of agri-food products (TNVED – 1–24) can be increased owing to growth in exports of those types of products whose production is the most cost-efficient in Russia, rather than by means of import substitution alone.

The spread of Covid-19 coincided with the beginning of 2020. The UN Food and Agriculture Organization (FAO) identified a few food security risks related to the expansion of the geography of this disease, but they did not include the risk of food shortages in the world:

- disruption of food supply logistics chains;
- reduction in donor-countries' contributions to international funds and contraction of international organizations' humanitarian activities;
- impoverishment of the population in importer-countries;
- exporter-countries' restrictive measures and destabilization of markets;
- appreciation of prices (on importers' domestic markets owing to currency depreciation and logistics costs; on external markets owing to restrictions on supplies in exporter-countries;
- disruption of migration flows of workers to agriculture.

Before the outbreak of the pandemic, the global grain stocks exceeded the previous year's level; the outlook for the 2020 grain yield was optimistic.[2] During

1 See: The RF Food Security Doctrine, p. 5.
2 URL: The FAO reports disruptions in distribution of food during the pandemic. http://www.cnshb.ru/news/fao/fao_srpp.pdf

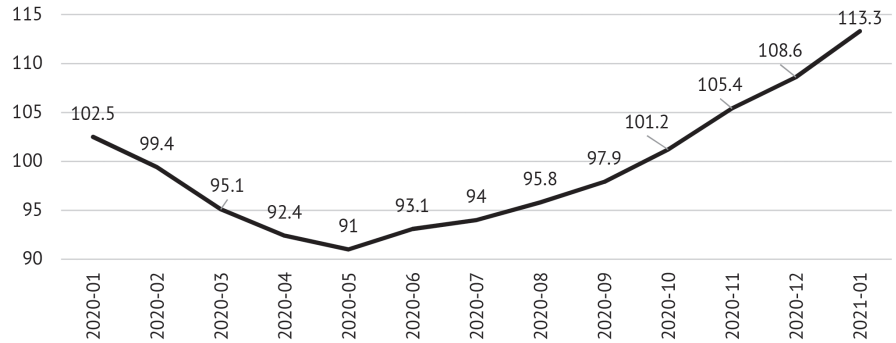

Fig. 25. FAO food price indices, %

Source: URL: http://www.fao.org/worldfoodsituation/foodpricesindex/ru/

the first wave of the pandemic, prices of essential foods were depreciating in January-May though the epidemic was on the rise (*Fig. 25*). The lessons of the first wave of the pandemic changed the behavior on external markets: anxiety increased and prices appreciated.

The situation with grain stocks and outlooks for the yield in Russia at the beginning of the pandemic were favorable, too. However, the depreciation of the ruble and anxiety created risks to the food security system. The main risks are shown in *Table 27*.

Table 27

The systemization of risks to the internal food market amid the pandemic

Risks	Assessment
Feverish demand and depletion of supplies	Risk exists
Growing competitiveness of Russian products and exportation thereof to detriment of domestic market	Risk exists partially (in respect of limited range of products)
Food shortages on external markets and infeasibility of importation of food which is in short supply to Russia	Low risk
Restrictions on movement of products within EEU's borders and between subjects of RF	Risk exists partially (small farms)
Risk of catching disease at work	Risk exists

Feverish demand manifests itself in sudden growth in purchases of relatively inexpensive long shelf-life products. If in January 2020 there was a 2.3% growth in purchases as compared with January 2019, in March it was already equal to 4.7%. However, overall, in Q1 2020 purchases were equal to +3.6% relative to the previous year, while a year before, to +2,2%. Based on the results of January-April, the volume of purchases of 2020 was equal to that of 2020 (*Fig. 26*).

Purchases of inexpensive and long shelf-life products increased by 78%. (*Fig. 27*).

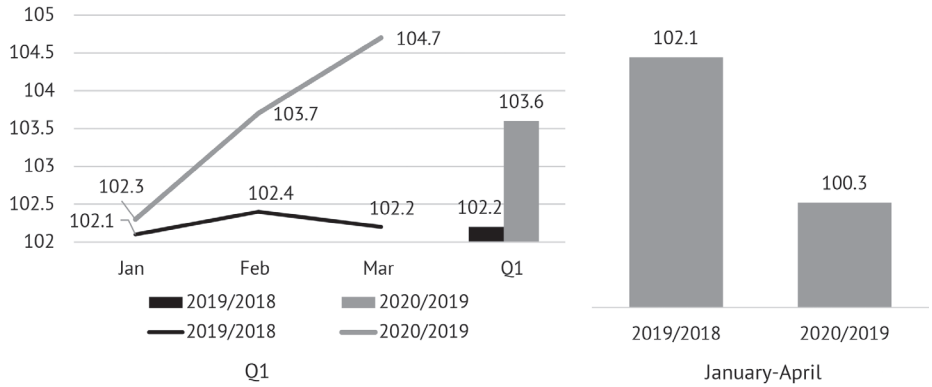

Fig. 26. Retail food sales, % change compared with the corresponding period

Source: The Rosstat

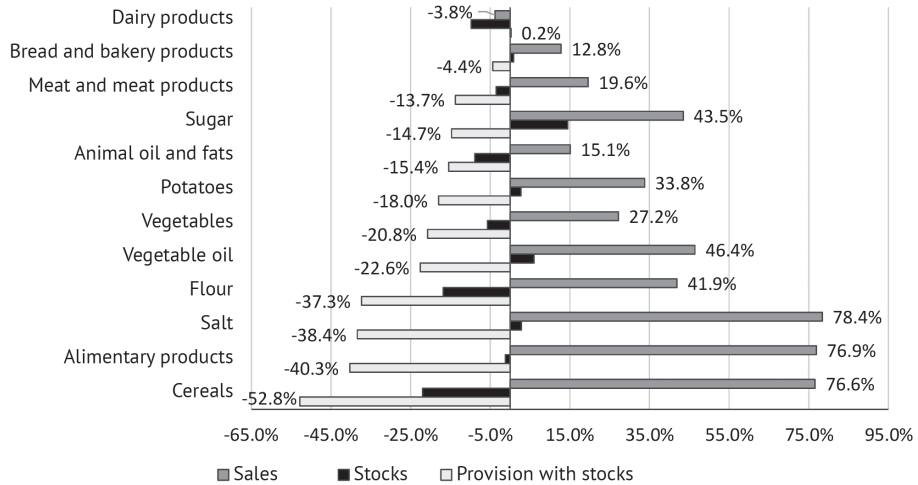

Fig. 27. Dynamics of sales and stocks of food products amid feverish demand, March 2020 on February 2020

Source: The Rosstat.

Despite increased growth in food purchases and reduction in their stocks, only stocks of alimentary products were critically low. It can be stated that feverish demand was overcome owing to correct moves made by the federal government (which did not introduce restrictions on freight traffic inside the country) and the business (which managed to adjust to the situation and replenished stores with goods again and again).

External market shortages and infeasibility of the importation to Russia of food which was in short supply were low because the FAO forecasted high stocks

of food and yield in 2020. Actually, the Russian market did not experience any food shortages after feverish demand had subsided.

Growing competitiveness of Russian products and exportation thereof to the detriment of the domestic market

Early in 2020, depreciation of the ruble promoted Russian goods' competitiveness. To arrive at this conclusion, just take NPC ratios, that is, the nominal coefficient of protection of agricultural producers with producer prices at the threshold of the Russian farm in its numerator and those at the farm of the potential importer in its denominator (*Table 28*). For instance, on the back of a 20% depreciation of the ruble only beef and dairy products remained non-competitive in terms of price, with pork being so to a lesser extent. Consequently, there is motivation to export food products, including even livestock products. But exports are limited because of veterinary requirements imposed in numerous countries regarding the importation of livestock products.

Table 28

Correlation of prices of agricultural products at the threshold of a farm and on global markets (NPC)

Product	2019	Product	2019
Wheat	0.99	Milk	1.16
Barley	1.00	Beef	1.27
Maize	1.19	Pork	1.24
Rye	0.98	Poultry	1.07
Sunflower	0.92	Eggs	1.00
Sugar	1.21	Potatoes	1.00

Source: The OECD.

Table 29

Post-Soviet countries' measures to ensure food availability on the internal market

Measures		Country	Period	Products
Export restrictions	Export ban	Ukraine	April 3 – July 1	Buckwheat
		OECD countries	April 12 - June 30	Onions, garlic, turnip, rye, rice, buckwheat and sunflower seed, soya
		Kazakhstan	March 16 – September 1 (initially till April 15)	Wheat and wheat-rye flour, soft wheat, meslin, buckwheat, buckwheat groats, sugar, potatoes, sunflower seed, sunflower oil
	Quotas on exports to non-OECD	Russia	April 1 - June 30	Grain (7 mn tons)

Source: FAO, website Kremlin.ru.

With Russian food becoming more competitive and exports growing, it was necessary to take measures to protect the domestic market. However, Russia's and OECD countries' restrictions were not necessarily justified. The review of protective measures by post-Soviet countries is shown in *Table 29*.

Food traffic restrictions and shutdown of small markets. There were just few instances of shutdown of borders of subjects of the Russian Federation by decision of regional authorities. Restrictions at state borders on movement of small consignments of goods and entrepreneurs' vehicles were observed all over the EEU territory. So, green cabbage from Kazakhstan failed to get through the Russian border in spring and this when no restrictions on freight traffic were in place between the EEU member-states.[1] As small food markets were closed, resellers did not come on a mass scale to buy the delicacies of the season and green vegetables, so this led to the loss of products of small producers and farmers.[2] Meat producers in regions where traffic communication was limited encountered problems related to the delivery of their products. As a result, prices appreciated. So, in H1 2020 the consumption of lamb decreased by 9.1% owing to the Rosselkhoznadzor's ban on lamb supplies from the North Caucasian federal okrug and the Southern federal okrug,[3] as well as the shutdown of markets and small retail outlets during the pandemic; it is noteworthy that about 95% of lamb is sold on food markets and through non-chain retail outlets.[4]

By estimates of the USDA, the outlook for yield in Russia in spring 2020 was set at the level higher than in 2019 and with stocks of the previous year at the level surpassing 2019-2020 made it possible to assess favorably the food supply situation amid the pandemic. Based on the results of 2020, this estimate turned out to be underestimated: the yield was higher than forecasted.

In 2020, the output of agricultural products increased by 1.5%. Growth drivers were the production of grain (+9.8%), pork (+8.9%) and milk (+2.7%) (*Fig. 28*). Downside dynamics were observed in production of sugar beet (-40.4%), sunflower (-13.7%), potatoes (-11.3%) and vegetables (-2.3%). Production of eggs (0%), poultry (+0.3%) and cattle (+0.3%) remained stable.

The main factors of changes in the output volumes of crop farming were fluctuations in agricultural crop yield made worse in case of potatoes and sugar beet by substantial reduction in the crop production area (-5.0% and -19.0%, respectively). It is noteworthy that the contraction of the sugar beet production area is justified by a dramatic drop in prices of sugar after the record-high yield seen in 2019 and that of potatoes production area, by a long-term trend of reduction thereof by households.

Overall, in 2020 the agricultural sector exported $30 bn worth of agricultural products, an increase of 20% compared with the indicator seen in 2019 and $5 bn

1 Cabbage has disappeared. The Minselkhoz's (the Ministry of Agriculture) answer to Kazakh farmers. URL: https://tengrinews.kz/kazakhstan_news/kapusta-propadaet-kazahstanskim-fermeram-otvetil-minselhoz-398155/.
2 Russian farmers started to squash the unsold harvest. URL: https://www.kp.ru/daily/27126/4209656/
3 Demand for lamb was undercut.URL: https://www.kommersant.ru/doc/4465787
4 Lamb sales are falling in Russia. URL: https://agrotrend.ru/news/2276-v-rossii-padaet-realizatsiya-baraniny/

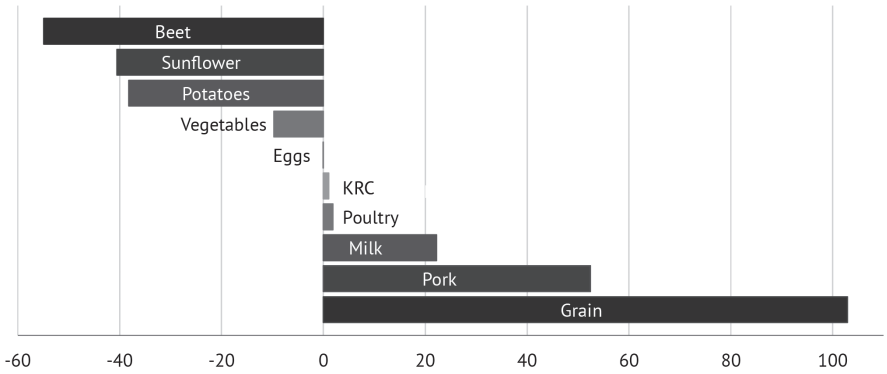

Fig. 28. Main agricultural products' contribution to gross output growth in 2020 (preliminary estimates in prices of 2018, billion rubles)

Source: own calculations based on the Rosstat's data.

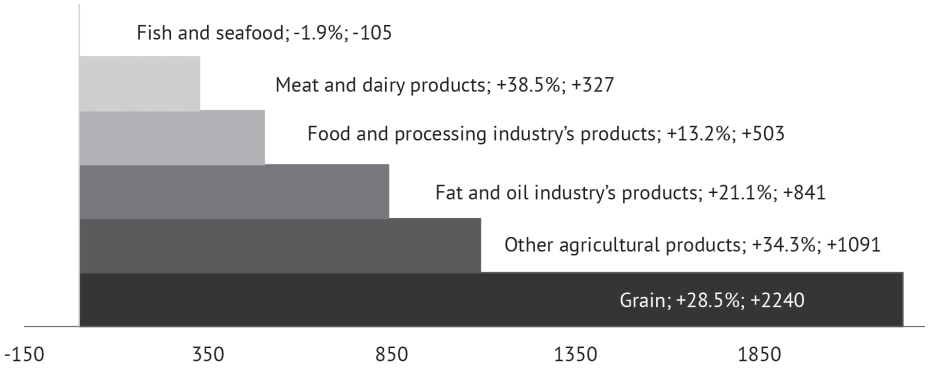

Fig. 29. Growth in exports of the agricultural sector's products in 2020 (million US Dollars, %)

Source: The Federal Center for Promotion of Exports of Agricultural Products, the RF Ministry of Agriculture, the data as of January 17, 2021.

above the 2020 target indicator of the "Exports of Agricultural Products" federal project. The performance over and above the targets of the federal project is facilitated by growth in exports of grain and other agricultural products (mainly unprocessed oil-yielding crops), while the shortfall is caused by insufficient growth in exports of fish, meat and dairy products (*Fig. 29*).

Though the targets of the federal project failed to be achieved, exports of meat and dairy products demonstrated high growth rates (+38.5%), with an increase facilitated primarily by growth in exports of meat: the shares of pork and poultry in exports growth were equal to 49.9% and 30.9%, respectively.

Growth in exports was underpinned by the exchange rate: agricultural exports volume-weighted average Ruble/US Dollar exchange rate exceeded by 9.7% in January-September 2020 the relevant indicator seen in 2019 (Rb71.3 per $1 against Rb65.1 per $1).

Advanced growth in exports of the fat and oil industry's products (+21.1%) and meat and dairy products (+38.5%) changed for the better the exports pattern as regards the process stage of products: in 2020 the share of midstream process stage products increased by 1 p.p. to 24.6% with the share of upstream process stage products remaining stable (59.8%). The downside is the lag of growth in exports of downstream process stage products, that is, prepared foods: their share decreased by 1.0 p.p.to 15.6%. If growth in exports of midstream process stage products related to meat and dairy products amounts to 39.9%, that in exports of downstream process stage products, to the mere 16.9%. A similar situation is observed in the food and processing industry: with overall growth of +13,3%, growth in output of downstream process stage products amounts to +5.5%.

In 2020, the importation of food and agricultural primary products decreased by 0.8%, but the decline was not homogeneous. The largest contribution to the reduction in exports was driven by a decrease in imports of meat (27.0%), spirits and alcohol-free beverages (6.5%) and fish (9.8%). At the same time, imports of apples and palm oil increased by 31.7% and 18.7%, respectively (*Fig. 30*).

The appreciation of food prices on external markets and depreciation of the ruble created all the conditions for price rises on the internal market. Global food prices appreciated by 8.5% and 6.5% in November 2020 on November 2019 by estimates of the IMF and the FAO, respectively. A similar appreciation of prices is registered with Russian producers of agricultural products (+8.8%) and food producers (+10,2%). At the same time, in Russia retail food prices demonstrate smoother dynamics, appreciation of 5.7% (*Table 30*).

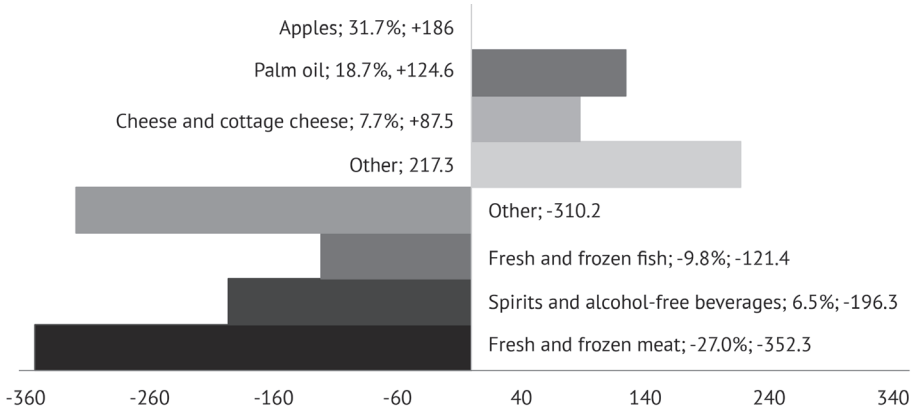

Fig. 30. Growth in imports of the most important food products in absolute and relative terms in 2020 (million US Dollars, %)

Source: The RF Federal Customs Service, data as of February 8, 2021.

Table 30

Dynamics of Russian and global food prices (growth rates, %, November 2020 on November 2019)

Products/indices	Retail prices in Russia (Rosstat)	Global prices (IMF, US Dollars)	Global prices (IMF, rubles at exchange rate of RF Central Bank)
Products/indices	-0,8	-1,1	19,0
Chickens	24,7	47,7	77,7
Sunflower oil	59,3	17,7	41,6
Sugar	13,1	33,8	61,0
Wheat flour/wheat	0,8	14,1	37,3
Milk	5,7	12,9	35,9
Tomatoes	0,0	18,8	43,0
Pork	17,2	15,5	39,0
Apples	5,7	8,5	30,5
CPI of food products/ Food price index IMF	8,8	X	X
Agricultural producer price index	10,2	X	X

Source: The Rosstat, the IMF and the RF Central Bank.

Changes in prices of various agricultural and food products were not homogeneous. Prices of products that integrate Russia into the global market as the exporter (grain, sunflower oil) and the importer (vegetables and fruits) appreciated the most. Appreciation of prices of these products was explicit, but did not exceed global prices growth. As regards those products whose domestic consumption is close to the output volume (poultry, pork and milk), prices fluctuated within the range of 1% and were several-fold below the appreciation of prices on the global market. Dramatic growth in Russian prices of sugar (+59.3%) leaving behind global price changes can be largely substantiated by the low base effect: the depreciation of internal prices of sugar in autumn-winter 2019 because of the record-high sugar beet yield. From January 2019, internal prices of sugar increased by 11.5%, while global nominal prices, by 17.8%; with depreciation of the exchange rate of the ruble taken into account, they grew by 34%. By comparing the dynamics of changes in output and prices, it can be concluded that as regards crops which output increased the price change was relatively small, while as regards those which output decreased, prices appreciated; it is noteworthy that percentage of price growth was much higher than that of output contraction (*Fig. 28* and *Table 28*).

Overall, it can be concluded that both the global agricultural sector and the Russian one have safely passed through two phases of the pandemic providing sufficient output of food. The downside is the global food price appreciation which can be explained by higher risks of disruption of trade supply chains and relevant growth in national stocks of food.

The appreciation of global prices of individual types of agricultural products which constitute large volumes of Russian foreign trade brought about price

rises on the internal market and worsened the social and economic situation related to households' falling incomes amid the pandemic and lower economic availability of food. The government regulation priority should consist in the development and introduction of instruments limiting the pass-through of sharp price fluctuations from the global market into export goods without undermining the base of agricultural production in the long-term and ensuring producers with sufficient resources for achieving output growth and higher competitiveness of their products.

4.7. The foreign trade[1]

4.7.1. The state of the global economy and world trade

The pandemic has dealt a heavy blow to the world economy and global commodity markets. The COVID-19 containment measures have taken a toll on economic activity particularly in Q2 2020 when the majority of G20 countries demonstrated an unprecedented drop in real GDP. In relation to G20 as a whole, GDP decreased by a record 6.9% which markedly exceeded a decline by 1.6% recorded in Q1 2019 at the height of the financial crisis.[2] China was the only G20 nation exhibiting in Q2 2020 economic growth by 11.5% which was due to the fact that China was the first to exit the crisis. All other G20 economies reported contraction of GDP by 11.8% on average in Q2 2020 when the pandemic fallout was more pronounced.

The utmost decline of GDP was in India (-25.2%) followed by Great Britain (-20.4%). Severe contraction of GDP was observed in Mexico (-17.1%), South Africa (-16.4%), France (-13.8%), Italy (-12.8%), Canada (-11.5%), Turkey (-11.0%), Brazil and Germany (-9.7% in both countries), the United States (-9.1%), Japan (-7.9%), Australia (-7.0%), and Indonesia (_6.9%). Contraction of GDP was less pronounced in Korea and Russia (-3.2% in both countries).

On a year-to-year basis, GDP of G20 countries contracted by 9.1% in Q2 2020 following a contraction by 1.7% in the previous quarter. China recorded the highest annual growth rate (3.2%) among G20 economies, meanwhile India recorded the steepest annual decline (-23.5%).

According to OECD data,[3] following an unprecedented contraction of real gross domestic product reported in H1 2020 on the back of COVID-19 containment measures, GDP in the OECD area countries moved up by 9.0% but stayed 4.3% below its pre-crisis maximum. In Q3, the highest rates of economic recovery among G7 nations recorded those countries that weathered the deepest fall in Q2: up by 18.2% in France (following a drop by 13.7%), 16.1% in Italy (following a drop by 13.0%) and 15.5% in the United Kingdom (following a drop by 19.8%).

1 This section was written by *Volovik N.*, Senior Researcher, International Trade Studies Department, IAES RANEPA; Head of Foreign Economic Activity Department, Gaidar Institute.
2 URL: // http://oecd.org/. G20 GDP Growth - Second quarter of 2020, OECD
3 URL: https://www.oecd.org/sdd/na/GDP-Growth-Q320.pdf

In the third quarter, GDP went up in all other major countries: in Canada (up by 10% following a reduction by 11.5% in Q2), Germany (up by 8.2% against -9.8%), Japan (up by 5.0% against -8.2%) and the USA (up by 7.4% against -9.0%). In Eurozone and the European Union, GDP increased by 12.6 and 11.6%, respectively following a decrease by 11.8 and 11.4% in the previous quarter. GDP stood markedly below the level in the previous year (-4.1%) both in the OECD area as a whole and in all G7 countries: the USA exhibited the least annual decline (-2.9%) and Great Britain – the utmost (-9.6%).

GDP growth in the OECD area slowed to 0.7% in the fourth quarter of 2020.[1] In the Major Seven economies, GDP rebounded by 0.8% with quite divergent patterns across countries. GDP growth remained positive in Japan (3.0%), Canada (1.9%), the USA and Great Britain (1.0% in each), and Germany (0.1%). In Italy and France, GDP fell (by2.0 and 1.3%, respectively) after the rebound in Q3 (16.0 and 18.5%, respectively).

For 2020 as a whole, GDP declined by 4.9% in the OECD area, which is the largest fall ever recorded (since 1962). Almost all countries were confronted with falls in GDP in 2020. Among the Major Seven economies, GDP declines ranged from 3.5% in the USA to 9.9% in the United Kingdom. Marked falls in GDP were also recorded in France (-8.2%) and Italy (-8.9%).

According to statistics released by WTO on January 26, 2021, world trade in services in Q3 2020 decreased by 24% compared to the same period of 2019, i.e. there is an uptick compared to a slump of 30% in annual terms recorded in Q2 2020 in contrast to a stronger rebound of commodity trade.

The International Monetary Fund in its report "World Economic Outlook Update" released in January 2021[2] forecast contraction of the world economy for 2020 by 3.5% which is less than that projected in the previous forecast. The revision was due to higher than expected GDP growth rates in H2 principally in the countries with advance economy where business activity began improving earlier than expected following lifting of the COVID-19 restrictions in May and June. According to the IMF forecast the global economy is projected to growth 5.5% and 4.2% in 2022 (*Table 31*). The 2021 forecast is revised up 0.3 p.p. on the back of fiscal stimulus plan put in place in the USA and stronger than expected rebound of Asian economies.

World trade growth slowed from Q4 2018 turning negative in Q3 2019 and fell by 3.0% y-o-y in Q1 2020. In March-April last year, virtually all countries implemented stringent measures to combat the spread of COVID-19 which resulted in collapse of the global economy. In Q2 2020, seasonally adjusted world trade in goods decreased by 14.3% quarter-on-quarter and by 21% compared to Q2 2019, which is the largest fall ever recorded. Europe and North America were the hardest hit with exports declining by 24.5 and 21.8%, respectively. To compare, exports of Asian countries contracted by mere 6.1%. During the same period, exports fell by 14.5% in North America and by 19.3% in Europe and solely by 7.1% in Asia.

1 URL: // https://www.oecd.org/sdd/na/gdp-growth-fourth-quarter-2020-oecd.htm
2 URL: https://www.imf.org/en/Publications/WEO/Issues/2020/09/30/world-economic-outlook-october-2020

Table 31

Growth rates of the global GDP and world trade, in % to the previous year

	2012	2013	2014	2015	2016	2017	2018	2019	Estimate	Forecast	
									2020	2021	2022
Global GDP	3.5	3.5	3.6	3.5	3.3	3.8	3.6	2.8	-3.5	5.5	4.2
Advanced economies	1.2	1.4	2.1	2.3	1.7	2.5	2.3	1.7	-4.9	4.3	3.1
USA	2.2	1.8	2.5	2.9	1.6	2.4	2.9	2.2	-3.4	5.1	2.5
Euro area	–0.9	-0.2	1.4	2.1	1.9	2.5	1.9	1.3	-7.2	4.2	3.6
Germany	0.7	0.6	2.2	1.5	2.2	2.5	1.5	0.6	-5.4	3.5	3.1
France	0.3	0.6	1.0	1.0	1.1	2.3	1.7	1.5	-9.0	5.5	4.1
Great Britain	1.4	2.0	2.9	2.3	1.8	1.7	1.4	1.5	-10.0	4.5	5.0
Emerging markets and developing countries	5.1	4.7	4.6	4.0	4.3	4.7	4.5	3.7	-2.4	3.6	3.1
Russia	3.4	1.3	0.6	-3.7	-0.2	1.5	2.3	1.3	-3.6	3.0	3.9
Developing countries of Asia	6.7	6.6	6.8	6.6	6.4	6.5	6.4	5.5	-1.1	8.3	5.9
China	7.7	7.7	7.3	6.6	6.7	6.9	6.6	6.1	2.3	8.1	5.6
India	4.7	5.0	7.3	7.6	7.1	6.7	6.8	4.2	-8.0	11.5	6.8
Latin America and Caribbean basin	2.9	2.7	1.3	0.0	-0.9	1.3	1.0	0.0	-7.4	4.1	2.9
Brazil	1.0	2.5	0.1	-3.8	-3.6	1.4	1.1	1.1	-4.5	3.6	2.6
Mexico	4.0	1.1	2.1	2.5	2.3	2.2	2.0	–0.3	-8.5	4.3	2.5
World trade in goods and services	2.9	3.0	3.3	2.6	2.2	5.2	3.9	1.0	-9.6	8.1	6.3
Advanced economies	2.0	2.4	3.4	3.6	1.8	4.4	3.5	1.4	-10.1	7.5	6.1
Emerging markets and developing countries	4.6	4.4	2.9	1.3	3.0	6.9	4.1	0.3	-8.9	9.2	6.7

Source: World Economic Outlook Update, January 2021: Policy Support and Vaccines Expected to Lift Activity (imf.org)

Following five months of uninterrupted decline, world trade began to rebound in June 2020 when pandemic-induced restrictions began to ease. According to Netherlands Bureau for Economic Policy Analysis,[1] in June 2020 compared to the previous month, world trade went up by 7.9%, in July – by 4.8%, and in August – by 2.4%. In August, Europe exhibited strong growth of exports by 4.0%. Japanese exports are also growing strongly (+6.6%) meanwhile imports continued falling

1 CPB Netherlands Bureau for Economic Policy Analysis. URL: https://www.cpb.nl/en/cpb-world-trade-monitor-august-2020

(-2.1%). The US exports growth constituted 2.5%; imported exhibited similar growth by 2.3%. China has contributed strongly to the rebound of world trade. Chinese exports demonstrating steep decline in the first months of the pandemic stabilized in Q2 and strongly rebound in Q3. By contrast with other major economies, Chinese exports stabiliz4d in July and August and increased by 13% in September.

In Q3 2020, value of world trade fell by 5% compared to the same period in the previous year an improvement on the decline reported in Q2.

In February 2021, the World Trade Organization released next WTO Goods Trade Barometer[1] which provides information of world goods trade trajectory in real time pursuant to latest trends. The Goods Trade Barometer's current reading of 103.9 is above both its baseline value of 100 for the index and its previous reading of 100.7 from last November, signaling a marked improvement in goods trade since its dropped sharply in the first half of last year. All component indexes are either above trend or on trend, however some already exhibit signs of deceleration while others could turn down in the near future. Furthermore, the indicator may not fully reflect resurgence of COVID-19 and the appearance of new mutations of the disease, which will undoubtedly weigh on goods trade in the first quarter of 2021.

Indexes of export orders (103.4) and automotive products (99.8) that are among the most reliable leading indexes for world trade, have both peaked recently and started to lose momentum. By contrast, the container shipping (107.3) and air freight (99.4) indexes are both still rising, although higher-frequency data suggest that container shipping has dipped since the start of the year. Finally, while the indexes for electronic components (105.1) and raw materials (106.9) are firmly above trend, this could reflect temporarily stockpiling of inventories. Taken together, these trends suggest that trade's upward momentum may be about to peak and then slump.

4.7.2. The state of prices on principal goods of Russian export and import

COVID-19 impact of commodity market was uneven. Crude oil prices dropped sharply during early stages of coronavirus infection and only partially recovered to their pre-crisis level, meanwhile prices on metals declined relatively moderately and returned to the levels preceding the pandemic-induced shock. The pandemic has virtually not affected prices of agricultural products. According to the World Bank forecast,[2] price index on energy resources in 2020 will decrease by 32.9%, on non-energy commodities will rebound by 1.2% and due to price growth on agricultural products up by 3.6% with declining price on metals by 1.3%.

In 2020, the crude oil market faced an unprecedented instability significantly affected by the COVID-19 pandemic and subsequent plunge in demand. In Q2

1 WTO 2021 News items - Goods Barometer signals strong trade rebound but momentum may be short lived

2 URL: https://openknowledge.worldbank.org/bitstream/handle/10986/34621/CMO-October-2020.pdf

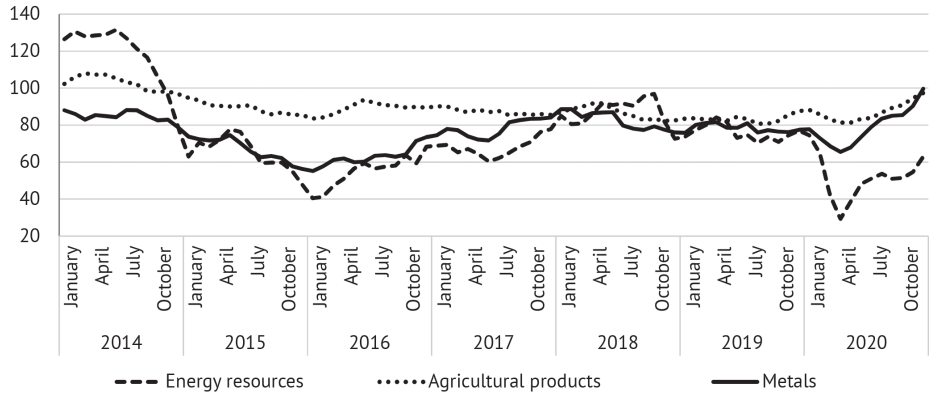

Fig. 31. World Bank price index on commodities

Spurce: URL: http://www.worldbank.org/en/research/commodity-markets#1

2020, global crude oil consumption plunged by 16% year-on-year principally on the back of lockdowns and self-isolation regime put in place in virtually all countries to combat the spread of the coronavirus infection. At some point in April, combination of factors pushed down WTI futures to negative values for the first time on record in the oil market.

Travel ban has markedly affected the consumption of oil due to the fact that transportation fuel accounts for two thirds of global consumption of crude oil. There was a widespread decline in demand for oil with the EU countries bearing the brunt. China was a notable exception where oil consumption dropped slightly in Q1 2020 but has since rebounded against the backdrop of renewed economic activity and mounting stocks, with consumption in Q2 2020 exceeding that seen in Q2 2019. Beyond the boundaries of China, the consumption of oil displayed an upward trend on the back of lifting of quarantine measures. According to October report released by the International Energy Agency, in 2020, demand for oil will remain on average 8% lower than in 2019.

A notable exception was China, where oil consumption declined slightly in the first quarter of 2020, but has since recovered amid renewed activity and inventory accumulation, with consumption in the second quarter of 2020 being higher than in the second quarter of the previous year. Outside of China, oil consumption began to recover after the lifting of quarantine measures. According to an October report by the International Energy Agency, oil demand in 2020 will be about 8% lower than in 2019.

In May 2020, global oil prices were rapidly rebounding following multy-year low reported in April 2020. This was due to the adherence to the OPEC+ agreement on the oil production cut (Declaration of Cooperation, DoC). In June-July, the recovery of the global oil prices went on, however their recovery rates slowed. Recovery of prices were on the back of demand growth, reduction in oil production in the USA and extension by the OPEC+ countries of tougher production quotas in July. In July

2020, ICE Brent futures price went up by 6% - up to $43.22 bbl and NYMEX WTI up by 6.4% to $40.77 bbl. Compared to the same period a year earlier, ICE Brent price fell by 35.8% and NYMEX WTI by 34.9%.

In December 2020, spot oil prices surged hitting ten-month record high owing to the improvement of fundamental indicators in quantum market against the backdrop of dynamic purchases of crude oil by oil refineries in Asia-Pacific Region. Pending gradual lifting of travel restriction and acceleration of demand, recovery have also contributed to the rebound of oil prices. Increased refining margin, reduction in crude oil held in sea storage and stringent adherence to production adjustments by the OPEC+ producers have ensured additional market support.

OPEC Reference Basket (ORB) of crudes went up in price at end-2020: in December, price increased by 15% to $49.17 bbl – the highest monthly value seen since February 2020. However, on yearly average ORB came down by 25.2% to $41.47 bbl which is the lowest average annual value since 2016.

In December 2020, crude oil futures surged on both sides of the Atlantic hitting the record high since February 2020. The investors were more positive in relation to economic rebound and rapid recovery of the oil prices following the registration of COVID-19 vaccines in several countries. Oil price futures and shares increased on the back of the adoption of additional stimulus packages in the USA and Europe. The market optimism enhanced against the backdrop of improved prospects of the global oil market balance following DoC participating countries voluntary decision adopted in December to voluntary adjust production from January and also to extend the compensation period.

In December, ICE Brent oil price spiked by 14.2% to $50.22 bbl, NYMEX WTI oil – by 13.8% to $47.07 bbl. However, ICE Brent dropped in price by 32.7% year-on-year and came to $43.21 bbl, NYMEX WTI oil – by 31.0% to $39.43 bbl.

On April 21, 2020, average price of Urals hit the lowest value since 1999 - $12.09 bbl down more than 80% from the start of the year due to a notable squeeze in demand on the back of containment measures introduced to face coronavirus pandemic as well as increased oil supply after the termination of the OPEC+ agreement in April 2020. In May, Urals oil edged up in price to $30 bbl, in June – to $42 bbl, in July – to $43.91 bbl which was 1.4-hold lower than in July 2019 ($63.34 bbl). In January-July 2020, the average price of Urals stood at $40.34 bbl (in January-July 2019 - $65.27 bbl). Anticipation of deceleration of the global demand at the year-end resulted in the Urals price to drop 8% in September-October relative to July-August.

Over 2020 as a whole, the average price of Urals stood at $41.73 bbl by 34.4% lower than in 2019 ($63.59 bbl).

COVID-19 pandemic-induced global recession led to a drop in demand for natural gas, however, the pandemic impact on the natural gas market was markedly softer than on the oil one given that natural gas in principally used for electricity production, industry and heating of residential and commercial facilities rather than in transportation. In H1 2020, natural gas was steadily dropping in price (primarily in Europe), natural gas prices recorded an all-time low in H2 2020. Demand began to rebound reporting an uptick in prices in Q3 2020.

In October, natural gas prices surged in Europe: average price on the principal virtual trading point for natural gas in Europe – Netherlands' Title Transfer Facility (TTF) spiked by 24% to $4.9 MMBtu in relation to September. In December, growth continued natural gas rose in price by 21.1%compared to November and hitting record high $5.86 MMBtu since February 2019. Prices were propped up by expectations of low temperatures at the start of November, projections of power outages in Norway due to strikes of oil workers and an accident at the major LNG producing plant in late September coupled with a spike in prices on LNG in Asia to $11 MMBtu which promotes LNG exports to that region.

According to International Energy Agency estimates,[1] in 2020 compared to 2019, global natural gas demand dropped by around 2.5% or by 100 bcm which was the largest drop on record. However, it is expected that natural gas demand will recover fast and in 2021 it will grow by around 3%, and by 2030 will grow by 14% compared to 2019 with Asia being in the forefront of price growth.

Price of Australian thermal coal following a drop by more than 20% in Q2 2020, stabilized in Q3 2020 and from September began rising. As a result, in December price for coal surged by 28.9% compared to November and constituted $83.0 per ton recording 20-months high mainly owing to more severe than average winter temperatures in North-Eastern Asia.

Nevertheless, it should be noted that the coronavirus pandemic accelerated the current downward trend in coal consumption in favor of cleaner natural gas and renewable energy resources, meanwhile low prices on natural gas have accelerated transition from coal to gas. All major coal producers have cut production led by Colombia (partially due to labor disputes), Indonesia, and the USA. Despite demand growth and strong production, China (major coal consumer in the world) introduced tight restrictions on coal import.

According to the IEA projection, coal demand will remain on average 8% lower through to 2030 than in pre-crisis levels due to a combination of expanding renewables, cheap natural gas and coal phase-out policies. In advanced economies, coal demand in 2030 is nearly 45% lower than in 2019. Demand for coal in the power and industry sectors continues to grow in India, Indonesia, and Southeast Asia, but its rate is slower than previously projected. In China coal use rebounds in the near term, peaks around 2025, before gradually declining.

The World Bank commodity metals and minerals price index rose in Q3 2020 by 19.5% quota-on-quota balancing losses incurred in H1. In December, commodity metals price index rose by 10.4% quota-on-quota and closed 2020 by 28.6% above that in December 2019 (*Table 32*). Price growth was due both to disruptions in shipments and renewal in economic activity, primarily in China, with easing of COVID-19 restrictions. Improvement in investors sentiments on the back of vaccines registration, expectations of additional fiscal stimulus package in the USA and weaker US dollar continued to boost price growth.

1 World Energy Outlook. URL: https://www.iea.org/reports/world-energy-outlook-2020/outlook-for-energy-demand#abstract

Table 32

Average annual world prices

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Oil (Brent), USD/bbl	79.64	110.9	111.97	108.86	98.94	52.37	44.05	54.39	71.07	64.03	49.73
Natural gas (USA), USD/MMBtu	4.39	4.00	2.75	3.72	4.37	2.61	2.49	2.96	3.16	2.57	2.04
Natural gas, European market, USD/MMBtu	8.29	10.52	11.47	11.79	10.05	6.82	4.56	5.72	7.68	4.80	3.28
Natural gas (Japan), USD/MMBtu	10.85	14.66	16.55	15.96	16.04	10.93	7.37	8.61	10.67	10.56	8.4
Coal (Australia), USD/t	98.97	121.45	96.36	84.56	70.13	58.94	66.12	88.52	107.02	77.86	61.41
Copper, USD/t	7534	8828	7962	7332.1	6863.4	5510.5	4867.9	6169.9	6529.8	6010.2	6041.7
Aluminum, USD/t	2173	2401	2023.3	1846.7	1867.4	1664.7	1604.2	1967.7	2108.5	1794.5	1721.4
Nickel, USD/t	21809	22910	17557	15032	16893	11863	9595.2	10409	13114	13914	13928
Iron ore, USD/t	145.86	167.75	128.50	135.36	96.95	55.85	58.42	71.76	69.75	93.85	110.03

Source: World Bank data.

After eight consecutive quarterly declines, the price of aluminum went up by 14% in Q3 2020 compared to Q2 2020 and exceeded the pre-pandemic level in mid-October. In December compared to April 2020, aluminum rose by 38% to $2,014.67 per ton which was the highest value since October 2018. Price growth was supported by strong demand from China, as imports of primary aluminum to the country moved up by 8-fold in August compared to the previous year which is the largest monthly growth rate in the last ten years. Demand for aluminum in the United States has also risen as brewers have moved from using kegs to cans to accommodate the growing consumption of beer at home during lockdowns and restrictions on public gatherings. Global car sales are also gradually recovering. Despite the expected recovery in global demand next year, the planned increase in capacity is expected to keep prices down. According to the World Bank projection, aluminum prices will be up by around 1% in 2021 after falling by 4.6% in 2020.

Copper prices surged 22% in Q3, the highest quarterly growth recorded since mid-2009 markedly exceeding the pre-pandemic level in September. Compared to November, copper went up in price by 9.9% to $7,772.24 per ton in December against the backdrop of a further decline in stocks: in December, ground stocks of the London Metal Exchange (LME) dropped to 107,950 tons from 149,00 tons in November, which highlights market pressure. The price growth was driven by strong demand and sharp increase in imports in China. Serious supply disruptions caused by the pandemic have also driven up prices. In Chile, the world's largest copper producer, a rise in COVID-19 infections and a union backlash have led to temporary shutdown of the state company Codelco. The pandemic-induced labor

shortages and weather conditions have also cut production in Panama and Peru. The supply gap in the copper market is expected to decrease in the coming years, as ambitious new projects or expansion of existing capacity are launched in Chile, Democratic Republic of Congo, Indonesia, Mongolia, Panama, and Peru. According to the World Bank forecast, in 2021 copper prices to rise 4% following growth by 3.2% in 2020.

Indonesia's ban on nickel ore exports, which came into force in January 2020, has sharply restricted the supply of raw materials for the production of nickel pig iron production (NPI) in China. Shipments from the Philippines, major supplier of nickel ore to China, are being hampered by mine closures due to the COVID-19 outbreak. The increase in nickel consumption, boosted by strong demand from stainless steel producers in China and concerns about nickel shortages, has led to a significant rise in the price of this metal. In December 2020, prices of nickel rose by 42.5% compared to those in April. However, in general, in 2020, nickel dropped in price by 0.4%. According to the World Bank forecast, the price of nickel will move up by around 2% in 2021.

In December against November, iron ore went up in price by 25% to $155.4 per ton, exceeding the level recorded in December 2019 by 68%, i.e. iron ore became a commodity with the highest growth in price in the last 12 months. Prices were supported by strong demand for crude steel production in China. According to the World Steel Association,[1] in 2020, China's crude steel production hit 1,053.0 mn tons, up by 5.2% on 2019. China's share of global crude steel production increased from 53.3% in 2019 to 56.5% in 2020.

The World Bank precious metal price index moved up by 23.7% in Q3 2020 compared to Q1. Price hike reflected a flight to safe-haven assets, increased uncertainty in the face of the COVID-19 pandemic, and ultra-low interest rates as major central banks continued expansionary monetary policy. The weakening of the US dollar and supply disruptions have also propped up prices.

In Q4 2020, there was a decrease in prices of precious metals. The biggest deterrent to this was the positive news about vaccines. For example, in November, gold weathered its sharpest drop in 7 years after Pfizer announced the development of an effective vaccine against COVID-19. The same day, the price of gold dropped by 5% ending the month below $1,800 per ounce.

In general, in 2020, precious metals exhibited very good results: gold went up in price by 27.8% compared to 2019, which was the best result since 2010, silver - up by 27.3%. According to the World Bank forecast, in 2021, precious metals will drop in price by around 4% as the world economy recovers.

In 2020, agricultural products went up in price by 4%, mainly on the back of supply shortage and higher-than-expected demand for edible oils and meal. Some regions observed local price hikes on food products, and declining household incomes, primarily among poorest segments of the population, have raised the risk of the food security. According to the World Bank forecast, in 2021, the price index for agricultural products will increase by 1.4%.

1 URL: https://www.worldsteel.org/media-centre/press-releases/2021/Global-crude-steel-output-decreases-by-0.9--in-2020.html

The Bloomberg Commodity Index (BCOM) includes 22 types of commodities ranged from 60 to 82 points in 2020. At the turn of the year, BCOM exceeded 81 points. Having fallen on April 24 to the lowest level in 5 years - 60.24 points, on December 4, 2020, BCOM climbed up to 74.3 points reflecting the continuation of low prices in commodity markets.

4.7.3. The main indicators of Russian foreign trade

The recession of the world economy triggered by the spread of the novel coronavirus infection, price crash on the energy market have adversely affected Russian foreign trade. April 2020 saw collapse in main indexes of the Russian foreign trade. Thus, the foreign trade turnover calculated according to the balance of payments methodology amounted to $40.7 bn, down by 30.7% against the same index of the previous year. Goods worth $23.5 bn were exported abroad, down by 36% against April 2019. Imports contracted by 21.9% to $17.2 bn against April 2019.

In 2020, Russian foreign trade turnover contracted by 15.3% to $571.5 bn compared to 2019. Contraction was uneven. If in Q1 2020 compared to the same quota of 2019, foreign trade turnover contracted by 8.1% owing to a drop in exports by 13% with an increase in imports by 0.8%, then in Q2 there was a collapse in main foreign trade indexes – the value of exports dropped by 30.6% and imports - by 12.7%, as a result of which Russian foreign trade turnover decreased by 23.9% compared to Q2 2019. In Q3, the rate of decline in Russian foreign trade slowed, but nevertheless remained very significant - foreign trade turnover decreased by 17.7%, exports from Russia down by 24.4%, imports from Russia down by 8.1%. In Q4, Russia's foreign trade turnover decreased by 11.5%, primarily due to a 16.9% drop in exports, while the decline in imports slowed to 2.9%.

In 2020, foreign trade turnover with countries of far-abroad decreased by 16% to $495.7bn and with CIS countries fell by 10% to $75.5 bn.

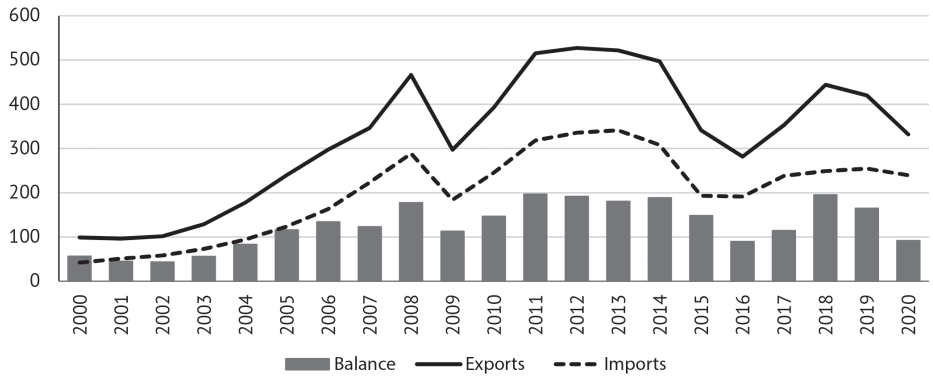

Fig. 32. Main indexes of Russian foreign trade (bn USD)

Source: Bank of Russia

In 2020, Russia's exports shrank by 21% compared to the same index in 2019 to $331.7 bn, while Russia's imports went down by 5.8% to $239.7 bn. The current dynamic of exports and imports gave rise to a sizable contraction of positive trade balance to $92 bn against $165.3 bn in 2019 (down by 44.3%) (*Fig. 32*).

The collapse in imports is primarily due to a reduction in contract prices for virtually all Russian goods exported abroad, given that the value of exports of many goods (above all, non-resource non-energy) increased (*Table 33*). According to the Federal Customs Service (FCS), the value of all exports decreased by 20.7% and volume - down by 2.1% in 2020 compared to 2019. This being said, the value of non-resource non-energy (NRE) exports climbed by 2.2% and volume of non-resource non-energy exports - up by 2.8%.

Table 33

Indexes of average prices and volume of export and import pattern of the Russian Federation in 2020 (in % to corresponding quarter 2019)

OKVED code EAEU	Merchandised line	Average price index						Quantum index					
		Exports			Imports			Exports			Imports		
		Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3	Q1	Q2	Q3
01-24	Food products and agricultural primary products (except for textile)	102.6	97.1	97.6	101.3	99.3	98.5	120.7	147.6	98.5	97.7	90.9	104.5
25-27	Mineral commodities	87.8	51.8	62.4	89.3	75.9	94.0	92.1	102.5	88.5	125.9	110.6	74.3
27	Fuel and energy products	87.8	51.4	62.0	88.0	65.3	91.6	91.9	101.9	87.6	96.3	124.6	73.8
28-40	Chemical products, rubber	89.7	82.6	80.4	99.9	95.9	99.7	104.8	100.3	110.9	86.0	96.3	77.1
41-43	Rawhide, furs and articles made therefrom	99.1	85.0	96.7	104.4	97.2	96.6	95.5	50.2	61.8	84.2	37.7	86.6
44-49	Timber and pulp and paper articles	85.4	86.9	86.0	97.0	97.0	98.7	118.1	111.2	116.1	96.6	87.4	93.9
50-67	Textile, textile products and footwear	103.3	85.9	91.8	98.3	115.0	92.8	130.4	82.8	110.2	110.2	75.7	103.7
72-83	Metals and article made therefrom	94.6	87.0	92.3	99.0	90.5	92.0	86.1	98.6	97.6	111.2	76.3	81.6
84-90	Machinery, equipment and means of transportation	86.8	91.2	93.9	97.2	96.2	96.3	91.3	86.4	96.7	105.4	89.8	97.2
68-70, 91-97	Other goods	95.7	92.5	90.6	98.0	92.8	96.4	66.7	89.1	48.8	101.1	83.4	95.9

Source: FCS data.

Export structure and dynamic

Following a two-year growth in 2017-2018, Russia's exports began falling in Q2 2019, and in 2020 the negative dynamic gathered momentum (*Table 34*). Stringent social distancing measures and travel and traffic restrictions were in full effect in the majority of countries during April and May. In the wake of global uncertainty, in May 2020, Russian exports hit the lowest level since February 2016 worth $20.98 bn.

Table 34

Russian exports dynamic

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Exports, USD billion	297.2	392.7	515.4	527.4	521.8	496.8	341.4	281.7	353.1	443.1	419.8	331.7
Including:												
Far-abroad countries	252.0	333.6	436.7	443.8	443.8	428.1	292.1	241.7	303.0	386.6	362.4	281.3
Growth rates, in % to previous year												
Quantum index	105.0	96.8	97.0	110.0	97.8	99.9	104.9	109.0	103.5	106.5	98.3	96.1
Price index	110.9	137.4	76.4	119.8	132.9	101.6	95.7	58.1	76.9	118.5	96.7	75.5

Sources: Bank of Russia, Ministry of Economic Development.

The negative dynamic of exports is primarily due to price collapse in energy commodities coupled with a reduction in world demand for goods and services in the wake of an economic recession in the trading partner countries. A certain role was also played by restrictions on their production as a result of the OPEC+ deal, which provided for a cut in crude oil production by 9.7 mbpd in May-June 2020.

The combination of these factors led to a 37.5% drop in Russia's exports of fuel and energy products in 2020 compared to 2019. This is primarily due to a reduction in contract prices for the main commodities of Russian export – crude oil and natural gas - and the reduction in their deliveries volume overseas. In 2020, according to the Federal Customs Service (FCS), the value of crude oil exports contracted by 40.8% compared to 2019, and natural gas - by 39.66%. In volume terms, crude oil exports decreased by 11.4% and natural gas by 9.7% than in the previous year, as crude oil was cheaper by 33.2% and natural gas - by 33.1%. In volume terms, exports of petrochemicals virtually remained at the 2019 level, while exports of motor gasoline went up by 12.4% and diesel fuel - by 3.3%.

The primary consumers of Russian crude oil are China, Netherlands, Republic of Korea, Germany, and the USA and of Russian natural gas – Japan, Republic of Korea, Taiwan (PRC), Belgium, and China.

The proportion of these commodities in the overall structure of Russian exports has dramatically shrunk on the back of a collapse in fuel and energy commodities exports. If in 2019 it stood at 62.1% then in 2020 – 49.6%. Accordingly, the proportion of non-resource and non-energy exports in the overall Russian export

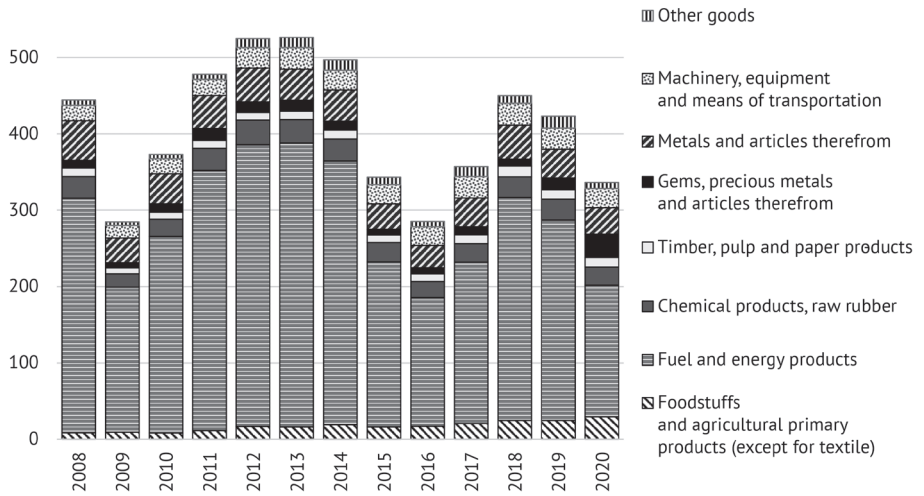

Fig. 33. Goods-wise dynamic of Russian exports (USD bn)

Source: FCS

volume increased by more than 10 p.p. relative to that in 2019 amounting to 48% (in 2019 – 36.4%). Compared to 2019 in 2020, the share of exports of foodstuffs and agricultural primary products went up from 5.9 to 8.8%, of chemical products - from 3.0 to 3.7%, of gems, precious metals and articles therefrom - from 3.6 to 9.0%, of metals and articles therefrom - from 8.9 to 10.4%, machinery, equipment and means of transportation - from 6.6 to 7.4% (*Fig. 33*).

In 2020, Russia's exports dropped year-on-year virtually across all expanded commodity items minus "Food products and agricultural and agricultural primary products (except for textile)" (up by 19.2%), "Textile, textile products and footwear" (up by 6.5%) and "Gems, precious metals and articles therefrom" (up by around 2-fold).

Since 2015, Russian exports of food products exhibit positive momentum. In 2020, grain exports spiked by 29% to $10.019 bn, fat-and-oil products – up by 20% to $4.707 bn., food and food-processing industry products – up by 14% to $4.154 bn. Exports of meat and dairy products surged by 41% - to $1.146 bn.

Cereals are the main export item in commodity line food products and agricultural products, their proportion accounted for 33.8% of the total exports of Russian foodstuffs in 2020. Export volume of cereals rose by 12.6% to 31.4 mn tons driven by wheat - up by 7.5%, barley up by 37.8%, and corn - up by 43.6%. Russia's shipments of grain go to more than 120 countries. The main export destinations for Russian grain are Turkey with 19.4% of the total grain exports, Egypt with 16.1%, Bangladesh with 6.6%, and Iran with 6.1%.

It should be noted that grain exports increased in the wake of effective temporary quota put in place by Decree No. 385 of March 31, 2020 of the Government of the Russian Federation. A quota was imposed to limit exports

of wheat, meslin, rye, barley, and corn to 7 mn tons to countries outside of the Eurasian Economic Union was imposed for the period from April 1 until June 30, 2020. Due to the fact that on April 26, the non-tariff-rate grain export quota was taken up, grain export to countries outside of the EAEU was suspended until July 1, 2020. The restrictive measure paved way to steady prices on grain and secure domestic needs in grain and products therefrom.

In 2019, Russia reported a bumper vegetable oil crop of around 23 mn tons. On the back of accumulated stocks, for the first nine months last year, exports of fat-and-oil products increased by 16.6% in volume terms - up to $3.98 mn tons worth $2.9 bn. Sunflower oil, safflower seed or cottonseed oil and fractions thereof (70.7% of the total exports of this commodity line), soya oil and fractions thereof (13.1%), rapeseed oil or mustard-seed oil and fractions thereof (9.7%), and margarine (3.5%) account for the major share of the total volume of exports for this segment. China remains the main buyer and for the first nine months, and in the previous year ramped up imports of Russian fat-and-oil products 2-fold – up to $779.3 bn with sunflower oil accounting for nearly half. Turkey and India are among the top three buyers of fat-and-oil products.

Meat export from Russia for the first nine months of 2020 exhibited a significant growth – meat and by-products of 242.6 mn tons worth $632.2 bn were delivered to foreign markets, which is up 79% compared to the same period last year in value terms and up by 65.9% in volume terms. Russian exports of poultry meat increased by 65.8% worth $326.1 mn, pork meat – 2.6-fold worth $183.7 mn, frozen beef – up 2.8-fold worth $42.8 mn.

The top fine buyers of Russian meat include China, which in 2020 purchased products in Russia worth $235 mn, which is 3.9 time more than in 2019. In second place is Vietnam, which increased purchases by 3.8 times to $92 mn. Ukraine takes the third place, having purchased Russian meat for $80 mn (up by 14%). Exports to Hong Kong increased 2.1 times to $47 mn, and to Kazakhstan up by 48% to $35 mn.

Russian poultry meat exports increased primarily due to opening of the Chinese market. China purchases half of Russian poultry meat exports. For the first nine months in the previous year mainland China accounts for 45% of deliveries in volume terms and with Hong-Kong – 54%. The Rosselkhoznadzor has been working to ensure access of poultry products to the Chinese market since 2014. In late 2018, both parties signed a Protocol on mutual deliveries of frozen poultry to the markets of both countries. The list of approved establishments for delivery of their products to the PRC was expanding gradually. In early 2019, China officially confirmed deliveries of poultry meat from 23 Russian and by late 2020, 40 Russian establishments and 15 cold storages got an approval to export poultry meat and products thereof to the Peoples Republic of China.

For the last 10 years, positive trends have been observed in Russian exports of textile, textile products and footwear (minus 2015). In 2019, export of products in this segment was worth $1.35 bn which is 3.7 times more than that in 2010. The share of textile, textile products and footwear in the overall volume of Russian

exports is small, but it consistently grows: if in 2010, it came to merely 0.09% of the total Russian exports, then in 2019 – 0.32%, and in 2020 – 0.44%.

In order to stabilize the situation induced by the spread of COVID-19 virus and the lack of personal protective equipment (PPE), the Eurasian Economic Commission collegium decided on March 24 to put in place a temporary ban on exporting personal protective equipment, protective agents and disinfectants, products for medical use and materials from the customs territory of the Eurasian Economic Union (cotton wool, gauze fabric, bandages, masks, half-masks, face respirators, respirators, filters for personal respiratory protective equipment, protective glasses, disinfectants, protective overshoes, certain types of clothing and related accessories, and gloves), and despite this fact exports of textile, textile products and footwear increased by 6.5% in 2020 compared to 2019.

Footwear remains the top product in this segment. In 2020, it accounted for 16.1% of the total exports value of textile, leather and foot-wear industries. Footwear exports dropped by 11.4% compared to 2019.

Growth in Russian exports of textile products and manufacture of clothes was driven by accelerated dynamic and increased share of "Other finished textile products; footwear and preowned textile products" (10.9% in overall exports of textile, textile products and footwear) which shipments surged by 40.1% - up to $162 mn, "Articles of clothing and accessories used with the, minus machine and hand-made knitwear" (18.1% share) – increase by 13.8% - to $269 mn, "Items of clothing and accessories used with them, machine and hand-made knitwear" (17.6% share) – up by 20.8% - to $261 mn.

The main countries that purchase the above mentioned products from Russia are Belorussia (32%), Kazakhstan (29%), Ukraine (8%), Italy (8%), and Poland (3%).

The Bank of Russia suspended purchases of precious metals on the domestic market from April 1, 2020. It should be noted that the BoR decision to suspend purchases of gold synchronized with the onset of quarantine which led to disruptions of deliveries of gold abroad due to restrictions of air transport in early April 2020. However, soon a special air service was organized for precious metals.

According to the Federal Customs Service (FCS) data, Russian gold exports came to 42.6 tons worth $2.3 bn (exports increase 14 times in volume terms compared to April 2019), in May – 23.8 tons worth 1.3 bn (7 times more than in May 2019), in June – 24.6 tons worth 1.3 bn (4 times more than in June 2019). Over 2020, Russia's gold exports amounted to 320 tons up 2.6-fold above the 2019 level and up by 3.2-fold in value terms. In 2019, Russia's gold exports were worth $5.76 bn and in 2020 – worth $18.54 bn.

Great Britain is the main purchaser, for the first 9 months of 2020 Great Britain purchased from Russia 193.1 tons of gold worth $11.1 bn. As a result, Russian exports to Great Britain went up 2-fold – to $15.9 bn in January-September 2020 compared to the same period of the previous year.

According to data released by REC,[1] in 2020, Russian non-resource non-energy exports (NRE) was worth $161.3 bn up by 3.5% than in 2019 and nearly 3.5 times

1 URL: https //www.exportcenter.ru/press_center/news/v-2020-godu-eksport-rossiyskikh-nesyrevykh-neenergeticheskikh-tovarov-prevysil-161-mlrd-dollarov-eto/

more than in 2000 when NRE totaled $46 bn. Main drivers of the NRE exports in 2020 were precious metals and agro-industrial complex products. In 2020, the NRE exports minus gold exports would have totaled $142.77 bn against $149.34 a year earlier, i.e. the index dipped by 4.4%. From 2021 onwards, the export of gold will not be considered a non-resource non-energy export item, since gold is not a tradable commodity in classical terms – it is traded by financial institutions, the influence of market environment on the volumes of transactions is very high while common systemic measures of export support are not applicable in this case.

The pattern of dynamic of imports

For the recent months as a whole, Russian import dynamic reflects changes in both Russian and world economy. Decrease in Russian imports commenced in March 2020 down by 2.3% against March 2019 at the peak of ruble's depreciation. The Asia-Pacific Economic Cooperation (APEC) member-states have contributed most to the reduction in Russian imports with China at the forefront by being the first to put in place restrictive measures to combat coronavirus. In April, imports decline rates accelerated to 19.9% in annual terms - up to 13.2% month-on-month due to the fact that the toughest containment measures imposed to face coronavirus in various countries were most effective during that month. From June 2020, as economies commenced to open, there was a gradual rebound in Russian imports. For example, imports rose by 10.8% month-on-month, in July – by 2.9%, in August – by 1.2%, in September – by 2.5%, in October – by 6.5%. At the end of the day, if in Q2 2020 against Q2 2019 imports of goods contracted by 13%, then in Q3 down by 7.9%.

By year's end, imports dynamic improved, the decrease in imports of goods decelerated in Q4 2020 to 2.9%. Moreover, purchases of goods from far-abroad countries increased by 3.3% in December compared to December 2019, despite a decline by 14% in the real effective exchange rate of the ruble, a slowdown in business activity in Russia, and new restrictions triggered by the pandemic (*Table 35*). In December 2020, goods import growth from far-abroad countries was boosted mostly by chemical (+11.5%) and engineering products (+6.7%). Imports of chemical industry products went up on the back of pharmaceutical products purchases by 32.3%, polymers and India rubber by 8.8% in December 2020 compared to the corresponding month of the previous year.

In the segment of engineering, products purchase of ships and floating crafts increased 5.7-fold, instruments and optical devices - by 9.9%, electrical equipment - by 6.6%, mechanical equipment – by 5.9%, and vehicles for land transportation – by 0.8%.

In the commodity structure of imports, the largest proportion was still accounted for by purchases of machinery and equipment, the share of which in the total volume of imports in 2020 was 47.6% against 46.1% in 2019 (*Fig. 34*). Imports of machinery and equipment into the Russian Federation declined by 2.2% in 2020 compared to 2019. There was a notable reduction in imports of railroad locomotives and tram motor coaches (-22.38%), vehicles for land

transportation (-29.96%), ships, boats and floating crafts (-23.31%). Imports of inorganic chemicals shrank by 20.96%, pharmaceutical products – by 17.66%, and fertilizers – by 17.62%.

Table 35

Russian imports dynamic (USD bn)

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Imports, USD bn	183.9	245.7	318.6	335.8	341.3	307.9	193.0	191.5	238.1	249.1	254.6	239.7
Including:												
To far-abroad countries	162.7	213.2	273.8	288.4	295.0	271.9	170.6	170.8	212.8	222.5	226.7	214.4
Growth rates, in % on previous month												
Quantum index	130.1	127.1	113.5	63.3	135.4	122.2	105.1	97.8	96.6	99.3	103.6	92.0
Price index	105.5	107.6	117.8	99.1	101.6	109.1	97.3	102.5	99.8	102.1	97.2	96.5

Sources: Bank of Russia, Ministry of Economic Development.

The second important group in the commodity structure of Russian imports remains the chemical products (8.3% in 2020). Purchases of these products abroad declined by 11.3% in 2020. Food products and agricultural primary products (except for textile) are ranked third in Russian imports pattern. In 2020, these products account for 12.8% against 12.3% in 2019. In 2020, imports of

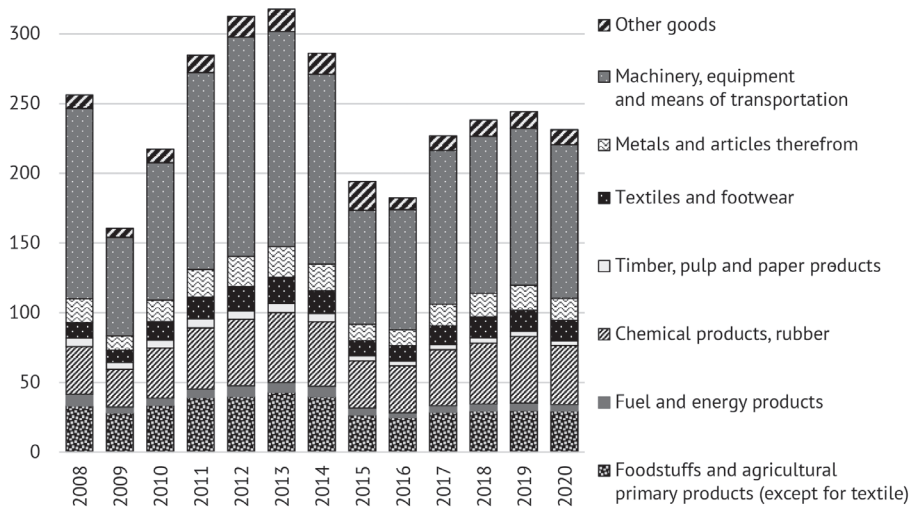

Fig. 34. Goods-wise dynamic of Russian imports (USD bn)

Source: FCS.

food products decreased by 0.8% in value terms and remained at the last year level in volume terms. According to data released by FCS, purchases of milk and cream rose by 21.8%, butter – by 14.3%, cheeses and cottage cheese – by 11.7%. However, the import volumes of sunflower oil dipped by 53.7%, fresh and frozen meat – down by 30.4%, fresh and frozen fish – down by 9.5%, and citrus fruits – down by 8.0%.

At the beginning of 2020, purchases of petrochemicals, primarily motor gasoline, increased notably. For the first five months of 2020, import volumes of motor gasoline surged 85-fold compared to the same period of 2019. In this situation, the RF Government was forced to ban the supply of foreign fuels due to the fact that the latter were cheaper than motor gasoline and diesel fuel produced at home. By the Decree No. 732 of May 22, 2020, the RF Government temporary suspended fuel import into the territory of the Russian Federation. The list of banned fuels comprised motor gasoline, diesel fuel, marine fuel and gasoils. The measure adopted for purposes of energy security paved the way for stabilization of the situation on the domestic market. In particular, the temporary ban on import of petrochemicals avoided the situation of mid-May 2020 when Belorussia bolstered motor gasoline sales to Russia hundreds of times. The ban was effective until October 1, 2020.

The geographic pattern of the Russian foreign trade

In the geographic pattern of Russian foreign trade, the trend continues to increase the APEC's share in Russian foreign trade turnover: in 2020 it rose to 33.8% against 31.8% in 2019. That said, the share of the CIS displayed an uptick from 12.2% to 12.9%. The share of the EU went om decreasing from 41.6% to 38.5% in 2020 (*Fig. 35*).

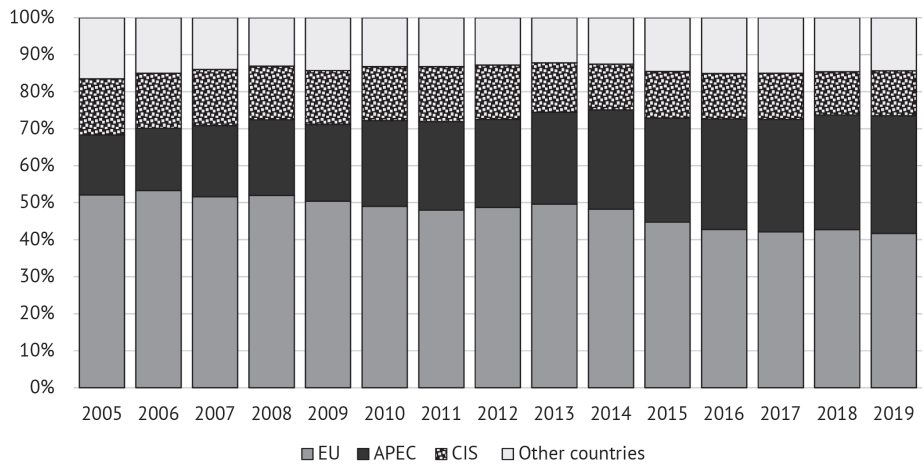

Fig. 35. Geographic pattern of Russian foreign trade (%)

Source: The Federal Customs Service of the Russian Federation.

The European Union is still the main trade partner of the Russian Federation, although in 2020, the Russian foreign trade turnover with the EU countries shrank by 21.3% with Russian exports and Russian imports falling in value terms by 27.9% and 7.4%, respectively. The collapse of the Russian export volumes was primarily due to a slump in prices of energy resources.

Russia's trade turnover with APEC member-states shrank by 9.7% mainly because of a drop in Russia's exports by 16% and imports by 2.7%. Having said that, trade turnover with Vietnam hiked by 15.2%, with Hong Kong – by 84.7%, and with New Zealand – by 31.7%.

Increase in turnover with Turkmenistan (up by 39.6%) and Uzbekistan (up by 15.6%) failed to offset a reduction in turnover with other CIS states. As a result, Russian foreign trade turnover with the Commonwealth of Independent states contracted by 9.8%.

The largest trade partner of Russia since 2010 remains the People's Republic of China, whose proportion in Russian foreign trade turnover increased to 18.3% in 2020 against 16.7% in 2019. For two consecutive years, the Russian Federation maintained a positive trade balance, in 2020 this index again turned into a negative one for Russia (-$5.8 bn).

4.7.4. The Russian foreign trade regulation[1]

Tariff regulation

Export customs duties

In 2020, the rates of export customs duties on crude oil and petrochemicals were calculated in compliance with the methods approved by the Resolution No. 276 of March 29, 2013 of the Government of the Russian Federation "On Calculation of the Rates of Export Customs Duties on Crude Oil and Individual Categories of Products Made of Oil."

Table 36

The rates of export duties on crude oil and petrochemicals in 2019–2020 (USD per ton)

	Crude oil	Petrochemicals	
		Light oil	Dark oil products
2019			
January 1	89.0	26.7	89.0
February 1	80.7	24.2	80.7
March 1	91.2	27.3	91.2
April 1	97.4	29.2	97.4
May 1	104.6	31.3	104.6
June1	110.4	33.1	110.4
July 1	100.3	30.0	100.3
August 1	94.1	28.2	94.1

1 The Resolution of the Government of the Russian Federation; information of the Ministry of Economic Development of the Russian Federation.

	Crude oil	Petrochemicals	
		Light oil	Dark oil products
September 1	90.7	27.2	90.7
October 1	87.2	26.1	87.2
November 1	88.3	26.4	88.3
December 1	90.5	27.1	90.5
2020			
January 1			
February 1	78.5	23.5	78.5
March 1	66.9	20.0	66.9
April 1	52.0	15.6	52.0
May 1	6.8	1.0	6.8
June1	8.3	2.4	8.3
July 1	37.8	11.3	37.8
August 1	46.9	14.0	46.9
September 1	47.5	14.2	47.5
October 1	45.4	13.6	45.4
November 1	42.2	12.6	42.2
December 1	42.0	12.6	42.0

Sources: Resolution of the Government of the Russian Federation; information of the Ministry of Economic Development of the Russian Federation.

According to price monitoring findings for the period March 15 2020 until April 14, 2020, average price of crude oil stood at $19 per barrel or $138.7 per ton. According to the information released on April 15, 2020 by the Ministry of Economic Development of Russia, from April 15, 2020 until May 31, 2020 the rate of export customs duty on crude oil will decline by $45.2 and will amount to $6.8 per ton which is the lowest rate seen during 2000s (*Table 36*).

Import customs duties

On April 3, the Eurasian Economic Commission's Council approved a list of critical imports in order to minimize the adverse economic fallout of spreading COVID-19 coronavirus infection and prevent a shortage of socially important goods in the EAEU countries. They are granted tariff preferences in the form of exemption from import customs duties when importing to the Eurasian Economic Union States from April 1 until June 30 of this year inclusive. The list includes certain agricultural and food products (potato, onion, garlic, cabbage, carrot, pepper, rye, long-grain rice, buckwheat, juices and ready-made baby food), certain finished pharmaceutical products and medical goods (endoscopes, contactless thermometers, disposable pipettes and mobile disinfectant units). Besides, the expanded list of goods used for manufacturing medicines as well as medical products (it includes thermal bags, films for sealing bottles and medical freezers), the import of which was duty-free from March 16 until September 30, 2020 subject to confirmation of their intended purpose.

The Decree of the Government of the Russian Federation No. 545 of April 18, 2020 simplifies and promotes free import of medical goods for combating

the COVID-19 coronavirus. The list of goods comprises COVID-19 test kits, lung ventilators, medical masks, and protective equipment. From March 16 until September 30, the import of these goods was duty free on condition that they are intended for free transfer to health care institutions. The intended use of goods must be confirmed by a special document. Previously it was issued by executive bodies of regional state authorities. The Decree authorizes the Ministry of Industry and Trade and the Ministry of Healthcare to promote the issue of necessary documentation.

In order to reduce export volumes and contain price growth on sunflower, raps and products therefrom the Decree No. 2065 of the Government of the Russian Federation of December 10, 2020 "On Amending the Rates of Export Customs Tariffs on Goods Exported from the Russian Federation beyond the States that are Parties to Agreements on the Customs Union" establishes an export tariff of 30% but not less than €165 per ton of sunflower seeds and rapeseeds to be in effect from January 9 until June 30, 2021. The decision applies to products exported from Russia beyond the Customs Union. Previously, export tariff on sunflower seeds and rapeseeds was 6.5% but no less than €11.4 per ton.

Tariff rate quotas

By Decree No. 385 of March 31, 2020 of the Government of the Russian Federation, a quota was imposed to limit exports of wheat, rye, barley and corn to 7 mn tons to the countries outside of the Eurasian Economic Union imposed for the period from April 1 to June 30, 2020. The Ministry of Agriculture of the Russian Federation was authorized to release information in real time on taking up the quota and submit the information to the Federal Customs Service of the Russian Federation.

By Decree No. 2096 of December 14, 2020 the Government of the Russian Federation introduced amendments in the rates of export customs duties approved by Decree No. 754 of August 30, 2013 of the Government of the Russian Federation. According to introduced amendments, the version comprises a list of rates of export customs duties on wheat, rye, barley, and corn. The amendments establish a zero-tariff rate on exporting rye, barley, and corn within the tariff-rate quota, while the in-quota export tariff on wheat will be €25 per ton and the out-of-quota export tariff of 50% but no less than €100 per ton will apply from February 15 until June 30, 2021.

Non-tariff regulation

On November 18, 2020, the WTO released its report on the G20's[1] trade measures implemented by the G20 countries between mid-May to mid-October 2020.

During that period, there was a notable slowdown in the number and coverage of trade-restrictive and trade-facilitating measures on goods. The trade coverage of "regular" import-facilitating measures introduced by G20 are estimated at $36.8 bn compared to $735.9 bn in the previous period. The main sectors for which

1 URL: https://www.wto.org/english/news_e/news20_e/trdev_18nov20_e.ht

trade-facilitating measures were introduced were electrical equipment and parts, machinery and mechanical appliances, and pharmaceutical products. The volume of trade affected by import-restrictive measures imposed by the G20 countries is worth $ 42.9 billion (for the period from September 2019 to May 2020 – $ 417.5 billion). The main sectors affected by the new restrictions were mineral fuels and oils, machinery and mechanical devices, vehicles and parts thereof. The sharp decline in the volume of world trade, which is covered by "regular" facilitating and restrictive measures, is primarily owing to a decrease in trade turnover and a shift in the attention of governments to the fight against the pandemic. In addition, in recent years, a significant part of restrictive measures comprised mutual increase in duties introduced by the United States and China, there were no major new developments in this particular context during the reviewed period. At the same time, the coverage of trade in goods related to combating COVID-19 since the pandemic outbreak is estimated at $ 155 billion. Of the 133 trade measures taken for these products, 63% were trade–facilitating and 37% were trade-restrictive measures. By mid-October, three out of every ten such restrictive measures had been lifted.

According to the WTO secretariat, with due regard for the measures introduced since 2009 and still in force, a total of 10.4% of the G20 countries ' imports are subject to restrictions, which is equivalent to $1.5 trillion (a year ago, this index was 8.8% and $1.3 trillion). The main restrictive measures are tariff increases, import bans, and stringent import procedures.

Protectionism against Russian goods is escalating every year. According to the data presented in the Register of Restrictive Measures[1], as of December 1, 2020, 203 restrictive measures were identified that cut down access of Russian goods to the markets of foreign countries. This is primarily the introduction of anti-dumping duties, which account for 25.1% of the total number of measures introduced, 16.3% were for sanitary and phytosanitary measures (SPS measures), 11.3% - for special protective duties (*Table 37*).

At present, 33 investigations are being conducted in respect of Russian goods, including 2 countervailing, 11 antidumping, 16 special protective ones, and 4 for national security reasons, 14 revisions of antidumping measures and a revision of a special protective measure, as well as 2 agreements on the suspension of anti-dumping investigations in the United States (in respect of uranium products and thick-gauge plate).

In line with the" sanctions " policy pursued by the European Union, the United States, Japan, Ukraine, Switzerland, Norway, Australia, Iceland, Liechtenstein, Montenegro and Albania, these countries have imposed a ban on the import of goods originating from the Republic of Crimea and Sebastopol. In addition, "sanction" restrictions in relation to the events in Crimea and eastern Ukraine were imposed on a number of Russian organizations and individuals by the European Union, the United States, Canada, Japan, Ukraine, Switzerland, Norway, Australia, New Zealand, Iceland, Liechtenstein, Montenegro and Albania.

1 URL: http://www.ved.gov.ru/mdb/information/database/

Table 37

Market protective measures introduced by third countries in respect of goods from the Russian Federation

Restrictive measure	2014	2015	2016	2017	2018	2019	2020
Antidumping duty	40	39	40	43	48	50	51
Special protective duty	9	15	17	13	21	26	23
Compensatory duty	-	1	1	1	1	1	1
TBT measures	9	9	10	15	14	17	17
SFS measures	3	7	11	17	31	38	33
SPS measures	2	3	3	3	6	4	4
Quotas (including tariff quotas)	5	4	5	7	5	4	3
Discriminating excises	4	3	4	6	8	9	12
Bans on imports	5	5	5	8	7	7	8
Threats to introduce measures	25	24	29	30	29	36	51
Other non-tariff measures	102	110	125	143	170	192	203

Source: Restrictive Measures Register as of December of corresponding year.

Domestic market protective measures

The Eurasian Economic Union regulates application of protective measures by Articles 48-50 of the Agreement of May 29, 2014 on the Eurasian Economic Union and by the Protocol on Application of Special Protective Antidumping and Compensatory Measures against Third Countries (Annex No. 8 to the Agreement on the Eurasian Economic Union). At present, 20 protective measures aimed at safeguarding the domestic market are in effect in the EAEU (*Table 38*).

Table 38

The EAEU's domestic market protective measures

No.	Goods	Type of measure TN VED EAEU	Exporter-country	Type of measure
AD-28	Aluminum strip	7606	Azerbaijan; PRC	Antidumping
AD-23	Herbicides	3808	European Union	Antidumping
AD-27	Hot-worked corrosion-resistant seamless pipes	7304	PRC	Antidumping
AD-9	Graphitized electrodes	8545	India	Antidumping
AD-18	Truck tires	4011	PRC	Antidumping
AD-17	Tracked bulldozers	8429	PRC	Antidumping
AD-14	Kitchen appliances and cutlery made from corrosion resistant steel	8211, 8215	PRC	Antidumping

No.	Goods	Type of measure TN VED EAEU	Exporter-country	Type of measure
AD-24	Cast-aluminium wheels	8708	PRC	Antidumping
AD-8	Polymer coated rolled metal products	7210, 7212, 7225	PRC	Antidumping
AD-1	Some types of steel pipes	7304, 7305, 7306	Ukraine	Antidumping
AD-21	Stainless steel pipes	7304	Ukraine	Antidumping
AD-16	Seamless pipes for drilling and operation of oil and gas wells	7304	PRC	Antidumping
AD-26	Galvanized steel sheet	7210, 7212, 7225	PRC	Antidumping
AD-3	Rolling bearings (except needle roller bearing)	8482	PRC	Antidumping
AD-7	Forged steel rolls for rolling mills	8455	Ukraine	Antidumping
AD-13	Wire rods	7213, 7214, 7227, 7228	Ukraine	Antidumping
AD-22	Angle iron	7216, 7228	Ukraine	Antidumping
AD-19	Steel all-rolled wheels	8607	Ukraine	Antidumping
AD-20	Ferrosilicon manganese	7202	Ukraine	Antidumping
AD-11	Cold-deformed seamless stainless steel pipes	7304	PRC; Malaysia	Antidumping

Source: URL:http://www.eurasiancommission.org/ru/act/trade/podm/investigations/Measures.aspx

Bans and import restrictions

International Monetary Fund and World Trade Organization have warned against imposing restrictions on export of medicine and food products because they "can be dangerously counterproductive." The IMF and WTO have stated that such export restrictions "disrupt supply chains, depress production, and misdirect scarce, critical products and workers away from where they are most needed."[1] However, many countries have banned export of medical products needed to combat coronavirus, from personal protective equipment to medicines and artificial lung ventilation apparatuses.

The Eurasian Economic Union member-states also put in place prohibitive measures. In order to stabilize situation triggered by the spread of the COVID-19 virus and shortage of personal protective equipment, the Eurasian Economic Commission collegium decided on March 24 to put in place a temporarily ban on exporting of personal protective equipment, protective agents and disinfectants, products for medical use and materials from the territory of the Eurasian Economic Union.

The list of goods prohibited for export from the customs territory of the Eurasian Economic Union comprises cotton wool, gauze fabric, bandages, masks, half-masks, face respirators, respirators, filters for personal respiratory protective

1 URL: https://www.wto.org/english/news_e/news20_e/igo_15apr20_e.htm

equipment, protective glasses, disinfectants, protective overshoes, certain types of clothing and related accessories, and gloves). This restrictive measure was effective until September 30, 2020.

In August 2014, Russia banned import of certain types of agricultural products, raw materials and foodstuffs from countries that had imposed anti-Russian sanctions. Meat, sausages, fish and seafood, vegetables, fruits, and dairy products were banned. As the sanctions continued, the Russian Federation extended its retaliatory measures. By the Decree No. 2054 of December 9, 2020, the Government of the Russian Federation extended the food embargo until the end of 2021. The list of countries was supplemented by the United Kingdom, since the latter will finally leave the European Union on December 31, 2020 after a one-year transition period.

4.8. Russia's participation in the WTO's trade disputes[1]

The WTO utilizes the trade dispute settlement mechanism in accordance with the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU).[2] As a WTO member, Russia has the right to uphold its trade interests by means of this instrument. The WTO dispute settlement procedure is made up of the following five main consecutive stages[3]:

- *holding of bilateral consultations* (60 days from the day of request for consultations);
- *establishing of a panel* at the request of either party to the dispute and selection of the panelists to consider the case (45 days from the day of request for the panel to be established);
- *work of the panel* (6–9 months from the day of the start of work) and adoption of the panel's report by the Dispute Settlement Body (DSB) and the DSB's recommendations (60 days from the day of issuing of the panel's report);
- *consideration of the case by the Appellate Body (AB)*, in case of appeal by either party to the dispute (60–90 days from the day of appeal), adoption of the report by the Appellate Body of the DSB and announcement of the DSB's recommendations to the parties (30 days from the day of issuing of the Appellate Body Report);
- *the DSB control* over the implementation of recommendations (maximum 15-18 months from the day of adoption by the DSB of the panel's report or the Appellate Body Report).

As of the year-end 2020, Russia participated in 103 WTO disputes: in 8, 9 and 86 disputes as the complainant, the respondent and the third party, respectively.

In most cases, Russia has participated as a principal party to WTO disputes with the EU, Ukraine, as well as the US. As the complainant, Russia is interested in anti-dumping investigations and measures, particularly, concerning the iron and steel

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2 URL: https://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm
3 URL: https://www.iep.ru/files/text/trends/2019/04.pdf

industry and the chemical industry. Other countries file complaints against Russia regarding technical barriers to trade (TBT) and SPS (sanitary and phytosanitary) and anti-dumping measures affecting trade, tariffs and transit.

As the third party, Russia has participated most commonly in disputes concerning products of the iron and steel industry, the agriculture, the food industry, the motor industry and the aircraft-building industry, as well as RES, wood and articles thereof. A particular attention is paid to the disputes related to anti-dumping investigations and measures, as well as subsidies and countervailing measures. Russia's participation in disputes as the third party is related not only to its substantial trade interest, but also the practice of taking part in specific disputes (particularly, disputes concerning safeguard investigations and measures) and system-based interest in administration of the WTO regulations because Russia stands now and then on positions similar to those of respondents (protection of life and health of individuals and animals).

Though its participation in trade disputes is not that active as compared with other countries and integration associations (primarily, the US, the EU, China and Canada), Russia is amassing experience and taking increasingly more and more advantage of opportunities to promote positioning of its products and companies abroad.

Notwithstanding its current functionality difficulties, the WTO remains a multilateral institution entrusted with important trade monitoring functions and development of new trade rules through negotiating and upholding its members' interests on the basis of the dispute settlement mechanism. Russia should continue to stand for the preservation of the WTO as the pillar of the multilateral trade system and participate in search for the ways out of the dispute settlement crisis.

In 2020, Russia did not initiate any disputes as the principal party. In 2020 Ukraine revoked antidumping measures on ammonium nitrate imports from Russia, having complied with the DSB's recommendations on dispute DS493. The Panel upheld Russia's claims in the dispute with the EU concerning energy cost adjustment methodologies and antidumping measures (DS494). Russia complied with the DSB's recommendations regarding the dispute initiated by Ukraine over the measures affecting the importation of railway equipment and parts thereof (DS499).

In 2020, Russia joined 7 disputes as the third party. Some of those disputes are already over, but it is noteworthy that Russia benefitted (directly or indirectly) from its participation in them.

Let us review below how the situation changed in 2020 regarding WTO trade disputes which Russia participated in:

- as the complainant;
- as the respondent.
- as the third party.

Also, analyzed below is the crisis of the WTO trade dispute settlement mechanism and the effect of the COVID-19 pandemic on it.

4.8.1. Russia as the complainant

DS493: Ukraine – Anti-Dumping Measures on Ammonium Nitrate (Russia)

On May 7, 2015, Russia requested consultations with Ukraine regarding the latter's antidumping measures imposed on ammonium nitrate imports originating from Russia.[1] In summer 2018, the Panel presented the report ruling that Ukraine had carried out anti-dumping investigation with violation of the WTO regulations: instead of taking into account electricity prices from Russian producers, Ukraine used the third parties' prices and applied the so-called "energy cost adjustments." On August 23, 2018, Ukraine filed an appeal against the Panel's ruling and on September 12, 2019 the Appellate Body Report which upheld the Panel's findings was circulated to the parties. On September 30, 2019, the DSB adopted the Appellate Body Report and the Panel's report with recommendations for Ukraine to bring its measures in compliance with the WTO regulations.[2]

On April 8, 2020, the arbitrator determined the reasonable period of 11 months and 15 days for Ukraine to comply with (until September 15, 2020). The anti-COVID-19 measures were regarded by the arbitrator as factors which could affect Ukraine's ability to comply with the recommendations in time. On September 21, 2020, Ukraine revoked its anti-dumping measures.

DS494: European Union – Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia (Russia)

On May 7, 2015, Russia requested consultations with the European Union regarding the cost adjustment methodology used by the EU pursuant to Article 2.3 and Article 2.5 of EU Council Regulation No.1225/2009 of November 30, 2009 on protection against dumped imports from countries not members of the European Community for the calculation of anti-dumping margins in anti-dumping investigations and reviews.[3]

Russia believes that in anti-dumping investigations regarding ammonium nitrate and welded pipes the European Union has breached its WTO obligations because in calculating the cost of production the third countries' electricity prices (cost adjustments) were taken into account instead of those prevailing in Russia and this caused substantial injury to Russian suppliers. By estimates, the EU's measures against Russia have brought virtually to a halt the exports of Russian welded pipes to the EU (the measures have been in effect since 2008), while the exports of ammonium nitrate from Russia to the EU have decreased almost 1.5-fold as compared with 2012 (about $220mn worth of ammonium nitrate exports in 2012).[4] In 2014, the European Union accounted for around 30% of Russian exports of challenged goods (nearly 11% of the European Union's imports of ammonium nitrate and welded pipes).[5]

1 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds493_e.htm
2 URL: https://www.iep.ru/files/text/trends/2019/04.pdf
3 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds494_e.htm
4 URL: Russia filed a complaint to the WTO against Ukraine and the European Union // http://www.wto.ru/2015/05/07/
5 URL: https://www.iep.ru/files/text/trends/2018/04.pdf

On July 24, 2020, the Panel's report was circulated. As regards Russia's claim *"as such"* in respect of the cost adjustment methodology, the Panel determined that Russia demonstrated the existence of this methodology, as well as its general application and noted that the EU was not able to identify any instance of non-application thereof. The Panel came to the conclusion that the alleged unreasonableness of costs did not constitute an adequate or sufficient basis to conclude that the records of the investigated producers did not reasonably reflect the costs related to the production and sale of the product concerned with the meaning of Article 2.2.1.1 (Determination of Dumping) of the Anti-Dumping Agreement. Also, the Panel upheld Russia's claim that the cost adjustment methodology was inconsistent with Article 2.2 of the Anti-Dumping Agreement, by providing for the use of out-of-country input price information without establishing whether such information was adequate to reflect the cost of production in the country of origin.

As regards Russia's "as applied" claim regarding the expiry of the validity period of anti-dumping measures on welded pipes, the Panel determined that the EU's measures were inconsistent with Article 2.2.1.1. of the Anti-Dumping Agreement because the EU rejected the costs specified in Russian producers' records. The panel came to the conclusion that the EU violated Article 2.2.1 of the Anti-Dumping Agreement because in its ordinary-course-of-trade determination the EU had relied on costs that were calculated on the wrong basis inconsistent with the abovementioned article. The Panel ruled that the European Union violated Article 11.3 (Duration and Review of Anti-Dumping Duties and Price Undertakings) by basing its conclusion that dumping was likely to reoccur on costs of production calculated on the wrong basis.

As regards Russia's "as applied" claim regarding the third review of anti-dumping measures on ammonium nitrate, the Panel disagreed with Russia that the European Union violated Article 11.3. of the Anti-Dumping Agreement, having determined that there was a likelihood of recurrence of dumping and injury if the anti-dumping measures lapsed. However, the Panel upheld some of Russia's "as applied" claims.

The Panel did not agree that the EU Baseline Regulation on Anti-Dumping Measures "as such" violated the WTO rules. The Panel disagreed that the EU Regulation required the use of only "representative" prices in the construction of the normal value of the like product and introduced an additional condition which was not provided for by Article 2.2 of the WTO Anti-Dumping Agreement permitting the authorities to use alternative methods in determining the normal value. The Panel decided that though Article 2 (5) did not require adapting out country information to arrive at the cost of production in the country of origin, it was not sufficient to render the challenged provision inconsistent "as such" with Article 2.2 of the Anti-Dumping Agreement.

On August 28, 2020, at the very end of the validity period the European Union filed an appeal against the Panel's ruling, thus actually putting the dispute on hold with the ruling, so important to Russia, in favor of the respondent on most claims. In response, Russia filed a cross- appeal on September 2, 2020.

DS521: European Union – Anti-Dumping Measures on Certain Cold-Rolled Flat Steel products from Russia (Russia)

On January 27, 2017 Russia requested consultations with the European Union concerning anti-dumping measures imposed by the European Union on certain cold-rolled flat steel products from Russia.[1] In 2016, the exports of challenged products from Russia to the European Union decreased by 84% as compared with 2015; the share of these exports in the overall exports of these products fell from 46% in 2015 to 10% in 2016.[2] The following anti-dumping duties of 34%,18.7% and 36.1% were introduced against Russian producers PAO Severstal, OAO MMK and PAO NLMK and others, respectively. This dispute is the example of Russia's challenging the "cost adjustment" practice applied in anti-dumping investigations where the information from Russian producers is substituted for that from the third countries despite the fact that the European Union has recognized Russia's market economy status. On March 13, 2019 Russia requested the DSB to establish a Panel and it was done on April 26, 2019. Some countries which joined the dispute as the third parties upheld the complainant's position, while others (Ukraine had a similar dispute with Russia resolved in favor of the latter late in September 2019 (DS493)), the respondent's.[3]

On March 16, 2020 the Panel was composed. In the light of the COVID-19 pandemic and complexity of the dispute the Panel does not expect to issue the report before July 2021.

4.8.2. Russia as the respondent

D475: Russian Federation – Measures on the Importation of Live Pigs, Pork and Other Pig Products (European Union)

Early in April 2014 the European Union requested consultations with Russia concerning the ban on imports of pork and live pigs from all EU member-states because of concerns related to cases of African Swine Fever (ASF) and imposition of restrictions on supplies of all types of prefabricated pork products from Poland and Lithuania.[4]

On June 27, 2014 the European Union asked the DSB to establish a Panel and it was done a month later. On August 19, 2016, the Panel presented the report with the ruling that the measures were inconsistent with the standards of the OIE (the World Organization for Animal Health) and introduced in violation of the WTO agreement on SPS measures. It was stated that the Russian Federation did not properly evaluate the risk on the scientific basis for adapting the regionalization principle to carry out trade with individual regions of a country which were recognized pest-or disease free if the situation was unfavorable in the rest of that country. On the contrary, Russia introduced the EU-wide ban on all imports of pork and live pigs. The Panel noted that Russia's measures were discriminatory

1 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds521_e.htm
2 UN COMTRADE database. URL: http://comtrade.un.org/
3 URL: https://www.iep.ru/files/text/trends/2019/04.pdf
4 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds475_e.htm

and constituted a disguised restriction on trade. On September 23, 2016, Russia filed an appeal against some issues and legal interpretations in the Panel's report. On September 28, 2016, the European Union filed a cross appeal. On February 23, 2017, the Appellate Body issued the report which upheld the Panel's findings regarding imports of pig products from the EU. The Appellate Body agreed with the Panel's findings that such a total ban was a measure introduced by Russia, while the conditions of Russia's joining the WTO did not include any restrictions on evaluation by the Panel of the European Union's claims concerning the ban.[1] Overall, the Appellate Body upheld the Panel's findings and the DSB issued recommendations to Russia to bring its measures in compliance with the WTO regulations. On April 19, 2017, Russia declared that it would comply with the DSB's recommendations, but it needed a reasonable period of time to do it. On June 2, 2017, Russia and the European Union agreed on the reasonable period of 8 months and 15 days from the day of adoption of the Appellate Body Report. The period expired on December 6, 2017 and Russia had complied with the DSP's demands by that time: Russia lifted the EU-wide ban on the importation of pork, live pigs and other pig products because of the outbreak of African Swine Fever, except for administrative territories specified in the relevant list and approved the agreed upon EU-Russia bilateral veterinary certificates. The Ministry of Economic Development of the Russian Federation declared that the food import ban introduced in response to the EU's sanctions was still in effect.[2] This ban is not a measure at dispute. According to the EU, Russia failed to comply in full the DSB's recommendations and in the light of this on December 19, 2017 the European Union requested counter measures to be introduced in terms of suspension of rebates and obligations worth euro 1.39 bn a year (respective exports in 2013) with an annual increase of 15%. Russia disagreed and the panel was appointed on January 3, 2018.[3] In autumn 2018, the panel (made up of experts of the previous panel) was established to verify Russia's compliance with the DSB's recommendations. On January 28, 2020, the Panel granted the European Union's request of January 24, 2020 to suspend the work pursuant to Article 12.12 (Panel Work Procedure) of the DSU. The Panel's authority lapsed on January 28, 2021.

DS499: Russia– Measures Affecting the Importation of Railway Equipment and Parts Thereof (Ukraine)

On October 21, 2015 Ukraine requested consultations with Russia concerning the measures imposed on the importation of railway equipment and parts thereof (particularly, rolling stock and railroad switches)[4].

Ukraine claims that Russia has suspended certificates of conformity issued to suppliers of Ukrainian railway products and rolling stock before the entry in force of the new technical regulations and rejected requests for new certificates to be issued. Ukraine claims that Russia discriminates against products of the

1 URL: http://pticainfo.ru/news/?ELEMENT_ID=53214
2 URL: https://www.rbc.ru/rbcfreenews/5a27ccc99a79474b20fce4f8
3 URL: https://www.iep.ru/files/text/trends/2018/04.pdf
4 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds499_e.htm

Ukrainian origin as compared with the like products from other WTO member-states and Russia. These measures led to excessive restrictions on international trade and Russia failed to respond to Ukraine's request to explain the reasons for adopting these measures. Ukraine believes that the Russian competent authorities have breached some conformity assessment procedures. The authorized bodies' conformity assessment requirements were in excess of those in respect of the information and amount of payment. On July 30, 2018, the Panel, which started its work early in March 2017, issued the report. The Panel disagreed with Ukraine's claims that Russia's violations were systematic. At the same time, the Panel agreed that Russia's requirement was discriminatory against Ukrainian products, individual decisions on refusal to issue certificates were in excess of the standard requirements of the conformity assessment procedure and assessment results were not properly communicated to the applicants.[1] Late in August, Ukraine filed an appeal, while Russia did it early in September 2018.[2]

On February 4, 2020, the Appellate Body issued a report in which it rejected Russia's claim that the Panel had erred in its preliminary ruling. In particular, the Appellate Body ruled that the Panel had analyzed properly the linkage between the measures challenged by Ukraine and the WTO provisions allegedly infringed. The Appellate Body agreed with the Panel that Ukraine had properly identified the measures in its request.

Russia put forward some claims pursuant to Article 11 (the Panel's Functions) of the DSU regarding the Panel's findings in respect of the requirement that the Russian authorities should not recognize certificates issued in other EEU member-states if certified railway products were not manufactured in the EEU member-states. The Appellate Body rejected these requirements. It ruled, in particular, that the review of this measure was within the Panel's competence.

As regards Ukraine's claims, the Appellate Body agreed with the Panel that the assessment of whether access was granted on conditions no less favorable than "in a comparable situation" within the meaning of Article 5.1.1. (Procedure for Assessment of Conformity by Central Government Bodies) of the Agreement on Technical Barriers in Trade (TBT) should focus on factors having a bearing on conditions of granting access to conformity assessment and the ability of the regulating Member to ensure compliance with the requirements in the underlying technical regulation or standard. In examining factors relevant for establishing the existence of a "comparable situation" in the particular circumstances of this case, the Panel did not focus sufficiently on the aspects specific to the suppliers who had been granted access under less favorable conditions and instead relied on information concerning the security situation in Ukraine in general. Accordingly, the Appellate Body reversed the Panel's application of Article 5.1.1 to the facts of this case.

The Appellate Body disagreed with the Panel that it was for Ukraine to establish that there had been any non-conformities or consumer complaints relating to products at issue. The Appellate Body found that Ukraine failed to demonstrate

1 URL: http://www.vavt.ru/materials/site/BE758A6F
2 URL: https://www.iep.ru/files/text/trends/2018/04.pdf

that Russia systemically prevented the importation of Ukrainian railway products into Russia.

On March 5, 2020, the DSB adopted the Appellate Body Report and the Panel's report. On March 19, 2020, Russia notified that it revoked certain requirements for recognition of conformity assessment procedures and informed relevant Ukrainian producers of requirements they should comply with to obtain a certificate of conformity, having implemented the DSB's recommendations. On March 23, 2020, Ukraine asked the DSB to request Russia to elaborate on the requirements Ukrainian producers had to comply with in order to obtain the certificates of conformity, in particular, those related to the safety of the employees of the certification body. Ukraine also noted that it believed that the issue of the implementation of the DSB's rulings and recommendations could be considered only after receiving and analyzing the requested information.

Table P.1 of the Annex presents WTO disputes which Russia is a principal party to.

4.8.3. Russia as the third party

As of the year-end of 2020, Russia is participating or participated as the third party in 86 WTO trade disputes (*Table. P.2* of the Annex) of which about 37.2% of the disputes ended up one way or another, while in 44.2% of the disputes the main dispute settlement procedures were completed.

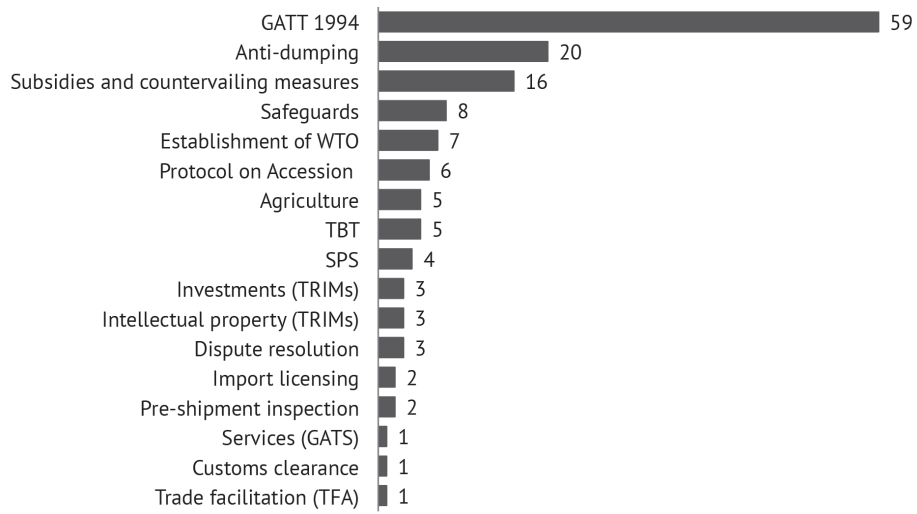


Fig. 36. The subject matter of the WTO disputes which Russia joined as the third country

Source: based on the WTO website's official data: URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds462_e.htm

In 2020, Russia joined 7 disputes: 3 disputes on tariffs, 1 dispute on anti-dumping measures, 1 dispute on safeguard measures and 1 dispute on export restrictions. It often happens that some technically different disputes initiated by different complainants are related with the respondent's one and the same measures.

Russia joins more often the disputes on measures affecting agricultural and food products, the iron-and-steel industry, the motor industry, the aircraft-building industry, the chemical industry, wood and articles thereof and renewable energy sources (RES). As regards agreements which cover the disputes Russia has joined as the third party (one dispute normally covers several agreements), *Fig. 36* presents the relevant breakdown of the subjects of disputes. Generally, most disputes relate to GATT, as well as the Anti-Dumping Agreement and subsidies and countervailing measures. Also, Russia takes interest in the instances of the violation of the Agreement on Safeguards and the Agreement on Establishing the World Trade Organization.

We shall review 7 disputes (on 5 measures at dispute) which Russia joined to as the third party in 2020.

DS582, DS588: India – Tariff Treatment on Certain Goods in the Information and Communications Technologies Sector (EU, Chinese Taipei), DS584: India – Tariff Treatment on Certain Goods (Japan)

On April 2, 2019, May10, 2019 and September 2, 2019, the European Union[1], Japan[2] and Chinese Taipei,[3] respectively, requested consultations with India regarding the tariff treatment which India allegedly accorded to certain goods of the information and communications technologies sector (ICT).

When joining the WTO, India determined the ad valorem duty rate at 0% in respect of the abovementioned tariff items. However, India applies the duty of up to 20% to the importation of these goods depending on the tariff item and, hence, exceeds the bound rate. The complainants believe that these measures are inconsistent with Article II:1 (a) and Article II:1 (b) (Schedule of Concessions) GATT 1994.

On February 17, 2020 the EU requested the establishment of a Panel, on June 29, 2020 it was established and on August 31, 2020 the panelists were selected. On March 24, 2020, Chinese Taipei requested the establishment of a panel, on July 29, 2020 it was established and on August 31, 2020 the panelists were selected. On March 19, 2020, Japan requested the establishment of a panel, on July 29, 2020 it was established and on October 7, 2020 the panelists were appointed.

Russia's participation in this dispute is determined by its priority policy in the ICT sector, as well as its interest in reviewing disputes regarding the raising of tariffs above the bound levels. The trade interest in challenged goods is not very high: based on the data of 2019 Russia's share of these goods in the overall Russian exports to India is equal to about 1.4%, while in Indian imports, to 0.1%[4].

1 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds582_e.htm
2 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds584_e.htm
3 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds588_e.htm
4 UN COMTRADE database. URL: http://comtrade.un.org/

DS590: Japan – Measures Related to the Exportation of Products and Technologies to Korea (Republic of Korea)

On September 11, 2019 the Republic of Korea requested the DSB for consultations with Japan regarding certain measures, including licensing policies and procedures adopted by Japan allegedly restricting exports of fluorinated polyimide, resist polymers and hydrogen fluoride, as well as their related technologies destined for Korea.[1] Those products are used primarily in the production of smartphones, TV displays and semiconductors. On July 1, 2019, the Ministry of Economy, Trade and Industry of Japan declared that it would apply tougher licensing requirements and procedures to the exportation of products and technologies under review if they were destined for Korea. The complainant believes that these measures are inconsistent with Article I (General Most-Favored-Nation Treatment), Article VIII (Fees and Formalities Connected with Importation and Exportation), Article X (Publication and Administration of Trade Regulations), Article XI:1 (General Elimination of Quantitative Restrictions), Articles XIII:1, XIII:5 (Non-Discriminatory Administration of Quantitative Restrictions) and Article XXIII:1 (b) (Elimination and Reduction of Concessions) GATT 1994; Article 2 (Opportunity to Comment, Information Before Entry into Force and Consultations), Article 6 (Disciplines on Fees and Charges Imposed on or in Connection with Importation and Exportation and Penalties), Article 7 (Release and Clearance of Goods), Article 8 (Border Agency Cooperation) and Article 10 (Formalities Connected with Importation, Exportation and Transit) of the Trade Facilitation Agreement (TFA); Article 2 (National Treatment and Quantitative Restrictions) of the Agreement on Trade-Related Investment measures (TRIMs); Article 3.1 (National Treatment), 4.1 (Most-Favored-Nation Treatment) and Article 28.2 (Rights Conferred) TRIMs; Article VI:1 and Article VI:5 (Domestic Regulation) GATS; Article XVI:4 (Market Access) of the Agreement Establishing the World trade Organization.

On June 18, 2020, Korea asked the DSB to establish a panel and on July 29, 2020 it was established.

Russia's participation in this dispute can be explained by the importance of the importation of goods and technologies for the production of smartphones, TV displays and semiconductors, as well as interest in reviewing the discipline of disputes regarding relevant restrictions.

DS591: Columbia – Anti-Dumping Duties on Frozen Fries from Belgium, Germany and the Netherlands (EU)

On November 15, 2019, the EU requested consultations with Columbia regarding anti-dumping duties imposed by Columbia on imports of potatoes, prepared or preserved (otherwise than by vinegar or acetic acid), frozen (frozen fries) originating in Belgium, the Netherlands and Germany.[2] The EU claims that Columbia has carried out the anti-dumping investigation and introduced measures which are inconsistent with Article 1 (Principles), Articles 2.1, 2.4, 2.4.1, 2.6 (Determination of Dumping), Articles 3.1, 3.2, 3.4, 3.5, 3.6, 3.7, 3.8 (Determination of

1 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds590_e.htm
2 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds591_e.htm

Injury), Articles 5.1, 5.3, 5.4, 5.8 (Initiation and Subsequent Investigation), Articles 6.1.2, 6.2, 6.4, 6.5, 6.5.1, 6.8 , 6.9 (Evidence), Articles 9.1, 9.2, 9.3 (Imposition and Collection of Anti-Dumping Duties), Article 11.1 (Duration and Review of Anti-Dumping Duties and Price Undertakings), Articles 12.2, 12.2.2 (Public Notice and Explanation of Determinations), Article 18.1 (Final Provisions) and Cl. 3 and Cl. 6 of Annex II (Best information Available in Terms of Paragraph 8 of Article 6) of the Anti-Dumping Agreement; Article 10 (Confidentiality of Information) of the Customs Valuation Agreement; Article VI (Anti-Dumping and Countervailing Duties) GATT 1994. In particular, Columbia failed to rely on the proper source of information on export prices from Belgium, Germany and the Netherlands and determined the export price of the investigated products on the basis of the DIAN database of prices of all exporting producers, rather than on the basis of the information on export prices from the producers under that investigation. In the light of this, Columbia set incorrectly the dumping margin too high and did not exclude the sampling from the calculation of the specific producer's dumping margin. The complainant believes that Columbia has erroneously included in the field of use of the product under investigation both traditionally frozen fries and frozen delicacies and failed to apply "the like product" term. There were other violations, too.

On February 17, 2020, the European Union requested the establishment of a panel, on June 29, 2020 the Panel was established and on August 24, 2020 the panelists were selected.

Russia takes interest in principle in disputes related to safeguard measures, particularly anti-dumping measures, both in terms of the existence of trade interest and the practice of participation in such disputes and reviewing the administration of the WTO's relevant regulations because plenty of similar measures have been imposed on Russia, too, and affect seriously Russian exports. The procedure for substitution of the data from the exporters under the anti-dumping investigation for the data of producers from the third countries is challenged by Russia, in some disputes (disputes DS474, DS494 and DS521 with the EU; dispute DS493 with Ukraine, and dispute DS586 with the US).

DS593: EU – Certain Measures Concerning Palm Oil and Oil Palm Crop-Based Biofuels (Indonesia)

On December 9, 2019, Indonesia sent a request to the DSB for consultations with the EU regarding certain measures imposed by the EU and its member-states concerning palm oil and oil palm crop-based biofuels from Indonesia.[1] In particular, it concerns Directive No.2009/28 of the European Parliament and of the Council of April 23, 2009 on the promotion of the use of energy from renewable sources as amended (the so-called RED I), as well as Directive No.2018/2001 of the European Parliament and of the Council of December 11, 2018 on the promotion of the use of energy from renewable sources (recycling) (RED II). For example, RED II sets the new target of at least 27% for renewable energy sources consumption in the European Union by 2030; the relevant rules of the calculation of the share

1 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds593_e.htm

of energy from renewable sources and the model of reduction of the maximum share of biofuels and bioliquids produced from food and forage crops starting from 2021 allow the EU member-states to set lower limits and differentiate various types of biofuels and bioliquids. The complainant believes that these measures are inconsistent with Article 2 (Preparation, Adoption and Application of Technical Regulations by Central Government Bodies), Article 5 (Procedures for Assessment of Conformity by Central Government Bodies), Article 12 (Special and Differential Treatment of Developing Country Members) of the Agreement on Technical Barriers in Trade (TBT); Article I:1 (General Most-Favored-Nation Treatment), Article III:4 (National Treatment on Internal Taxation and Regulation), Article X:3 (a) (Publication and Administration of Trade Regulations) and Article XI:1 (General Elimination of Quantitative Restrictions) GATT 1994 and Article 3.1 (b) (Prohibition) and Article 5 (Adverse Effects) of the Agreement on Subsidies and Countervailing Measures.

On March 18, 2020, Indonesia requested the establishment of a panel, on July 29, 2020 the Panel was established and on November 12, 2020 the panelists were selected.

In February 2018, Indonesia won the dispute with the European Union regarding anti-dumping measures on biodiesel (DS480), which Russia joined as the third party. Russia's interest in such disputes can be explained, in particular, by the development of renewable sources both in the country and globally.

DS595: European Union – Safeguard Measures on Certain Steel Products (Turkey)

On March 13, 2020, Turkey requested consultations with the European Union concerning safeguard measures imposed by the EU on imports of certain steel products and investigations that led to the imposition of those measures.[1] Turkey declared that the investigation and the imposed measures were inconsistent with Article 2.1 and Article 2.2 (Conditions), Article 3.1 (Investigation), Articles 4.1(a), 4.1 (b), 4.1 (c), 4.2, 4.2 (a), 4.2 (b), 4.2 (c) (Determination of Serious Injury or Threat Thereof), Articles 5.1, 5.2 (Application of Safeguard Measures), Article 6 (Provisional Safeguard Measures), Articles 7.1, 7.4 (Duration and Review of Safeguard Measures) and Article 9.1 (Developing Country Members) of the Agreement on Safeguards; Article I:1 (General Most-Favored-Nation Treatment), II:1 (b) (Schedules of Concessions), XIII:1, XIII:2 (Non-Discriminatory Administration of Quantitative Restrictions) and Article XIX:1 (a) (Emergency Action on Imports of Particular Products) of GATT 1994. In particular, the complainant believes that the European Union's investigation failed to make accurate findings regarding unforeseen events and the way they led to growth in the importation of the relevant products creating a threat of injury to domestic producers, identify correctly the categories of products and other. The European Union imposed the final safeguard measure on steel products in terms of tariff quotas on February 2, 2019. Tariff quotas are determined in respect of each out of 26 commodity groups

1 URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds595_e.htm

of steel products subject to that measure. A duty of 25% is imposed on shipments above the imposed quotas.[1]

On July 16, 2020, Turkey requested the establishment of a panel, on August 28, 2020 the Panel was established and on September 29, 2020 the panelists were selected.

Russia's participation in the dispute can be explained by its substantial trade interest (in 2019 the exports of commodity groups 72 and 73 from Russia to the EU accounted for 28.3% and 12.9% of Russia's overall exports of these commodity groups, respectively, while the EU's overall imports of these commodity groups, for 3.6% and 0.4%, respectively[2]), as well as the fact that these safeguard measures are aimed against all countries, including Russia and affect seriously Russian exporters.

DS597: United States – Origin Marking Requirement (Hong Kong)

On October 30, 2020, Hong Kong requested consultations with the United States regarding certain measures concerning the origin marking requirement applicable to goods purchased in Hong Kong.[3] On August 11, 2020, the US Customs and Border Protection (USCBP) published a notice that after September 25, 2020 (later the deadline was postponed to November 10, 2020) goods produced in Hong Kong needed a marking which specified that their origin was "China." In Hong Kong's opinion, these US measures violated GATT 1994 because in respect of the importation rules and formalities related to origin marking the Unites States applied a more discriminatory treatment of goods from Hong Kong than similar goods from other countries; the Unites States did not apply their origin marking requirements on a consistent, unprejudiced and reasonable basis. Hong Kong believed that the measures violated Article 2 (Disciplines during the Transition Period) of the Agreement on Rules of Origin because:

- in respect of goods produced in Hong Kong, the United States requested compliance with a certain requirement not related to manufacturing or processing as a preliminary condition for determination of the country of origin;
- the United States made a distinction between Hong Kong and China and other members as regards the rules of origin which it applied to the importation of goods;
- the United States did not apply their rules of origin in a consistent, equal, unprejudiced and reasonable way.

Further, these measures did not comply with Article 2.1 (Preparation, Adoption and Application of Technical Regulations by Central Government Bodies) of the Agreement on Technical Barriers in Trade as origin marking requirements applied by the United States to the importation of goods were technical regulations and in respect of these technical regulations the United States extended less favorable

1 Based on the Register of Safeguard Measures of the Ministry of Economic Development of the Russian Federation: URL: https://www.economy.gov.ru/material/directions/vneshneekonomicheskaya_deyatelnost/dostup_na_vneshnie_rynki_i_zashchitnye_mery/reestr_ogranich_mer/

2 UN COMTRADE database. URL: http://comtrade.un.org/

3 https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds597_e.htm

regime to goods from Hong Kong than those afforded to similar goods produced in other countries.

On November 9, 2020, the United States expressed their readiness to start consultations with Hong Kong, however, in the US view the measures imposed concerned issues of national security not susceptible to review or capable of resolution by WTO dispute settlement.

On November 13, 2020, the Russia Federation requested to join the consultations. On November 19, 2020, the United States requested the Chair of the DSB to circulate a communication where it rejected the Russian Federation's request to join the consultations. The Russian Federation's intension to participate in this dispute was justified by the practice of participation in disputes concerning the rules of origin, as well as disputes where respondents referred to issues of national security not susceptible to review by the WTO. Also, participation in this dispute would be important to the Russian Federation in terms of the Republic of Crimea's exports and relevant sanctions imposed by other countries, including the United States in respect of goods originating from this Russian region. Probably, this was the reason for which the United States rejected the Russian Federation's request to join the consultations.

4.8.4. The crisis of the WTO dispute settlement mechanism and the COVID-19 pandemic

In the past few years, the multilateral trade system has encountered certain problems. In 2020, the WTO faced the crisis caused by the COVID-19 pandemic amid its internal crisis: the crisis of the Appellate Body; transparency problems; complexity of negotiations; painful agenda issues; trade wars and "unfair trade practices" and other. Due to COVID-19 the WTO:

- has suspended face-to-face meetings;
- has postponed the 12th Ministerial Conference in Nur-Sultan to June 2021;
- partially fulfills its current work (some working bodies hold only online meetings);
- notifies its member-states of new trade policy measures (aimed at restricting or promoting trade) on a specially designed and regularly updated web-page of its official website;
- carries out in the online mode an exchange of views and the development of trade policy guidelines during the pandemic and publishes its member-states' statements on a regular basis;
- instructed its Secretariat to carry out additional monitoring (apart from collection of notifications) of trade policy measures on goods and services amid the pandemic, as well as the analysis of various trends in trade and pandemic-related effects on trade.

Alan Wolff, WTO Deputy Director-General has called on WTO member-states to discuss specific reforms within the WTO, particularly, the rebuilding of trust to the WTO and elimination of export restrictions on essential medicines and medical products.[1]

1 URL: https://www.wto.org/english/news_e/news20_e/ddgaw_30oct20_e.htm

With the US blocking for long the decisions on the appointment of new members of the Appellate Body on grounds that radical reforms are needed, the WTO dispute settlement system has found itself in a difficult situation where the Appellate Body's work is actually suspended. The US believes that the Appellate Body exceeds its authorities and creates for member-states rights and obligations which are not provided for by the WTO's existing regulations. Another issue is the violation of deadlines for reviewing appeals. Plenty of WTO member-states agree that reforms are needed and believe that there are the following ways out of the crisis related to the Appellate Body:[1]

- the internal reform of the Appellate Body: change in the number of arbitrators, deadlines for implementation by them of their duties, deadlines for publication of reports and advisory proceedings options;
- parties' appeal waiver, that is, the recognition of the Panel's ruling as final and not subject to appeal. Take, for example, the agreement between Indonesia and Vietnam, the agreement between Indonesia and Chinese Taipei and the agreement between the US and Korea on the sequence of actions in case of appeal against the findings of the review of the dispute concerning the US compliance with the DSB's recommendations (as per Article 21.5 of the DSU: the parties to the dispute agreed not to challenge that ruling. If the parties agree later on arbitration proceedings within the framework of Article 25 of the DSU instead of appeal, the agreement will be amended);
- formation of a provisional alternative mechanism of arbitration proceedings (as per Article 25 of the DSU), which will function as the appeal body for a small group of countries (special agreement member-states) and make the final ruling on the case. This model was upheld by about 20 WTO member-states, including the European Union and China; the relevant agreement (MPIA) became effective in April 2020.[2]

Late in October 2020, the European Parliament and the Council of the European Union came to an agreement on the ways of administration of panel rulings made in favor of the EU: if the losing party files an appeal to the actually non-working Appellate Body and blocks further arbitration proceedings, the EU legislation provides for retaliatory measures to be introduced. After the agreement has been considered by the European Parliament Committee on International Trade, amendments to the Regulations of 2014 will be put to a vote at the European Parliament's plenary session and then be approved by the Council of the European Union.[3]

Late in October 2020, Alan Wolff, WTO Deputy Director-General put forward concrete proposals on the provisional solution of long-standing issues related to the WTO trade dispute settlement mechanism: in initiating a dispute within the

1 The Monitoring of Topical Developments in the International Trade. Issue No.43 (February) 2020. URL: http://www.vavt.ru/materials/site/5a32971b3b2f3d0c4325850c0030df55/$file/Monitoring_43.pdf
2 URL: https://trade.ec.europa.eu/doclib/press/index.cfm?id=2176
3 URL: https://www.europarl.europa.eu/news/en/press-room/20201024IPR90124/agreement-on-stronger-eu-countermeasures-in-trade-disputes

WTO before the panel has been established it is necessary to agree with the other party to the dispute that[1]:

- either the Panel's ruling will be deemed final;
- or further consideration of the dispute will be in accordance with arbitration proceedings as specified in the alternative scheme (for example, MPIA).

But how to convince countries to assume such obligations? We believe that Russia should upheld Alen Wolff's proposal or work out its own proposal. It is necessary in terms of freezing the disputes important to Russia at the stage of work of the Appellate Body, particularly, the disputes with the EU concerning energy cost adjustments in which the Panel upheld Russia's main claim (DS494). Probably, to overcome the crisis the Appellate Body should rely less on consensus as a decision-making instrument (in other words, it should promote the role of special opinions within the Appellate Body), raise the issue of changing the rulings' precedent-setting nature typical of the previous practice, upgrade the standard of panel experts' expertise and call for compliance with recommended deadlines.

The WTO regulations grant the WTO member-states a broad variety of opportunities to take trade measures which are deemed necessary to protect public health and wellbeing (including prohibition of/quantitative restrictions on imports and exports and non-automatic licensing of imports) in case of emergency situations in the international trade. The main principles are as follows[2]:

- trade measures imposed by WTO member-states should not be discriminatory (the non-discrimination principle);
- trade measures should not be disguised restrictions on the international trade (they should be adequate and proportionate);
- the WTO member-states should notify all their partners of any new or modified requirements affecting the trade (notifications).

As regards social programs intensified because of the pandemic, for example, cash benefits for children, they have nothing to do with international trade regulations, that is, the WTO. As regards the support of the private sector during the COVID-19 pandemic, different countries applied a broad range of such measures. Russia supports its businesses during the pandemic no more than other countries do. Micro, small and medium enterprises (MSME) are broadly represented in the hardest-hit sectors; by virtue of their size, MSME are less sustainable and flexible to various shocks. In the years to come, experts predict a surge in countervailing investigations and measures owing to growing protectionism, trade wars and effects of the coronavirus pandemic. For example, the US has been carrying out anti-dumping and countervailing investigations regarding Russian seamless carbon and alloy tubes since July 2020.[3]

1 URL: https://www.wto.org/english/news_e/news20_e/ddgaw_30oct20_e.htm
2 *Bayeva M.*, *Knobel A.* (2020) Trade Restrictions During the Coronavirus Pandemic and their Conformity with the WTO Regulations // Russia's Economic Development, Issue No.9. pp. 32–38: URL: http://edrussia.ru/archive/2020/1184-09-2020
3 The Review of the Existing Restrictions on Access of Russian Goods to Foreign Markets: URL: http://www.ved.gov.ru/rus_export/torg_exp/

Annex

Table P.1

WTO trade disputes which Russia participated in as the principal party (complainant or respondent)[1]

Dispute	Subject of Dispute	Current Status (as of year-end 2020)
	As complainant	
DS474: EU – Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia (23.12.20132)	Cost adjustments in anti-dumping investigations for calculation of dumping margin (EU ignored information on costs and prices from Russian producers and exporters). EU verified expiry of term of anti-dumping measures without sufficient data on continuation of dumping and injury.	Selection of panelists (July 22, 2014). Dispute actually passed over to another dispute – see second complaint (DS494).
DS476: EU – Certain Measures Relating to Energy Sector (April 30, 2014)	EU Third Energy Package: gas-producing companies cannot be owners of major pipelines situated in EU. Operating-companies controlled by foreign entities have to pass a special certification procedure.	Work of Appellate Body (September 21, 2018). Appellate Body's work is actually frozen
DS493: Ukraine – Anti-Dumping Measures on Ammonium Nitrate (May 07, 2015)	In anti-dumping investigation on ammonium nitrate, Ukraine failed in calculation of cost of production to take into account Russian electricity prices provided by producers; instead, Ukraine used third parties' prices (energy cost adjustments).	Respondent complied with DSB's recommendations (measures revoked) (September 21, 2020).
DS494: EU – Cost Adjustment Methodologies and Certain Anti-Dumping Measures on Imports from Russia (May 07, 2015)	In anti-dumping investigation on seamed tubes and ammonium nitrate from Russia, for calculating dumping margin EU took third countries' prices (energy cost adjustments) instead of taking into account data on costs and prices from producers and exporters.	Work of Appellate Body (August 28, 2020). Appellate Body's actual work is actually frozen.
DS521: EU – Anti-Dumping Measures on Cold Rolled Flat Steel Products from Russia (January 27, 2017)	In anti-dumping investigations, data from Russian producers is ignored by EU and replaced by unsubstantiated data and incorrect calculations.	Work of Panel (March 16, 2020)
DS525: Ukraine – Measures Relating to Trade in Goods and Services and Transit (19.05.2017)	Comprehensive complaint on Ukrainian measures on trade in goods and services from Russia	In consultations (May 19, 2017)
DS554:US – Certain Measures on Steel and Aluminum Products (June 29, 2018)	Russia believes that in autumn 2018 US introduced measures on steel and aluminum products in violation of GATT 1994 and Agreement on Safeguards: US granted favorable terms on discriminatory basis, introduced measures on importation by means of quotas in addition to duties, taxes or other levies, failed to justify extraordinary measures and notify in writing within shortest time limits possible and dodged consultations.	Work of Panel (January 25, 2019)

1 The updated table. See URL: https://www.iep.ru/files/text/trends/2019/04.pdf
2 Specified in brackets is the date of request for consultations

Dispute	Subject of Dispute	Current Status (as of year-end 2020)
DS586: Russia – Anti-Dumping Measures on Carbon Quality Steel from Russia (US, July 05, 2019)	Russia believes that US failed to calculate correctly fair value and dumping margin for all known exporters and producers, as well as cost of production of goods at dispute, substantiate properly need of further administration of measures and terminate them; on contrary, US expanded range of measures and refused to rely on data from Russian exporters.	In consultations (July 05, 2019)
As respondent		
DS462: Russia – Recycling Fee on Motor Vehicles (EU, July 09, 2013)	Additional payments (recycling fee) on imported motor vehicles, while domestic motor vehicles are exempted from them subject to certain conditions. In calculating fee, there is great difference in fee size for new and used vehicles.	Selection of panelists (November 25, 2013). Dispute inactive
DS463: Russia – Recycling Fee on Motor Vehicles (Japan, July 24, 2013)	Additional payments (recycling fee) on imported motor vehicles, while domestic motor vehicles are exempted from them subject to certain conditions.	In consultations (July 24, 2013). Dispute inactive
DS475: Russia – Measures on Importation of Live Pigs, Pork and Other Pig Products (EU, April 08, 2014)	Prohibition on importation of live pigs, pork and pork products from EU is disproportionate measure because there were just few insignificant cases of wild hogs' contamination with African Swine Fever in areas close to border with Belarus and situation was promptly localized. EU challenges that Russia carries out regionalization of territory .	Dispute suspended (January 28, 2020). Panel on verification of compliance with DSB's recommendations suspended its work at EU's request. Panel's authorities expired on January 28, 2021.
DS479: Russia – Anti-Dumping Duties on Light Commercial Vehicles from Germany and Italy (EU, 21.05.2014)	Russia's procedure for carrying out anti-dumping investigations and determination of dumping margin on light commercial vehicles is in conflict with WTO regulations in establishing fact of dumping and injury, evidence, definition of industry, public notice and substantiation of decisions.	Respondent complied with DSB's recommendations (measures revoked) (June 20, 2018).
DS485: Russia – Tariff Treatment on Agricultural and Manufacturing Products (EU, October 31, 2014)	In case of paper and paperboard, Russia applies duties of 15% or 10% which are in excess of bound level of 5%. In case of other goods where customs value is below certain level duties are charged above bound rate.	Respondent complied with DSB's recommendations (June 08, 2017). Panel rejected claims of systemic violation by Russia of its WTO obligations on import tariffs.
DS499: Russia – Measures Affecting Importation of Railway Equipment and Parts Thereof (Ukraine, October 21, 2015)	Russia suspends certificates of conformity issued to producers of railway parts and rolling stock before new technical regulations were introduced and turns down applications for new certificates to be issued.	Respondent implements DSB's recommendations (05.03.2020). Ukraine requested from Russia explanation of requirements which Ukrainian suppliers have to comply with in order to receive certificate of conformity (March 23, 2020)

Dispute	Subject of Dispute	Current Status (as of year-end 2020)
DS512: Russia – Measures Concerning Traffic in Transit (Ukraine, September 14, 2016)	International freight traffic in transit by road and rail from Ukraine to Kazakhstan or Kirgizia via Russian Federation should be carried out only from Belarus under certain conditions. Ban on traffic in transit of goods on which tariff rates are not equal to zero and which are under embargo.	Reports adopted, no further actions required (April 26, 2019)
DS532: Russia – Measures Concerning Importation and Transit of Certain Ukrainian Products (Ukraine, October 13, 2017)	Russia took measures to restrict imports and transit of juice, beer, confectionary and wallpaper of Ukrainian origin via its territory to third countries. Exports of such Ukrainian products to Russia dramatically decreased and as regards some items fell to zero level.	In consultations (October 13, 2017)
DS566: Russia – Additional Duties on Certain Products from US (USA, August 27, 2017)	In August 2018, Russia increased import duties on some types of freight, road-building equipment, oil and gas equipment, metalworking equipment and rock boring machines, as well as optic fiber (25%, 30% and 40% depending on goods). US believes that these measures violate GATT 1994 because Russia does not impose such duties on similar products from other WTO member-states and grants US less favorable treatment.	Work of Panel (January 25, 2019). Panel's report is expected in H2 2021.

Source: based on the data of the WTO official website: URL: https://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm.

Table P.2

WTO disputes which Russia joined as the third party[1]

Subject	Disputes
Prohibition or import restrictions (for ecological or other reasons)	DS400, DS401, DS469, DS484, DS495, DS524, DS531, DS537, DS576
Countervailing investigations and safeguard measures (anti-dumping, countervailing and safeguard)	DS414, DS437, DS449, DS454, DS468, DS471, DS473, DS480, DS488, DS490, DS496, DS513, DS516, DS518, DS523, DS529, DS533, DS534, DS536, DS538, DS539, DS544, DS545, DS546, DS547, DS548, DS550, DS551, DS552, DS553, DS556, DS562, DS564, DS573, DS577, DS578, DS591
Export restrictions	DS431, DS432, DS433, DS508, DS509, DS541, DS590
Intellectual property rights	DS441, DS458, DS467, DS542, DS567
Subsidies (including tax and other rebates) and localization requirements	DS502, DS456, DS472, DS487, DS497, DS489, DS510, DS511, DS522, DS579, DS580, DS581, DS583, DS593, DS595
Tariffs and tariff quotas	DS492, DS517, DS557, DS558, DS559, DS560, DS543, DS561, DS585, DS582, DS584, DS588
Trade and economic sanctions	DS526

Source: based on the article by Bayeva M.A. (2015). WTO Trade Disputes which Russia Participated in and Dispute Settlement Mechanism // The Russian Foreign Trade Bulletin, Issue No.3. pp. 75–90.

1 The updated table. See: URL: https://www.iep.ru/files/text/trends/2019/04.pdf

4.9. Science and innovations[1]

Over the past year, the pandemic and the resulting crisis whipped up the decision-making process in science and technology policies. A number of top-level programs were revised, alongside some adjustment of budget allocations for R&D projects. Operational decisions were adopted across a number of areas, where discussions and coordinated planning had been underway for several years already (e.g., the transformation of scientific research funds, improvement of coordination and promotion of continuity between the development institutions operating in the science and technology sector, alterations in the current procedures for estimating the cost-effectiveness of budget-funded venture capital investment, etc.), in order to significantly change the situation in that sphere. Besides, some important normative legal changes were introduced, which addressed the science sector and promoted the creation of a favorable environment for developing and implementing technological innovations.

4.9.1. Revision of strategic targets

In July, the RF President signed an Executive Order on the national development goals of the Russian Federation for the period until 2030.[2] Among the national goals set forth in its text, the creation of *"conditions for self-fulfillment and the unlocking of talent"* explicitly refers to the field of science, its implementation indicator being to *"join the world's top 10 countries in the volume of research and development, including through the creation of an effective system of higher education"*. Such a definition of the national goal logically translates into the idea of a closer merger of science and education. And this is exactly what was done by transforming the National Project (NP) "Science" into the National Project "Science and Universities".

One of the key themes in this connection was the integration of education and science. The issue turned out to be especially acute for the research institutes formerly subordinated to the Russian Academy of Sciences. The concerns that research institutes may indeed be merged with higher educational establishments[3] in order to strengthen the scientific research base of the latter have been voiced once again, and repeatedly. This recommendation was put forth in an analytical report prepared for the RF Ministry of Science and Higher Education in October 2020[4] by a team of authors representing several leading Russian universities (in the main the universities participating in the Project 5-100)[5] - "Higher Education:

1 This section was written by *Dezhina I.*, Doctor of Economic Sciences, Leading Researcher, Gaidar Institute; Head of the Analytical Department on Science and Technology Development, Skolkovo Institute of Science and Technology.

2 Executive Order of the RF President on Russia's national development goals through 2030, dated July 21, 2020. URL: http://kremlin.ru/events/president/news/63728.

3 *Volchkova N.* Caution: A reassembly! The scientific community is full of misgivings // Poisk, August 13, 2020. URL: https://www.poisknews.ru/science-politic/ostorozhno-peresborka-nauchnoe-soobshhestvo-polno-durnyh-predchuvstvij/

4 Analytical report "Higher Education: Lessons from the Pandemic. Operational and Strategic Measures for the System's Development". October 2020. P. 54. URL: http://www.tsu.ru/upload/iblock/ аналитический%20доклад_для_МОН_итог2020_.pdf.

5 Out of 61 authors of the report, 82% work in the universities participating in the Project 5-100; some authors are from St. Petersburg State University; none is from Moscow State University.

Lessons from the Pandemic. Operational and Strategic Measures for the System's Development". Among other things, the report points out the inadequacy of State assignment for the provision of funding for scientific research in universities, the lack of research infrastructure unity between research institutes and higher educational establishments, and the difficulties in interaction in the context of growing demand for interdisciplinary projects. Considering these problems, it is proposed *"... to raise the issue of launching pilot projects of legal integration of certain universities and academic institutes."* Thus, the idea of merging or, more precisely, 'joining' research institutes with universities was clearly voiced by representatives of Russia's leading universities. No "full integration" has been planned as yet at the official level, but later on, quite possibly, one can expect the adoption of some decisions aiming at the organizational structure optimization in the science sector.

In fact, the adoption of targets to be achieved by 2030 resulted in a situation where the targets set in the National Projects had been pushed aside. Thus, in particular, while the NP "Science" involved the achievement, by 2024, of the difficult goal of becoming one of the top 5 countries in the fields declared to be national priorities of scientific and technological development, the new document sets the goal of getting, by 2030, to 8th place in the world by the R&D volume. This is an easier target because now Russia ranks 9th in terms of this indicator (based on a calculation of purchasing power parity).[1] However, if one measures the volume of R&D in terms of share in GDP, Russia will belong somewhere between 30th and 40th places.

The national project "Science and Universities" will now include 4 federal projects: "Development of integration processes in science, higher education and industry", "Development of large-scale scientific and scientific-technological projects in priority research areas", "Development of infrastructure for research and training", and "Development of human capital in the interests of regions, industries and the sector of research and development."

Only one of these projects ("Integration") directly concerns the relationship between science and the real sector of the economy, and the growth of socio-economic benefits from research and development activities. This project envisages only a slight increase in extrabudgetary funding. In 2021, it is projected to be at the level of 22% of the total project budget, and by 2024, 26%. Such a modest increase in the planned target indicates either the confidence of the project's developers that businesses are not going to display a significantly increasing interest in investing in research and development, or a lack of any serious potential in universities and research institutions for conducting research that might be useful for the development of businesses.

The current version of the National Project "Science and Universities" aims at strengthening the research potential of higher educational establishments, and these plans should encompass all of Russia's 724 leading universities.[2] This goal

1 Science Indicators: 2020. Data Book. Moscow, HSE University, 2020, pp. 282–284.
2 *Bulgakova, N.* Both an anchor and a driver. Universities are faced with grandiose tasks // Poisk, No. 45–46, November 13, 2020. URL: https://poisknews.ru/edu/i-yakor-i-drajver-pered-vuzami-

appears to be rather unusual because, as demonstrated by world practices, only a small part of universities are engaged in research. Thus, for example, according to the Carnegie Classification of Institutions of Higher Education, less than 10% of universities in the USA are research universities, i.e. those entitled to confer a doctoral degree (PhD); in Germany, research universities constitute a little less than a third of all universities.[1] The involvement in scientific research of such a significant number of universities would be impossible without their closer integration with research institutions. Indeed, it is planned to set up consortia, and this form of interaction has been repeatedly presented by the RF Ministry of Science and Higher Education as a priority, although no clear definition of the concept of a consortium has yet been suggested. As of the year end, the final decision concerning the structure of and targets for the new NP "Science and Universities" had not yet been made, either.

Meanwhile, the budget allocations for R&D were projected without taking into account the revision of the National Project "Science" and the plans for reforming the development institutions, which were made public only as late as November. The budget allocations for civilian R&D were based on the previously established budget projections, and they were downwardly adjusted for the next 3 years (*Table 39*). The budget expenditure projections for civilian R&D are reduced by 5-6% per annum relative to the initially planned targets.

Table 39

The movement of budget allocations for civilian R&D

Indicator	2021	2022	2023
Federal budget expenditure on civilian R&D, total, bn Rb	486.1	514.4	531.7
Change relative to previous year, %	-3.9	+5.8	+3.4
Changes relative to draft law projections for 2020-2022, in given year, %	-6.3	-4.9	–

Source: Annex 10 to the Explanatory Note to the draft federal law on the federal budget for 2021 and the 2022 and 2023 planning period; own calculations.

The budget sequestration had different effects on the programs and research projects of different types. Among the government programs, the core one is the Government Program "Scientific and Technological Development of the Russian Federation", which pools the main budget expenditure projections for R&D, including the National Project "Science". In accordance with the Program, R&D expenditures are to increase at a rate twice as high as that of total federal budget expenditures on R&D: in 2022, by 10.2% (from Rb248.8 bn in 2021 to Rb274.2 bn in 2022), and in 2023, by 8.9% (to Rb298.6 bn). No changes in the amount of allocations for the National Project "Science" have been planned relative to the targets stipulated in Federal Law No 380-FZ. In 2020, Rb47 bn was allocated to the NP "Science", of which 88.53% went to civilian research projects. This is

stavyat-grandioznye-zadachi/

1 Higher Education Institutions in Figures. URL: https://www.hrk.de/fileadmin/redaktion/hrk/02-Dokumente/02-06-Hochschulsystem/Statistik/2017-06-14_Final_Engl._Faltblatt_2017_fuer_Homepage.pdf

the most hi-tech national project. Next comes the NP "Digital Economy" (total federal budget funding in the amount of Rb124.2 bn), where the budget funding allocated to civilian research is 8 times less (Rb5.5 bn, or 4.64 % of the total amount allocated to the project).[1]

The most rapid growth is expected in the expenditures on fundamental research, by 10.8% per annum; their share in the total expenditures on civilian R&D will increase accordingly. However, compared to the previously planned allocations for fundamental research (in the 2020–2022 budget), these were slightly reduced, by 2.3% in 2021 and by 6.9% in 2022.

A significant reduction in budget allocations for R&D is planned under the subprograms/projects aimed at developing advanced technologies. The funding for the Federal Project "Digital Technologies" under the National Program "Digital Economy of the Russian Federation" is to be cut twofold. In addition, the budget allocations for the subprogram "Promotion of Scientific Research and Experimental Development in Civilian Industries" under the Program "Development of Industry and Increasing Its Competitiveness", will be reduced by Rb2.7 bn in 2021, and Rb0.8 bn in 2022; in 2023, the subsidies to Russian organizations designed to compensate them for part of their costs under R&D projects involving modern technologies will likewise be reduced. These changes will result in a tangible reduction in government support for the R&D projects targeting promising technologies across all fields of science.

Thus, the volumes of planned budget allocations for civilian R&D projects have slightly decreased relative to the indicators of the previous planning period; nevertheless, it is envisaged that they should gradually increase every year. The allocations for fundamental scientific research will be increasing at a fastest rate. At the same time, the allocations in the R&D sector for the development of promising and "end-to-end" technologies are being significantly reduced, and if one considers the current low practical impact of science on the economic and technological development of this country, it can be said that Russia's position in hi-tech markets is not going to improve significantly.

The effect of the pandemic on the science sector

A certain shift in the targets was also triggered by the pandemic. The priorities in the field of scientific have become biomedicine, epidemiology, parasitology, and related disciplines. Besides, Gartner Inc. (global data and analytics company) notes a change in technological expectations in response to the pandemic: new social distancing technologies and so-called health passports have been taking the fastest climb up the Peak of Inflated Expectations.[2] Two trends have become the most obvious in the field of international scientific cooperation:

1 Martynova S., Tarasenko I. Allocations for civilian science from the federal budget within the framework of national projects (programs) of the Russian Federation // Science, Technology and Innovation. WP BRP Series. ISSEK, HSE University, March 25, 2020 URL: https://issek.hse.ru/news/352173147.html

2 5 Trends Drive the Gartner Hype Cycle for Emerging Technologies, 2020. URL: https://www.gartner.com/smarterwithgartner/5-trends-drive-the-gartner-hype-cycle-for-emerging-technologies-2020/#:~:text=5%20Trends%20Drive%20the%20Gartner%20Hype%20Cycle%20

- a switchover to online cooperation within the framework of current and new projects as a result of an effective halt in scientific mobility;
- increasing use of digital platforms, online access to data, publications and infrastructure.[1]

The switchover to remote work influenced multiple aspects of scientific cooperation: mutual visits of scientists, student and postgraduate exchanges, joint participation in conferences. A review of best practices in international scientific cooperation has shown that research partners consider their face-to-face communication (what is now called "offline mode") to be indispensable and one of the most important components of a successful scientific partnership. In addition, online contact for the most part can be effective when the researchers have already previously met in person.[2] Establishing a connection and developing a new project entirely in an online mode is a totally new practice, and its effectiveness is still questionable. The same is true of conferences. The important aspects of any conference are the socialization of participants and their private discussions, including those that take place outside of the formal sessions. The idea of keeping on the online or hybrid format of holding conferences even after the end of the pandemic could be attractive from the point of view of cost saving for research and higher educational institutions. However, the longer the pandemic lasts, the more negatively the scientists perceive the online format. Thus, in particular, the results of surveys of researchers across nearly 100 countries around the world in May and October 2020 demonstrated that over time, the number of those who negatively assessed both online conferences and the lack of "live" communication had increased.[3] More particularly, 29% of the scientists surveyed in May, and 37% of those surveyed in October, felt that the switchover to an online mode reduced their scientific productivity.

At the same time, the pandemic has become an incentive for developing the various forms of "open science": unified platforms pooling data from observations and experiments; open access to publications and expert estimations; crowdfunding; and even an open (remote) access to scientific infrastructure. "Openness", in all its aspects, began to be actively promoted by international organizations, including UNESCO.[4] A large-scale open science project is still undergoing the phase of coordination and approval, but the pandemic has sped up some of the ongoing processes. Thus, for example, the European Commission, on April 21, 2020,

for%20Emerging%20Technologies%2C%202020,-Trends&text=The%20Gartner%20Hype%20Cycle%20for%20Emerging%20Technologies%2C%202020%20highlights%2030,next%20five%20to%20ten%20years

1 *Dezhina, I.* International scientific cooperation: What does the pandemic change? Analytical materials from the Russian International Affairs Council's website. May 14, 2020. URL: https://russiancouncil.ru/analytics-and-comments/analytics/mezhdunarodnoe-nauchnoe-sotrudnichestvo-chto-menyaet-pandemiya/

2 *Grove J.* Pandemic 'frees' researchers from 'hampering' habit of travel // Times Higher Education, September 1, 2020. URL: https://www.timeshighereducation.com/news/pandemic-frees-researchers-hampering-habit-travel

3 Locked Down, Burned Out Publishing in a Pandemic: the Impact of Covid on Academic Authors. De Gruyter Publishing, December 15, 2020. URL: https://blog.degruyter.com/wp-content/uploads/2020/12/Locked-Down-Burned-Out-Publishing-in-a-pandemic_Dec-2020.pdf

4 URL: https://en.unesco.org/sites/default/files/open_science_brochure_en.pdf

launched a new portal for the scientists from any country to exchange their data and research results on the coronavirus, obtained from both national and regional sources.[1] Meanwhile, "open science" and scientist cooperation have most strongly affected the biological and medical fields, although the pandemic has also highlighted a whole spectrum of problems, including economic, psychological and social ones. In response to the development of open science in this country, the stratification of research organizations may become more pronounced, because they all differ in their technical potential enabling them to work with online data and platforms. The increasingly widespread use of online formats has created more advantages only for a limited number of Russia's leading universities and research institutes, most of which are situated in the capital, because by no means all of these organizations, especially those scattered across the regions, can boast of their adequate digitalization level.

4.9.2. The strategic academic leadership program

Throughout the past year, by way of further developing the new National Project "Science and Universities", the RF Ministry of Science and Higher Education was working on a new Strategic Academic Leadership Program (PSAL), designed to replace Project 5-100 and the support program for cornerstone universities.

Initially, the PSAL had a narrow focus, since it was formed as a version of continued Project 5-100. Project 5-100 was officially completed in 2020, and so it was no longer relevant from the point of view of its initially declared goals. The universities participating in the Project failed to enter the top 200, let alone the top 100 universities in the major world rankings. Some success has been achieved in by-subject university rankings; besides, it can be viewed as a successful outcome that now, more universities in principle have been actually included into international rankings. However, this is true not only of Project 5-100 participants.

It should be noted that in recent years, the excellence or perfection initiatives, which also include Project 5-100, have increasingly become subject to criticism. Such programs, as a rule, are implemented under strict supervision based on a limited set of indicators; as a result, universities focus on those specific disciplines and fields for which it is easier to obtain funding, and these are quite often mainstream ones.[2] Thus, in particular, the example of Germany's Excellence Initiative, with its 15-year history, demonstrates its positive effect on the quantitative parameters of scientific research in the participating universities, while "the effect on the quality of research is opposite." [3] If we look at the higher education system as a whole (and not just at the select group of elite universities), we will see that stratification has become more pronounced, the administrative burden has become heavies,

1 URL: https://www.timeshighereducation.com/news/europe-seeks-centralise-fractured-coronavirus-data?utm_source=THE+Website+Users&utm_campaign=a9f9eb90f5-EMAIL_CAMPAIGN_2020_04_24_02_50&utm_medium=email&utm_term=0_daa7e51487-a9f9eb90f5-74904797.

2 *Baker S.* Do university excellence initiatives work? Times Higher Education, June 11, 2020. URL: https://www.timeshighereducation.com/features/do-university-excellence-initiatives-work.

3 *Matthews D.* German excellence strategy 'harmed research quality'. Times Higher Education, August 10, 2020. URL: https://www.timeshighereducation.com/news/german-excellence-strategy-harmed-research-quality.

and there has emerged a tendency towards institutional fragmentation. Thus, the German initiative influenced positively the participating universities, while it failed to strengthen the national scientific research and educational system, and to a certain extent even contributed to its erosion.

Russia's Project 5-100 was no exception among the other excellence initiatives. It led to changes in the management patterns of the participating universities designed to accommodate them to achieving a limited number of goals. As a result, the system became more focused on certain functions, and thus more hierarchical, with heavier bureaucracy and higher risks of voluntarist decision-making. Along with the fact that some progress was indeed noted in the number of created scientific products, the quality of those products has not yet been fully ascertained. There is some evidence that quantity was achieved to the detriment of quality.[1]

During the first phase of its development, the PSAL was known as the Russian Academic Excellence Program (RAEP). Its goal was more modest than that of Project 5-100: to get to 10th place in the world by the inclusion of Russian universities into the top 500 global university rankings. The scope of the program was to be slightly increased, up to 30 universities, and to allocate funding at the level of Rb1.2 bn per university per annum.[2] At the same time, in addition to the goal of improving Russia's position in the rankings, it was intended to *increase the economic yield* of universities, in the sense that they should focus on the priority areas outlined in the Strategy for Scientific and Technological Development, build partnerships with businesses, take lead in digitalization processes, and develop "the third mission". In June 2020, RF Minister of Science and Higher Education Valery Falkov said that in the new program, *"Key Performance Indicator (KPI) will be based not so much on scientometrics as on the assessment of the real contribution to economic growth, welfare growth, creation of a more comfortable environment in our regions and cities."*[3]

The higher educational establishments that were eligible for the program were divided into 2 groups: those that, starting from 2018, were at least once included in the top 500 rankings by ARWU, QS or THE; and those that met at least four of the following five criteria: inclusion in a ranking; a student population of not less than 6,000, where foreign students number not less than 3%; an income of not less than Rb1.5 bn, where R&D projects yield not less than 10%. So, an applicant university must be sufficiently large, and have a history of getting into international rankings.

In June, the program was assigned a new name: the Strategic Academic Leadership Program, with a 10-year implementation period and a budget of Rb52

1 *Trubnikova E.* (2020) Project 5-100: a view through the prism of the theory of institutional corruption // Universe of Russia. V. 29. No 2. P. 72–91. DOI: 10.17323/1811-038X-2020-29-2-72-91.

2 The RF Ministry of Science and Higher Education suggested that the funding to support Russia's leading universities should be increased // Future of Russia. National Projects. April 8, 2020 URL: https://futurerussia.gov.ru/nacionalnye-proekty/minobrnauki-predlozilo-uvelicit-finansirovanie-na-podderzku-vedusih-vuzov-rossii

3 *Reznichenko A.* Valery Falkov: science is made not by structures, but by individuals // TASS, June 4, 2020. URL: https://tass.ru/interviews/8644947

bn for 2021–2024.[1] The selection criteria were changed, and the planned number of participants was increased. It was intended that the new version of PSAL was to cover the former participants in Project 5-100, the cornerstone universities, and some other eligible higher educational establishments, so that 150-200 universities in total would be included in the program. Meanwhile, in comparison with the first version of the program, the eligibility indicators were brought down to 4,000 students, a total income of Rb1 bn, and 5% of R&D expenditures.[2] The easing of eligibility criteria was justified by the broader range of participants, which increased from the original target of 30 universities to that of nearly 200. The planned budget for the program was increased accordingly, to Rb116.2 bn for the period 2021–2024. The option of introducing two main categories of supported higher educational establishments (those oriented to leadership in scientific research and to territorial/sectoral leadership) was also discussed. The trend towards increasing the number of participants in the PSAL can be viewed as a positive change, because the degree of stratification inside the system of state higher educational establishments will thus be reduced: now, more of them will be able to receive state support.

The word "academic" in the program's title attracted the attention of the Russian Academy of Sciences (RAS), both from the point of view of the role in this project of the Academy itself, and that of its subordinated institutes. In particular, among other things, the Presidium of the Russian Academy of Sciences suggested that its importance within the framework of program should be strengthened, and that it should be emphasized that one of the goals would be to develop human resources, including for the science sector, and so the institutes formerly subordinated to the RAS would become potential employers. As the PSAL envisaged the creation of consortia of higher educational establishments and research institutions, the Presidium of the RAS believed it to be important to thoroughly elaborate the guidelines for setting up such consortia, including the mechanisms for their financing. In those cases when it is planned to alter the legal status of a research institutions entering a consortium, it would be necessary to stipulate a mandatory coordination with the RAS of all the aspects of that procedure.[3] The orientation to integration of research institutes and higher educational establishments that is laid down in the program somewhat resembles the Program "Integration",[4] but in this particular case the leading role is obviously assigned to universities.

Judging by the indicators to be applied in the selection of universities, scientometrics will remain the focus of attention. For the universities oriented to leadership in scientific research, the total weight of the indicators relating in

1 Valery Falkov: not less that Rb52 bn will be allocated for the development of universities. June 8, 2020. URL: https://na.ria.ru/20200608/1572628732.html.

2 *Erokhina E.* "Anyway, the people must be forced to learn". On academic leadership and scientific integrity // The Indicator, June 16, 2020. URL: https://indicator.ru/humanitarian-science/vse-taki-narod-nado-zastavlyat-uchitsya.htm.

3 Strategic Academic Leadership Program // Scientific Russia, October 23, 2020. URL: https://scientificrussia.ru/news/programma-strategicheskogo-akademicheskogo-liderstva.

4 The Federal Target Program "State Support of the Integration of Higher Education and Fundamental Science for 1997-2000" was developed in accordance with the Executive Order of the President of the Russian Federation dated June 13, 1996.

one way or another to their position in international rankings is 3 times greater than that of all the other parameters taken together. For the other universities the relative weight, in their total assessment score, of the indicators describing their interaction with industry is likewise not so great, and thus it is easier for them to develop a purely "scientific" direction of their activity, which is assessed by their publication activity. In addition, it is planned to introduce the requirement for a mandatory international expert estimation of their projects. This makes more difficult their possible cooperation with big state-owned enterprises and private companies, in the interests of which the universities could launch R&D projects, because research projects frequently address certain themes that are sensitive from the point of view of international competitiveness, and so they cannot be reviewed by international experts. Thus, the proposed system of indicators gives rise to a conflict between the declared goals of the PSAL and the reporting indicators of the universities. In particular, this has to do with the goal of developing "the third mission" of universities.

In Russia, "the third mission" is often described in terms of the types of activities assigned to a given university, e.g., supplementary education, technology transfer, social involvement, and participation in solving global problems. From this list, which is by no means exhaustive, it becomes clear that the fulfillment, by universities, of their "third mission" should be assessed on the basis of a combination of quantitative and qualitative parameters. Part of "the third mission" is the involvement in the economic development of the region where the university is situated. It is this particular indicator that is measured by foreign universities when they want to determine the degree of their influence outside of their academic environment. Besides, there exist estimates of a university's impact on the country as a whole, and even on the global economy, but these only make sense for a handful of outstanding universities; e.g., such estimates were applied by the Massachusetts Institute of Technology (MIT) and Oxford University. The economic effects are subdivided into direct ones, which have to do with the revenues and expenditures of a university, its staff, and its students inside its native region (including the creation of startups); indirect ones, determined by the movement of the revenue and employment indices reported by the businesses and other structures responsible for smooth functioning of a university; and induced ones (those that become manifest, e.g., in their influence on the value of property, on the influx of new companies into the region caused by the fact that there is a university there, etc.).[1] In Russia, there have already been some examples of the contribution of Russian universities to the development of technological entrepreneurship being measured by the number of startups set up by their graduates.[2] However, such an assessment is based on the amount of funding (investments) attracted by those startups, and not on the amount of their

1 *Dezhina I.* Universities outside the academic environment // The Independent Newspaper - Science, November 10, 2020, pp. 9-10. URL: https://www.ng.ru/science/2020-11-10/9_8010_universities.html.

2 *Chukavina, K., Tolmachev, D., Perechneva, I., Volganova, E.* Make startups the foundation of a new economy // The Expert, No 42, October 10, 2020. URL: https://expert.ru/expert/2020/42/sdelat-startapyi-fundamentom-novoj-ekonomiki/

proceeds. More likely, this is indicative of the development potential of one or other startup, but not the effect of its influence on the economy. Unfortunately, the PSAL does not envisage an assessment of the economic impact of universities, although it proclaims the necessity to develop their "third mission".

At the very end of the year, on December 31, 2020, the RF Government issued a directive (No 3697-r),[1] whereby the PSAL was renamed "Priority-2030". The program is to be implemented until 2030 on a competitive basis, and the RF Ministry of Science and Higher Education should submit the financial and other parameters of the program by March 1, 2021.

4.9.3. The measures to be implemented within the framework of the national project "Science"

Last year, in spite of the National Program "Nauka" being re-formatted, the measures launched within its framework in 2019 continued to be implemented. In particular, there was a contest for the formation of world-class scientific centers (WCSC); a selection of world-class science and education centers (SEC), in addition to the five centers that had already been established 'in a manual mode' in 2019, was conducted;[2] and the mega-grant program was carried on.

World-class scientific centers

World-class scientific centers are set up in the form of consortia. According to the certificate of the Federal Project "Development of Scientific and Scientific-Production Cooperation", at least 9 world-class scientific centers involved in the implementation of research and development projects in conformity with the established scientific and technological development priorities should be selected within the framework of the National Project "Science". Based on the results of a contest, 10 centers were selected from among 60 applicants.[3] It is noteworthy that the WCSCs were selected with due regard not only for the level of their submitted applications, but also the thematic fields addressed by their projects. In this connections, the effect of the pandemic was also obvious, in that 4 out of the 10 winner projects will focus on those fields on study where medical science merges with promising technologies (*Table 40*). Each WCSC unites 2 to 7 organizations, each of which will receive unequal amounts of funding. One of these WCSCs is established on the basis of a just one organization (the National Medical Research Center for Endocrinology under the RF Ministry of Health), and so no consortium has been formed.

A number of WCSCs are attached to science education centers (SEC) or genomic centers (the WCSC "Advanced Digital Technologies" is attached to the West Siberian Interregional SEC; the WCSC "Agrotechnologies of the Future", to the Kurchatov World-class Genomic Center and the SEC "Innovative Technologies in the Agroindustrial Complex"). Thus, there has emerged an obvious trend towards

1 URL: http://publication.pravo.gov.ru/Document/View/0001202101050007.
2 For more details, see Russian Economy in 2019. Trends and Outlooks. Issue 41. Gaidar Institute Publishers, Moscow 2020, pp. 520–523. URL: https://www.iep.ru/files/text/trends/2019/06.pdf.
3 10 world-class scientific centers will receive government support. August 28, 2020. URL: http://www.fcntp.ru/events/news/1282.

intertwining the existing scientific policy instruments, and this happens, not least, because of the similarities between those "instruments" (science education centers, world-class scientific centers, and genomic centers).

Table 40

The specialization, number of participants, and funding of the WCSC set up in 2020

WCSC	Number of organizations in consortium	Funding allocated for 2020, Rb mn	Including the minimum / maximum amount of financing of organizations in the consortium, RUB mn.
Digital Biodesign and Personalized Healthcare	5	242.3	133.3 / 12.1
Center for Personalized Medicine	2	242.3	211.9 / 30.4
National Center for Personalized Medicine of Endocrine Disorders	1	242.3	–
Integrative Physiology for Medicine, High Tech Healthcare and Stress Resilience Technologies	4	213.9	73.9 / 30.0
Center for Photonics	3	242.3	155.1 / 24.3
Advanced Digital Technology	4	242.3	162.5 / 6.9
Rational Development of Planet's Liquid Hydrocarbon Reserves	4	242.3	135.0 / 28.8
Supersonics	6	242,3	211.0 / 3.5
Agrotechnology of Future	7	242.3	82.0/7.3
Center for Interdisciplinary Research of Human Potential	4	242.3	113.9 / 19.4

Source: RF Government Directive No 2744-r dated October 24, 2020. URL: http://static..ru/media/files/XY4j5lFwu64NWFt0GU3dmKOlDz5u2bip.pdf.

Rosneft Company began to play an important role in the field of genomic research, having received the status of the main technological partner of the WCSCs operating in this field. In 2019, 3 WCSCs were established, to address the themes of research outlined in the Federal Research Program for Genetic Technologies Development for 2019–2027; the National Research Center "Kurchatov Institute" was appointed to be the core organization under the Program. In April 2020, Rosneft established an autonomous non-profit organization (ANO) to conduct research in the field of genetics, which was to become a platform for developing proposals for improving the existing regulatory, legislative and normative frameworks, and adapting international best practices.1 Rosneft also becomes involved in scientific research, planning to examine its own employees and their family members in order to obtain primary genetic data for the development of

1 Meeting on developing genetic technology in Russia. Vladimir Putin chaired a meeting, via videoconference, on the development of genetic technology in the Russian Federation. May 14, 2020. URL: http://kremlin.ru/events/president/news/63350

health care and research work. It should be noted in this connection that the company currently employs over 350,000 people. Thus, a major research center and a state-owned company have been cooperating and assuming leadership roles within the framework of genetic technology development.

Science education centers (SEC): the achievements of the first centers and new projects

The first 5 SECs, which had been created in a "manual mode" in 2019, completed their first year of operation. Judging by the information provided by SECs about their activities (*Table 41*), the results are more obvious in those areas where the companies operating in the real sector of the economy and acting as industrial partners of the SECs have expressed their vested interests in those activities. This has been true, first of all, of the Perm and Belgorod SECs, which managed to attract the largest extrabudgetary funding. The volume of extrabudgetary funds involved in the projects launched by SECs amounted to Rb5,356 mn in 2019; the planned target for 2020 was Rb7,400 mn.[1]

Table 41

The characteristics of the functioning SECs

Center's name	Number of participants, including from real sector	Description of ongoing projects	Results
SEC Kuzbass	16, including 8 (50%) from real sector[2]	29 projects, with ongoing working groups (of about 1,000 people)	107 patents issued; Rb567 mn raised
Nizhny Novgorod SEC	27, including 19 (70%) from real sector	Infrastructure development, including plans for setting up innovative science and technology center (ISTC) (science and technology valley)	Rb220 mn raised; attached WCSC is set up*
West Siberian Interregional SEC	30, including 7 (23%) from real sector	Creation of laboratories; purchase of equipment; several joint projects were launched	Rb578 mn raised;[3] attached WCSC is set up*
Belgorod SEC	38, including 10 (26%) from real sector	30 projects on 5 platforms	Rb2 bn raised;[4] attached WCSC is set up*
Perm SEC	58, including 50 (86%) from real sector	190 contracts for R&D research for businesses	Rb2 bn raised;[5] 50 patents issued; 120 hi-tech jobs created

* World-class scientific center.
Source: own compilation based on data from the SECs' websites and information from the mass media.

1 Science education centers: a year later. November 23, 2020. URL: https://www.minobrnauki.gov.ru/press-center/news/?ELEMENT_ID=25903
2 URL: https://xn--42-bmce4b.xn--p1ai/tpost/36aeixio31-itogi-raboti-nauchno-obrazovatelnogo-tse
3 URL: https://ria.ru/20201010/tyumen-1579154236.html
4 URL: https://belregion.ru/press/news/index.php?ID=45759
5 URL: https://www.newsko.ru/news/nk-5689267.html

The SECs vary broadly by the composition and number of their participants. At the same time, there is no connection between the number of their participants and the number of regions involved in the formation of a SEC. Thus, for example, the West Siberian Interregional SEC has 30 participants, while the Perm SEC consists of nearly twice as many (58). Meanwhile, the current size of the SECs is rather modest, in terms of the number of participants. By comparison, the number of participants in the National Technology Initiative (NTI) Competence Centers (CC) established in universities is not less than, and quite often exceeds, the number of participants in SECs. Thus, the NTI CC for Wireless Communications and the Internet of Things consists of 70 participants, and their number is growing because the consortium is being joined by other interested universities and businesses.

The official estimation of the SECs' performance, which in late October 2020 was publicly presented by the RF Minister of Science and Higher Education, was rather restrained: the results of their activity were considered to be modest,[1] and the expectations for a better outcome were linked to a cumulative effect. One achievement of the SECs was claimed to be the creation of large teams and their conformity with the specific interests of the regions where they were situated. It was emphasized that within the framework of the SECs, it was important to shift the focus from the publishing articles to providing some real solution to the problems of regional development. The same aspect of the SECs' activity was also highlighted by the regions' heads, who believed their main goal to be that of bridging the gaps between the science and business communities, and making them share their responsibilities and funding sources.[2]

Last year, a contest was held with the aim of setting up another 5 SECs. In this connection, many of the applicants had used the experience of the first 5 SECs, e.g., in establishing interregional structures which, "all other factors being equal," had had a better chance of receiving the status of a SEC. When the applications were ranked according to their scores received from the experts and compared with the list of winners, it became obvious that the quality of an application and its expert assessment are the factors that are important, but by no means decisive. The other relevant factors are geopolitical ones, and probably the field of specialization of a future SEC.

As follows from the list of 5 new SECs (*Table 42*), the winners were the two 'strongest' applications (both were interregional ones), and 3 projects from the top ten finalists. Each SEC has its own strengths: for the Eurasian SEC, it is the international status; for the Tula SEC, it is the orientation to the defense industry; for the Arctic SEC, it is important geopolitical issues. Another relevant factor was that of their anchor partners: for the SEC oriented to Arctic issues, these were Rosatom and the Kurchatov Institute; and for the SEC "Engineering of the Future", these were Rostec, Roskosmos, and Russian Railways.

1 Meeting with members of the Government. October 28, 2020. URL: http://kremlin.ru/events/president/news/64293.

2 *Erokhina E.* SEC is not science // Indicator, December 18, 2020. URL: https://indicator.ru/engineering-science/noc-eto-ne-nauka.htm

Table 42

The ranking of the winning SEC projects in the project evaluation system (1 corresponds to the highest experts' score)

SEC	Ranking by score
Ural Interregional SEC "Advanced Production Technologies and Materials" (Sverdlovsk, Chelyabinsk, and Kurgan regions)	1
"Engineering of the Future" (Samara, Penza, Ulyanovsk, and Tambov regions; Republic of Mordovia)	2
Eurasian SEC (Republic of Bashkiria)	7
"Russian Arctic: New Materials, Technologies and Research Methods"	8
"TulaTECH" (Tula region)	9

Sources: Contest Commission's Protocol. URL: https://www.minobrnauki.gov.ru/common/upload/library/2020/11/main/Protokol_N_2020-15-NOTS-1-2.pdf; meeting. December 3, 2020. http://.ru/news/41012/.

New megagrants

There was also a megagrant contest: towards the year's end, 43 winning projects were selected out of the 465 submitted applications.[1] The fact that more than 10 grant applications had been submitted is indicative of the high popularity of this program, which has existed for 10 years already. It is characteristic that higher educational establishments prevailed among the applicants: they submitted 3.5 times more applications than did research institutes. Judging by the contest results, the quality of projects was higher in case of academic institutes: they submitted 22% of applications, but then they received 30% of grants. Besides, some of the higher educational establishments received more than one megagrant (there were 30 projects for 21 higher educational establishments); i.e., the level of 'university science' is higher in a limited number of universities.

It is also important to note that the share of projects directed by foreign scientists other that former compatriots has increased: they will manage 32 projects out of 43 (74.4%). At the same time, there are surprisingly few projects (only 3) to be directed by Russian scientists. This points either to a shift in the megagrant program's priorities towards foreign specialists, or to an insufficient number of world-class domestic scientists.

With due regard for the past contest, the total number of laboratories created in this country over the years since the launch of the megagrant program is 315. If we look at their by-discipline distribution, most of them belong in the field of medicine and medical technology (36 laboratories), next comes physics (34 laboratories), which is a traditionally "strong" field. The field of "economics and business" is an absolute "outsider": during all the years of the program's existence, only 4 laboratories with this specialization have been created.[2] As far as Russia's

1 In the eighth mega-grant contest, the winners were 43 scientific research projects // TASS, December 1, 2020. URL: https://nauka.tass.ru/nauka/10145439

2 Own calculations based on data for 8 contests. Data source for the past megagrant contests: Megagrants in pictures and numbers. Ten years of attracting scientists and creating laboratories // The Indicator, September 1, 2020. URL: https://indicator.ru/engineering-science/megagranty-v-kartinkakh-i-cifrakh.htm

global positioning in this field is concerned, it has traditionally been among the laggards. So one cannot say that the laboratories have been created in order to address the fields where the help of world-class scientists is most needed.

Large-scale scientific research projects

Among the implemented measures, one should also note one more contest held by the RF Ministry of Science and Higher Education: for winning the funding for large-scale research projects, in the form of grants amounting to up to Rb100 mn per year, for 3 years. The expert estimation was done by the RAS, since this program was supposed to replace the previous Fundamental Research Program launched by the RAS Presidium. Similarly to the other events where the distribution of significant amounts of funding had been involved, the competition was tight – the support was granted to only 41 projects out of 367 applicants. The list of winners[1] and the specific methods of their selection gave rise to some heated discussions. In particular, the "July 1 Club" expressed its dissatisfaction,[2] claiming that "*the results of the contest in some cases were notoriously odd-looking*." The strongest criticism was targeted at the allocation of grants to Sirius University, which had been created a year before but had not yet actually begun to function (the project "Genetic History of the Ancient Population of the Russian Plain"), and to the Institute for System Programming of the RAS (a small organization with modest publication activity indicators).

Criticism was also aimed at a number of fundamental issues. First, it was argued that the expert estimation was not transparent,[3] was carried out within too short a time, and the choice of experts was not clear to the scientific community. These circumstances are especially noticeable when compared with the megagrant contest, where the amount of funding is significantly less (Rb90 mn for 3 years, while in this contest it is Rb300 mn), and so the cost of an error is lower. Nevertheless, each application for a megagrant is evaluated by two Russian and two foreign experts. Secondly, criticism was also caused by the fact that the majority of projects received maximum funding (Rb100 mn each per year), while the research costs in natural and human sciences cannot be equal. Thus, among other things, there is no need for social scientists and humanitarians to buy expensive laboratory equipment. However, this feature of the contest is by no means unique. World-class scientific centers likewise received equal amounts of funding, regardless of their field of activity and the number of organizations participating in a consortium: for example, the WCSCs doing research in the field of social sciences received the same funding as the WCSCs belonging in other

1 Ministry of Science and Higher Education of the Russian Federation. Protocol No 2020-1902-01-3 dated July 28, 2020, for evaluating applications for participation in the contest for grants in the form of subsidies for major research projects in the priority directions of scientific and technological development. URL: https://m.minobrnauki.gov.ru/ru/documents/card/?id_4=1299&cat=/ru/documents/docs/

2 On the results of the contest of large-scale scientific projects. URL: http://www.1julyclub.org/node/349

3 *Fradkov A.* RAS-damaged contest / TRV-Science, No. 310, August 11, 2020, p. 14. URL: https://trv-science.ru/2020/08/11/ranenyj-konkurs/

fields (*Table 40*) Apparently, the Ministry in its approach to such competitions relies on the principle of even distribution of money among all.

And thirdly, and lastly, the choice of research subjects was also criticized, in particular that among the projects that had been granted support, none was in the field of fundamental and applied mathematics, and few in the field of modern physics. At the same time, given such a small number of grants for the entire country, the "loss" of a number of fields is quite possible, and this fact is further confirmed by the megagrant contest.

Thus, we can note the mix of several mechanisms involved in the support of science: SEC, WCSC, megagrant, and large-scale scientific project; and they are similar not only in their goals and achievement indicators, but also in the contest procedures and results. A comparison of the lists of winners in different contests shows an increasing concentration of budget funding in a select number of organizations, and especially in a limited number of universities. Thus, on a nationwide scale, the problems typical of excellence programs may be becoming more prominent – when there emerges a group of elite organizations, while overall, the system of scientific knowledge reproduction gains nothing.

4.9.4. Research evaluation: the debate over composite publication performance scores

Over the past year, the principles and indicators for research evaluation were coordinated and approved at the government department level. The methodology itself was named the "Composite Publication Performance Score" (CBPR). It is designed to be applied in evaluating research in the framework of projects implemented on government orders, with due regard for each specific field of science. It should provide a base for determining the amount of funding to be allocated to the state assignments for the next year. The methodology was compiled for the former academic institutes, but in the future it is also expected to be applied in evaluating the fulfillment of state assignments in universities. The initial version of the methodology had been adopted as early as December 2019, but there were so many complaints about it that a task force was set up by the RF Ministry of Science and Higher Education to examine the comments and responses from the scientific community.

As is known from the experiences of the past years, the orientation to international databases and quartiles of journals boosted the global visibility of Russian scientists, while at the same time it gave rise to misuse and falsification of data, and an immoderate race for publications in the "necessary" journals to the detriment of the target audience and research quality. Therefore, it was important to draw up a system of indicators and coefficients that would create incentives not only for the quantity, but also the quality, of scientific publications.

Initially, the performance bar was set very high: it was intended that research institutes should increase their CBPR by 10-30% per annum, which, according to experts, is problematic even for the 'strongest' institutes.[1] There were also some

1 *Erokhina E.* For multifacetness and diversity. One more month for a composite publication performance score // Indicator, March 13, 2020. URL: https://indicator.ru/engineering-science/

funny counting errors, up to the eighth decimal place,[1] due to the peculiarities of the new coefficients (for example, 0.12 for the journals on the Higher Attestation Commission's list). The most frequently discussed issues were as follows:

1) the introduction of a fractional count as a way to eliminate pseudo-affiliations, i.e. splitting the points assigned to each publication according to the number of co-authors and the affiliations of the author who works in the organization for which the score is calculated;

2) the determination of the coefficient values for the publications indexed in international and Russian databases;

3) the optimal way of evaluating monographs (by publication data; number of copies; monograph length; the publisher's standing; or a combination of all of these).

In April 2020, it was unanimously decided that different scores should apply to humanities and social sciences as compared with all the other disciplines. With regard to the studies in humanities and social sciences, significantly lower citation scores were established for publications in WoS/Scopus indexed journals compared with other fields of science (a score of 3, vs Q1 WoS - 20, Q2 WoS - 10, Q3 WoS - 5, Q4 WoS - 2.5 in the other fields). At the same time, the scores for the publications in the fields of social sciences and humanities appearing in the journals from the RSCI/Higher Attestation Commission's lists were upwardly adjusted. It was decided to evaluate published books in terms of their length (based on word count).

In September 2020, the final version of the CBPR methodology was issued. It still retained the requirement for lagging organizations to grow at a rate that would make them outstrips the leaders. The fractional count principle was approved, which would bring down the scores applied to the articles resulting from the work of large international collaborations with thousands of co-authors. At the same time, the methodology makes it unprofitable to attract scientists from abroad solely for the sake of increasing the citation index, because in this case the multiple affiliations would result in a lower final score for a given publication.

Some changes were also introduced for social sciences and humanities: the coefficient for the journals on the Higher Attestation Commission's list (which is perhaps the "weakest" among all the other existing lists) was increased from 0.12 to 1. For books, a very complex system was adopted, which includes, among other things, an expert estimation by the RAS: a monograph gets a certain number of points based on its word count; a score of 0.75 corresponds to a collection of articles; 0.5 goes for comments to works by classical authors, dictionaries, archival and other similar publications; the final scores will be determined by the RAS after each work has been submitted by its department responsible for a given field of science. As far as published books are concerned, these will be assigned a score

za-mnogoukladnost-i-raznoobrazie.htm.

1 *Vaganov A.* Russian science was swept by an outbreak of the CBPR epidemic // The Independent Newspaper - Science, May 2, 2020. URL: http://www.ng.ru/science/2020-05-02/100_200502falko.html.

on condition of a recommendation for their publication issued by an institution's academic council, and their registration with the RF Book Chamber.[1]

Thus, while in the first versions of the CBPR methodology the requirements for social sciences and humanities were too high, later on they were set too low, especially with regard to publications in WoS/Scopus indexed journals and the journal quartiles. This lack of proper balance creates incentives for publishing mostly in Russian journals; on the one hand, this is good, since the majority of their readers are in Russia, while on the other hand, there is little motivation to get into the best foreign publications. Perhaps the methodology will be further refined in 2021; among other things, the changes may include the elimination of the flat scale quality score applied to journals in the fields of humanities and social sciences.[2]

It should be noted that the movement itself towards the introduction and adjustment of the CBPR methodology, especially for social sciences and humanities, runs contrary to what is actually happening in the catch-up development economies. One example is China, where quantitative assessment scores were applied until recently, but now this practice is being abandoned. And particular concern were aroused by the reorientation of the social sciences and humanities to those topics that are most easily accepted by the editors of foreign journals, instead of focusing on in-depth studies of the problems that are vial to Chinese society.[3] In February 2020, two Chinese ministries, the Ministry of Education and the Ministry of Science and Technology, officially announced the refusal to use the Science Citation Index (SCI) in their system of assessing universities and academic institutions,[4] and to use the Social Science Citation Index (SSCI) in research evaluation in the field of social sciences.

4.9.5. The expert role of the RAS

The Russian Academy of Sciences, in accordance with its status, should carry out scientific and methodological supervision and guidance of the activities in the science and technology fields of research institutions and higher educational establishments, as well as conduct expert examinations. As far as the latter is concerned, over the course of the past year, some alterations were introduced whereby a number of organizations were no longer required to undergo the expert examinations conducted by the RAS. At the same time, at the end of last year, its function of scientific and methodological guidance was further elaborated.

1 URL: https://www.minobrnauki.gov.ru/common/upload/library/2020/09/main/Metodika_novaya.pdf

2 *Erokhina E.* We tried to come up with a methodology that it would be most difficult to crash. On the winners and losers in the new state scientometrics. // The Indicator, September 17, 2020. URL: https://indicator.ru/humanitarian-science/my-pytalis-pridumat-metodiku-kotoruyu-uronit-trudnee-vsego.htm

3 *Lau J.* Research relevant to China 'cast aside in race for citations' // Times Higher Education, 05. 08.2020. URL: https://www.timeshighereducation.com/news/research-relevant-china-cast-aside-race-citations

4 *Yaobin H.* China to move away from Science Citation Index in academic evaluation. February 25, 2020. URL: https://news.cgtn.com/news/2020-02-25/China-to-move-away-from-Science-Citation-Index-in-academic-evaluation--Onk82wPOlW/index.html

The strengthening of the scientific and methodological leadership of the RAS was formally consolidated by the signing, on December 4 at the RAS Presidium meeting, of an agreement between the Russian Academy of Sciences and 12 institutes doing research in the fields of chemistry and materials science. The agreement had been initiated by the Department of Chemistry and Materials Science of the RAS.[1] The purpose of the new consortium was to coordinate joint activities and viewpoints concerning the functioning of the involved institutions in cooperation with the RF Ministry of Science and Higher Education. The Consortium Council was created, while the RAS was assigned the right to present the consortium's unified position on issues related to the activities of its participants. The consortium could be further expanded, and several other institutes have already expressed their interest in joining it. Besides, the RAS Presidium believes that this form of interaction may be of interest to the institutes subordinated to the other RAS departments. It is possible that the joint efforts that resulted in setting up the consortium were a form of response to the Ministry's policy of giving more attention to higher educational establishments, since most of its programs and projects are aimed specifically at supporting scientific research projects implemented by the latter.

It should be noted that during the same period, the National Research Center (NRC) "Kurchatov Institute" also strengthened its positions, and so much so that it was informally dubbed "Academy of Sciences 2.0".[2] True, the amount of federal budget funding for R&D projects allocated for the Kurchatov Institute is almost 4 times higher than the corresponding allocations to Moscow State University and St. Petersburg State University (*Table 43*).[3]

The positions of these organizations were strengthened both through exercising their coordination function and through the addition of new institutes. In 2020, the NRC "Kurchatov Institute" became the founder of the Institute of Molecular Genetics of the RAS, and later on it merged with F.V. Lukin State Research Institute of Physical Problems. Thus, the range of topics addressed by the NRC in its research expanded significantly. In addition, the Kurchatov Institute was appointed to be the core research organization under the government program for

1 The Academy of Sciences and chemical institutes merged into a consortium // RAS, December 7, 2020. URL: http://www.ras.ru/news/shownews.aspx?id=4f139008-a38c-4114-a611-202651d0842d#:~:text=4%20декабря%202020%20года%20в,институтами%20химического%20и%20материаловедческого%20профиля.&text=Создание%20Консорциума%20с%20участием%20РАН,и%20наук%20о%20материалах%20РАН

2 The Kurchatov Institute as a substitute for the Academy of Sciences. The State has finalized its decision as to what will become the core of its scientific and technical policy // The Independent Newspaper - Science, June 4, 2020. URL: http://www.ng.ru/editorial/2020-06-04/2_7879_editorial.html

3 The Higher School of Economics also receives substantial funds. However, as NRU HSE is not one of the chief administrators of budget funds, the amount of budget funding that it receives for its research and development projects can only be determined on the basis of its statistical reporting data. According to the latest available data for 2019, the allocations for this purpose that NRU HSE received from the federal budget amounted to Rb2.7 bn. However, part of these funds was received as a result of participation in various contests. Source: Form 2-science. Information for 2019 on the implementation of research and development projects, p. 6 "Sources of funding for internal research and development costs." URL: https://www.hse.ru/data/2020/06/13/1604760852/Москва%20за%202019%20год%202%20Наука%20(годовая).pdf

genetic technologies development; it is also the core research organization under the Federal Program for the Development of Synchrotron and Neutron Research (a megascience-class project). While the RAS lost its institutes, the NRC acquired new ones and became responsible for several priority development areas.

Table 43

The comparative amounts of federal budget allocations for civilian R&D received by the organizations appointed to be chief administrators of budget funds, Rb bn

Organization	2021	2022	2023
NRC Kurchatov Institute	18.6	24.1	23.9
Moscow State University	4.1	4.0	4.2
RANEPA	1.8	1.8	1.9
St. Petersburg State University	0.9	0.9	1.0

Source: Appendix No 10 to the explanatory note to the draft Federal Law "On the Federal Budget for 2021 and the Planning Period of 2022 and 2023", titled "Federal Budget Expenditures on Civilian Scientific Research and Development (Analytical Group)".

At the same time, over the past year, the RAS lost some of its expert role. The Academy was deprived of the right to conduct expert estimations of the fundamental research projects implemented by the National Research Center "Kurchatov Institute" and several other research organizations. The changes were introduced by the RF Government Decree "On the introduction of alterations into the Rules for the conduct, by the Federal State Budgetary Institution "Russian Academy of Sciences", of scientific and methodological guidance of the scientific and scientific-technical activities of scientific research organizations and higher educational establishments, as well as expert estimations of the scientific and scientific technical results obtained by these organizations",[1] whereby the evaluation of research themes, draft plans and reports for those scientific research organizations and higher educational establishments, in respect of which the functions and powers of their founder are exercised by the Government of the Russian Federation, should be performed by the Russian Academy of Sciences on the basis of decisions made by the aforesaid organizations, and thus the resolutions issued by the RAS in respect of such organizations could be only advisory. The organizations that have been granted the right to decide on their own whether they need an expert estimation conducted by the Russian Academy of Sciences are equal in their status to the Academy itself, because they, similarly to the RAS, are subordinated directly to the RF Government. Consequently, the RAS cannot perform the functions of control and oversight over the organizations of an equal status. Besides, the previous version of the RF Government Decree[2] had actually granted

1 RF Government Decree No 1659 dated October 12, 2020. URL: http://www.garant.ru/products/ipo/prime/doc/74658338/.

2 Decree of the RF Government No 1781 dated December 30, 2018 "On the conduct, by the Federal State Budgetary Institution "Russian Academy of Sciences", of scientific and methodological guidance of the scientific and scientific-technical activities of scientific research organizations and higher educational establishments, as well as expert estimations of the scientific and scientific

to the RAS an unjustified monopoly right for making decisions concerning the effectiveness of budget-funded research and development projects implemented all over this country, whereas the RAS does not possess the resources to assess the entire spectrum of work carried out by different organizations.

During the phase of agreeing on the draft of the new Decree, the leadership of the RAS tried to appeal to the idea of the necessity of a comprehensive expert estimation across the entire field of science, where no research organization would be left out.[1] This standpoint was reflected in the decision of the RAS Presidium, which held an emergency meeting on September 2, 2020.[2] In October 2020, President of the RAS Alexander Sergeev, at a meeting with the President of the Russian Federation, once again raised the issue of the need to create in Russia a unified expert estimation system in the field of science and technology, from which it followed that no selective organizations could be left out of that system. The President of the RAS highlighted the point that, if the Academy's expert estimations were considered not to be trustworthy, that task should be delegated to another institution.[3] Nevertheless, the adopted RF Government Decree gave no consideration to the desire of the Russian Academy of Sciences to retain the ability to conduct expert estimations of all the organizations receiving budget funds for their R&D projects.

Thus, in the past year, the functions of the Russian Academy of Sciences in terms of evaluating the R&D projects, areas of research and reports conducted and submitted in this country were reduced. However, the role of the Russian Academy of Sciences as a coordinator for some of the institutes formerly subordinated to it somewhat gained in importance. At the same time, the NRC "Kurchatov Institute" significantly strengthened its position.

4.9.6. Technological development

The situation in the high tech business sector

Last year, Russia dropped one place in the Global Innovation Index 2020, becoming 47th in the list of 131 countries.[4] As before, in terms of innovation inputs, this country's position is better (42nd place) than that in terms of innovation

technical results obtained by these organizations, and on the introduction of amendments to some acts of the Government of the Russian Federation". URL: http://www.consultant.ru/document/cons_doc_LAW_315478/.

1 The scandal around the Kurchatov Institute goes on: the young scientists rise up in opposition. An appeal to President of the RAS Sergeev has been prepared. August 30, 2020. URL: https://www.mk.ru/science/2020/08/30/skandal-vokrug-kurchatovskogo-instituta-prodolzhaetsya-molodye-uchenye-vzbuntovalis.html

2 *Erokhina E.* "It is a shame to hear that the expert estimations by the RAS slow down scientific and technological progress in this country". The Presidium of the Russian Academy of Sciences has risen to defend its right to evaluate // The Indicator, September 2, 2020. URL: https://indicator.ru/humanitarian-science/ekspertiza-ran.htm

3 *Volchkova N.* About the earthly and the heavenly. The head of State met with proper understanding the proposals of the RAS // Poisk, No 40, October 2, 2020, p. 3.

4 Global Innovation Index 2020. Who Will Finance Innovation? 13th edition // Soumitra Dutta, Bruno Lanvin and Sasha Wunsch-Vincent (eds.). Cornell University, INSEAD, WIPO, 2020. P. xxxii. URL: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf

outputs (58th place).[1] The weakest components of the innovation environment remained as follows: institutions; infrastructure; and market sophistication. Russia has failed to make it into the top 100 of global rankings with regard to GDP/unit of energy use (115th); rule of law (114th); ISO 14001 environmental certificates/ bn PPP$ GDP (106th); investment (106th); and regulatory quality (105th).[2] The overall level of innovation activity in this country has been on the decline, and so far there are no signs of a reversal in that trend, as only every tenth company plans to implement innovations in 2020–2022.[3]

However, the picture was far from being uneven. In particular, six Russian companies (1C, Mail.ru, Playrix, Tinkoff Bank, Wildberries, and Yandex) were among the top 100 contenders for world leadership in the technology sector, according to BCG (global management consulting firm).[4] In the previous 4 years, the average annual proceeds of these companies amounted to $1.8 bn, which is below the statistical average of $2 bn; but the companies grew at a rate 6 times higher than the technology players in the S&P 500.

The pandemic had an adverse effect on innovation, and even on IT companies, although the latter seemed to have more opportunities for development. The issue of additional support for small and medium-sized technology companies was raised as early as April, because for them it was more difficult than for many other companies to recover from the crisis. A survey of technology companies conducted in March by the Russian Venture Company (RVC JSC)[5] demonstrated that their main problems were how to pay taxes (52% of respondents), preserve jobs (51%), ensure product sales (46%), and interact with international partners (32%). In addition, some problems arose in connection with the reduced volume of import contracts and the payments under the existing contracts, because the national currency's exchange rate changed, followed by a surge in prices for imported components.

The issue of keeping the existing teams turned out to be a most pressing one, because high-tech companies had managed to pool specialists with unique competencies. The greatest demand (voiced by 2/3 of companies) was a specific measure of support – to subsidize part of their employees' salaries. The second most popular measure was tax incentives (59.3% of respondents), which would enable them to redirect resources to business development and purchases of raw materials. Slightly more than half of the respondents (51.9%) also mentioned

1 Global Innovation Index 2020. Who Will Finance Innovation? 13th edition // Soumitra Dutta, Bruno Lanvin and Sasha Wunsch-Vincent (eds.). Cornell University, INSEAD, WIPO, 2020. Pp. xxxiv, xxxvi. URL: https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2020.pdf

2 Ibid, p. 315.

3 Science, Technology and Innovation. URL: https://issek.hse.ru/news/422172387.html

4 Technological leadership: six Russian companies are on the list // The Expert, No 48, November 23, 2020. URL: https://expert.ru/expert/2020/48/tehnologicheskoe-liderstvo-shest-rossijskih-kompanij---v-spiske/

5 The survey was conducted by RVC JSC among small (startups) and medium-sized technology businesses (TECHUP rating) over the period from March 25 to March 30, 2020. The surveyed companies operated mainly in the sectors of electronics, robotics, IT, industrial technologies. Source: Results of the survey of technology companies "Measures to Support Technology Businesses." RVC JSC, April 6, 2020.
URL: https://services.rvc.ru/upload/iblock/2c8/2c8c37b900d9814d53bc79f591512a9a.pdf.

another measure - a moratorium on business inspections until the situation stabilized. Experts spoke of similar measures,[1] as well as of the importance of additional budget funding for the R&D projects implemented by small companies.[2] And finally, there is one more problem – that of the existence of two extremes: it is relatively easy to obtain grants in the amount of Rb1–2 mn during the seed stage of a project, and there are also investments in the amount of Rb300 mn and more, which are a focus of tight competition. However, there are practically no intermediate option between these two 'poles'. A separate discussion centered around the support for medium-sized technology companies, including those in TECHUP rating. They are the ones who most often become the connecting link between science and the business community. However, high-tech businesses did not receive the support that they needed most.

IT businesses likewise had their own peculiarities. Only a few segments of the IT market revived due to the increasing number of employees switching to remote work. The greatest demand was for comprehensive solutions involving secure remote work in combination with rental of assets. At the same time, due to the pandemic, consumers began to spend less on information technologies, and many organizations froze their large capital investments in technical support. There were disruptions in the supply chains of IT equipment due to the incomplete workload of manufacturing plants and the restrictions imposed on international transport flows.[3] According to the surveys by the association of software developers (RUSSOFT), in April-May 2020, the proceeds of the majority of domestic software developers fell by 45–47% compared to the same period of the previous year.[4]

To improve the working conditions of IT companies, a "tax maneuver in the IT industry" was developed and introduced from January 1, 2021.[5] The changes have to do with the taxation regimes for VAT, corporate income tax, and the taxation of insurance premiums. Basically, only the income derived from software can be exempted from VAT, and the software products must be entered in a special register of Russian software. The corporate income tax rate is reduced from 20% to 3%, and that on insurance premiums from 14% to 7.6%; the new rules also apply to those companies that generate 90% of their income from software that they had developed independently. On the one hand, tax benefits are increasing, but on the other, the number of organizations entitled to them is decreasing. Not many companies qualify for the requirement of 90% their proceeds being derived from sales of software rights. Therefore, even during the discussion phase, the tax

1 *Mekhanik A*. We could lose another generation of scientists. April 22, 2020. URL: http://vybornaroda.org/vn_exclusive/162576-mehanik-my-mozhem-poterjat-esche-odno-pokolenie-uchenyh.html

2 *Firsov A*. Viscous environment. What is happening in the sphere of innovations in Russia // Snob, March 26, 2020. URL: https://snob.ru/profile/32368/blog/165914/.

3 *Grammatchikov A*. Digitalization under pressure // The Expert, No 15-16, April 13, 2020. URL: https://expert.ru/expert/2020/16/tsifrovizatsiya-pod-davleniem/

4 *Grammatchikov A*. Where are IT maneuvers going // The Expert, No. 28, July 6, 2020. URL: https://expert.ru/expert/2020/28/kuda-vedut-it-manevryi/

5 Federal Law No 265-FZ dated July 31, 2020 "On the Introduction of Amendments to Part Two of the Tax Code of the Russian Federation". The amendments come into force from January 1, 2021. URL: http://base.garant.ru/74450972/

maneuver was heavily criticized. Thus, in particular, the situations when a company creates several legal entities, some of which sell licenses and thus are entitled to exemptions, while others offer services, are by no means uncommon. As a result, the procedure of receiving the exemption becomes excessively complicated, as well as that of tax administration. Some calculations were made demonstrating that the budget will benefit from the maneuver, but not the IT sector.[1]

Venture investments

In H1 2020, venture investment shrank, especially in the seed and startup stages, both in terms total capital and average transaction volume.[2] In this connection, not only private investors, but also state corporations and funds reduced their venture capital investments, although in 2019, it had been these players who showed significant growth at year-end, having invested Rb4.3 bn in new projects, vs Rb1.8 bn a year earlier.[3] Private fund investments remained at the same level of about Rb1.4 bn.

It is possible that in the future, venture capital investments might increase, since the normative legal regulation of budget funds invested in venture projects was relaxed. This will primarily affect development institutions. From the start of the year onwards, the Federal Law "On the Introduction of Amendments to the Federal Law "On Science and the government scientific and technical policy" was discussed, and on July 31 it was adopted.[4] The Law stipulates that an innovative project is associated with a high level of acceptable risk, and provides for the option of not achieving the planned result. At the same time, it is envisaged that beside other sources, the funding of venture and direct investment can be allocated from the budget. Development institutions will be required to develop a methodology for assessing the risks of budget financing of venture projects, and then approve it in coordination with a federal body of executive authority or the body of executive authority of a subject of the Russian Federation. Most importantly, the Law introduces the principle of an overall assessment of the cost-effectiveness of budget funds invested in innovative projects across all investments in all projects, and not of each of them separately: "... the assessment should target the final and intermediate results, as well as the planned (projected) results of innovative activities, with due regard for the actual and projected schedule for achieving the said results across the entire set (portfolio) of innovative projects, from the moment when an innovative development institution initially receives funding in the form of state support for innovative activities".[5] Thus, a development

1 *Chachava A.* "In effect, this is a raise of business taxes": what is wrong with the tax maneuver in the IT industry // Forbes, June 30, 2020. URL: https://www.forbes.ru/tehnologii/403863-eto-fakticheskoe-povyshenie-nalogov-na-biznes-chto-ne-tak-s-nalogovym-manevrom-v

2 Venture Russia. Results for H1 2020. DSIGHT, 2020. URL: https://ict.moscow/research/venchurnaia-rossiia-rezultaty-pervogo-polugodiia-2020/

3 *Bykova N., Mamedyarov Z.* Risk at the expense of the State // The Expert, No 25, June 15, 2020. URL: https://expert.ru/expert/2020/25/risknut-za-schet-gosudarstva/

4 Federal Law No 309-FZ dated July 31, 2020 "On the Introduction of Amendments to the Federal Law "On Science and the government scientific and technical policy". URL: https://rg.ru/2020/08/07/nauka-dok.html

5 Amendment to Item 12 of the Law.

institution (venture fund) is to be recognized as successful when the entire project portfolio grows in value, while some individual projects may be unprofitable. The new approach can create incentives for development institutions to more actively invest in risky technology projects.

Infrastructure: technological valleys

The development of technological valley projects began after the adoption, in 2017, of the Federal Law "On Innovative Science and Technology Centers" (ISTC). ISTCs resemble the model implemented at Skolkovo, in that these are territories with a special tax and financial regime, where the participants are exempt from VAT and corporate income tax for 10 years (the benefit is lost if their proceeds exceeds Rb1 bn per annum), and they pay reduced insurance premiums (14% over the first 10 years, or until they reach a profit threshold of Rb300 mn). The funds that manage the ISTCs are exempt from property and land taxes for 10 years.

In 2020, 3 ISTCs were actually put into operation: Sirius, Mendeleev Valley, and the Project Vorobyovy Gory on the basis of Moscow State University. In November 2020, one more ISTC emerged on Russky Island, on the basis of Far Eastern Federal University.[1] The RF Government Decree explicitly recommends, in connection with that particular ISTC, for the "state corporations operating in the field of high technologies to take part in the creation and development of the Center's facilities, as well as the scientific, technological and experimental base of the Center."[2] At the end of the year, the ISTC Composite Valley (Tula) was also undergoing the stage of approval with the government.

The ISTCs are designed to supplement the already existing infrastructure models (clusters, science cities, closed administrative-territorial entities). Besides, they can promote a closer interaction with the "scientific-research" entities within an innovation system. The RAS signed agreements with two ISTCs; the RAS expects that, through the mechanism of an ISTC, it will become possible to accelerate the transformation of knowledge into technology.[3] In addition to their interaction with the RAS, the ISTCs supplement the tools available within the National Project "Science" through their interaction with science education centers (SEC). To a certain extent, these tools are similar, in that they imply the involvement of the regions, and close interaction between scientific and educational organizations with businesses and regional administrations.

The ISTC Sirius occupies a special place among all the other ISTCs, because it will receive the status of a federal territory (FT). In November 2020, a draft law to this effect was submitted to the State Duma. The concept of "federal territory" itself was put forth with the adoption of amendments to the RF Constitution. It is

1 Decree of the RF Government No 1868 dated November 18, 2020 "On the creation of the Innovative Science and Technology Center "Russky". URL: http://static.government.ru/media/files/yqAADxgCJVK0ApAc6HmA7ZdKeXbPQlO5.pdf

2 Item 7 of the RF Government Decree.

3 *Kravchuk M.* The RAS, CTUR, and Mendeleev Valley agreed on cooperation // Scientific Russia, March 18, 2020. URL: https://scientificrussia.ru/articles/ran-rhtu-i-dolina-mendeleeva-dogovorilis-o-sotrudnichestve; The RAS and MSU will jointly raise the INTC Vorobyovy Gory // Poisk, March 18, 2020. URL: https://www.poisknews.ru/ran/ran-i-mgu-budut-vmeste-podnimat-intcz-vorobevy-gory/

assumed that the law is going to be promptly adopted, and the formation of the new federal territory's governing bodies will be launched in 2021. However, the transition period will last until December 31, 2025.

The federal territory is subject only to federal regulations, and its own regulations. Regional and municipal legislation will operate only in the part that does not contradict these regulations. A FT will resemble a city of federal significance; science cities are one example of such an entity. The main idea behind the concept of Sirius is to create a city with a strong university, focused on the third mission (both economic and social). At the same time, the status of a FT makes it possible to quickly resolve various issues by directly addressing the RF President. Towards the end of last year, the functionality of the FT had not yet been fully determined.[1]

A new concept implemented in relation to ISTCs was reflected in the amendments, suggested by the RF Ministry of Economic Development, to Federal Law No 216-FZ "On Innovative Science and Technology Centers", which imply a more systematic approach to setting up technological valleys. In particular, it should be based on a valley development strategy, and its management company should submit annual reports on the course of its implementation. In addition, it is suggested that the criteria for selecting ISTCs, including those concerning the assessment of their technological specialization, availability of investment projects, potential investors, and extrabudgetary funding feasibility studies should be determined more precisely. The budget funding investment payback period for a newly created ISTC should be not more than 15 years.[2] Indeed, the already established ISTCs experienced some difficulties with securing the obligations of investors and, in general, with their attraction into the ISTCs. Part of the problem was that, until September 2020, the government funding mechanism for ISTCs had not been properly defined.[3] Then, the RF Government issued its Decree No 1443 dated September 15, 2020, which addressed the issue of subsidizing the ISTCs.[4] Helped by the subsidies, businesses will be able to cover part of their costs associated with the payment of customs duties on the goods imported in order to implement the ISTC project and conduct scientific research in the territories of the valleys, as well as to pay value added tax.

1 *Khodykin M.* A province of federal scale // The Expert, No 50, December 7, 2020. URL: https://expert.ru/expert/2020/50/provintsiya-federalnogo-masshtaba/

2 *Edovina T.* Innovators are asked to present their investors. The RF Ministry of Economic Development clarifies the rules for creating scientific and technological centers // The Kommersant, No 101, June 9, 2020, p. 2. URL: https://www.kommersant.ru/doc/4373284

3 *Bykova N.* What will grow in Mendeleev Valley from the billion-rubles investments // The Expert, No 36, August 31, 2020. URL: https://expert.ru/expert/2020/36/chto-vyirastet-v-doline-mendeleeva-iz-milliardnyih-vlozhenij/

4 Decree of the RF Government of September No 1443 dated 15, 2020 (MOSCOW) "On the provision of subsidies from the federal budget to the Russian organizations created in the organizational legal form of joint-stock companies for the purpose of performing the functions of managing innovative science and technology centers, in order to provide financial backing for the costs associated with the subsequent compensation of the costs of paying import customs duties and value added tax incurred by legal entities, individual entrepreneurs, who are the entities involved in the implementation of the project for the creation and operation of innovative science and technology centers." URL: http://static.government.ru/media/files/l1JhFBqpDMT35Ai8Aw97mDSqZGVmggpo.pdf

It cannot be rules out that in the future, the ISTCs may become the main driver of regional technological development, while the previously existing forms of support (e.g., clusters) will either be transformed into ISTCs, or will officially cease their existence (which no longer be supported by state resources).

Artificial intelligence as a priority area of technological development

Over the past year, the issue of artificial intelligence (AI) was very widely discussed in many countries of the world, including Russia. By a large margin, the USA and China are the leaders in terms of the amount of investment in the development of AI technologies (about 48% and 38% of total global spending on these purposes), followed by the UK (4%).[1] Russia lags significantly behind them in many aspects, especially in the number of supercomputers and the science intensity (the number of published scientific articles on AI is 18 times less than that in China, 10 times less than that in the USA, and 3.5 times less than that in the UK) (*Table 44*). One of the factors holding back the development of this field in Russia is the necessity to invest in computing power assets, which fully consist of imported components. Almost half (48%) of Russian investments in AI development is earmarked for these purposes.[2]

Table 44

The indicators the AI development potential: leading countries vs Russia

Indicator	USA	China	UK	Russia
Place in international AI rankings				
Global AI Index 2020 (1/62)	1	2	3	31
AI Readiness Index 2020 (1/172)	1	19	2	33
Science and technology base and performance				
Supercomputer number in TOP500, June 2020	113	226	10	2
Number of universities in 2020 THE World University Rankings 2020 for computer science (1/750)	117	60	54	17
Journal articles on AI subjects, 2015–2019 (Scopus AI Index)	41,920	78,862	15,382	4,354

Sources: URL: https://www.tortoisemedia.com/intelligence/global-ai/; https://www.oxfordinsights.com/-ai-readiness-index-2020; URL: https://top500.org/statistics/list/; https://www.timeshighereducation.com/world-university-rankings/2020; Scopus SciVal. URL: https://www.scival.com/landing.

The pandemic spurred increased spending on AI research. The drivers of development were two counter-processes: an increasing demand for AI technologies triggered by the growing number of businesses and industries relying on automation, and the emergence of new algorithms and data processing technologies (primarily Machine Learning and Deep Learning).

1 By 2022, the global market for artificial intelligence technologies will amount to $52.5 bn. January 29, 2020. URL: https://ww2.frost.com/news/press-releases/ к-2022-году-объем-мирового-рынка-технолог/

2 *Krasnova V.* Machine mind in action // The Expert, No 4, January 18, 2021. URL: https://expert.ru/expert/2021/04/mashinnij-razum-v-dejstvii/

In August 2020, the government commission on digital development approved the certificate of the Federal Project "Artificial Intelligence".[1] The amount of funding was greatly reduced compared with the previously planned target: according to the explanatory note, Rb36.3 bn will be allocated for the project implementation until 2024. Meanwhile, in the previous July, the budget allocation target had been Rb89.69 bn.[2] Thus, the expected of budget-funded support for AI research, most likely, will be insufficient for actually reducing the gap with the leading countries. At the same time, it would be unrealistic to rely on extrabudgetary investment sources, because the venture capital market for AI research financing in Russia is very poorly developed. According to the Stanford Institute's 2020 AI Index Report, Russia accounts for 0.3% of global investment in AI. For the most part, the obstacle to development has been the low demand of big companies and government departments for the AI products developed by small and medium-sized companies. As a result, the market remains fragmentary and uncompetitive.

The potential for development exists primarily in the "niche" areas, including those related to the implementation of applied projects (large-scale projects launched by Yandex, Sberbank, Mail.ru Group; and startups, e.g., iPavlov, itSeez3D). These projects target fields like autopilot, computer vision, industrial and predictive analytics, medical data analysis, augmented and virtual reality.

In world practices, increasing attention has been paid to issues like the impact of AI on human life and the ethical aspects of its application and development. The general consensus was that these technologies should be controlled, and their feasibility depends on how AI technologies are researched, developed and regulated. Standardized approaches to risk assessment may not fully capture the important ethical implications (many of which are not quantifiable, and some are not yet observable). The Concept for Developing AI in Russia also raises this issue, and the priority goal of regulating the AI sphere was defined as the promotion of development, implementation and use of safe and trustworthy AI technologies and systems for the benefit of society and the State. At the same time, in the opinion of the CEOs of the RF Ministry of Economic Development, the Russian economy is not yet ready for the introduction of AI technologies.[3]

Reform of development institutions in the science and technology sector

At the end of last year, the government announced its plan to reform 40 development institutions, some of which operate in the science and technology sector. The reform had been prepared covertly, and the forthcoming changes were announced quite unexpectedly, including those targeting the relevant development institutions, as it had also been the case during the liquidation of the RAS, RAMS, and RAAS systems in 2013.

1 *Skobelev V., Balashova A.* Nearly Rb37 bn will be spend on the State Project "Artificial Intelligence". // RBC, August 28, 2020. URL: https://www.rbc.ru/technology_and_media/28/08/2020/5f4900119a7947026b495660

2 Data as of July 6, 2020 Source URL: https://ria.ru/20200706/1573937886.html

3 *Syutkina V.* Rb36 bn to be allocated for artificial intelligence // The Expert, No 38, September 14, 2020. URL: https://expert.ru/expert/2020/38/na-iskusstvennyij-intellekt-vyidelyat-36-milliardov/.

According to RF Government Directive dated December 31, 2020 (No 3710-r),[1] the majority of the development institutes in the technology sector (RusNano, the Fund for Assistance to Innovation, Skolkovo Foundation, the Industrial Development Fund, the Fund for Infrastructure and Educational Programs, the Russian Fund for the Development of Information Technologies) will be transferred to VEB.RF. The Russian Venture Capital Company is to be taken over by the Russian Direct Investment Fund, and the Russian Fund for Basic Research (RFBR) will be merged with the Russian Science Foundation (RSF). It is noteworthy that two of the development institutions to be reformed, the Fund for Assistance to Innovation and the RFBR, are direct administrators of budget funds (*Table 45*).

Table 45

Current and projected budget allocations to development institutions, Rb bn

Development institute	Funding type	Budget allocations			
		2020	2021	2022	2023
RusNano	Contribution to charter capital	–	–	–	2.0
Fund for Assistance to Innovation	Allocations (chief administrator of budget funds)	13.7	12.0	14.4	17.4
Industrial Development Fund	Allocations	41.0	1.2	1.2	1.2
Skolkovo Foundation	Subsidies	10.8	10.3	10.3	10.3
Russian Venture Company	Contribution to charter capital	4.5	1.5	2.8	4.8
Russian Foundation for Basic Research	Allocations (chief administrator of budget funds)	25.0	22.6	22.2	22.0
Russian Science Foundation	Property contribution	9.0	22.9	24.8	25.3
TOTAL:		**101.4**	**70.5**	**75.7**	**83.0**

Sources: Federal Law "On the federal budget for 2020 and the planning period of 2021 and 2022", URL: https://minfin.gov.ru/common/upload/library/2019/12/main/380-FZ.pdf; Annex 12 and Annex 15 to the draft Federal Law "On the federal budget for 2021 and the planning period of 2022 and 2023"; Annex 10 to the Explanatory Note to the draft Federal Law "On the federal budget for 2021 and the planning period of 2022 and 2023".

The implementation of new formats for the development institutions should be completed in 2021. So far, we can only discuss the intention to optimize their operation, increase their efficiency, revise the tools that they have been relying upon, and develop a unified approach to their key performance indicators. Besides, the development institutions should be distinctly focused on Russia's national development goals until 2030.[2] Generally speaking, all these goals belong in the science and technology field, because science and technology contribute to the solution of almost all problems, and their key performance indicators to consider in this connection are as follows:

1 URL: http://publication.pravo.gov.ru/Document/View/0001202101090037
2 *Butrin D.* There will be definitely no "golden parachutes" // The Kommersant, No 219/P, November 30, 2020, p. 1. URL: https://www.kommersant.ru/doc/4593111

- real growth of exports of non-primary non-energy goods of not less than 70% relative to 2020;
- increasing number of people employed in small and medium-sized businesses;
- fourfold growth of investment in domestic solutions in the field of information technologies relative to 2019.[1]

The reform of development institutions also implies the so-called "seamless" transition from one support instrument to another. This idea has long been attractive to managers: the idea of an "innovative lift" (that is, the formation of a financial system capable of providing a project with opportunities for receiving support at all stages of its development, from a scientific idea to a new product or technology) had been discussed in the past, but it was not implemented. At the end of the year, six development institutions[2] in the technology field took a first step towards providing seamless support for small businesses, by signing a memorandum on the integration of their measures through exchange of information about projects, teams and companies.

The reform plans gave rise to many negatively charged discussions of the current state of affairs in various development institutions, since many of them have long been subject to criticism from both the government authorities and their clients. The criticism was first voiced in the spring, when Prime Minister of the Russian Federation Mikhail Mishustin instructed his first deputy Andrey Belousov to analyze the performance indicators of development institutions. At the same time, it was also claimed that some of these development institutions had been performing "the functions of gaskets" in the channels for pumping money from the federal budget, and "some of them were created just for providing the right people with lucrative jobs";[3] they were unable to attract sufficient private investment, spent too much effort in supporting only startups, etc. After the reform plan had become publicly known, VEB.RF itself became a target of criticism, because it was going to be joined with many heterogeneous structures. Thus, in particular, VEB's assets are shrinking, it has been suffering losses, while over the past 13 years, it has received government funding in the form of contributions to its capital and other types of subsidies in excess of Rb1.4 trillion.[4] If we compare this amount with that of budget-funded "injections" into the development institutes in the science and technology sector that will shortly be reformed, the total assets of the latter would appear to be modest by comparison with those of VEB.RF, and so they may "dissolve" inside the VEB system.

1 Executive Order of the RF President on Russia's national development goals through 2030 dated July 21, 2020. URL: http://kremlin.ru/events/president/news/63728

2 The Russian Direct Investment Fund, Russian Venture Capital Company, Skolkovo Foundation, the Fund for Assistance to Innovation, the Fund for Infrastructure and Educational Programs, National Technological Initiative Platform (NTI Platform). Source: Six development institutions signed a memorandum on seamless integration of support measures for technology entrepreneurs. December 28, 2020. URL: http://government.ru/news/41235/

3 Belousov will analyze the performance of development institutions in 2019, with the option of issuing operational instructions and reprimands // Interfax, March 16, 2020. URL: https://www.interfax.ru/russia/699303

4 *Ivanter A., Mekhanik A., Obukhova E., Ulyanov N.* Reform of the negative KPI system // The Expert, No 49, November 30, 2020. URL: https://expert.ru/expert/2020/49/reforma-sistemyi-otritsatelnogo-kpi/

NTI 2.0

The discussion of the new format of the National Technology Initiative (NTI) can also be viewed in the context of development institutions reform. The NTI, in accordance with Paragraph 23 of the Strategy of Scientific and Technological Development of the Russian Federation (approved by Executive Order of the President No 642 dated December 1, 2016), is one of the "main instruments that ensure the transformation of fundamental knowledge, exploratory and applied scientific research into products and services contributing to the achievement of leadership of Russian companies in the promising markets within the framework of existing and emerging priorities (including after 2030)." Thus, the NTI should be integrated into the seamless system and, like that of the development institutions, its impact on the economy should become manifest in structural shifts and scalability of effects.

The NTI includes a wide range of initiatives, from scientific research to educational and infrastructure projects, which are being implemented on the basis of roadmaps. Each roadmap follows its own logic, they had not been plotted to address an established set of uniform indicators, and therefore the NTI was designed to ensure the *unification* of the performance indicators of the roadmaps. This is by no means an easy task, because in the framework of the NTI, support is granted not only to new projects, but also to existing companies, as well as to non-profit organizations (such as universities) and associations of entrepreneurs. Over the period 2016–2019, nearly Rb30 bn was spent on various measures implemented as part of the NTI. Among these, the most noteworthy ones are the NTI roadmap projects, research and development projects sponsored through the Fund for Assistance to Innovation, the NTI Competence Centers, and NTI University. Based on the national goals, the unification of the performance assessment system can be achieved on the basis of indicators like total proceeds of the companies that had received funding under the NTI, their value, the creation of jobs, and volume of exports. However, they are not applicable for all the types of measures implemented within the framework of the NTI, and moreover, they may display a delayed effect over time. In particular, this could be true with regard to development and introduction of regulatory changes in the normative legal system. The NTI working groups proposed some changes to legislation designed to reduce barriers, and to date, 40 laws and normative acts have been approved on the basis of the regulations proposed by the NTI.[1]

However, NTI 2.0 implies not only the introduction of a unified performance assessment system, it also aims at expanding initiative – among other things, by bringing together businesses and expert communities, so that they could develop a common vision of the new promising markets, promote regional involvement, and promote export support of companies and projects.[2] Thus, the NTI can evolve not only towards unifying the performance monitoring and assessment procedures,

1 What is NTI 2.0, and how does it differ from NTI 1.0? URL: https://nti-new.nti2035.ru/
2 NTI 2.0. How startups could find new markets and make money in face of uncertainty // VC.RU, March 30, 2020 НТИ 2.0. URL: https://vc.ru/future/116286-nti-2-0-kak-startapam-nayti-novye-rynki-i-zarabotat-v-usloviyah-neopredelennosti

but also towards increasing the number of target markets and reformatting the activities of the NTI community.

The transformation of scientific funds

It is planned to merge the Russian Foundation for Basic Research with the Russian Science Foundation in the course of reforming the development institutions. Among all the proposed changes, it is only this particular takeover of one fund by another that has attracted significant attention of the Russian scientific community. Official statements in favor of preserving the RFBR were issued by the "July 1 Club", the Presidium of the RAS, the RAS Departments, and the Society of Scientific Workers. The Russian public initiative launched a campaign to collect signatures under the statement "Prevent the closure of the RFBR".[1]

According to the government plans, the budget of the new fund will pool the budgets of the two funds to be merged; during the transition period, the volume of financing allocated for some core activities of the RFBR will remain the same, and it is only later on that certain directions of support will be transformed.[2]

The issue of creating a single scientific foundation is especially sensitive because in Russia, private charity scientific foundations are practically nonexistent, and the access to foreign funding for scientific research is likewise being curtailed. The latest statistics indicate that the share of foreign sources in domestic R&D expenditures has shrunk to 2.4%.[3] In such a situation, only government funds will be capable of providing a variety of opportunities.

Moreover, the question as to which fund should be the one to be joined to the other, is pretty controversial. From the point of view of budget allocations assigned to these two funds, the RFBR is larger than the RSF, and it is only from 2021 that they have become practically equal in this respect (*Table 45*). However, if we compare the RFBR and the RSF by the number of grants allocated to each of the two, then the RSF will appear to be a "chamber fund" (*Table 46*). Meanwhile, the contest levels of both funds differ only slightly.

Table 46

A comparison of scientific funds, by the number of grants and the share of approved grant applications

Fund	Number of funded projects, per annum	Share of approved grant applications
RFBR	17,999 (8,198, including initiative scientific projects contest)	20%, young scientist contests 25%
RSF	4,700	25%, groups projects 19.5%, young scientist contests 29-32%

Sources: RFBR performance report for 2019; RSF annual report for 2019.

1 URL: https://www.roi.ru/65945/
2 The leaders of the RSF and the RFBR agreed on the terms of their merger. December 8, 2020. URL: https://www.minobrnauki.gov.ru/press-center/news/?ELEMENT_ID=26553
3 *Ratay T.* The structure of science expenditures, by funding source, in Russia and the leading countries of the world // Science, Technology and Innovations. Express Information. ISSEK NRU HSE. December 10, 2020. URL: https://issek.hse.ru/mirror/pubs/share/424274138.pdf

Thus, the decision to join the RFBR to the RSF, and not the other way round, is insufficiently justified from the point of view of the size of their budgets and the scope of the coverage of researchers by research grants.

All the issues discussed in connection with the reform of the two funds can be divided into pro and contra arguments. The arguments in favor of setting up a single fund on the basis of the RSF can generally be boiled down to the following provisions:

1) elimination of duplication (the existence of similar contests), administrative apparatus optimization;

2) simplification of the budget expenditure administration in the science sector;

3) strengthening the focus on quality performance: the RSF has achieved great progress in increasing publication output in international databases (by way of rather stringent requirements to both scientific groundwork and the obligations involved in writing articles);

4) it is logical to join a fund with a shrinking budget to a fund that receives growing allocations from the state budget;

5) building a unified grant support policy (a kind of seamlessness; e.g., the winner of a young scientist contest can then apply for support within the framework of contests for scholars over 35 years of age following clearly defined procedures).

Among the arguments listed above, only the first can be considered to be a truly controversial one. The duplication of programs across the two funds, even if it does exist, is insignificant, because the functional characteristics of the two funds have been quite different, just like their target orientation: the RFBR creates and maintains the environment, including in the regions, while the RSF supports the leaders in different categories (research groups and laboratories, young scientists, organizations). Ideologically, these are likewise two different organizations. Besides, no optimization of the administrative apparatus may actually be achieved as a result of reform. Thus, studies of the experiences of mergers and takeovers, e.g., those occurring in the university environment, show that these transformations frequently produce an opposite effect in the form of increased administrative staff.

From the point of view of the research quality, it is by no means easy to compare the two funds, because no open data is available on the total numbers of publications prepared with the support of the RFBR and the RSF based on Scopus/Web of Science databases. Indirectly, quality can be assessed by the number of papers published in the so-called predatory journals. We reviewed data released by the RAS Commission on Counteracting Falsification of Scientific Research on the results of a study of 94 "junk" journals (as of mid-February 2020). According to these data, it turns out that RFBR grants funded 2.5 times more articles published in "junk" journals than did RSF grants (*Table 47*). Since the RSF supports leading research teams and laboratories, in theory there should not be any publications in "junk" journals at all.

Table 47

The number of articles published by Russian authors in predatory journals within the framework of projects implemented under RFBR and RSF grants

Funding organization	Articles in predatory journals indexed in Scopus	Articles in predatory journals indexed in WoS	Articles in predatory journals, total
RFBR	439	116	555
RSF	171	38	209

Source: RAS Commission on Counteracting Falsification of Scientific Research. Foreign predatory magazines indexed in Scopus and WoS: translation plagiarism and unscrupulous Russian authors. Moscow, 2020. 64 p. URL: https://kpfran.ru/wp-content/uploads/plagiarism-by-translation-2.pdf.

For reference, the US National Science Foundation annually provides information to Congress on the incidence of plagiarism, falsification, and fabricated data in the articles and materials prepared in relation to the Foundation's grants. The number of such cases is on the decline, and it is measured in not more than dozens. According to data for 2020, there were 28 cases of plagiarism (vs 85 in 2011), 4 cases of falsification, and 5 of fabricated data (vs. 17 and 15, respectively, in 2011).[1]

The opponents of the RFBR's accession to the RSF put forward a number of arguments, many of which are based on their intuitive fear of a deterioration in the system of grant-based funding, and in the main, these can be boiled down to the following provisions:

1) loss of diversity (in all the developed countries, there is a variety of scientific foundations). Monopoly will lead to voluntarism in the fund's policy, because it is constrained by the views of the board members and the expert council, and by their personal understanding of the prospects for development in a particular field of knowledge.[2] As a result, support could be granted, e.g., only to those projects that are "closer and more pleasing to the management and employees of the Fund";[3]

2) normative and legal considerations: the RFBR is a direct recipient of budgetary funds, while the RSF is not a budget-funded organization. When the RFBR joins the RSF, there will remain not a single state scientific foundation in this country.[4] However, there is one reservation: the RSF was created on the initiative of the RF President, and its activities are regulated by a special federal law; currently, this special status results in more advantages than disadvantages;

1 National Science Foundation. Office of Inspector General. Semiannual Report to Congress. April 1-September 30, 2020, NSF-OIG-SAR-63. P. 19.

2 Statement of the Society of Scientific Workers' Council on the RFBR joining the RSF. URL: http://onr-russia.ru/content/Sovet-ONR-o-prisoedinenii-RFFI-k-RNF

3 *Oganov A., Shtarev D.* The merged RFBR and RSF will work according to Parkinson's law // Vedomosti, No 169, December 4, 2020. P. 7.

4 *Komarova E.* All research grants go into one pair of hands. December 8, 2020. URL: https://www.vtimes.io/2020/12/08/vse-nauchnie-granti-v-odni-ruki-a1884; The RAS is preparing an appeal to the government in connection with the merger of the RSF and the RFBR // TASS, November 24, 2020. URL: https://nauka.tass.ru/nauka/10085233?fbclid=IwAR30JvjFRJJOrp8KOS8DNr-qx5m6ZUEpVV_hyM4QdhSUxZARUfaJeNPY39I

3) increasing stratification: grants will be concentrated even more in the leading organizations,[1] and it is regional researchers that are going to suffer in the first place;

4) loss of seed funding to test ideas (as a result of the likely termination of the most popular RFBR contest designed to support the research projects of individual scientists and research groups);

5) cuts in funding for social sciences, which already happened after the Russian Humanitarian Science Foundation (RHSF) was joined to the RFBR. It is highly likely that this could happen once again.

The danger of cuts in the funding allocated for the humanities and social sciences is real, while these areas truly need to be supported and developed. According to Clarivate, it is in social sciences that Russia currently lags behind in terms of "research fronts", being in 47th place (for reference: in mathematics, Russia is in 7th place; in physics, in 15th place).[2] Apart from this, the most realistic risks are the loss of diversity and the possible consequences of the resulting monopoly. These risks obviously outweigh the potential benefits of budget optimization and seamlessness. In fact, in a seamlessness paradigm, it would be more expedient to have two scientific funds (a seed fund and an elite fund), because seamlessness is not about creating a monopoly, but about providing opportunities for making a choice.

* * *

The past year was characterized by an intensification of government policies in the field of science and technology, which had to do with the change of government and the crisis caused by the pandemic. A revision of the strategic documents for science and technology development, as well as of the National Project "Science", was launched. In particular, the policy was adjusted according to the new national development goals until 2030, and this concerned not only science, but also technological innovations. In the future, most probably, the key document – the Strategy of Scientific and Technological Development of the Russian Federation - will also be revised, and the revision will also involve the Government Program "Scientific and Technological Development of the Russian Federation".

In the field of science, there was an increasing interconnection between the development instruments like science education centers, world-class scientific centers, megagrants; and the course towards the growth of integration of the former research institutes of the RAS with higher educational establishments became obvious, including within the framework of the new Priority 2030 Program. At the same time, the stratification of the science and technology sector became

1 *Komarova E.* All research grants go into one pair of hands. December 8, 2020. URL: https://www.vtimes.io/2020/12/08/vse-nauchnie-granti-v-odni-ruki-a1884

2 Research Fronts 2020: Active Fields, Leading Countries. Institute of Science and Development, Chinese Academy of Sciences, Clarivate. P. 12.

more pronounced due to a greater concentration of resources in a limited number of organizations. The ongoing monopolization can be viewed as the upshot of dwindling resources.

In the field of technological innovation, there have been no major changes, the innovation activity remained at low ebb, and venture capital investments have been on the decline. The crisis even affected the IT sector, which seemed to possess adequate incentives for development in the contest of the pandemic that translated into the proliferation of telecommuting jobs. The most serious changes in technological policies happened in connection with the reform of development institutions aimed at their optimization and the creation of a general system of targets and indicators designed to assess their contribution to this country's economic development. This will be a radical change, similar to the one that occurred in the past as a result of reform in the system of state academies of sciences. The logic of reforming development institutions toward their unification can potentially increase the degree of monopolization, and thus reduce the available spectrum of types and forms of support, what is called a "policy mix". This poses a serious threat to the innovation system, because its stability, as demonstrated by the results of studies, is based on a variety of mechanisms and capabilities.

4.10. Small and medium business amid coronacrisis[1]

The unprecedented scale of the COVID-19 epidemic created harsh environment for operation of small and medium-sized businesses: decline in household incomes and demand, shutdown of foreign markets and uncertainty of the economic situation. The lockdown introduced in April 2020, resulted in temporary suspension of activities of many enterprises providing services: thus, for instance, trade, catering, hotels, repair shops, hairdressers, etc. Activity of small businesses reduced to the values observed during the crisis of 2015. According to our estimates, the crisis affected more than 75% of SMEs, although about 11% of enterprises and 5.5 million employees[2] are concentrated in the most affected industries. In March-April 2020, revenues in some industries fell by more than 90%. There was a high likelihood of closing millions of businesses and reducing the number of people employed in the SME sector by several million.

The data of the SME Unified Register[3] show that after the annual cleaning of the register in August 2020, the number of SMEs was only 4.2% lower than the August value of 2019, and if we compare the data for December, it turns out that this gap is even smaller, i.e. 3.75%. At the same time, the average number of people employed in SME has not practically changed as of August 2020 (+ 0.4%),

1 This section was written by: *Barinova V.*, Candidate of Economic Sciences, Head of IAES RANEPA International Department for Sustainable Development Studies, Head of Innovation Economics Department of the Gaidar Institute; *Zemtsov S.*, Candidate of Technical Sciences, Director, RANEPA Center for Economic Geography and Regional Studies; *Tsareva Yu.*, Researcher, IAES RANEPA International Department for Sustainable Development Studies.

2 *Zemtsov S.*, *Tsareva Yu.* Trends in development of small and medium-sized enterprises in the context of pandemic and crisis //Economic development of Russia. – 2020. – V. 27. – No. 5.

3 Unified Register of the subjects of small and medium entrepreneurship. URL: https://ofd.nalog.ru/

and according to December, increased by 90.000 (+ 0.48%). Among the reasons for such dynamics positively differing from forecasts at the beginning of pandemic, one can note the high speed of adaptation of many businesses to the provision of online services in large agglomerations in addition to specifics in collecting statistical data and filling the register, as well as the impact of certain anti-crisis measures.

In the spring and summer of 2020, the Russian government proposed a number of measures to support small and medium-sized enterprises in the most affected industries[1]: deferrals in the payment of taxes and insurance premiums, exemption from their payment for Q 2 2020, reduction of insurance premiums, deferral and restructuring of loans, credit holidays for individual entrepreneurs, gratuitous financial assistance and interest-free loans in April and May 2020 to the most affected industries for paying salaries, introduction of a moratorium on SMEs tax audits, automatic extension of all licenses and permits for six months.

The government's operational measures also included support for the demand for SME goods and services: subsidies for the poorest segments of the population, families with children, and the unemployed. More than 21.7% of the companies surveyed[2] took advantage of reduction in insurance premiums. Subsidies for payment of wages for April and May 2020 were an extremely popular measure. According to the Ministry of Economic Development of Russia,[3] about 18% of all SME subjects have monthly enjoyed this assistance. This support reached nearly 3.8 million people or 5.0% of the workforce.[4] By August 2020, about 4% of SMEs (212.000) received loans to pay wages and 4% of SMEs enjoyed credit restructuring. For comparison, prior to the crisis, direct government support implying the provision of financial resources covered a smaller share of enterprises (2-3%).[5]

However, the feasibility to obtain support for SMEs was limited due to specific issues related to identification of affected industries, distribution of companies to these industries and submitting timely reports by these companies. Issues related to the definition of activities according to OKVED codes arose when receiving support. Only those companies could apply for benefits whose main type of activity (code) was indicated in the list of the most affected industries. However, this type of activity was not the main one for some companies or, on the contrary, the companies retained the old OKVED code, although they actually operated in the affected industry. The decision to identify the affected industries

1 Society and pandemic: experience and lessons of combatting the COVID-19 in Russia. – Moscow: 2020. – p.744.

2 Annex to report of the Commissioner for Rights of Entrepreneurs under the President of the Russian Federation. COVID-19: Impacts for Business and Economy. URL: http://doklad.ombudsmanbiz.ru/2020/7.pdf

3 Ministry of the Economic Development of Russia. URL: https://www.economy.gov.ru/material/news/samoy_vostrebovannoy_formoy_gospodderzhki_biznesa_v_2020_godu_stali_granty_na_vyplatu_zarplaty.html

4 In April, 3.7 million people were included in May so far. Estimates of the Institute RSU HSE "Development Center" according to FTS. URL: https://www.nalog.ru/rn77/business-support-2020/subsidy/

5 *Antonova M., Barinova V., Gromov V., Zemtsov S., Krasnoselskikh A., Milogolov N., Potapova A., Tsareva Yu.* Development of small and medium entrepreneurship in Russia in the context of the National Project implementation – M.: Publishing House "Delo" RANEPA, 2020. – p.88.

and allocate support according to OKVED codes was not perfect, but it can be considered reasonable in the context of tight deadlines for decision-making. Moreover, prior to the 2020 crisis, some companies were not included in the SME Unified Register, since they have not previously received support and failed to see this value. Likewise, they could miss submitting annual reports on the average number of employees in due time. Companies were allowed to submit reports and use additional OKVED codes when receiving support. Hence, the size of subsidies was 26-30% of the average wage in Russia, although in more developed countries (OECD) the size of such one-time payments was higher and reached 50-90%.[1] On the whole, Russian support measures are characterized by a lower coverage and size of financial support for SMEs in the context of international experience, while the conditions for their provision are often more stringent than in some developed countries.

At the same time, the ongoing second and possible subsequent waves of the coronavirus epidemic call into question the continuance of the current values of main indicators related to SME sector in 2021.

Thus, the volume of retail trade and paid services to the population has not recovered to pre-crisis levels,[2] in the fall of 2020, although this was expected by experts. The long-term impact of the taken measures on the SME sector is ambiguous: it is highly likely that the fiscal and credit burdens will rise again. However, the Russia's Government has developed the "FOT 3.0" program (payroll fund) for concessional lending to companies representing the least recovered sectors of the economy.[3]

4.10.1. Major trends and obstacles in development of small and medium entrepreneurship

Major development indicators of small and medium-sized entrepreneurship (SME) dropped in Russia in the recent years.[4] The number of employed in 2019 reduced by 0.5 million, while the number of SME subjects dropped by 100.000 (-1.7%) due to several years of stagnation or a decrease in the household income (*Fig. 37*), rise in VAT and introduction of online cash registers. Consequently, the share of small and medium-sized entrepreneurship sector in the gross domestic product fell to 20.6% in 2019 compared to 22% in 2017.

The incomes of Russians and their share received from entrepreneurial activities have been declining almost every year since 2014. In Q 2 2020, the share of incomes from entrepreneurial activities reached a record low level of 4% due to introduction of lockdown and a sharp drop in demand for SME goods and services. According to Rosstat,[5] the real disposable incomes of Russians decreased by 3.5%

1 Society and pandemic: experience and lessons of combatting the COVID-19 in Russia. – Moscow: 2020. – p. 744.
2 Federal State Statistics Service. Retail trade, public services, tourism. URL: https://rosstat.gov.ru/folder/23457?print=1
3 Government of Russia. URL: http://government.ru/news/41623/
4 Russian economy in 2019. Trends and Outlooks. Issue 41. Moscow. Publishing House of the Gaidar Institute, 2020.
5 Rosstat. URL: https://rosstat.gov.ru/folder/13397?print=1

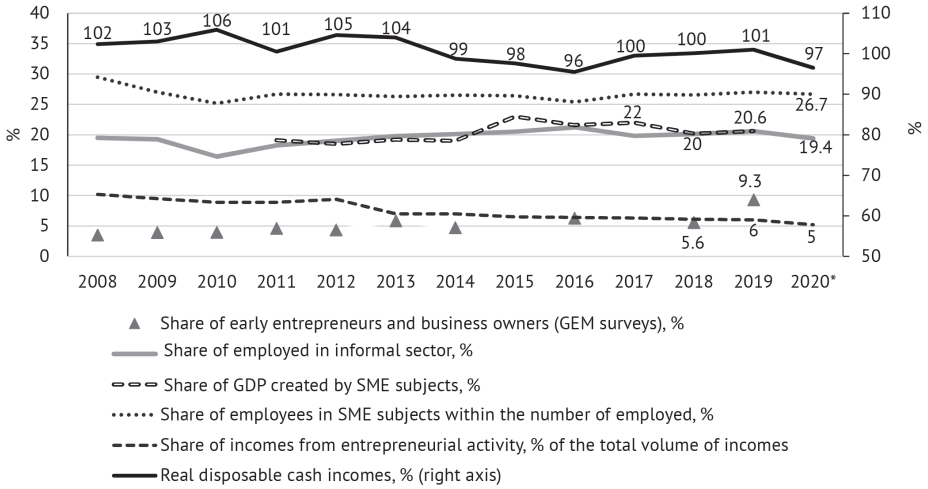


Fig. 37. Dynamics of main indicators in Russia's SME sector in 2008–2019

Source: Rosstat

in annual terms in 2020 (lagging behind the level of 2013 by almost 10%), while incomes from entrepreneurial activities dropped by 13%.

In 2020, according to results of the Rosstat[1] all-Russia survey of small companies, there was a decline in confidence of small businesses in the prospects for their development to the level of 2016, which, however, is slightly higher than the values of the 2015 crisis year (*Fig. 38*). The "Opory Rossii" small and medium business activity index (RSBI index),[2] showed a significant decline continuing from March 2020. Due to the introduction of lockdown, the RSBI index reached its minimum value in April 2020, i.e. 38.5 points, which is lower than indicators of 2015. By September, the index rose to 46.6 points (in Q 3 2015 it was 46.4).

Despite the mentioned challenges, one can expect growth in the number and share of forced entrepreneurs in 2020 having no other sources of income. Already in 2019, the share of early entrepreneurs and business owners increased to 9.3%[3]; 76% men and 81.7% women representing early entrepreneurs set up a business forcibly in absence of other places of employment.[4] The number of unemployed increased in Russia by 24.7% in 2020 and their total number exceeded 4.3 million people.[5] Part of them can enlarge the number of forced entrepreneurs, especially

1 Business activity main indicators of small companies. URL: https://www.gks.ru/folder/14036
2 Index RSBI. URL: https://www.psbank.ru/Business/RSBI
3 GEM. URL: https://www.gemconsortium.org/
4 *Verkhovskaya O., Bogatyreva K., Knatko D., Dorokhina M., Shmeleva E.* National report "Global monitoring of entrepreneurship. Russia 2019/2020." St. Petersburg: Graduate School of Management, St. Petersburg University, 2020.
5 TASS. Rosstat: number of unemployed increased in Russia by 24.7% in 2020. URL: https://tass.ru/ekonomika/10572707

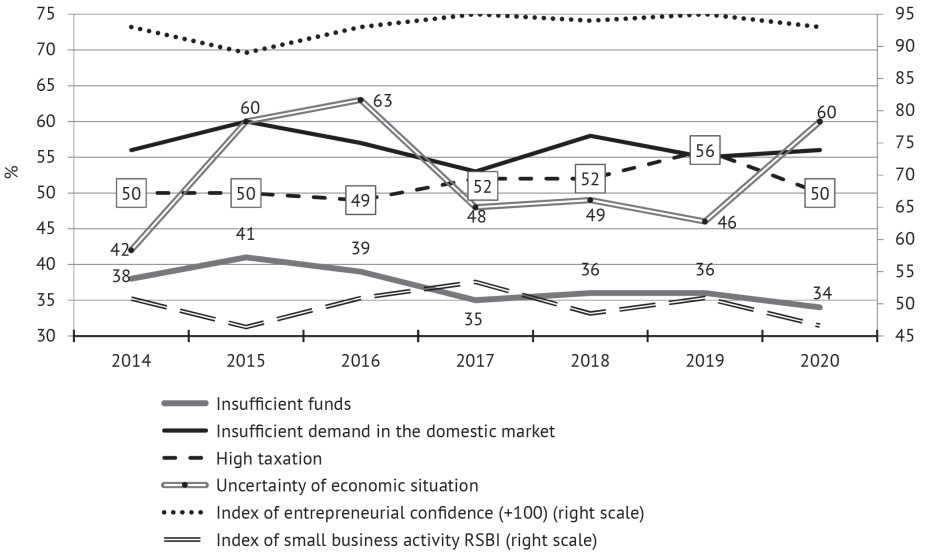


Fig. 38. Share of small manufacturing companies specifying the factor as limiting their growth, in Q 3 of each year (%) and business activity indexes

Source: Rosstat

that a simplified tax regime has been introduced for the self-employed almost right across Russia.

According to a Rosstat survey, among the restrictions on the activities of small manufacturing businesses, the most significant in 2020 were the uncertainty of the economic situation (60% of respondents) and insufficient demand (56%). The significance of both factors is predictably increasing during crises (*Fig. 38*). The high level of taxation, cited by the majority of respondents (56%) as a barrier for business activity in 2019 after the VAT increase, became less relevant in 2020 (50%) due to the government's actions to postpone and introduce a moratorium on certain taxes, as well as to reduce insurance premiums.

At the same time, the share of respondents considering lack of access to financial resources to be an obstacle to their activities decreased from 36% in 2019 to 34%; in 2015, the crisis year, this share was 41%. Indeed, the rate on long-term loans issued to SME subjects was reducing annually from 17.8% in 2015 to 8.01% in July 2020[1] (*Fig. 39*). On the whole, this is due to a general decrease in rates, development of a guarantee system and introduction of interest rate subsidy programs for small businesses. Early 2019, the mean value of the weighted average interest rate for SME loans was 11.5% for a period up to 1 year, and in August 2020 the rate dropped to a record value of 6.73%. However, this does not mean that it is easier now to obtain loans for small businesses. The requirements for solvency of the borrower remain high. Therefore, many companies do not see

1 Bank of Russia. URL: https://cbr.ru/statistics

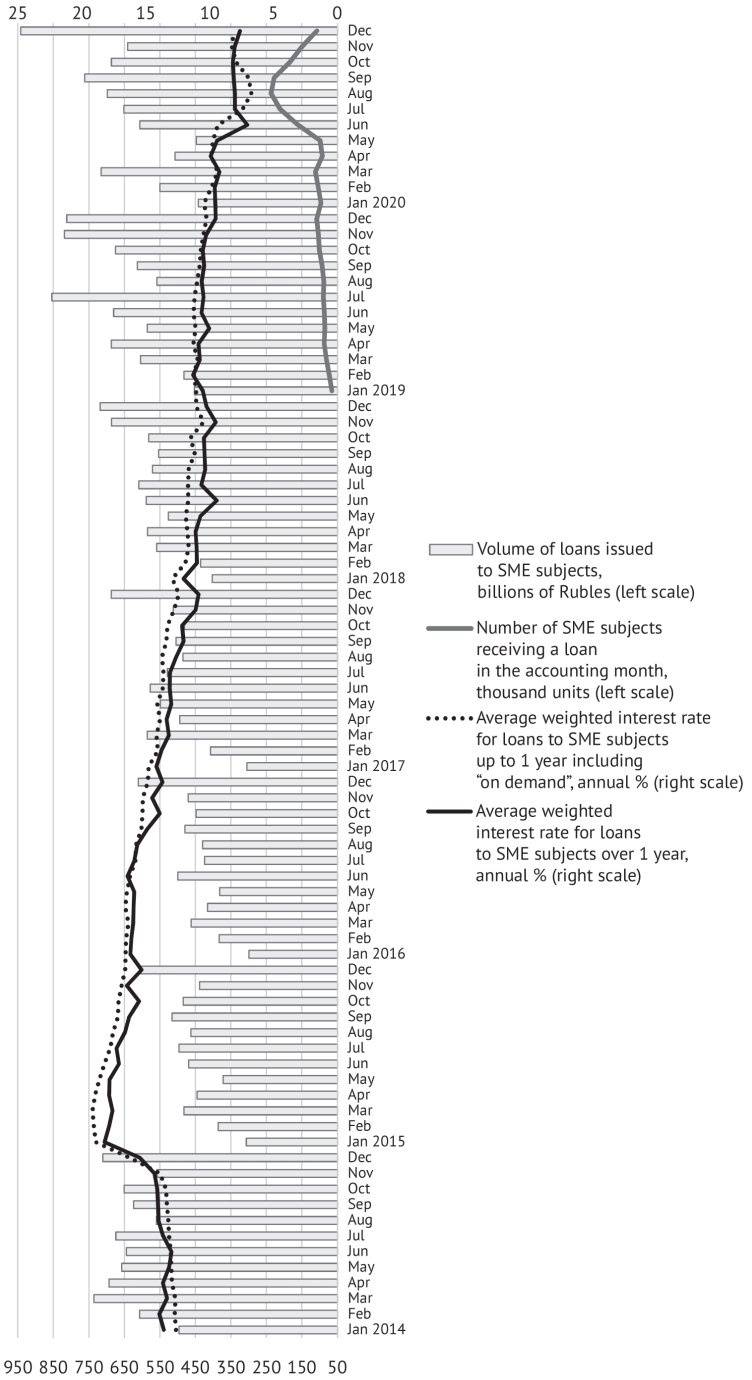


Fig. 39. Average weighted interest rates of credit institutions on loans in rubles (excluding PJSC Sberbank) for SME-non-financial organizations, as well as the volume of issued loans and the number of recipient SMEs

Source: Bank of Russia

the point in new borrowing amid a weak recovery in demand, however, they are forced to take out loans to support their activities.

After a slight peak in March, the volume of loans issued to SMEs and the number of borrowers began to decline sharply due to lockdown restrictions and a drop in demand. Moreover, entrepreneurs feared that they would not be able to repay loans on time and hoped to ride out the crisis without taking additional loans. However, quick recovery in demand did not happen and, therefore, lending started to grow again in August by 25% compared to August 2019, and in September by another 24%. The average loan size decreased from Rub 5.7 million in March 2020 to Rub 2.6 million in August and 2.9 in September. Apparently, SME subjects took advantage of preferential conditions for obtaining loans to secure employment and pay wages, as well as of other programs. In December, the volume of loans provided to SME-non-financial organizations exceeded the record Rub 942 bn for the entire observation period.

Traditional challenges for SMEs have been further exacerbated by difficulties arising from the sharp drop in demand and the crisis caused by the spread of the coronavirus infection. According to the polls of the Chamber of Commerce and Industry[1] conducted in April 2020 in 83 subjects of the Russian Federation, 46% of the interviewed entrepreneurs noted that the activities of their enterprises had completely terminated, and 25% of the respondents had incomes dropped by more than 75%. Among major challenges, entrepreneurs noted failure to continue paying rent (58%), take advantage of state support measures aimed for business (55%) and work remotely (47%). However, the preliminary assessment of anti-crisis support measures was also negative: thus, 63% of respondents believe that the proposed measures did not help at all ("other measures are required"), 48% noted the answer "our company does not meet the criteria for receiving the proposed support measures". Entrepreneurs emphasized the need to expand the list of affected industries (76%) and pay subsidies for full remuneration of non-working days to employees (74%), 73% spoke of the importance of introducing rental vacations. In June, the foremost issues related to staff retention (59%) and rent payments (43%). 37% of the interviewed entrepreneurs estimated the approximate period of business recovery at 12 months, 6% noted that they would not be able to restore their business.

4.10.2. Dynamics in the number of SME subjects

According to SME Unified Register, the number of SMEs in August 2020 amounted to 5.59 million units having decreased in comparison with the same period of the previous year by about 250.000 subjects or 4.2% (*Fig 40*). Traditionally, dynamics of the SME development is assessed in August, since due to the specific operation of the SME register, data on enterprises that have ceased their activities or have not submitted their reports are deleted in August. Enterprises that have gone beyond the criteria for classifying them as SMEs are excluded as well. Therefore,

1 CCI "BUSINESS BAROMETER OF THE COUNTRY". Chamber of Commerce and Industry of the Russian Federation 2020. https://tpprf.ru/ru/news/tpp-rf-zapuskaet-novyy-masshtabnyy-spetsialnyy-proekt-biznes-barometr-strany-i355418/

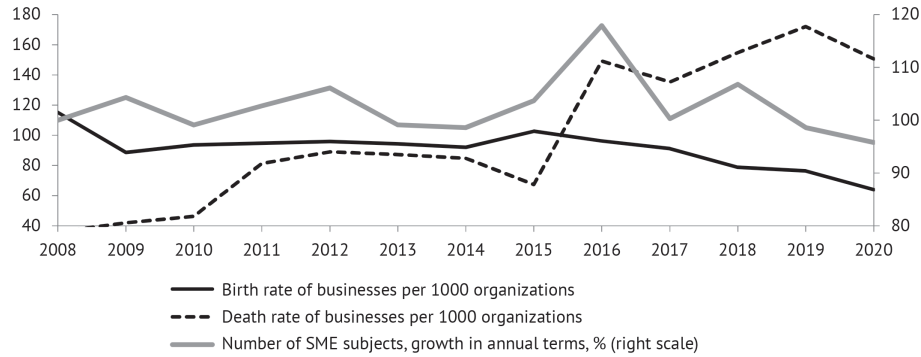


Fig. 40. Dynamics of establishing and liquidating of new organizations and a number of SME subjects

Sources: Rosstat: Unified Register of SME subjects.

business owners do not close their companies in case of termination of activity oftentimes, but wait for automatic exclusion from the FTS registers after 2 years from the date of the last reporting. This is especially typical for less developed regions. Thus, the real scale of the decline in the SME sector will be known only after 1–2 years and in the best case in August 2021.

With regard to individual entrepreneurs (IEs) and legal entities, the SME sector includes 58% of IEs and 42% of legal entities. Major part of this sector consists of microbusiness (95.8%), and it is their number that has dropped most of all compared to August 2019, that is by 4.3%. The number of small enterprises reduced by 3.3%, while medium-sized enterprises grew on the contrary by 5.2%.

According to FTS, 1.16 million SMEs closed in Russia in the period from August 2019 to August 2020. This indicator is almost two times higher than for the same period of the previous year. Growth is associated with the non-working period, drop in demand, failure to pay rent and tough working rules after lifting of restrictions. Pure shutdown concerned 280.000 enterprises, which is significantly higher than the same indicator for 2018–2019, i.e. 85.000 enterprises. Due to the crisis trends, the number of new companies declined more than in previous years owing to difficulties in registering during the pandemic and lack of development prospects in many sectors. The decrease in the number of liquidated companies compared to 2019 is due to the imposed moratorium on bankruptcy.

The lockdown hit the service sector hard: many restaurants, travel agencies, leisure and entertainment organizations, businesses providing household services (repairs, laundry, dry cleaning, hairdressing and beauty salons), etc. were closed. However, the ratio of liquidated and established companies decreased in 2020 for some types of activities related to the high-tech sector of the economy: finance and insurance, information and communications, etc. Many medium-sized companies in the largest cities massively hired personnel in the field of e-commerce and delivery.

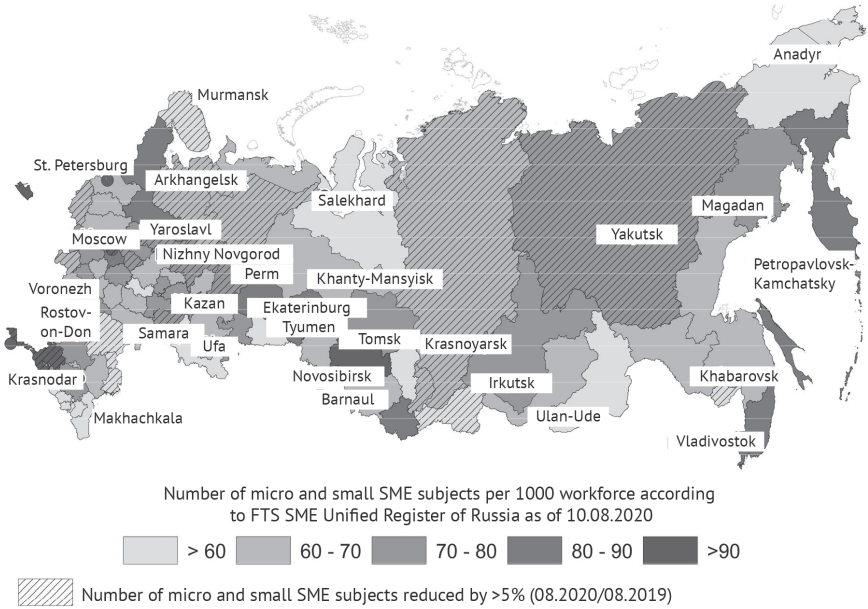


Fig. 41. Density and dynamics of micro and small SME subjects in 2019–2020

Sources: Rosstat; SME Unified Register

On the whole, the reduction in the number of SMEs is expected, but it cannot be called critical. Anti-crisis measures as well as high business digitalization had a certain impact: thus, more than 50% of companies placed their orders on the Internet before the crisis and people willingly used delivery services. During the pandemic, the number of SMEs decreased in many regions by more than 5% (*Fig. 41*), among them Republic of Ingushetia, Jewish autonomous national area, Adygea, Arkhangelsk region, Komi, Tyva, Sakha, Crimea) being the regions with the most vulnerable and underdeveloped entrepreneurial ecosystems[1], as well as the largest agglomerations (Moscow, Perm krai, Samara region).

The latter were marked by the higher share of public services, however, more stringent quarantine measures were introduced there. The reduction in the number of SMEs in Moscow exceeded 5.2%, being higher than the national average (4.2%) and the previous year decline in the region (4.9%).

4.10.3. Employment in SME sector

Actually, small and medium-sized businesses reduce employment during crisis periods, partly go into the shadows, transferring employees to the informal sector to save money. This may not be reflected in the growth of official unemployment

1 *Zemtsov S., Baburin V.* Entrepreneurial ecosystems in Russia's regions //Regional studies – 2019. – No. 2. – P. 4–14.

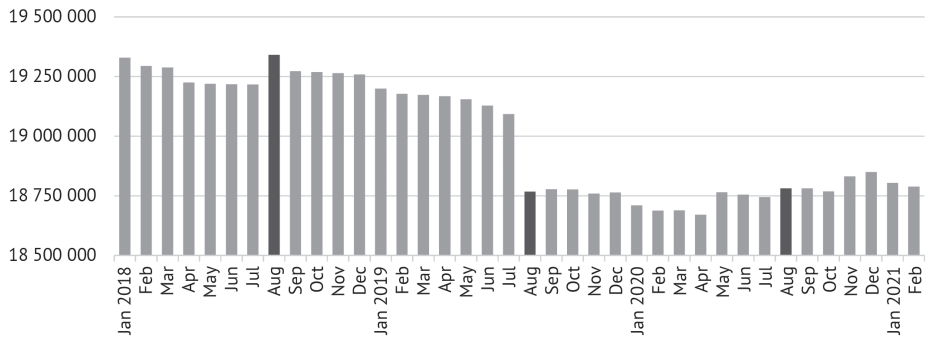


Fig. 42. Number of employed in SME sector including IEs, people

Source: authors' estimates according to SME Unified Register

rates. In 2020, more than 80% of small and medium-sized enterprises[1] optimized their costs due to a decrease in revenues, while 28% reduced salaries, 21% downsized, 22% sent their employees to unpaid leave.

According to SME Unified Register, in 2019 the number of employed in the SME sector decreased by more than half a million. The decrease was partially compensated by registration of the self-employed, payers of professional income tax: thus, for instance, nearly 300.000 people have registered in 2019. In 2020, the number of employed in SME sector has not practically changed (*Fig. 42*). If August 2020 is compared with August 2019, the employment in SME increased by 13.000 and in December by 90.000 people (0.48%). Therewith, according to FTS data as of February 2021, there are 1.7 million self-employed registered in Russia.[2] 82% of the registered self-employed did not have official incomes from entrepreneurial activity, while 42% of self-employed did not have any official incomes one year prior to tax registration. Therefore, that is not to say that the number of self-employed is reinforced exclusively by employees of small and medium-sized business.[3] Taking into account the data on the self-employed, more than 20.38 million people in total can be employed in the business sector early 2021. This exceeds the respective indicator for 2019 by almost 7%.

The growth in employment in this sector is surprising, given that according to Rosstat[4] total employment (aged 15 to 72) in Russia fell from 71.8 million in 2019 to 70.6 million in 2020 (by 1.2 million people), while unemployment rose to 5.6% (+1.0 p.p. compared to 2019).

There are several explanations, why statistics does not reflect the expected serious drop.

1 Index RSBI. URL: https://opora.ru/projects/indeks-opory-rsbi/
2 TASS. Number of self-employed reached 1.7 million in Russia. URL: https://tass.ru/ekonomika/10666369
3 RBC. FTS announced Rub130 billion brought out of the shadow of the self-employed incomes. URL: https://www.rbc.ru/economics/28/08/2020/5f479f9a9a7947f30cef78b0
4 Rosstat. URL: https://rosstat.gov.ru/labour_force?print=1

First, many enterprises did not fire employees but rather cut payroll funds. Thus, according to SberIndex[1], in April-October 2020, the payroll fund changed over 7 months by an average of -5.5% (in October the change was -8.9%, in August only -1.0%). The largest reduction in the payroll fund took place in the sectors of "hotels and public catering" (-12.3% of the trend at the beginning of 2020) and "transportation and storage" (-8.6%). In addition, the state supported maintenance of employment.

Second, some of the companies could repurpose, add a delivery option or open a new division to provide demanded services, i.e. online trading in certain categories of goods, delivery of food, groceries, and more.

Third, information on the average number of employees for the previous calendar year is submitted by organizations to the tax authority no later than January 20 of the current year. Data collection is actually carried out once a year. In 2019, many companies did not see the point in providing particular data or considerably delayed their submission. This resulted in neglecting the number of their employees in the register. Due to the crisis, the companies decided to clarify the data on turnover this year and additionally submit the form on the average number of employed in order to be able to receive state support. Consequently, the number of SME subjects has statistically increased in the register in March-June 2020. Moreover, some companies switched from the category of large to medium-sized, having artificially supplemented the employment in the SME sector. The number of medium-sized companies increased by 5.2%.

According to Rosstat sample surveys, the average number of employees of small companies, excluding microenterprises, decreased the most in education (-43%), travel agencies (-39%), water supply (-31%), electricity (-29%), hotels and catering (-26%), trade (-25%), agriculture (24%) and construction (-23%) in 2017-2020 (in the first half of 2020).

According to the most correct August data of the SME Unified Register, the number of employed declined in 61 out of 85 regions, however, in no region did the reduction rate exceed 7%. The number of employed in the Chechen Republic, Dagestan, the city of Moscow, Leningrad, Moscow, Yaroslavl, Kaliningrad regions has grown.

According to Rosstat, the share of informal employment in Russia increased from 12% in 2010 to 20.6% in 2019 (*Fig. 37*). It was expected that during the coronacrisis it would continue growing, since during crises SMEs cut employment and switch employees to the category of individual entrepreneurs and self-employed, classified according to the Rosstat methodology as informal employment. However, according to the latest data[2] the number of informally employed during the pandemic and lockdown reduced almost by million: from 14.5 million people in March 2020 to 13.57 million in June, and its share reached 19.4% of the total number of employed. The informal employment is more common in

1 SberIndex. Change in the amount of payroll fund. 2020. URL: https://sberindex.ru/ru/dashboards/izmenenie-obema-fot?partition=6

2 Finexpertiza. Stepping out of the shadows: informal employment during the pandemic reduced by almost a million. URL: https://finexpertiza.ru/press-service/researches/2020/vykhod-iz-teni-zanyatost/.

a number of southern and poorly developed regions marked by low households' incomes, high unemployment and high share of agriculture (Crimea – 34.1%, Krasnodar krai – 33.5%, Astrakhan region – 32.1%; Republic of Ingushetia – 55.1%, Chechen Republic – 55.0%, etc.). The lowest informal employment is evidenced in the wealthy regions: Moscow (3.8%), Chukotka autonomous national area (3.9%), Yamalo-Nenets autonomous national area (4.4%), Khanty-Mansi autonomous national area (7.3%), Sankt-Petersburg (8.4%). Reduction in informal employment can be associated with economy "whitewashing" taking place as a result of anti-crisis business support measures, introduction of a tax on entrepreneurial income and growth in number of forced entrepreneurs.

4.10.4. SME turnover

According to SberIndex[1], there is an evidenced failure in the overall dynamics of consumer spending (*Fig. 43*) in April-May 2020 and a gradual recovery to the level of the previous year that started at the end of June. Since October 2020, there has also been a negative trend in consumer spending associated with the second wave of the coronavirus pandemic. The largest reduction in household spending compared to the same period last year concerned the cost of air tickets, hotels, beauty salons / massage / SPA, cafes and restaurants. However, consumer spending grew in certain categories since April 2020: for example, "household appliances and electronics" in May-November 2020, "medicines and medical supplies" since mid-July 2020, "clothes, shoes and accessories" in July-October 2020, "computers and software" from mid-April 2020, grocery shops from the end of March 2020, as well as some other categories.

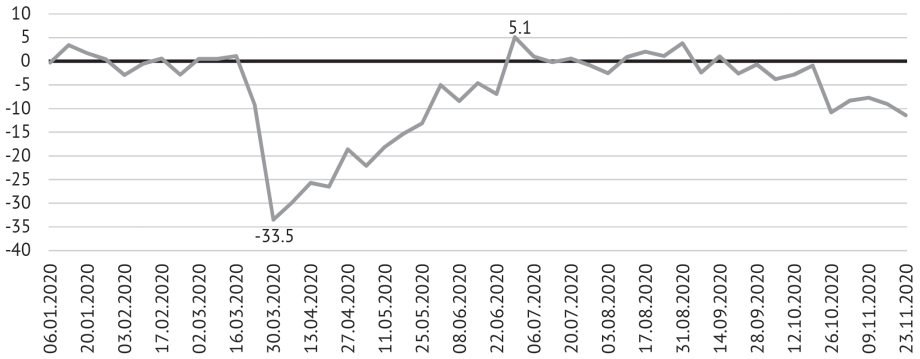


Fig. 43. Consumer spending on goods and services relative to the same week of 2019, %

Source: SberIndex. Changes in consumer spending. URL: https://sberindex.ru/ru/dashboards/verizmenenie-trat-po-kategoriyam

1 Sberbank Analytics. URL: https://www.sberbank.ru/ru/about/issledovaniya?fbclid=IwAR07JkTLIMaojuOSDge5H3FeqVGXt0GIZBlGqd9frQcRV1T2n62UR0wN7UU

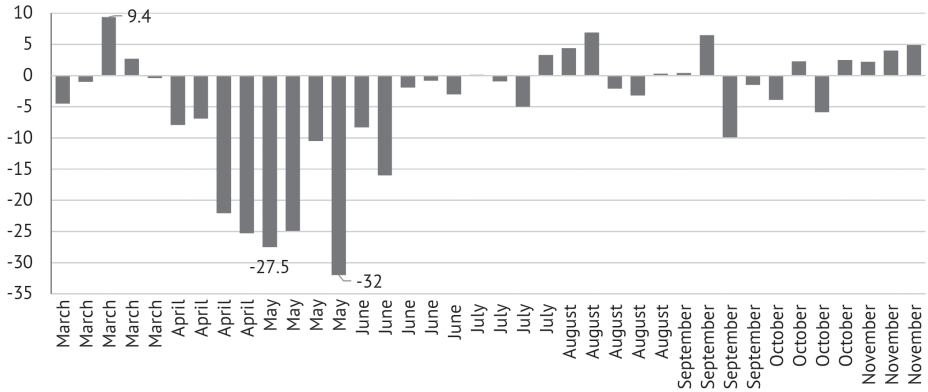


Fig. 44. Dynamics of SMEs billings in 2020 relative to the same week in 2019, %

Source: SberIndex (Change in the business turnover, 2020).

In April-June 2020, a significant decrease was observed in the turnover of small and medium-sized businesses (*Fig. 44*). Thus, at the end of May, the decline in turnover compared to the corresponding week of 2019 constituted a record 32%. In July and the first half of September 2020, there was a slight revival in the activity of small businesses explained by the implementation of the deferred household demand. In the fall, on the eve of the New Year holidays, there was a steady upward trend in SME turnover.

The level of demand remained significantly lower compared to the previous year in tourism and sports/entertainment industries: in June 2020, the turnover drop has been registered in these industries by 86.1 and 50.6% respectively.

SberIndex[1] determined 10 sectors of economy showing growth in earnings: insurance, clothing industry, manufacture of paper and paper goods, forestry, publishing, information technologies, software development, textile production, R&D and vehicle trade.

* * *

Shrinking SME sector has a negative impact on the entire economy. According to our econometric estimates, only due to a decrease in the number of small enterprises by 4.3%, the GRP of Russian regions could have decreased by 0.22-0.67% in 2020 (according to estimates based on our model[2]).

The crisis has clearly shown that the future of a significant number of small and medium-sized businesses is associated with digitalization and knowledge-

1 SberIndex. Top 10 fully operational sectors of economy. URL: https://sberindex.ru/ru/researches/top-10-sectorov-economiki-zarabotavshikx-v-polnuyu-silu

2 Zemtsov S., Smelov Yu. Factors of regional development in Russia: geography, human capital or regional policy//Journal of the New Economic Association. 2018. No. 4 (40), p. 84–108.

intensive sectors: for example, delivery, online services, Internet banking, etc. Many of these sectors experienced a significantly smaller drop in turnover (and even growth in summer), and also maintained and in some cases increased the employment. In the very same industries, there was a smaller decline in the number of companies.

Implementation of long-term support measures is required for further sustainable development of SME sector. A complete digitalization of public services has to be organized as well as the intended transformation of the business climate. It is necessary to focus the attention of federal and regional authorities on reducing the digital divide in the regions through the development of ICT infrastructure and increasing the level of digital literacy among the population and entrepreneurs. It is required to build stable networks of business agents in regions and cities taking into account their characteristics, and to improve business environment.[1] The established ecosystem of entrepreneurship is more resistant to changes in the Russia macroeconomic situation than the individual enterprises. The use of an ecosystem approach to the development of entrepreneurial competencies helps, among other things, to reduce the unemployment rate in the long term due to the switch of potential unemployed to entrepreneurial activity. The regions need retraining programs for the unemployed aimed at mastering digital technologies and teaching entrepreneurship, and it is also necessary to envisage counseling for potential unemployed when they are selecting a new profession and to assist in their employment.

1 *Zemtsov S., Chepurenko A., Barinova V., Krasnoselskikh A*. New entrepreneurial policy for Russia after the crisis 2020 //Voprosy economiki. 2020. – No. 10. – p. 44–67.

Section 5. Social Sphere

5.1. Incomes and the poverty line of the population[1]

5.1.1. Dynamic of the population's income and its components

In 2020, the real disposable cash incomes of the population contracted by 3.5% relative to the previous year, while the real accrued wages and real granted pensions went up by 2.5 and 2.3%, respectively (*Fig. 1*).

The reduction in real disposable cash income was due to the economic difficulties caused by the proliferation of the coronavirus infection The shutdown of a host of organizations in spring 2020 and the decline in consumer demand, in the first place for non-food products and services, reported in Q2-4 2020 (retail sales turnover came to 84.0, 98.4 and 97.2%, respectively of the same period of 2019) resulted in the cut in household incomes.

In 2020, the total value of cash incomes of the population went down by 3.0% in real terms against 2019, while the amount of remuneration of wages and salaries of employees decreased by merely 0.9% in real terms (*Fig. 2*).

If the volume of wages of employees of organizations increased by 0.6% in real terms, then the wages of hired workers not employed by organizations, declined in 2020 by 4.7% in real terms against 2019 (*Fig. 3*). This being said, incomes from business activity and from property, as well as other cash incomes, decreased in real terms by a larger margin: by 15.9, 18.2, and 16.4%, respectively (*Fig. 2*).

The decrease in consumer demand led to cash incomes of the population spent on purchasing of goods and service to fall by 4.7 p.p. relative to the previous year

1 The following sections 5.1–5.6 were written by *Burdyak A.*, Senior Researcher, INSAP RANEPA; *Grishina E.*, Candidate of Economic Sciences, Leading Researcher, Head of Department "Standard of Living and Social Protection", INSAP RANEPA; *Lyashok V.*, Candidate of Economic Sciences, Senior Researcher, Head of "Labor Market and Labor Relations" Department, INSAP RANEPA; *Makarentseva A.*, Candidate of Economic Sciences, Leading Researcher, Head of "Demography and Migration" Department, INSAP RANEPA; *Maleva T.*, Candidate of Economic Sciences, Director of INSAP RANEPA; *Mkrtchyan N.*, Candidate of Geographic Sciences, Leading Researcher, INSAP RANEPA; *Florinskaya Yu.*, Candidate of Geographic Sciences, Leading Researcher, INSAP RANEPA; *Khasanova R.*, Candidate of Economic Sciences, Senior Researcher, INSAP RANEPA.

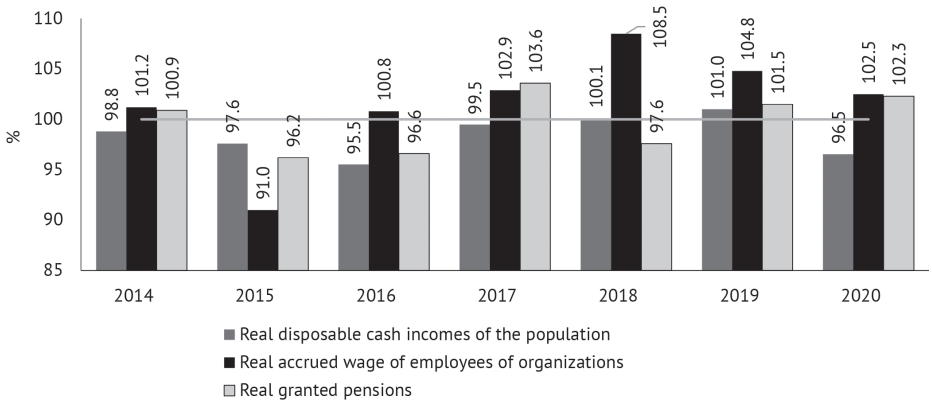


Fig. 1. Dynamic of real disposable cash incomes of the population, real granted pensions in 2014–2020, in % to the previous year

Source: Rosstat.

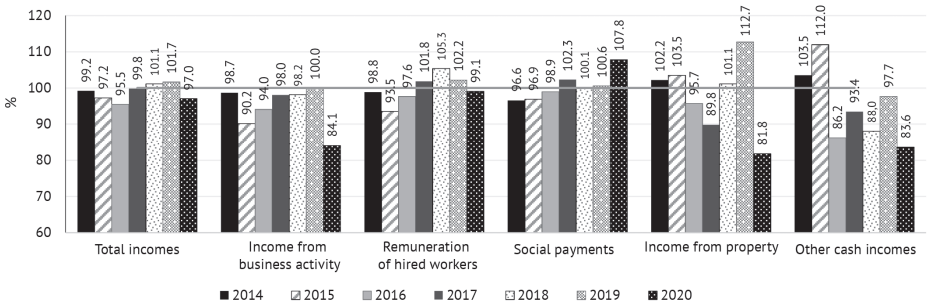


Fig. 2. Dynamic of total cash incomes of the population and its components in real terms in 2014–2020, in % to the previous year

Source: own calculations based on Rosstat data.

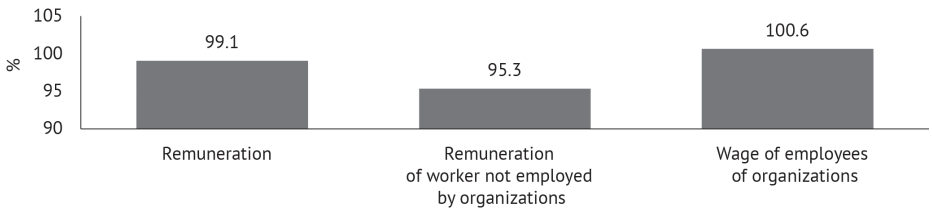


Fig. 3. Dynamic of hired workers' wages in real terms in 2020, in % to the previous year

Source: Rosstat.

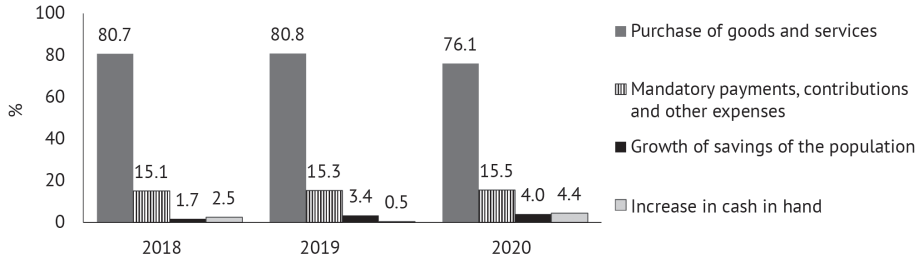


Fig. 4. Share of cash income of the population for purchase of goods and services in 2018–2020, %

Source: Rosstat.

(from 80.8% to 76.1%) (*Fig. 4*). The rise in the US dollar against the ruble and the increased demand for cash during the self-isolation regime led to the situation where cash in hand went up in 2020 by 3.9 p.p. (from 0.5 to 4.4%) compared to 2019.

5.1.2. Dynamic of the level of subjective and monetary poverty

The proportion of subjectively poor people assessing the material situation of their families as "bad" or "very bad" went up by 1.5 p.p. over 2020 and constituted 27.3% (*Fig. 5*). Having said that, the share of people who positively assesse the material situation of their families constituted 8.0%, which is below the level observed n 2018-2019.

The decline in cash income in real terms led to the poverty rate growth: In January-September 2020, the proportion of the population with cash income below the subsistence level advanced up relative to the same period of 2019 from 13.1 to 13.3% (*Fig. 6*). Meanwhile, it should be noted that the poverty rate growth during that period was relatively small (to compare: in January-September 2015 during the economic crisis the poverty rate climbed by 1.5 p.p. to the January-September

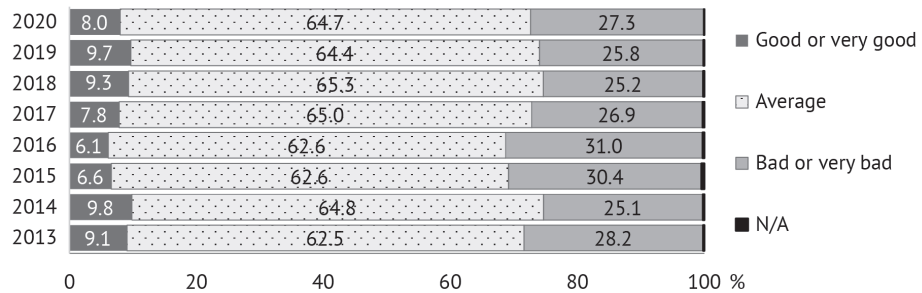
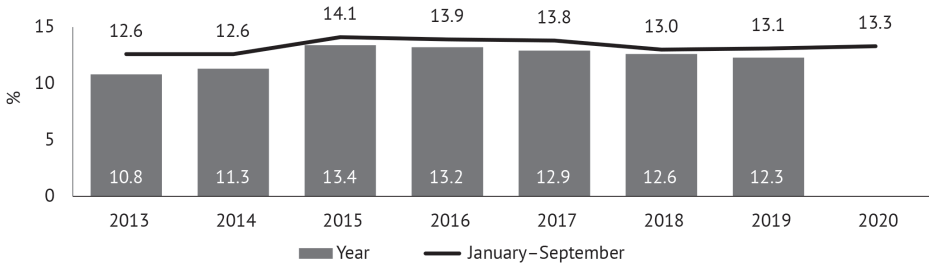


Fig. 5. Opinion of the population on current material situation in 2013–2020, %

Source: Rosstat.



Note. Data for January-September 2013–2017 is calculated according to Rosstat of Russia Methodology dated June 16, 1996 No. 61, other data – according to Rosstat Methodological provisions dated July 2, 2014 No. 465 with amendments dated November 20, 2018.

Fig. 6. Share of population with cash incomes below the subsistence level, %

Source: Rosstat.

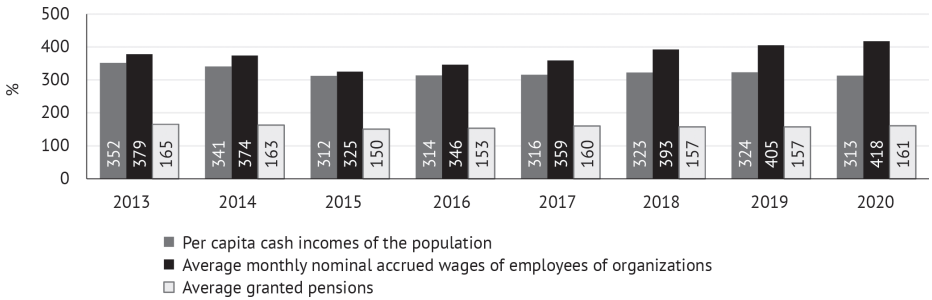


Fig. 7. Ratio of cash incomes of the population, wages and pensions with the subsistence minimum, 2013–2020, %

Sources: Rosstat; The Federal portal of draft normative legal acts: "On Establishment of Subsistence Minimum and Across Principal Socio-demographic Groups of Population as a Whole in the Russian Federation for Q4 2020"

2014 level). Additional social support measures provided to the population in the course of 2020, including to jobless citizens and families with children, played an important role in mitigating the risks of poverty. Social support extended to low-income groups of population (for example, low-income families with children from 3 to 7 years of age, jobless with children) has partially compensated for the fall in their real cash incomes and reduced the risks of poverty.

However, the government failed to fully compensate for the reduction in real incomes of the population: in 2020, average per capita incomes of the population declined against the subsistence minimum for the entire population as a whole from 324% to 313% (*Fig. 7*).

5.1.3. Dynamic of income inequality

Meanwhile, the level of income inequality of the population in 2020 markedly decreased (on the back of mounting share of cash incomes of the less well-off first

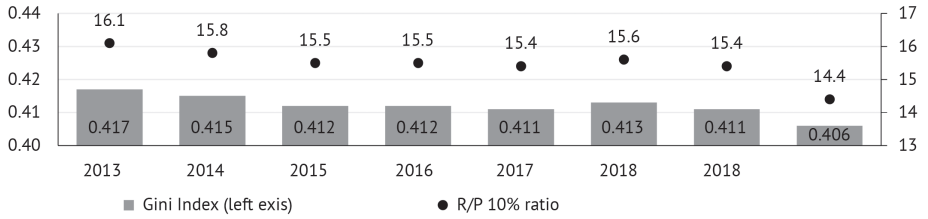


Fig. 8. Gini Index and R/P 10% ration, 2013–2020

Source: Rosstat.

quintile group and reduction in the share of cash incomes of the most well-off fifth quintile group) and fell below the 2004-2019 level (*Fig. 8*).

5.2. Retail trade, services and consumer prices

At the beginning of the pandemic in April 2020, on the back of introduction of the stay-at-home regime and suspension of the work of retail nonfood chains, the retail trade statistics in the monthly format[1] showed the maximum downturn (23% on the relevant month of the previous year), including a drop of 35% and 9% in non-food and food sales, respectively. The services sector[2] saw a more dramatic drop than the retail trade at the start of the pandemic: in April-May 2020 the volume of services to households fell by 38%-39% compared with the corresponding months of 2019. As pandemic restrictions were gradually lifted, pent-up demand realized and in July-October 2020 retail nonfood trade virtually recovered to the previous year level. By the beginning of the autumn, food consumption was 3%-4% short of the relevant indicators of 2019 (August-September). In September, the volume of paid services amounted to 88% year-on-year, but in October the downturn renewed with the new wave of restrictions. In November-December 2020, consumption of goods and services declined as compared with the relative months of the previous year (*Fig. 9*).

In January-December 2020, the retail trade volume contracted in comparable prices by 4.1% compared with the previous year, including a decrease of 2.6% and 5.2% in food products and nonfood products, respectively. In 2020, consumption of goods and services fell sharper than households' real cash incomes (-3.0% as compared with the year 2019) or real disposable cash incomes (-3.5% year-on-year). The overall volume of paid services to households in comparable prices decreased by 17.1%[3]. If the year 2016 saw a similar extent of the downturn in consumption of food and nonfood products (*Fig. 10*), the contraction of the services sector was unprecedented.

1 The "Russia's Socio-Economic Situation" Report / The Rosstat https://rosstat.gov.ru/compendium/document/50801
2 *Maleva T., Grishina E., Burdyak A., Chumakova Yu.* The Epidemiological Crisis in H1 2020: The Socio-Economic Situation of the Population // Russia's Economic Development. 2020. Vol. 27. Issue No.10. pp. 60-72.
3 The "Russia's Socio-Economic Situation" Report. January 2021 / The Rosstat https://gks.ru/bgd/regl/b21_01/Main.htm

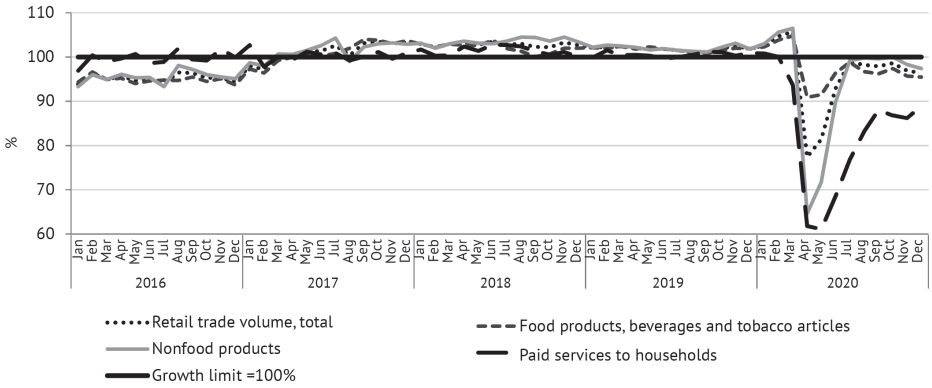


Fig. 9. Monthly dynamic of retail trade volume and consumption of paid services in comparable prices, % change compared with the corresponding month of the previous year

Source: The Rosstat's and the Unified Interdepartmental Statistical Information System's data.

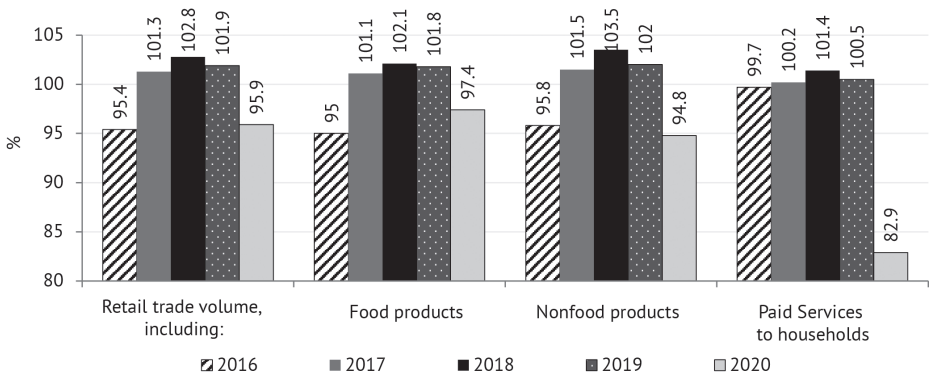


Fig. 10. The retail trade annual volume in comparable prices and the index of physical volume of paid services to households, % change compared with the previous year

Source: The Rosstat.

The volumes of paid services to households rendered by travelling agencies and cultural institutions dropped by more than a half (48% and 47% compared with the level of 2019, respectively). The volume of services decreased by more than one third in physical culture and sports (67.4%), hospitality (64.9%), health resort sector (59.8%) and transportation (60.9%). The pandemic affected less consumer services (85.4%), paid education services (87.4%), medical services (90.5%), legal services (91.2%), telecommunication services (95.0%), housing services (95.2%) and public utility services (96%). At the same time, the consumption of courier

and postal services increased year on year (103.6%). Among consumer services, the year 2020 saw the minimum decrease in consumption of maintenance service and repair of transport vehicles, machinery and equipment (91.5%) and hiring, including carsharing (94.3%). The sad result of the pandemic was growth in consumption of funeral services (103.8% compared with 2019).

How much did the consumption of staple food increase during the stay-at-home regime and remote work and learning in spring 2020? The operational data of retail trade[1] not related to small business entities showed feverish demand (over 40%) for pasta, cereals (buckwheat, rice and other), flour, sugar and vegetable oil in March 2020 (*Fig. 11*). In April-June, pasta sales returned to the level of the previous year, while sales of cereals and sugar, in particular, remained lower than in 2019 until the end of 2020. The consumption of drinking milk changed insignificantly.

Annual sales of sugar and cereals through mid-sized and large retail trade entities decreased year on year to 89.4% and 96.9% in comparable prices, respectively (January-December 2020 on January-December 2019). The year 2020 saw a pickup in sales of other groups of food products: eggs (28%), fresh potatoes (25%), animal fats, oil, poultry meat, flour and fresh vegetables (22%), cheese

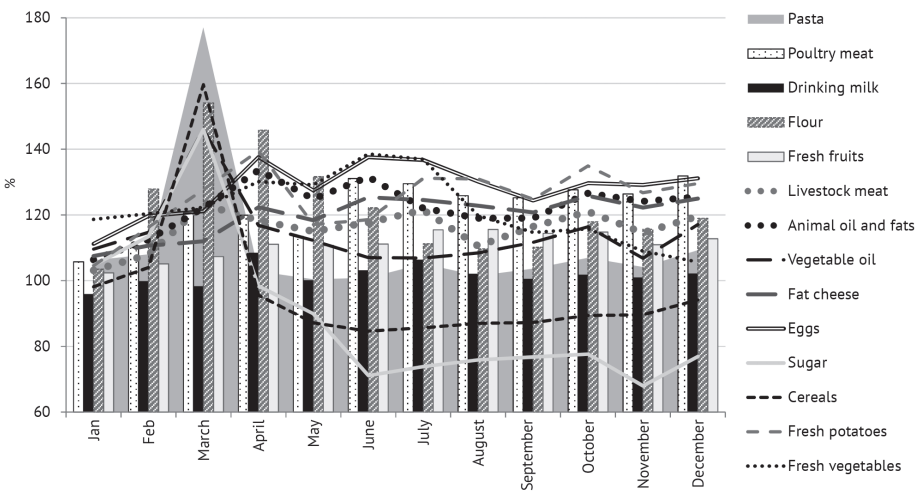


Fig. 11. Large and mid-sized retail trade entities' sales of food products in comparable prices, % change as compared with the corresponding month of the previous year

Source: The Rosstat.

1 Annual indices calculated by means of a linking method on the basis of monthly outturns. Large and mid-sized retail trade entities' staple food sales (operational data) / The Rosstat. URL: https://rosstat.gov.ru/folder/11188

(20%), livestock meat (16%), vegetable oil (15%) and fresh fruits (11%). As can be seen from the above, contrary to the overall decrease of 2.6% in the volume of retail trade in food products in the pandemic year 2020, the statistics of large and mid-sized retail outlets point to a substantial pickup in staple food retail sales. This can be substantiated, on one side, by families' shift to eating at home during the lockdown and a reduction of over 50% in public catering volume in April-May. On the other side, under the new conditions prefabricated food and ready meals sales increased; free delivery services from large stores received a boost for development. Consumers sought to minimize the number of their visits to shops by making purchases at large trade centers – this is evidenced by growth in the average receipt amount in April-May as compared with the previous year.[1]

The Rosstat calculates the weight matrix[2] based on the consumption pattern formed in the current year for computing the next year's consumer price index (CPI). This matrix represents a "smoothed", cleared of short-term spikes and sustainable carcass of the consumer spending pattern. The dynamics of its three key components in the past ten years (*Fig. 12*) can be notionally divided into three stages. In 2010–2013, the share of food expenses was declining (from 38.5% to 36.5%) and nonfood consumption was growing (from 35.6% to 37.7%), while the share of expenses on services remained virtually unchanged (25.8% and 25.9%). On the contrary, in 2014–2015 food expenses increased (up to 38%) and the share of nonfood products declined (to 36.5%). In 2015–2019, the share of expenses on services increased (from 25.5% to 27.8%), while food and nonfood expenses declined. In 2020, the consumption pattern changed: the share of expenses

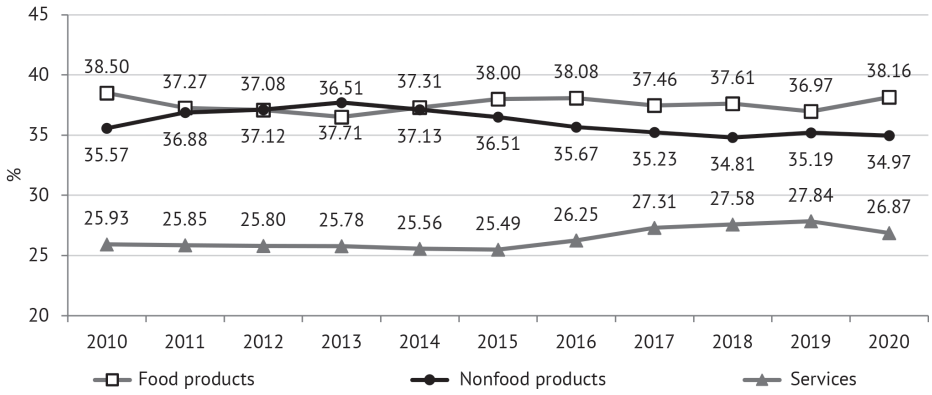


Fig. 12. The pattern of households' consumer spending for computing the next year's consumer price index, %

Source: The Rosstat.

1 Average receipt amount was record-high in December. / Romir. 19.01.2021. URL: https://romir.ru/studies/sredniy-chek-pokazal-rekordnoe-znachenie-v-dekabre

2 Prices. The pattern of households' consumer spending for CPI calculation / The Rosstat https://rosstat.gov.ru/price

on services fell almost to the level seen in 2016, while that of food expenses increased considerably.

In "peaceful" non-pandemic time, growth in the share of households' food expenses would signal a pickup in the rate of poverty as food expenses prevailed in low-income families' budgets and with the growing number of the poor the share of food expenses increased. However, as per the latest data there is insignificant growth in the poverty headcount: in January-September 2020 it increased by 0.2 p.p. as compared with the relevant period of the previous year.[1]

Undoubtedly, a decrease in households' incomes affected their financial situation. On one side, according to the Public Opinion Foundation's surveys in April-May 2020 up to 45% of the population tried to save more than before the pandemic. In August-September, the share of those who began to save more because of the pandemic decreased to 36%, while in October-December exceeded again 40%. On the other side, the worsening did not affect all: the pandemic did not change the share of Russian households which had to save or refuse from the earlier planned purchases during the previous year – from February 2019 till December 2020[2] the share of such families steadily amounted to 75%, give or take 2 p.p. Specifically, 20% of households did not save at all.

As was stated in the review of the previous year[3], in Q1 2019 consumer prices received an additional impetus, an increase of 5%-6%, driven by growth in the VAT rate. By the mid-2019, growth rates of prices slowed down to 4%, while in Q1 2020 the consumer price index was equal to 102.3%–102.5% as compared with the corresponding months of the previous year; this can be partially explained by a high base effect and the abovementioned price rises early in 2019. During the first wave of the pandemic in April-May 2020, prices were appreciating at a moderate rate and such a situation prevailed till August: in March-April the consumer price index value relative to the corresponding period of the previous year was in the range of 102.5–103% and in summer the CPI grew from 103.2% in June to 103.7% in September. Prices of food products were appreciating at a somewhat higher rate than nonfood products. From October 2020, prices of goods were appreciating considerably and by December a year-on-year appreciation of food products was equal to 6.7%, including CPI for food products and spirits amounting to 107.2% and 102.8%, respectively, relative to December 2019. The pandemic's effect on dynamics of consumer prices of services was moderate, 2.5%–3.0% within the entire year (*Fig. 13*).

Based on the results of the pandemic year 2020, the annual index of consumer prices was equal to 4.9%. Prices of food products appreciated by 7.2% (December on December of the previous year), while nonfood products and services, by 4.8%

1 On correlation of households' cash incomes with the minimum subsistence level and the number of low-income population in general across the Russian Federation in Q3, 2020 / The Rosstat. URL: https://www.gks.ru/bgd/free/B04_03/IssWWW.exe/Stg/d02/12.htm

2 In April-June 2020, no surveys were carried out. Inflation expectations / The RF Central Bank. URL: http://www.cbr.ru/analytics/dkp/inflationary_expectations/

3 The Russian Economy in 2019. Trends and Outlooks. (Issue 41) / [V. Mau, et.al.; edited by Kudrin A.L., Doctor of Economic Sciences, Radygin A.D., Doctor of Economic Sciences and Sinelnikov-Murylev S.G., Doctor of Economic Sciences]; The Gaidar Institute. – Moscow: The Gaidar Institute Publishers, 2020. p. 359.

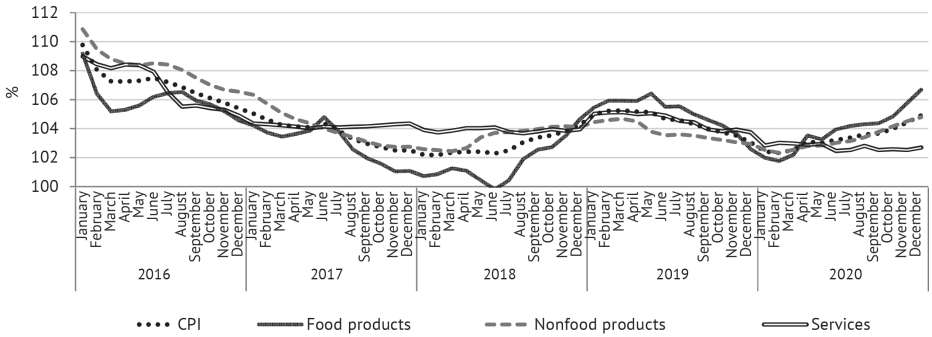


Fig. 13. Monthly dynamic of the consumer price index (CPI), % change compared with the corresponding month of the previous year

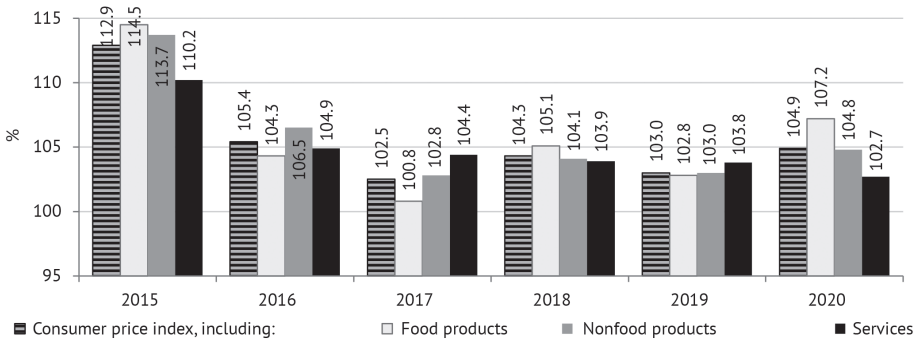


Fig. 14. Consumer price index (at year-end, % change compared with the previous year-end)

and 2.7%, respectively.[1] In 2020, headline inflation was in excess of the indicators seen in 2017-2019, but remained below the level of 2016 though prices of food products appreciated more compared with the specified year, while those of nonfood products, less (*Fig. 14*).

5.3. Lending and preferential mortgage programs for families with children

As the dynamics of bank deposits and retail lending in 2020 were analyzed in detail in the above section dedicated to the banking sector[2], here we shall compare households' bank savings and loan debts with households' annual incomes and touch upon the role of preferential mortgage programs. As of January 1, 2021, households' bank loan debt amounted to the record-high value of Rb20,044 trillion

1 The short-term economic outturns - 2021 / The Rosstat. URL: https://gks.ru/bgd/regl/b21_02/Main.htm

2 See Sections 3.3.3. Lending to Individuals and 3.3.4. The Banking Sector's Resources.

(Rb17,651 trillion a year ago). Growth drivers were mortgage loans. In 2020, retail lending grew by 13.5% (January 1, 2021 on January 1, 2020), including car loans (7.9%), consumption loans (8.8%) and mortgage loans (20.7%).[1] In that period, the share of mortgages in the pattern of households' loan portfolio increased from 43.7% to 46.4%, while that of consumption loans declined from 50.6% to 48.4%; the share of car loans decreased from 5.4% to 5.1% of all lending to individuals.

The volume of individuals' funds with banks (as of January 1, 2021) amounted to Rb 34,246 trillion (Rb30,669 trillion a year before), the volume of deposits decreased somewhat from Rb22,878 trillion to Rb21,198 trillion, current account balances increased half as much (from Rb7,533 trillion to Rb11,637 trillion) and escrow account balances grew considerably compared with the previous year (from Rb0,137 trillion to Rb1,173 trillion). So, savings and loans grew more relative to households' cash incomes volume which did not virtually change in nominal terms (in 2020 and 2019 it was equal to Rb62.27 trillion and Rb62.08 trillion, respectively). Based on the results of the pandemic year 2020, households' funds with banks exceeded a half (55%) of households' annual cash income, while individuals' loan debt amounted to one-third of the annual income (32%) (*Fig. 15*).

Mortgage lending is gaining momentum, particularly owing to a few state programs aimed at supporting borrowers from among the most vulnerable socio-demographic groups, namely, young families and families with children.

(1) The state program of *subsidizing mortgages for families with two and more children*[2] born in 2018-2022 has been in effect since the beginning of 2018 ("family

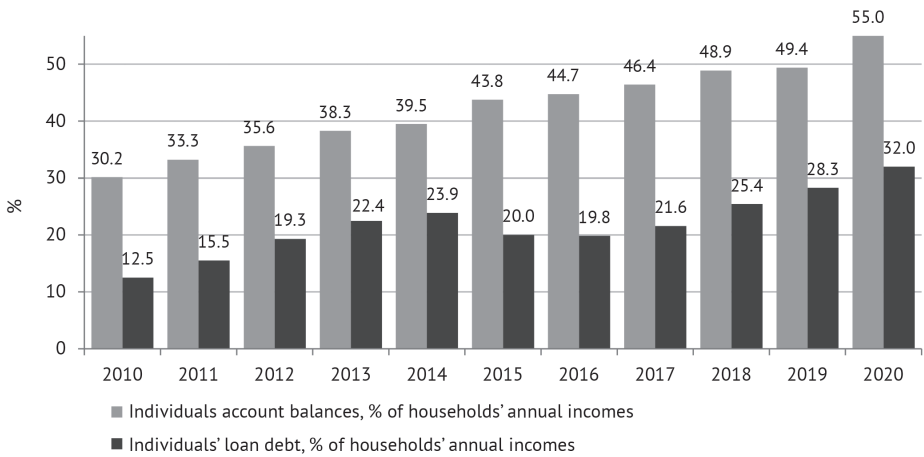


Fig. 15. The correlation of households' loan debt, individuals' account balances and households' annual cash income volume, %

Source: data of the RF Central Bank and the Rosstat, own calculations.

1 On Development of the Banking Sector in the Russian Federation in January 2021. / The RF Central Bank. URL: https://cbr.ru/analytics/bank_sector/develop/
2 RF Government Decree No.1711 of December 30, 2017

mortgage"). The interest rate is set at the level of 6% per annum, however, at present banks (DOM.RF, the Sberbank and the VTB) grant such loans at the rate below 5%.[1]

During the term of the program (February 2018 – December 2020), 129,400 such loans for the overall sum of Rb344.3 bn were granted, including Rb214.9 bn worth of 78,800 loans extended in January-December 2020. It is noteworthy that 55% of program participants took new loans, while 45% of the borrowers refinanced the earlier received mortgage loans on preferential terms. Generally, family mortgages were granted to families in the event of birth of the second child (77.3%) (*Fig. 16*).

(2) *Support of large families*. Federal Law No.157-FZ of July 3, 2019 envisages the right of mortgage borrowers-individuals in the event of birth of their third or subsequent child in the period from January 1, 2019 till December 31, 2022 to receive state support in the amount of maximum Rb450,000 for complete or partial repayment of mortgage (loan) debt. As of October 11, 2020, over 85,000 families received payments from the beginning of the program to write off a mortgage debt on grounds of the birth of their third or subsequent child. As of November 23, 2020, Rb43 bn worth of payments under the mortgage co-financing state program for large families were approved for over 97,000 families.

(3) *The "Far Eastern Mortgage"* program for young families[2] (spouses under the age of 35 or a single parent with a child) provides for a mortgage loan at the interest rate of 2% per annum to be issued in the period from December 1, 2019 till December 31, 2024 for the entire loan term in case of buying or building housing in the Far Eastern Federal Okrug (FEFO). Also, the buying of housing on the secondary market from individuals (only rural settlements in the FEFO)

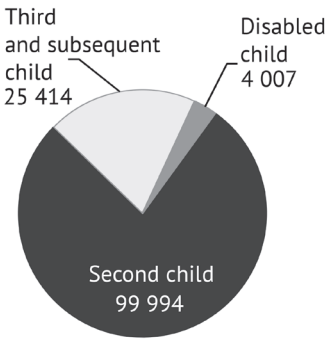


Fig. 16. The number of born children and their sequence in families which received a "family mortgage" from February 2018 till December 2020, persons

Source: The RF Central Bank and the Rosstat.

1 State support measures make it feasible for families with children to save over Rb2 mn when they take mortgage loans to buy housing. URL: / Дом.рф https://дом.рф/upload/iblock/9b0/9b08afd2dbf2f8fcd87612296bab5f48.pdf

2 In accordance with RF Government Decree No.1609 of December 07, 2019, the effective term of the program: 2019–2024; program operator — DOM.RF.

is admissible. As the program operator, the AO "DOM.RF" joint-stock company reimburses to creditors the shortfall in income up to "the key rate + 4 p.p." It is noteworthy that 12,700 such loans worth Rb45.8 bn were extended in January-December 2020.[1]

(4) Late in 2019, the terms and conditions of the "rural mortgage" program[2] (2020-2025) were approved within the framework of the "rural territories comprehensive development" state program aimed at upgrading housing conditions for 201,000 families living in rural areas by means of issuing mortgage loans at the interest rate of 0.1%–3%. The "rural mortgage" program provides for loans to be granted for buying apartments, which are either already built or under construction, and ready built houses with a land plot, as well as loans at the interest rate of maximum 3% (the rate can be reduced to 0.1% by means of regional budget subsidies) for building a house under owner-contractor agreement. Specifically, under this program mortgage loans are granted for buying and building housing only in rural areas (metropolitan areas), including small cities with the population of maximum 30,000 people (the Moscow Region is excluded from the program).

(5) *Maternal capital*. For 13 years the maternal capital program has supported nearly 10,6 mn Russian families and proved itself as an effective state support instrument for families with children.[3] Over 8 mn families used their maternal capital, including 7 mn families (84%) which spent it on improving their housing conditions. Also, in 2020 the coverage of the program was expanded and families with the first child born from January 1 became eligible for maternal capital. Further, the program was extended till the end of 2026.

The maternal capital size has increased 2.5-fold since 2007. In 2007 it was equal to Rb250,000, while in 2020 parents of the second and subsequent child were entitled to receive Rb616,600. In 2020, maternal capital for the first child was equal to Rb466,600 and if the second child is born in such families, they will receive additionally Rb150,000.

5.4. Labor market dynamics

In 2020, the Russian labor market experienced significant changes caused by the coronavirus pandemic and deteriorating economic situation in the country. In April, after the introduction of lockdown the unemployment rate calculated according to the ILO methodology, increased from 4.7% to 5.8% and then continued to grow up to 6.4% in August (*Fig. 17*). By the end of the year, even in the context of the second wave of pandemic the situation had generally stabilized and the unemployment rate dropped to 5.9%. The remarkable thing is that such dynamics of this indicator with a peak in mid-late summer is generally similar to that observed in developed countries, a significant increase in the number

1 The data on the implementation of the Far Eastern Mortgage" program / DOM.RF. URL: https://дом.рф/mortgage/dalnevostochnaya-ipoteka/
2 RF Government Decree No.1567 of November 30, 2019
3 Maternal Capital: How the Main Instrument of the "Demography" National Project Works/ November 13, 2020. The Future of Russia. National Projects. URL: https://futurerussia.gov.ru/nacionalnye-proekty/matkapital-kak-rabotaet-odin-iz-glavnyh-instrumentov-nacproekta-demografia

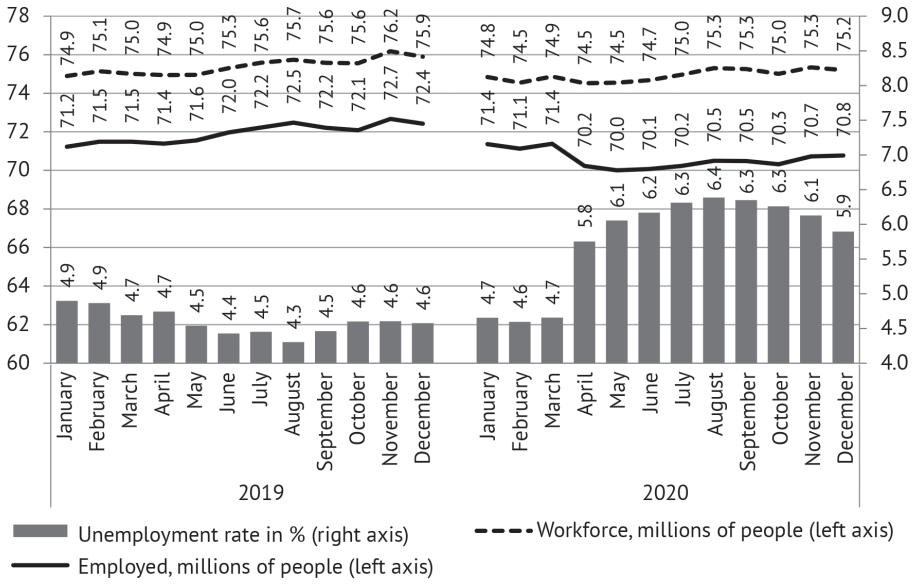


Fig. 17. Workforce, the employed and unemployment rate in 2019–2020

Source: Rosstat

of unemployed in the first months of pandemic took place only in the United States and Canada, which is more likely due to the peculiarities of accounting for unemployed in these countries.[1]

Workforce declined in 2020 by 0.5 million people. This is partly due to the continuing decline in the working-age population. As a result of the unfavorable demographic situation, the size of workforce for the period 2015–2019 decreased by 1.4 million people. Withdrawal from the labor market of the population failing to find a job in the face of declining employment could be another factor contributing to such dynamics in 2020. The size of potential workforce, i.e. those willing to work but not trying to find it, increased in Q 2 2020 by a third, however it returned to the pre-crisis level already by Q 3. Thus, the contribution of this factor was rather limited.

The persistence of a high level of unemployment is primarily due to redundancy, layoffs, liquidation of an enterprise, and own business. The number of unemployed identifying these facts as the main reason for unemployment, doubled in Q 3 2020 compared to the respective period of the previous year (*Fig. 18*). Notwithstanding a significant increase in the overall structure of the unemployed, this reason for unemployment remains not the most "popular" as only every fifth unemployed named it as the main reason. The number of those dismissed at their own request

1 Unlike other countries using the standard ILO methodology for defining the unemployed, the USA and Canada also include even those who de jure remain employed, but do not actually work for economic reasons.

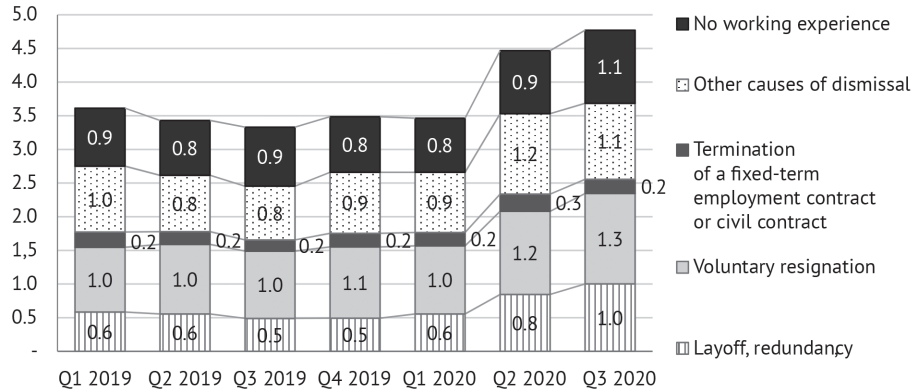


Fig. 18. The unemployed due to unemployment, millions of people

Source: Results of a Sample Labor Force Survey / Rosstat. Bulletin for Q 3 2020.

increased less significantly, i.e. by 34%. However, it is evident that the main reason for voluntary dismissal during a crisis was forcing the employees to leave either by the employer or for reasons beyond the employer's control.

Importantly, the number of unemployed with no work experience rose by only 24%, which is lower than for other reasons of unemployment. Thus, it can be argued that in the summer months, despite the obvious increase in youth unemployment caused by the influx of these age groups into the weakened labor market, this age group cannot be ranked among the most affected by the coronavirus crisis.

It should be noted that the increase in the number of unemployed in Q 2 2020 was heterogeneous: people with a higher level of education were affected to a greater extent.

Thus, the number of unemployed with a higher education increased by 50% in Q 2 vs Q 1, while the number of those with a secondary vocational education grew by 30-34%, and with a secondary general education (10-11 school years) by 15%, basic general education (8-9 school years) by 6%. The number of unemployed women grew faster than unemployed men (33% vs 26%). Almost half of the new unemployed had their last job in one of three industries: wholesale and retail trade (27.3% of all new unemployed), hotel and restaurant business (11.0%), construction (10.9%).

Note that large and medium-sized organizations primarily responded to the crisis by decreasing the rate of hiring rather than through redundancies and layoffs of employees. The number of dismissed employees in Q 2 increased by only 5% compared to Q 1, while the extent of hiring reduced by 32%. Thus, the flows in the labor market stopped balancing each other. In the spring and summer, the influx of new unemployed was not compensated by hiring of those already looking for a job.

The number of unemployed registered with employment agencies grew in 2020 at an unprecedented rate. From 0.7 million in March, it increased to 3.7 million at

the end of September. Thus, the increase in the number of unemployed registered with the state employment agencies significantly exceeded the total inflow of the unemployed according to the ILO methodology. According to experts of the Center for Advanced Management Solutions based on the data of employment agencies, such an inflow of applications in March-June 2020 was determined by only one third of those dismissed during the crisis from corporate sector, while two-thirds referred to those who have lost their jobs earlier or worked informally or did not work at all.[1] Thus, the massive influx arose not only due to deteriorating economic situation, but also as a result of new measures aimed to supporting the unemployed, i.e. simplifying access to benefits, increasing their minimum and maximum amounts.

The fact that the brunt of the crisis fell on small businesses, including individual entrepreneurs and self-employed, is evidenced by statistics relevant to the informal sector in Russia. In April, the number of people employed in the informal sector decreased by 10.8% (1.6 million people) compared to March, however, by September the employment in this sector had practically returned to pre-crisis values.

The crisis in the labor market in the first months of last year was most reflected in working hours. In April, one in four workers sampled in the labor force survey was absent from work. The total number of man-hours worked fell from 10.9 bn to 8.0 bn. This is largely due to the period of non-working days, which lasted from March 30 to May 11.

Nevertheless, despite the announcement of non-working days, a large proportion of workers continued to work, including groups not subject to this ban (for example, those working in medical and pharmacy organizations, industries of continuous production, providing essential goods to population, etc.). By early fall, the length of hours worked and the number of those temporarily absent from work returned to the pre-crisis level (*Fig. 19*).

However, the dynamics of wages was not so sharp. In April 2020, the decline in real wages was only 2% compared to April 2019, and growth resumed in May, albeit at a slower pace than in Q1 2020 / (*Fig. 20*). On the whole, the year average salary of employees working for organizations amounted to Rub 51.083, that is higher in real terms by 2.5% compared to the previous year.

The data of the Federal Tax Service (FTS) also indicate that the level of the wages fund has been secured in the context of a deteriorating economic situation: thus, in January-October 2020, personal income tax receipts increased by 4.3% compared to the respective period of 2019. At the same time, the level of receipts from most other taxes decreased.

This dynamics strongly differs from 2015 when the drop in actual wages reached 9–10%. Differences can be attributed to several reasons. First, the informal sector is practically excluded from the Rosstat observations, which due to specifics of the current epidemiological crisis could have been affected much more severely than the corporate one. Second, in 2020, the crisis practically did

1 URL: https://econs.online/articles/ekonomika/novye-bezrabotnye-za-posobiem-v-koronakrizis/

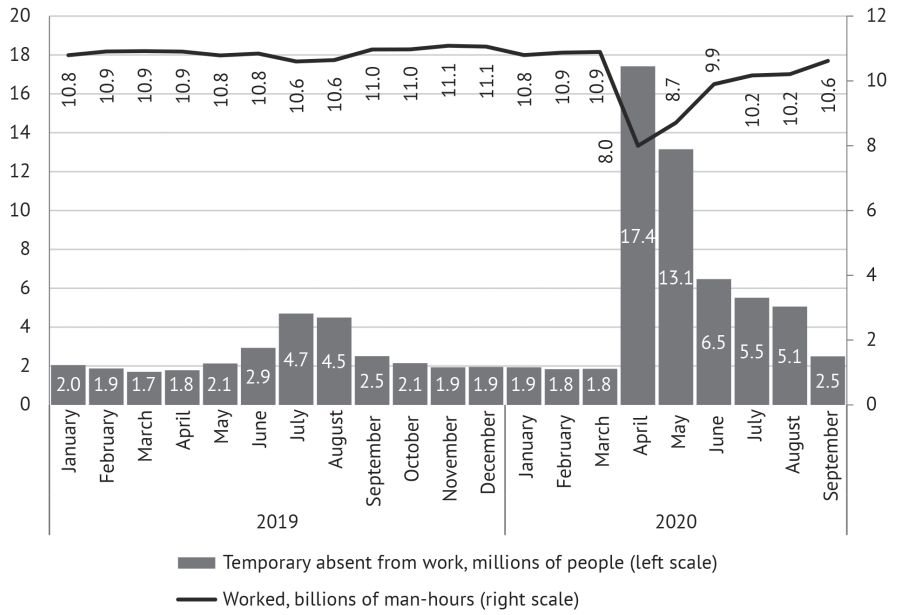


Fig. 19. Dynamics of working hours in 2019–2020

Source: Results of a Sample Labor Force Survey / Rosstat. Bulletin for Q 3 2020

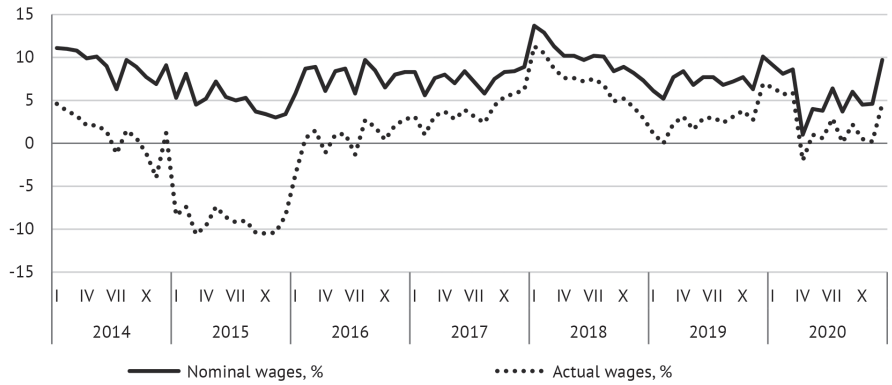


Fig. 20. Growth in nominal and actual wages compared to the respective indicator of the previous year, %

Source: Rosstat

not result in a surge of inflation having kept actual wages from a worse off drop.[1] Indicators of nominal wages are less volatile than actual ones. The stabilization

1 Inflation accelerated only by the end of the year when situation at the labor market has already been stabilized.

of wages in nominal terms was the usual strategy of the Russian labor market during periods of crises resulting in a decrease in their purchasing value under a sharp rise in inflation.

Main drivers of the wage growth in 2020 were courier and postal activities (an increase of 16.8% in nominal terms compared to 2019), healthcare (14.5%), mining of metal ores (13.2%), information and communication (9.6%). A decrease in wages in nominal terms was observed in the following industries: air and space transport (10.0%), hotel and restaurant business (5.9%), coal mining (1.6%), printing (1.1%), furniture manufacturing (0.5%), sports, recreation and entertainment (0.5%).

The growing popularity of telecommuting in the corporate sector can be the most critical long-term impact of the coronavirus crisis. According to Anton Kotyakov, the Minister of Labor and Social Protection of the Russian Federation, the share of those employed remotely at the peak of the crisis was 11%, and by the beginning of 2021 it reduced to 6%[1]. Such an estimate obtained from the operational monitoring of the labor market is based on the statistical reports of large and medium-sized organizations. However, many organizations transferred workers to work from home without formalizing the appropriate documents, thus, the data may be underestimated.

Data received from representative telephone interviews conducted by INSAP RANEPA in May, September and December 2020, showed a significantly higher proportion of employees working remotely: 28% in May and 23% in September and December. Moreover, only half of them worked remotely on a rourine basis, while the other half combined this working mode with the office duties.

Thus, the coronavirus crisis had a significant impact on the Russian labor market in 2020. In many ways, this crisis was not similar to the previous ones: the peak fell in the first months (April – May) followed by a slow recovery. However, the crisis in these first months was localized in a number of the most affected industries, primarily in large metropolitan areas. Hence, employers basically responded with announcement of downtime, significant reductions in hours of work as well as redundancies in staff. By early fall, the labor market evidenced some improvements, hiring rates increased, unemployment began to decline and wages rose. Nevertheless, in a number of industries (air transport, hotel and restaurant business, entertainment and leisure), the situation remained tense by the end of the year.

5.5. Migration processes

5.5.1. Long-tern migration

The COVID-19 pandemic and the related restrictions affected considerably the indicators of international migration to Russia in 2020. The number of migrants who arrived in Russia within a year decreased by 102,300 persons while that of migrants who left increased by 77,100. As a result, migration gain fell to the decade's new low of the mere 106,500 persons (the previous one was registered in 2018 and related to the disruption of interdepartmental networking in statistical

1 URL: https://mintrud.gov.ru/employment/72

data provision). If migration readjustments based on the outputs of the 2010 All-Russian census survey are not taken into account, migration gain is the record-low in the past twenty years.

Before the restrictions were introduced, in Q1 2020 the number of those who arrived decreased, but the most dramatic drop took place in April-May (*Table 1*), when not only borders, but also agencies registering migrants closed down. During the year, the number of departures was larger as compared with the previous year because the existing system of registration of migrants automatically regards as left those migrants who got registered in 2019, 2018 and earlier and whose term of registration at the place of stay expired in 2020. As the number of those who arrived decreased in 2020, the number of those who left Russia will be definitely smaller for this reason in 2021.

Table 1

International migration in 2020, monthly data

	Arrived		Left		Migration gain (loss), thousand persons
	Thousand persons	% change compared with last year's indicator	Thousand persons	% change compared with last year's indicator	
January-March	152.6	93.9	106.8	120.4	45.8
April	30.8	54.8	37.2	116.5	-6.4
May	38.9	73.9	39.8	113.4	-0.9
June	50.3	96.0	39.9	117.9	10.4
July	55.0	101.7	38.6	112.7	16.4
August	52.5	99.6	48.6	121.7	3.8
September	53.4	88.3	40.8	120.3	12.5
October	49.8	76.5	45.4	127.5	4.4
November	47.9	68.2	42.9	128.1	5.0
December	63.0	89.7	47.7	108.9	15.3
2020, total	594.1	85.3	487.6	118.8	106.5

Source: The Information on Russia's Socio-Economic Situation, the Bulletins for 2020–2021.

The record-low migration gain failed to make up for the natural population decline which intensified sharply in 2020; at year end migration compensated only 15.5% of the losses from the excess of deaths over births. In October-December 2020, the compensation was equal just to over 8% (*Fig. 21*). In 2016–2017, with the natural population decline renewed, migration compensated completely those losses, thus facilitating population growth, while in 2018-2019, it made up for 77%.

It is believed that as soon as the acute phase of the COVID-19 pandemic is over, the migration gain will increase owing particularly to delayed arrivals because of the lockdown and closed borders. But it is difficult to say whether it happens as early as 2021 or later. At the same time, Russia's overall downturn migration trend observed since the second half of the 2010s is not expected to be replaced by sustainable growth in the influx of long-term migrants.

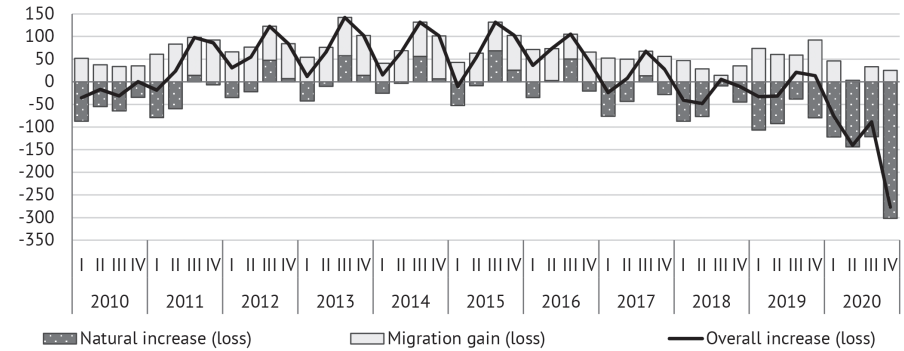


Fig. 21. The components of change in Russia's population size, 2010–2020, quarterly data, thousand persons

Source: The Information on Russia's Socio-Economic Situation, the Bulletins for 2010–2021.

The internal migration in Russia started to decline as far back as 2019 and continued throughout the entire year. For the first time since 2011, the number of the new registrations issued at the place of stay was sustainably lower than that of expired registrations. As a result, in 2019 the number of in-country transfers decreased by 6.9%. In Q1 2020, the decline continued and amounted to 7.8% as compared with the previous year (*Fig. 22*). In Q2 2020, during the lockdown, travelling restrictions and shutdown of agencies carrying out registration of Russian citizens the number of in-country transfers as measured by the statistics fell by 32.3%. In H2 2020, the number of in-country transfers started to recover, but was still lower than in 2019. Based on the results of 2019, the extent of internal migration decreased by 12.9% (18.8% as compared with 2018).

Such a dramatic and extensive decrease in in-country transfers was primarily related to the restrictions introduced late in March 2020 and, probably, entities'

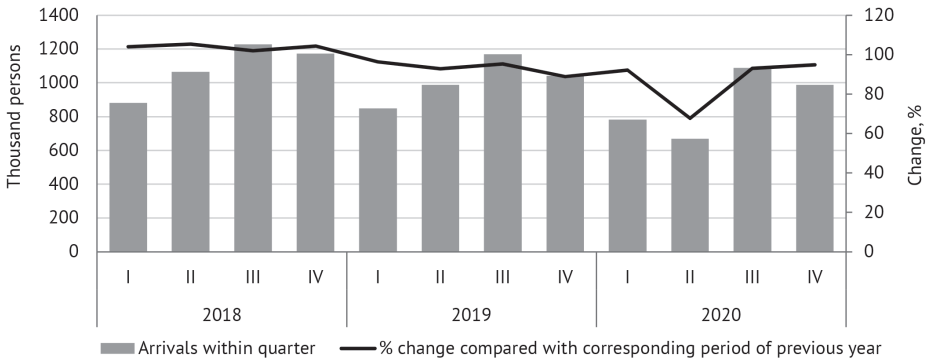


Fig. 22. Internal migration in Russia, 2018–2020, quarterly data

Source: The Information on Russia's Socio-Economic Situation, the Bulletins for 2017–2021.

shift (complete or partial) to remote work. Apart from a downturn in migration activity, substantial changes took place in the redistribution of the population between the country's regions. At year-end, a portion of constant centers of attraction of migrants, such as Moscow and St. Petersburg saw the minimum migration increase (a migration loss was registered up to November); migration increase fell considerably in the Moscow Region. We believe that after the pandemic is over the customary destinations for migration in Russia will revive, but it is not clear yet how soon it will happen.

5.5.2. Temporary migration

The trend of gradual growth in the number of foreigners in Russia in 2019 continued in the beginning of 2020. In winter months early in 2020, 10.3 mn -10.4 mn foreign nationals were staying in the Russian Federation (9.5 mn -9.7 mn foreign nationals in the same period of 2019). However, the coronavirus pandemic which started in March and the subsequent closure of borders for entry and departure of foreign nationals radically distorted the customary path of the migration curve: if in 2019 the number of foreign nationals late in summer - early in autumn used to go up to 11.2 mn persons, in 2020 it was steadily declining. As a result, late in 2020 the indicator decreased by one third, that is, only 7.1 mn foreign nationals were staying in the Russian Federation, the past decade's record-low index.

As before, CIS nationals accounted for a larger share of foreigners who arrived in Russia (84%). Early in winter their number was equal to 6.2 mn persons (*Table 2*), while late in December 2020, to 6.0 mn (8.23 mn persons as of the end of 2019). The leaders are still Uzbekistan, Tajikistan and Ukraine.

Table 2

The number of foreign nationals from the CIS in Russia as of the specified date, persons

	04.12.14	**01.12.15**	**01.12.16**	**01.12.17**	**01.12.18**	**01.12.19**	**01.12.20**
Azerbaijan	598646	531080	542588	601704	667513	758377	548389
Armenia	499084	490156	489005	494848	488614	483250	339985
Belarus	506759	644598	737791	689534	658188	690854	628134
Kazakhstan	581516	671751	599825	531865	539092	547398	365632
Kirgizia	554808	541855	587693	624756	678743	746477	599294
Moldova	586069	512637	495084	425269	357229	310679	205747
Tajikistan	1052822	898849	917908	988771	1105362	1243080	1012186
Uzbekistan	2275290	1884110	1585769	1719492	1888810	2007895	1460120
Ukraine	2476199	2598303	2564356	2129446	1952374	1708652	1037016
CIS, total	**9131193**	**8773339**	**8520019**	**8205685**	**8335925**	**8496662**	**6196503**

Source: The RF Federal Migration Service, the Main Directorate for Migration of the RF Ministry of Internal Affairs, the Central Database on Accounting Foreign Citizens (CBD UIG).

As compared with 2019, the number of CIS nationals decreased in Russia. Specifically, as per the year-end data the maximum reduction in migrants concerned Ukraine (over 40%), as well as Moldova and Kazakhstan (33%–36%). The number of migrants from Azerbaijan, Armenia and Uzbekistan decreased by 31%–27%. Kirgizia, Tajikistan and Belarus saw the minimum decrease in the migration flow to Russia (20%, 16% and 9%, respectively).

The closure of international borders affected arrivals of citizens of western countries: their number decreased on average by 20% as compared with 2019 (*Table 3*). However, there are two exceptions: the number of US and UK nationals increased slightly. As regards European countries in general, the largest reduction concerned the number of migrant students (nearly 60% compared with 2019) and business travelers (43%–45%), while the minimum one, the number of hired workers (на 19%), as well as tourists and private persons (18% and 17%, respectively).

Table 3

The number of foreign nationals from some EU countries and the US in Russia as of the specified date, persons

	04.12.14	01.12.15	01.12.16	01.12.17	01.12.18	01.12.19	01.12.2020
EU in general	843824	484 981	498 774	437 189	426 331	700325	551964
Germany	242978	112 053	109 507	105 524	102 093	150914	122565
Spain	45860	14 960	14 820	14 109	15 721	31239	22139
Italy	54097	29 004	26 865	24 092	24 957	43989	34787
UK	111093	29 225	28 053	23 616	21 356	30297	31853
Finland	76091	76 220	96 574	73 500	58 805	87635	66983
France	53487	34 161	27 165	26 071	28 772	54997	47510
US	142016	47 355	50 365	43 875	46 120	59509	63296

Source: the data of the RF Federal Migration Service and the Main Directorate for Migration of the RF Ministry of Internal Affairs.

5.5.3. Labor migration

As of the end of 2020, 2.97 mn labor migrants, including 2.87 mn CIS citizens and 99,000 citizens from far abroad, who specified the purpose of their visit in the immigration form as "work on hire" (3.9 mn as of the end of 2019) were staying in Russia. As compared with the end of 2019, labor migration decreased by 25%. Specifically, labor migration from Ukraine and Moldova decreased the most (44% and 33%, respectively), while from Tajikistan and Kirgizia, the least (14% and 20%, respectively); labor migration from Uzbekistan declined by 27%.

As of the end of 2020, of all labor migrants arriving in Russia 1.21 mn persons had valid employment documents (patents or work permits); in addition about 850,000 migrants were citizens of the EEU member-states and had the right to work without a permit. So, as of the end of 2020, about 2.1 mn migrants or 69% of foreign labor migrants could be legalized on the Russian labor market (in case of the employer's willingness). This is slightly above the index of the previous year

when the share of such migrants was equal to 67% as of the same date, which means that there was no mass-scale withdrawal "into the shadows." As regards employers, in 2020 the number of notices they sent to the RF Ministry of Internal Affairs on entering into contracts with all categories of labor migrants (migrants with patents, work permits and from the EEU member-states) decreased by 30% as compared with the precious year, which is somewhat higher than the reduction in the number of labor migrants.

The number of the newly executed work permit documents keeps declining (*Table 4*), which is largely substantiated by a lack of influx of new labor migrants. Within 12 months of 2020, they executed 36% less patents and permits than in the relevant period of 2019.

Table 4

Execution of work permits for migrants in the RF, persons

		2014	2015	2016	2017	2018	2019	2020
Work permit for foreign citizens (FC)*		1334899	177175	133215	139595	120666	117452	58475
Including:	Work permits for skilled professionals (SP)*	158644	22099	14775	17333	19360	16877	7286
	Work permits for highly-skilled professionals (HSP)	34225	41829	25469	21363	25845	31754	18937
Patents**		2379374	1779796	1492203	1658119	1649121	1686418	1101832
Total		**3714273**	**1956971**	**1625418**	**1797714**	**1769787**	**1803870**	**1160307**

* – from January 1, 2015 work permits are issued only to FC from countries the Russian Federation maintains a visa regime with.

** – from January 1, 2015 work permits are issued to FC from visa-free countries for employment with individuals and legal entities.

Source: the data of the RF Federal Migration Service and the Main Directorate for Migration of the RF Ministry of Internal Affairs.

Despite a decrease in the number of labor migrants and labor market problems particularly in spring, labor migrants keep replenishing substantially regional budgets: in 2020 advance payments for patents amounted to Rb47.5 bn (Rb60.4 bn in 2019). The main payers remained the same: in 2020 migrants from Uzbekistan and Tajikistan were issued 92% of all patents; migrants from Ukraine and Moldova accounted for less than 4% and 2% of all executed patents.

In 2020, the reduction in labor migration was expected owing to the coronavirus restrictions introduced to fight the spread of the epidemic. As soon as these restrictions are lifted, labor migration to Russia is expected to recover. However, such a long pause in work in Russia for labor migrants who can find alternative work destinations (primarily for migrants from Ukraine and Moldova) may affect considerably their number in Russia in subsequent years. In the short-term, Russia can rely only on labor migrants from Central Asian countries.

5.6. Demographic situation

In 2020, natural decline in the Russian population reached 688.700 (this is 2.2 higher than in 2019). The peak of natural decline in 2020 was observed in December: 113.800 people *(Fig. 23*). Maximum death toll since the beginning of the year was also registered in December: 243.200. The number of registered births in December was 129.400. In January-December, the number of births was 48.700 people less, and there were 323.800 more deaths compared to the same period of the previous year. Both these factors resulted in acceleration of natural population decline, however, the impact of an increase in mortality due to a challenging epidemiological situation was much higher. At the same time, the increase in the number of deaths is albeit acute but temporary, while the negative dynamics in the number of births is a long-term trend.

Natural population decline in 2020 was the highest in the last 14 years. It is comparable to 2006 (then it amounted to 687.000) (*Fig. 24*).

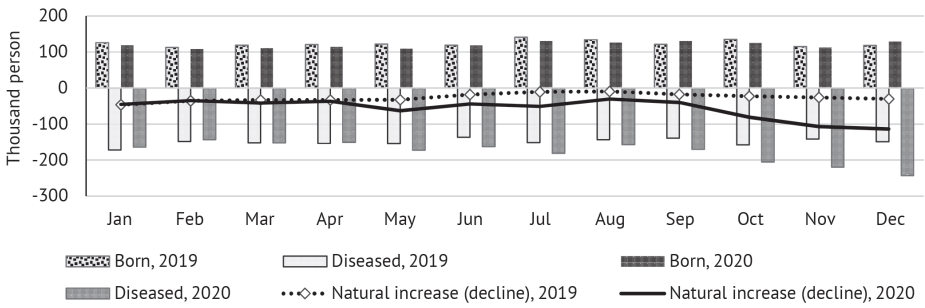


Fig. 23. The number of births, deaths and natural increase (decline), January-December 2019-2020, 1000 people

Source: UISIS, Rosstat operating data.

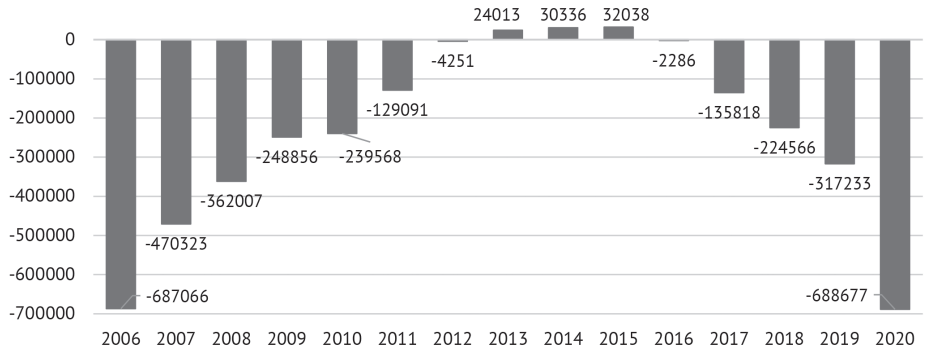


Fig. 24. Natural increase (decline) in population, 2006–2020, number of people

Source: UISIS, Rosstat operating data.

From January to December 2020, 1 435.800 children were born in Russia compared to 1 484.500 a year earlier (decline constituted 3%). In September and December 2020, a light increase of births was observed compared to 2019. In December, the increase of births evidenced 10.700.

The number of births has been declining in Russia since 2016; from year to year, the rate of decline either slightly increases or decreases (*Fig. 25*). Even after recovery of positive dynamics in the death toll, the negative births trend will be strong in the coming years, leading to maintenance of natural population decline in the medium term. Moreover, a delayed effect of the pandemic is expected in 2021, whereby the "time-out" in pregnancies in 2020 will result in a drop in the number of births in 2021. There is no saying how deep this drop will be and how long it will last, however, the intensity of the autumn wave of pandemic does not leave room for optimistic forecasts. Most likely, 2021 will show a very negative picture in fertility.

In 2020, the total fertility rate is expected to be 1.5 children per woman, same as in 2019. The main factor in the observed decline in the number of births is the unfavorable age structure of the population. A small generation born in the 1990s is at the peak of reproductive ages. They will determine the birth rate in the next decade, and the number of births will be invariably lower in contrast with the situation when it was determined by the large generation of the 1980s. An additional factor is the actual reproductive behavior of young women. It is very likely that the generation of the 1990s will give birth to their first child later than the previous generation, and it is nevertheless probable that they will have slightly fewer children on average than the previous generation. Finally, as mentioned above, short-term, namely, social and economic consequences of the coronavirus pandemic will soon be added to these fundamental factors. In 2020, the pandemic has not yet had a full impact on fertility.

In 2020, there was a decrease in the birth rate index (BRI) in 67 subjects of the Russian Federation compared to 2019. The largest increase in BRI is evidenced by

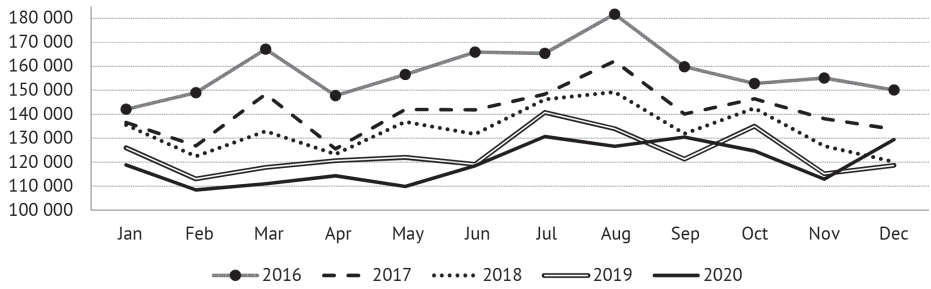


Fig. 25. Number of births, January-December, 2016–2020, people

Source: UISIS, Rosstat operating data.

the Moscow Region (by 6.2%). This is a compensatory effect associated with the administrative redistribution of births between Moscow and the region.[1] Moscow shows the largest decrease in BRI by 9.3% in the same period Traditionally, a large decrease in BRI is observed in the central regions of Russia (Vladimir, Smolensk, Tver regions). An increase in BRI is demonstrated by the Chechen (5.2%) and Kabardino-Balkarian (6.1%) Republics.

It is also worth noting that in 2020 the All-Russian Population Census was to take place, however, this was not the case. By the end of the intercensal period, the deviations in estimates from the census grow and will be further adjusted. This may further provide an adjustment to the total and cumulative fertility rates at the regional level.

In December 2020, the number of deaths reached 243.200. This is the highest monthly indicator for at least the last 5 years (*Fig. 26*). Seasonal fluctuations in the

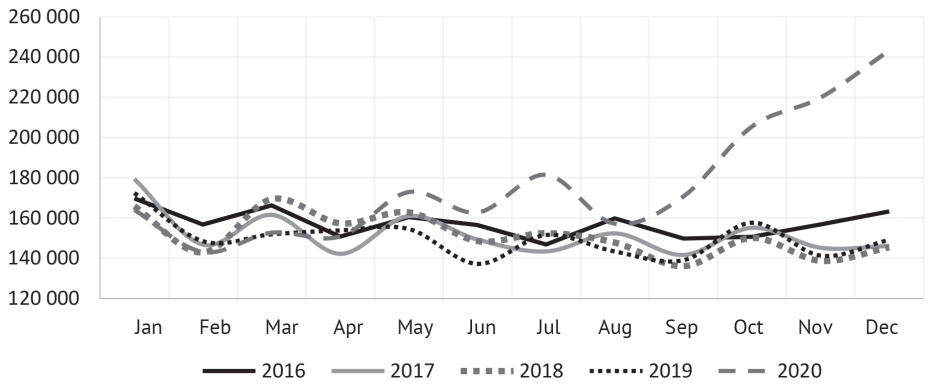


Fig. 26. – Number of deaths, January-December 2016–2020, people

Source: UISIS, Rosstat operating data.

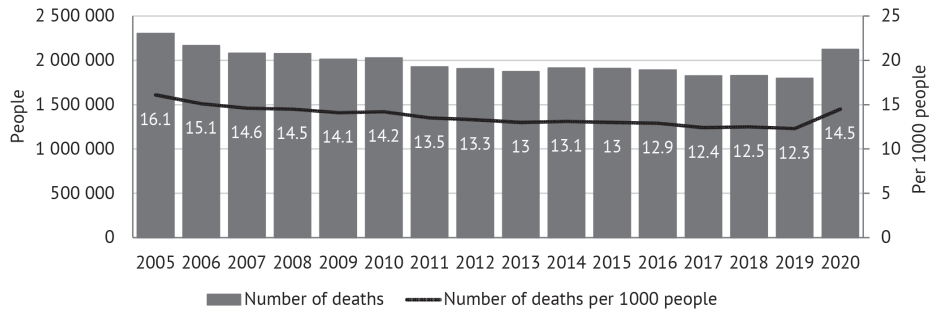


Fig. 27. Number of deaths and total mortality rate among population of Russia, people, 2005–2020

Source: Rosstat operating data

1 Available at: URL: https://www.ranepa.ru/documents/monitoring_demografia_2.pdf

monthly deaths values in previous years evidence higher absolute mortality rates in the winter-spring period, while in summer-autumn (July to September), it is common to observe a lower number of deaths. In 2020, the situation has changed significantly.

Since 2003, a downward trend in the number of deaths prevailed in Russia with the exception of small deviations from the trend in 2005, 2010, 2014 and 2018. According to the Rosstat preliminary data, the death toll in 2020 was 2 124.479. Compared to 2019, this indicator increased by 323.800 (18% more). The number of deaths in 2020 exceeded the level of 2007 (2 080.400) and was the highest in the last 13 years (*Fig. 27*).

Total mortality rate in 2020 was 14.5 cases (in 2019 it amounted to 12.3 per 1000 people), and growth constituted 18% compared to 2019.

Traditionally, the total mortality rate is the highest in regions marked by a relatively old population structure (Pskov, Tula, Tver, Vladimir, Novgorod, Orel regions), while the lowest rates are observed in regions with a young population structure (Republic of Ingushetia, Yamalo-Nenets Autonomous Okrug, Chechen Republic, Dagestan, Khanty-Mansi Autonomous Okrug).

To exclude the impact of the age structure and correctly compare mortality in the regions, it is reasonable to use standardized mortality rates. However, more detailed mortality data were not yet available at the time of preparing the study.

According to Rosstat, the infant mortality in 2020 was 4.5 cases per 1000 live births (*Fig. 28*). This figure is 8.2% lower than in 2019 (4.9 deaths per 1000 live births).

The gap between the maximum and minimum mortality rate for children under 1 year per 1000 live births is 13 ppm. The regions with the highest infant mortality rate include the Chukotka Autonomous Okrug (15.1 ppm), the Kostroma Region (7.5 ppm), the Altai Republic (7.4 ppm), the Nenets Autonomous Okrug and the Republic of Dagestan (6.7 ppm).

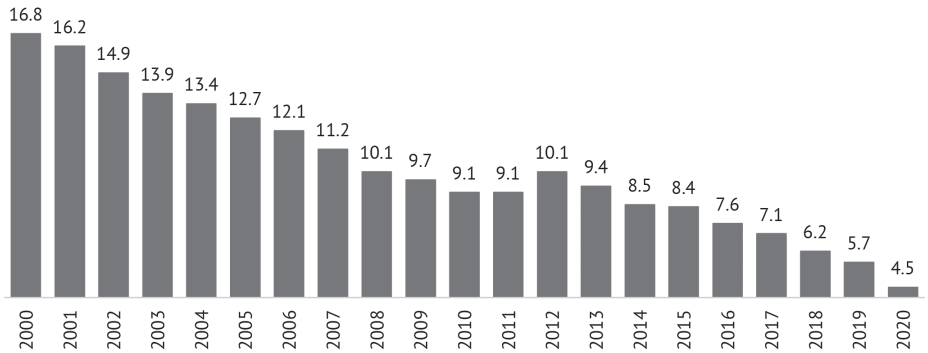


Fig. 28. Infant mortality rate, 2005–2020, per 1000 live births

Source: Rosstat operating data

Fig. 29. Infant mortality rate, 2020, per 1000 live births

Source: Rosstat operating data

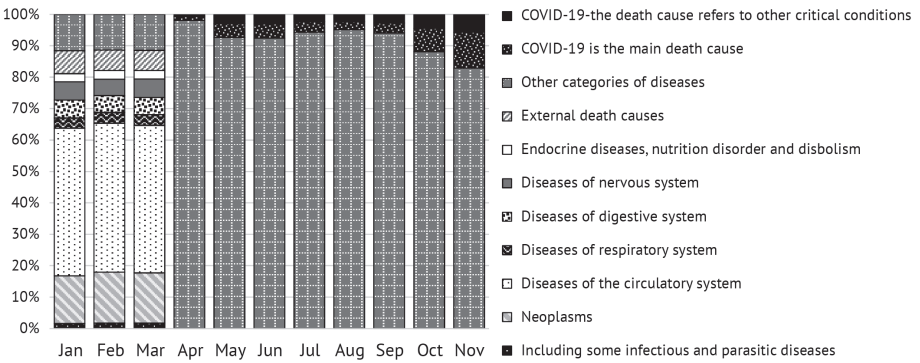


Fig. 30. Number of deaths due to death causes, January-December 2020, % of the total number of deaths within one month

Source: Rosstat operating data

Until April 2020, Rosstat published operating data related to main causes of death, however, since April, the causes of death have been entered only in terms of COVID-19 (*Fig. 30*).

Since April 2020, Rosstat publishes information on the number of registered deaths with an established diagnosis of coronavirus infection. By the time this study was prepared, such data were available only for 9 months (April-December). All deaths associated with COVID-19 are divided into two groups (*Table 5*):

— cases when COVID-19 is selected as primary death cause (from COVID-19);

— cases when COVID-19 is selected as other death cause, including when COVID-19 plays a significant role in the development of underlying disease and its fatal sequellae (with COVID-19).

According to Rosstat data, 84.500 people died from COVID-19 in January - December (COVID-19 identified), while virus was not identified for 17.500 people, however, probably it was due to COVID-19. This constitutes 4.9% of all diseased in 2020. COVID-19 as a concomitant disease was noted in 58.500 deaths, which is 2.75% of all deaths in 2020. On the whole, deaths from coronavirus and in association with coronavirus account for 50% of the increase in the number of deaths in 2020.

Table 5

Data on the number of registered deaths with an established diagnosis of coronavirus infection, people

	Main death cause			Death cause refers to other critical conditions		
		Including:			Including:	
	Total	COVID-19, virus identified	Probably, COVID-19, virus not identified	Total	COVID-19 is not the main cause of death, however, it had a significant impact on development of fatal complications of the disease	COVID-19 is not the main cause of death and did not have a significant impact on the development of fatal complications of the disease
April	1748	1350	398	1077	435	642
May	7603	5926	1677	5066	1609	3457
June	7317	5825	1492	5018	1484	3534
July	6084	5063	1021	4287	1237	3050
August	4018	3436	582	3655	1184	2471
September	5438	4579	859	4741	1428	3313
October	15 103	13 077	2 026	9 230	1 794	7 436
November	25 107	21 262	3 845	12 502	2 288	10 214
December	31 550	25 980	5 570	12 885	2 065	10 820
TOTAL	**103 968**	**86 498**	**17 470**	**58 461**	**13 524**	**44 937**

Source: Rosstat operating data

Studies in other countries also evidence that the increase in the number of deaths during the coronavirus period is not always attributable to the reported death toll from COVID-19.[1]

What are the reasons for the increase in mortality not directly related to coronavirus infection? American researchers note that during the COVID-19 pandemic, the number of initial, routine examinations and the number of hospitalizations decreased.[2] In the United States, during the first wave of the epidemic, there was the largest decline in visits to emergency department for

1 *Kontis, V., Bennett, J.E., Rashid, T.* et al. Magnitude, demographics and dynamics of the effect of the first wave of the COVID-19 pandemic on all-cause mortality in 21 industrialized countries. Nat Med 26, 1919–1928 (2020). URL: https://doi.org/10.1038/s41591-020-1112-0

2 *Rosenbaum L*. The untold toll—the pandemic's effects on patients without Covid-19. N Engl J Med. Published online April 17, 2020. doi:10.1056/NEJMms2009984.

abdominal pain and other digestive or abdominal signs and symptoms, as well as essential hypertension.[1]According to Electronic Health Record (EHR), the number of preventive screenings for cancer conducted in the United States from February to May 2020 (during the period of the most stringent anti-epidemic constraints) fell by 90% compared with the average number of screenings in the same period in 2017-2019.[2] Data from the Netherlands National Cancer Registry also show a significant decrease in cancer incidence / diagnosis compared to previous years.[3] In a study of the American health care system, the decrease in the number of patients visiting emergency departments in the United States is associated with the fear of contracting COVID-19.[4] According to scientists, this resulted in growth in morbidity and mortality, in particular, emergency medical services (EMS) reported a record number of cardiac arrests, by 45% more than before the pandemic, indicating that patients waited too long to see cardiac care.[5] Having analyzed data on the reduction of visits and hospitalizations to medical institutions under the Department of Veterans Affairs (VA) in the USA, Aaron Baum and Mark D.Schwarz concluded that patients simply avoided admission to hospitals in order to minimize the risk of contracting COVID-19.[6] Scientists from Hong Kong confirm the findings of foreign colleagues that people are scared to visit hospital due to COVID-19.[7] Italian researchers[8] concluded that forced lifestyle changes and associated effects, as well as late admission to hospital and, as a consequence, a more serious severity of the disease, influenced the negative rates of death from cardiovascular diseases.

In general, it can be concluded that growth in the number of deaths without an official diagnosis evidencing the coronavirus infection may be associated with several factors:[9]

1 *Hartnett K., Kite-Powell A., DeVies J., Coletta M., Boehmer T., Adjemian J.*, et al. Impact of the COVID-19 pandemic on emergency department visits - United States, January 1, 2019-May 30, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(23):699–704.

2 *Christopher M., MD; Alejandro Munoz del Rio*. Delayed Cancer Screenings – A Second Look. 17 July 2020. https://ehrn.org/articles/delayed-cancer-screenings-a-second-look/

3 *Sud A, Jones M, Broggio J.* et al. Collateral damage: The impact on outcomes from cancer surgery of the COVID-19 pandemic [published online ahead of print, 2020 May 16]. Ann Oncol. 2020; S0923-7534(20)39825-2. URL: https://doi.org/10.1016/j.annonc.2020.05.009

4 *Wong L., Hawkins J., Langness S., Murrell K., Iris P., Sammann A*. Where are all the patients? Addressing Covid-19 fear to encourage sick patients to seek emergency care. NEJM Catal. 2020. URL: https://catalyst.nejm.org/doi/pdf/10.1056/CAT.20.0193

5 *Mantica, Guglielmo et al.* Non-COVID-19 visits to emergency departments during the pandemic: the impact of fear. Public health vol. 183 (2020): 40-41. doi:10.1016/j.puhe.2020.04.046.

6 *Baum A, Schwartz M.* Admissions to Veterans Affairs Hospitals for Emergency Conditions During the COVID-19 Pandemic. JAMA. 2020;324(1):96–99. doi:10.1001/jama.2020.9972.

7 *King Pui Florence Chan, Ting Fung Ma, Wang Chun Kwok*. Significant reduction in hospital admissions for acute exacerbation of chronic obstructive pulmonary disease in Hong Kong during coronavirus disease 2019 pandemic, Respiratory Medicine, Volume 171, 2020. URL: https://doi.org/10.1016/j.rmed.2020.106085

8 *King Pui Florence Chan, Ting Fung Ma, Wang Chun Kwok*. Significant reduction in hospital admissions for acute exacerbation of chronic obstructive pulmonary disease in Hong Kong during coronavirus disease 2019 pandemic, Respiratory Medicine, Volume 171, 2020. URL: https://doi.org/10.1016/j.rmed.2020.106085

9 *Hiom, S.* How coronavirus is impacting cancer services in the UK. Science Blog https://scienceblog.cancerresearchuk.org/2020/04/21/how-coronavirus-is-impacting-cancer-services-in-the-uk/ (Cancer Research UK, 2020); *Kansagra, A. P., Goyal, M. S., Hamilton, S. & Albers, G. W.* Collateral effect of COVID-19 on stroke evaluation in the United States. N. Engl. J. Med. 383, 400–401

- significant impact on the development of fatal complications of concomitant diseases;
- lack or low availability of routine medical care;
- a decrease in the number of visits to medical institutions due to fear of infection;
- errors in death registration or coding

According to Rosstat operating data, it is difficult to assess the structure of mortality and its impact on life expectancy. It is expedient to wait for detailed data, which will be available only in summer of 2021.However, according to authors' preliminary estimates, life expectancy of the population in 2020 will not exceed 71.5 years.

5.7. Education during the year of pandemic[1]

The year 2020 in the education system, just like in other sectors, was marked by the coronavirus pandemic. It dramatically changed the agenda and brought to the fore the tasks that had not been viewed as priorities. A month and a half before the onset of the pandemic, a State Council meeting on education was held in Russia, where the main tasks were identified as follows: the development of private preschool educational establishments, schools in rural areas; an increase in the student admission targets (budget-funded tuition) in regional higher educational establishments (HEE) and their reduction in the HEEs situated in the capital; and growth of targeted admission to medical and pedagogical HEEs. All these problems are undoubtedly important, and both the RF Ministry of Education and the RF Ministry of Education and Science are working towards their solution; however, the issues of online learning development, digital inequality, proctoring and virtual mobility of faculty and students, and the provision of employment for the students and graduates of higher educational establishments turned out to be much more urgent, as did the issues of new budget funding mechanisms - at least in the higher education system.

5.7.1. The general issues of the education system development identified during the pandemic

The coronavirus pandemic is not over yet, so it is still too early to assume that society is indeed capable of adequately assessing all its consequences, including for the education system. However, some conclusions can already be drawn. First of all, it is the financial vulnerability of many subsystems of the education system in general, and of educational establishments in particular.

In the preschool education sector, during the first wave of the pandemic only "on duty" groups were available for those children whose parents could not work

(2020); *Bernstein, L. & Sellers, F.S.* Patients with heart attacks, strokes and even appendicitis vanish from hospitals. The Washington Post. URL: https://www.washingtonpost.com/health/patients-with-heart-attacks-strokes-and-even-appendicitis-vanish-from-hospitals/2020/04/19/9ca3ef24-7eb4-11ea-9040-68981f488eed_story.html (2020).

1 This section was written by *Klyachko, T.*, Doctor of Economic Sciences, Director of the Center for Lifelong Learning Economics, IAES RANEPA.

remotely. This translated into financial losses for state and municipal preschool educational establishments (hereinafter - PEE), because they did not receive the parental fees for looking after and caring for the children, as well as for paid extra-curricular educational services. Due to the allocation of subsidies designed to offset the loss of parental payments, these losses for the PEEs were not substantial; however, private preschool educational establishments suffered quite significantly, since they lost almost all their incomes. Most likely, some of the latter are not going to survive the pandemic, and the issue of developing the private preschool education sector will become even more acute in the post-pandemic period, when the burden on the state and municipal sectors is going to increase. At the same time, it should be borne in mind that the rather lengthy shutdown of kindergartens during the first wave of the pandemic resulted in preschoolers being deprived of the required educational services, including those that involved the preparation of young children for school, which may negatively affect their further education. In principle, the issue of compensation of the resulting learning loss, especially for the children from low-income families where the parents are unable to compensate for that loss using their own resources, will obviously become one of the substantive problems in the field of early development of children, although that issue has not yet been fully perceived.

Secondary school education underwent two phases during the pandemic. During the first wave, schools were shut completely, which created serious difficulties in online learning for children. During the second wave of the pandemic in the autumn of 2020, the students in grades 1–5 continued to attend school, and those in grades 6–11 studied remotely. Thanks to this arrangement, the financial losses of state and municipal secondary schools were minimized, while private schools suffered significant losses (from one third to half of their income). The supplementary education system suffered even more; recently, that system has been increasingly perceived not as a separate sector, but as a means of providing some additional courses complementary to the mainstream curriculum within the framework of individualization (or personalization) of children's learning trajectories (for example, "technology" classes can be held at "quantoriums", and be counted as part of the general educational program; a similar pattern can be applied to the specialized art or music schools). The supplementary classes were minimized during the switchover to online learning, because the time that students spent at their computers increased dramatically, and any unnecessary activities involving the use of electronic devices were usually suppressed by the parents. At the same time, according to our estimates, the schools that had been offering many supplementary classes on a paid basis, which greatly increased their attractiveness for families (because the schoolchildren could receive their entire educational services package in one place), also lost about 15–20% of their non-budgetary funding.

In the secondary vocational education system, serious losses were incurred by the private sector, as well as by the state vocational educational establishments (VEE) with a large share of fee-paying students or a significant share of paid educational services.

The vocational educational establishments that fell under the auspices (or patronage) of WorldSkills Russia, and so were much better funded compared to the other VEEs, more easily survived the first wave of the pandemic; and, with the support provided within the framework of the National Project "Education", they likewise did well during the second wave. At the same time, the regions began to pool their secondary vocational education (SVE) system resources and develop network educational programs, because these organizations were unable to provide the online learning format independently, by relying on their own resources.

As for the higher education sector, it demonstrated several types of responses to the switchover to online learning during the pandemic. Among higher educational establishments (HEE), 20% actually switched not to online learning, but to correspondence education. They had neither the organizational nor the material resources for full-fledged online learning. Another 60–65% of higher educational establishments began to work in a mixed format: partly in an online mode, and partly by correspondence. These two modes were combines in varying proportions, but the correspondence mode prevailed. And only 15–20% of higher educational establishments (leading universities) were able to organize quite adequate online learning by investing a large amount of their extra-budgetary funding in this particular area of their activity.

This gave rise to a rather uncertain financial situation for this category of HEEs, especially during the first wave of the pandemic, because at that moment it was still difficult to adequately estimate their future losses of tuition fees, including those paid by foreign students, who were forced to return to their native countries, and by the students from other cities, who set off for home, as well as the fees to be paid by newly admitted students, because the potential applicants could be reoriented to the HEEs situated in their native region. In addition, some of the fee-paying students lost their part-time jobs that had been enabling them to pay their tuition fees in full or in part. Added to this was the loss of their part-time jobs by some of the budget-funded students, which had helped them pay their expenses in the metropolitan cities or regional capitals where the leading universities are located.

So, the higher educational establishments belonging to this category saw a sharp increase in their expenditures alongside a drop in their incomes. At the same time, it was the leading universities that were primarily required to reduce their tuition fees when switching to online learning – similarly to US, UK, and Australian universities.[1] As a matter of fact, the difference between full-time and online learning is most pronounced in leading universities, although they have retained almost all their scheduled classes (with the exception of practice-oriented universities), during which a tutor contacts students, be it via the Internet or online learning platforms like Moodle, Zoom, MSTeams, etc. Nevertheless, the quality of online teaching, even when provided by very capable tutors, is still lower than that of classroom studies due to the absence of non-verbal components of their communication with the audience, especially if they do not fully visualize

1 URL: https://knife.media/universities-and-covid/

their audience during online lectures or seminars. And such a situation is still quite widespread. Meanwhile, the faculty workload during the pandemic, as a rule, increased greatly due to the necessity to process methodically their teaching materials in order to make them suitable for online use. The burden on the administrative staff likewise increased, because under the new conditions they had to arrange all the organizational procedures in a different way. Accordingly, the leading universities had virtually no room for saving amid a sharp rise in their costs. That is why higher educational establishments generally refuse to reduce their tuition fees, both in Russia and abroad. As for average-rated HEEs, they had to restructure their activities to a lesser degree, and in 'weak' universities the restructuring was minimal. But the resources for development available to the latter are limited as it is, so for them it is also unacceptable to reduce their tuition fees. Meanwhile, in late 2020, the issue of reducing tuition fees, as well as that of employing students and graduates in the universities where they had been studying (by creating additional jobs for them), began to be increasingly emphasized in the public discourse. However, without government assistance, both these issues can have a negative impact on the financial sustainability of HEEs, including leading universities. According to our calculations, the needed additional budget funding for the 2020/2021 academic year amounts to at least Rb170 billion. These funds should be used to resolve issues like the creation of a digital educational environment in those HEEs where it insufficiently developed (by purchasing equipment and software, hiring IT specialists to service that equipment, equipping faculty and students with the necessary technical devices, improving the qualifications of administrative and managerial personnel and faculty, etc.); creation of additional jobs in HEEs for their students and graduates in research and educational departments; development of proctoring systems at the national level and at the level of each HEE; development of online courses (not less than 5,000 courses); increase in the number of budget-funded students (e.g., up to 65% of the number of secondary school graduates); support of student loans, etc. With the reduced tuition fees, the government will also have to compensate HEEs for their losses of private funding from students.

5.7.2. The consequences of a switchover to online learning

The emergency switchover of the education system to online learning will have far-reaching consequences for all the participants in the educational process. The World Bank, as part of its Human Capital Project, found that the learning loss during a three-month closure of schools during the first wave of the pandemic could result in schoolchildren's risk of losing up to 2.5% of their future income.[1] Therefore, it is necessary to develop a system of measures to compensate for the learning loss, primarily by secondary school students.[2]

The controversy in the World Bank's conclusions notwithstanding, the issue of compensating for the learning loss associated with the switchover to online

1 COVID-19 and Human Capital. Europe and Central Asia Economic Update. Office of the Chief Economist. Fall 2020. World Bank Group.
2 URL: https://www.vtimes.io/2020/12/24/chelovecheskii-kapital-nuzhdaetsya-v-kompensatsii-a2208

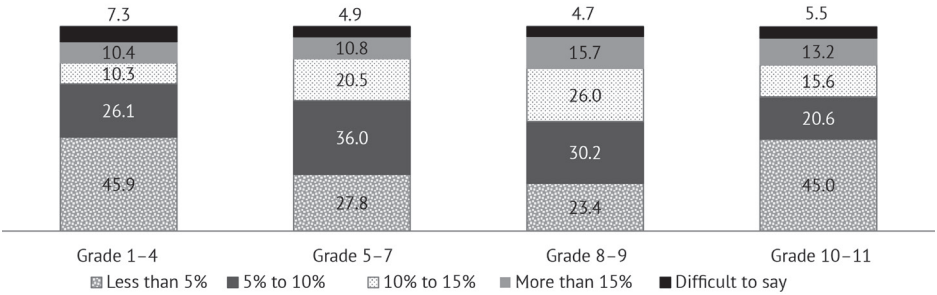


Fig. 31. Schoolteacher opinions of the share of students incapable of fully mastering the school curriculum, %

Source: School Performance Monitoring. CLLE, IAES RANEPA, 2018.

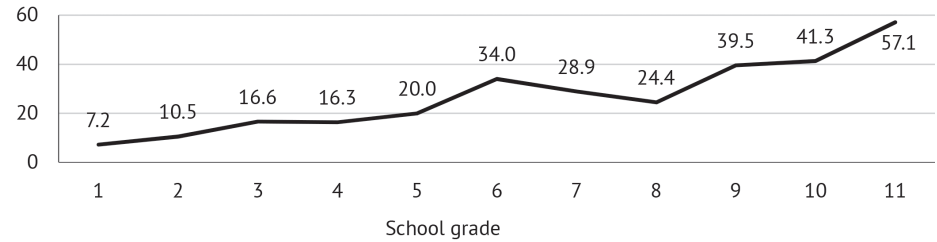


Fig. 32. The share of families that hire tutors for their children, by school grade, %

Source: School Performance Monitoring. CLLE IAES RANEPA, 2019.

learning deserves attention. It seems, however, that this issue is not quite so acute, at least for Russia. More precisely, the switchover to online learning made worse the situation for those students who had already had problems with their studies. As demonstrated by the "School Performance Monitoring" conducted by the IAES RANEPA's Center for Lifelong Learning Economics (CLLE), according to teachers, in elementary school more than 5% of students already fail to properly master the curriculum. In basic school, the share of such students increases rapidly, and it shrinks only in grades 10-11, after a significant part of 9th grade graduates have left schools (*Fig. 31*).

At the same time, as follows from the monitoring data, 60% of parents regularly help their children with their homework; besides, as early as grade 1, 7.2% of families hire for their child an English language tutor (the English language is studied from grade 2, and the parents strive to prepare their child for that class), as well as tutors in other school subjects (*Fig. 32*).

At the same time, in 40% of families the parents do not help their children in their studies; these can be arbitrarily subdivided into 3 groups:

- families where the children cope with their school assignments on their own;
- families where the task of helping the children in their studies is delegated to tutors (note that in those families where the parents help their children, tutors can also be hired);
- families where the parents cannot or do not want to help their children in their studies.

Our estimates show that the third group is the most numerous one. In other words, 60–75% of the children who are not helped in doing their homework by their parents on a regular basis are those whose parents cannot/do not want to help them in their studies. In the total child population, these comprise 24-30%. With the switchover to online learning, they experience (or continue to experience) the greatest learning loss. Meanwhile, previously they had likewise failed to receive a normal education, and so left school *en masse* after the 9th grade. How much this cohort is going to increase after the pandemic? In the spring and summer of 2020, there was a sharp surge in the demand for tutoring services for schoolchildren, by about 20%.[1] So far, it is still difficult to say whether such a demand also began to be displayed by the families where the children used to cope with their studies on their own; or whether some of the parents failed to cope with their increased load (because now they had to help their children with the assignments that had been previously performed in class with the help of the teacher), and so they began to hire tutors. But the rapidly increasing share of 9th grade graduates who went on to the secondary vocational education system in 2020 demonstrates that the issue of children failing to cope with their school studies has become even more acute. At the same time, the growing share of those who after finishing their 9th grade enter vocational educational establishments may have to do with the deteriorating economic situation in most regions, which created incentives

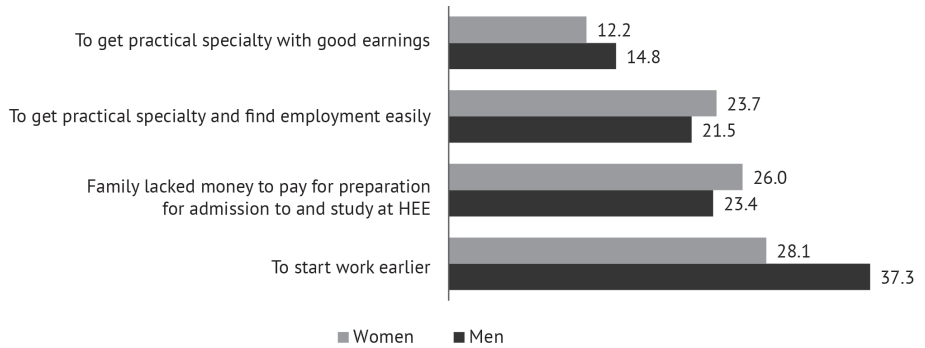


Fig. 33. The reasons for choosing the SVE system, by gender group, % (more than one answer was possible)

1 See, e.g., URL: https://newizv.ru/news/society/23-09-2020/spros-na-uslugi-repetitorov-vyros-v-2020-godu-pochti-na-20

for families to adopt a new educational strategy (where children acquire a trade or specialty, enter the labor market earlier, and then receive a higher education while working, at their own expense, thus relieving their parents of the burden of paying for their education). The reasons for their transition to the SVE system, according to the survey conducted by the CLLE of the IPEI RANEPA in the summer of 2020, are shown in *Fig. 33*.

It is noteworthy that the reformatted conditions for taking the Unified State Exam, whereby those school graduates who were not going to enroll at a university were not required to take it, resulted in an increased share of 11th grade graduates entering secondary vocational educational establishments. In some regions their share exceeded 30% (*Fig. 34*).

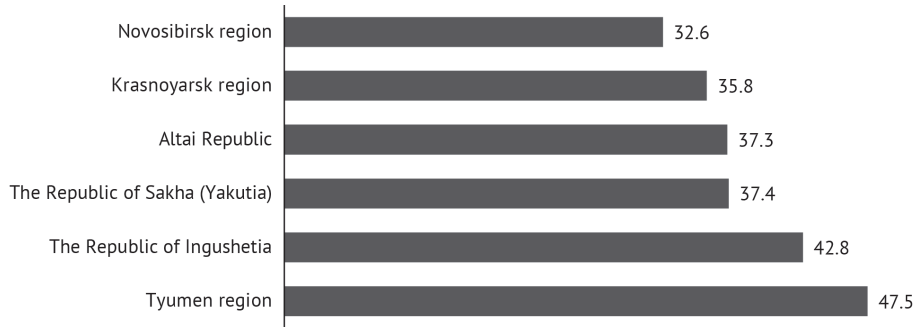


Fig. 34. The share of 11th grade graduates who entered the secondary vocational education system to study there full-time, %

Source: own calculation based on SVE admission data for 2020.

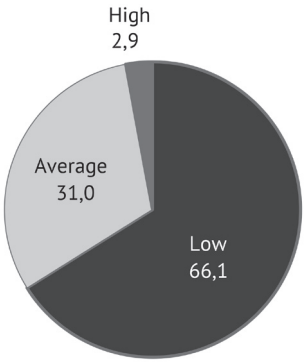


Fig. 35. The distribution of SVE system graduates into groups relative to their parental family resource availability, %

Source: Monitoring of SVE system graduates' employment, 2020.

As the survey has shown, 66% of the young people who enter secondary vocational education establishments after graduating from grades 9 and 11 come from families with low resource availability (poor or unstable financial situation; low education level of their parents; lack of opportunities for the parents to help them with their studies and further employment) (*Fig. 35*).

The coronavirus pandemic that worsened, among other things, the financial situation of families and the situation on the labor market, motivated many families to choose for their children to go to secondary vocational educational establishments. In our opinion, it is this particular factor, and not the school switchover to online learning for several months, that may later on influence both the incomes of the young generation and the quality of human capital in Russia.

It should also be noted that the SVE system, being practice-oriented, is even less suitable for online learning that general-education secondary school. That is, not to mention the fact that in recent years, this system, with its increasing contingents of students, has been suffering from chronic underfunding.

In the higher education sector, the switchover to online learning will have both negative and positive consequences. According to HPE-1 (Higher Professional Education) data for 2020 (no statistics for 2020 are as yet available for other levels of the education system), relatively few students were switched full-time to online learning (*Table 5*).

The coronavirus pandemic highlighted the issue of digital inequality of students across all the levels of the education system. In relation to that issue, it is the connection between digital inequality and the material inequality of the parental families of children and young people that is usually emphasized. However, it seems that the problem is, in fact, much deeper, and it has to do not only with the financial situation faced by families, but also with the differentiation between Russia's regions by their ability to provide households with access to broadband Internet and the Internet speed in various HEEs.

According to Rosstat data for 2019, on average in the Russian Federation before the pandemic, 26.4% of households did not have access to high-speed Internet, and even in the city of Moscow that index amounted to 13.4%. In 2019 in the Yaroslavl region, which is part of the Central Federal Okrug, that access was unavailable to 40.7% of households. In the Northwestern Federal Okrug, the worst index was displayed by the Novgorod region, where 37.7% of households had no access to broadband Internet; in the Southern Federal Okrug, it was in the Republic of Kalmykia (43.8%); in the North Caucasus Federal Okrug, it was in the Republic of Dagestan (36.8%); in the Volga Federal Okrug, it was in the Republic of Mordovia (39.1%); in the Ural Federal Okrug, it was in the Kurgan region (44.0%); in the Siberian Federal Okrug, it was in the Republic of Khakassia (46.5%); in the Far Eastern Federal Okrug, it was in the Chukotka Autonomous Okrug (50.6%) and Transbaikal Krai (58.4%) (*Fig. 36*).

Consequently, "digital inequality" starts at the level of general education, because the children in those households that had (or have) no access to broadband Internet simply cannot study remotely. Whenever secondary schools had no such access (mostly in rural areas), the teachers who had no broadband Internet access at home could not teach their classes via the school's digital infrastructure.

Table 5

The number of students enrolled in higher education programs, including with the use of e-learning and remote learning technologies

Index	2017/2018 academic year			2018/2019 academic year			2019/2020 academic year		
	all higher educational establishments	of these		all higher educational establishments	of these		all higher educational establishments	of these	
		state and municipal	other		state and municipal	other		state and municipal	other
1	2	3	4	5	6	7	8	9	10
Number of students enrolled in higher education programs, total	4,191,957	3,812,817	379,140	4,099,245	3,767,256	331,989	4,082,961	3,748,705	334,256
Of these, number of students enrolled in e-learning programs, total	676,886	652,780	24,106	839,875	797,609	42,266	1,530,939	1,465,380	65,559
Share of students enrolled in e-learning programs in total number of students enrolled in higher education programs, %	16.1	17.1	6.4	20.5	21.2	12.7	37.5	39.1	19.6
Students taught **exclusively in e-learning format**, total	2,319	1,912	407	17,243	12,472	4,771	36,689	36,017	672
Share of students taught **exclusively in e-learning format** in total number of students enrolled in higher education programs, %	0.1	0.1	0.1	0.4	0.3	1.4	0.9	1.0	0.2

Cont'd

1	2	3	4	5	6	7	8	9	10
Share of students taught **exclusively in e-learning format** in number of students enrolled in e-learning programs, %	0.3	0.3	1.7	2.1	1.6	11.3	2.4	2.5	1.0
Number of students using remote learning technologies, total	469,632	377,151	92,481	534,437	463,891	70,546	1,936,924	1,812,595	124,329
Share of students using remote learning technologies in total number of students enrolled in higher education programs, %	11.2	9.9	24.4	13.0	12.3	21.2	47.4	48.4	37.2
In cohort of students using remote learning technologies, number of those who studied using exclusively remote learning technologies, total	30,598	20,465	10,133	40,019	14,814	25,205	74,225	53,890	20,335
Share of students using remote learning technologies in total number of students enrolled in higher education programs	0.7	0.5	2.7	1.0	0.4	7.6	1.8	1.4	6.1
Share of students using only remote learning technologies in total number of students using remote learning technologies, %	6.5	5.4	11.0	7.5	3.2	35.7	3.8	3.0	16.4

Source: HPE-1 for 2019/2020 academic year.

Note. Numbers without % sign are codes of Russian regions.

Fig. 36. The share of households with access to broad band in subjects of Russian Federation

Source: built on Rosstat data[1].

In VEEs and HEEs, the availability of broadband Internet is much higher, but after their switchover to online learning by no means all the students could actually study, and some of the tutors could not teach, either, because they no longer could use the equipment and Internet access of their educational establishments. Thus, the digital infrastructure of educational establishments to a certain extent reduced or even eliminated digital inequality in the context of full-time education process, while the online learning mode actually increased that inequality. Accordingly, no attempt to provide a solution to that problem just by distributing the relevant technical devices to those who need them could succeed if, in a force majeure situation like the current pandemic, no access to broadband Internet is simultaneously provided to all households, and the related costs are not subsidized from the budget for the students from low-income families.

Besides, it is necessary to consider some other factors that contribute to the negative perception of online learning (remote work of the parents, the presence in a small family apartment of several children who are studying in different grades at a secondary school or in another educational establishment, etc.). All these factors will create obstacles to the comprehensive development of online learning formats and teaching methods, although at a first glance they have little to do with it. At the same time, the understanding that under total or partial quarantine the education system would not be able to function without switching to online learning will become an incentive for further development of online learning methods and the involvement of all the participants in the educational process, from students to government educational bodies.

1 The author would like to thank A.O. Polushkina, senior researcher of the IPEI RANEPA's CLLE, for building this graph.

5.7.3. New budget funding mechanisms for the education system

The urgent switchover to distance learning raised the question not only of the allocation of some additional budget funds to the education system, but also of the improvement (or replacement) of the very mechanism of budget financing. The pandemic has shown that in the remote format, the per student principle of budget funding allocation (which is the basis of the current normative per capita funding model) becomes totally inappropriate and pointless. Thus, for example, an online lecture can be delivered to a much larger audience than an in-class lecture, and the students on the receiving end can be located not only in different settlements or regions, but even in different countries. Everything begins to be determined by the capabilities of video conferencing platforms. Besides, the lecture can be attended not only by the students formally enrolled in a given course, but also by those who have no such right but have received a relevant link from one of the latter. Moreover, the lecture can be easily recorded and distributed online without the lecturer's consent. Alternatively, for an online seminar to be effective, a smaller audience is required (at least at the present development level of e-learning and distance education methods); or, in case of secondary school classes, these should be reduced in size, which will translate into an increase in budget expenditures.

Meanwhile, online learning demonstrated that soon there will no longer be any point in linking a teacher to a specific educational establishment: one schoolteacher will be able to deliver lessons across several schools, and a professor do the same across several universities. Thus, a new student and faculty academic mobility model will emerge, and not only at the higher education level. The attempts to reduce such opportunities by imposing administrative bans will, most likely, come to nothing. This means that the existing normative per capita funding model will no longer be functional in the foreseeable future, and it is necessary to start developing and testing some alternative models that could replace it.

* * *

The coronavirus pandemic dramatically altered many current processes in the education system. The National Project "Education", launched in 2019, has largely lost its significance in the eyes of the public, since it has been prolonged until 2030, but is now being rapidly reformatted. And even in its updated form, it is no longer perceived as a factor capable of significantly affecting the evolution in this sector. The development of a new national project "Science and Universities", or rather the attempts to combine some parts of the two existing national projects ("Education" and "Science"), although so far these attempts have been mainly reduced to administrative reshuffling and reallocation of budget funds, resulted in a situation where universities were effectively cut off from the other levels of the education system. Thus, the logic of the continuous education is disrupted. However, the separation of higher education from secondary general

education schools and the secondary vocational education system followed by their reconnection (and vice versa), has been a regular development pattern in the Russian education system (and previously, in the Soviet education system).

However, all these transformations could not obscure the main thing: that for an indefinite period, online learning and related technologies have begun to play a dominant role in the education system. The transition to online learning revealed many problems that had been latent, and these problems came to the fore. In addition, online learning by itself gave rise to some new problems that will have a long-term impact on the development of this sector, even if in 2021 it will become possible to once again depart from widespread online learning practices and return to the traditional classroom form of education (e.g., the problem of the lack of proper knowledge and skills in some groups of students). At the same time, the positive aspects of online learning will need to be further promoted, in order to gradually replace correspondence education by online learning, develop closer interaction between core universities and their branches, support the virtual mobility of students and faculty, etc. Besides, it will be necessary to eliminate digital inequality among faculty and students, and among secondary schools and universities, by systematically upgrading their digital educational environment. And this will require not only additional budget allocations to the education system, but also some new mechanisms of providing a financial backing for its functioning.

5.8. 2020: Health care challenges[1]

The coronavirus pandemic became the largest challenge for the domestic public health system. For the first time in modern history, healthcare organizers had to temporarily suspend the implementation of a major part of state guarantees ensuring free medical care to population, as well as practically all programs of health care strategic development. The extraordinary measures made it possible to avoid acute shortages of medical capacity for patients with COVID-19, however, at the same time reduced the availability of medical care for most other diseases.

As of the end of 2020, health care was going through a severe crisis shaped by an extremely high epidemic load, continuing constraints on the operation of medical organizations and the accumulated effects of previously existing restrictions. Mass dissatisfaction with health care activities in an emergency situation and the experience in direct government management of medical care gained during the pandemic, were the reason for further intensified discussion about a possible change of the health care model.

The amendments to the law on compulsory medical insurance (CMI) adopted at the end of the year may indicate the readiness of state regulators to return primarily to public health care, while the role of non-state actors to be limited to filling certain gaps in state medical and administrative structures.

1 This section was written by *Avksentiev A.*, Researcher, INSAP RANEPA, Advisor to Director, FRI, RF Ministry of Finance; *Nazarov V.*, Candidate of Economic Sciences, Director of FRI, Ministry of Finance of the Russian Federation, Deputy Scientific Director, INSAP RANEPA; *Sisigina N.*, Researcher, INSAP RANEPA, Junior researcher, FRI, RF Ministry of Finance.

5.8.1. Pandemic impacts on public health

The key outcome of the pandemic was the deterioration of basic indicators of public health. Presumably, there will be a decline in life expectancy at birth at yearend for the first time in the last fifteen years with estimates varying from maintaining the level of the previous year (73.3 years[1]) to a decrease by more than a year (up to 72.2 years[2]) or even more than two years according to independent experts (up to 71 years[3]).

Back in July, it was decided to postpone the timeline for achieving the national goal of increasing life expectancy at birth to 78 years to 2030 (previously planned for 2024).[4] In November-December, the RF Ministry of Health presented for public discussion the first draft amendments to the state program "Health Development" containing a number of adjusted values of the target mortality rates for the current year (*Table 6*). It has to be emphasized that the actual lag behind the plan for most indicators with the exception of infant mortality began already in 2019, however, during the pandemic the situation sharply deteriorated. The mortality rates of the working-age population and mortality from diseases of the circulatory system in 2020 are highly likely to exceed the baseline levels shown before the start of the national project.

Table 6

Priority mortality targets

	2018	2019		2020	
	actual	plan	actual	plan	revision
Mortality of working-age population per 100 000 people	428.8	437	475.5	419	539.2
Mortality from diseases of circulatory system per 100 000 people	583.1	545	573.7	525	610
Mortality from neoplasms per 100 000 people	203.0	199.5	201.5	197	201.8
Infant mortality per 1000 born children	5.1	5.4	4.9	5.2	4.9

Sources: Conclusion of the Accounts Chamber of the Russian Federation on the outcome of an external audit of the implementation of the Federal Law "On the Federal Budget for 2019 and for the Planning Period 2020 and 2021" and Budget Accounting on the Execution of Federal Budget for 2019 at the Ministry of Health of the Russian Federation / Accounts Chamber, 2020. URL: https://ach.gov.ru/upload/pdf/budget/%D0%9C%D0%98%D0%9D%D0%97%D0%94%D0%A0%D0%90%D0%92.pdf; Draft Decree of the Government of the Russian Federation "On Amendments to the State Program of the Russian Federation" Development of Health Care "/ Federal portal of draft regulatory legal acts, 2020. URL: https://regulation.gov.ru/projects#npa=110586; Draft Decree of the Government of the Russian Federation "On Amendments to the State Program of the Russian Federation" Development of Health Care "/ Federal Portal of Draft Normative Legal Acts, 17.12.2020. URL: https://regulation.gov.ru/projects#npa=111280.

1 Draft unified government plan to achieve Russia's national development goals for the period up to 2024 and for the planning period until 2030 / May Decree, 15.10.2020. URL: https://t.me/maydecree/4504

2 Draft Decree of the Government of the Russian Federation "On Amendments to the State Program of the Russian Federation" Development of Health Care "/ Federal Portal of Draft Normative Legal Acts, 17.12.2020. URL: https://regulation.gov.ru/projects#npa=111280

3 Alexey Raksha: "Rospotrebnadzor draws reports and does the self-assessment" / Business.Online, 07.12.2020. URL: https://www.business-gazeta.ru/article/491270

4 Executive Order of the President of the Russian Federation of 07.05.2018 No. 204 "On National Goals and Strategic Objectives for Development of the Russian Federation for the period up to 2024"; Decree of the President of the Russian Federation of July 21, 2020 No. 474 "On the National Development Goals of the Russian Federation for the period up to 2030".

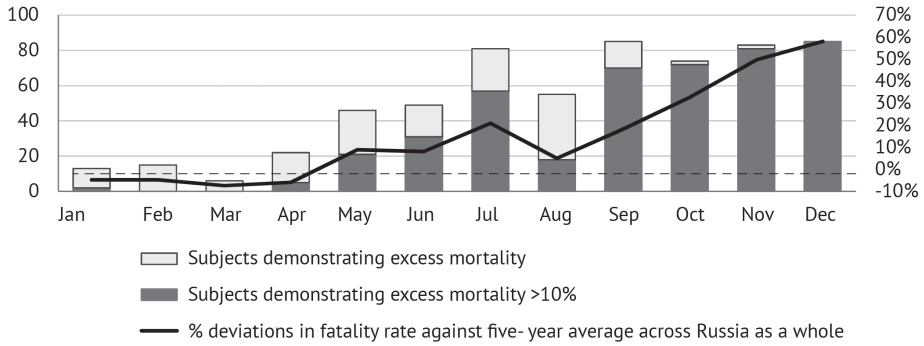


Fig. 37. Dynamics of excess mortality in Russia, 2020

Source: Rosstat

The pandemic of a new coronavirus infection and the resulting formal and informal restrictions on the availability of medical care in other areas were main drivers of excess mortality. The first months of 2020 showed a clear positive trend towards a decrease in mortality, which remained in most regions of the country until April and in some remote and sparsely populated regions until June.

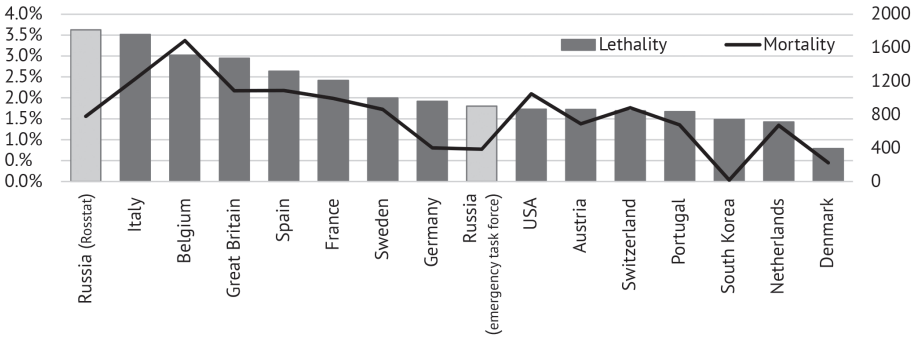
Only in July did negative trends spread to most of the country's territory, followed by a decline in August and a new increase in the fall-winter (*Fig. 37*).

According to the updated Rosstat data, 114.600 people died directly from COVID-19 in 2020 (primary cause of death) or in association with this disease (it significantly impacted on the development of fatal complications of another disease). The total number of deaths for the year exceeded the average five-year value by 274.000 cases (+ 14.8%).[1] The remaining 159.400 excess deaths can be explained both by errors in the coding of the death causes (in some regions of the Russian Federation, the share of deaths from COVID-19 and in connection with this disease is less than 10% in excess mortality) and increased mortality from other causes due to restrictions on obtaining planned medical care.

The first estimates of mortality and lethality from a new coronavirus infection in Russia, calculated based on the operational statistics, corresponded to the level of South Korea and leading Western countries (Austria, Germany). The Rosstat publication of detailed mortality data, rise in the fall-winter incidence rate and the expansion of testing in foreign countries resulted in a significant revision of Russia's position in the world (*Fig. 38*)

The most likely explanation for the excess mortality not related to COVID-19 is a decline in the availability of medical care in other areas caused by the transfer of resources to provide care for patients with a new coronavirus infection and the associated formal restrictions on provision of planned medical care in other

1 Natural movement of the population across subjects of the Russian Federation in January-December 2020 / Rosstat, 10.02.2021. - URL: https://rosstat.gov.ru/storage/mediabank/TwbjciZH/edn12-2020.html



Note. The reported lethality and mortality rates may differ by country from the actual ones due to specifics of national approaches to diagnosing and registering of deaths from COVID-19.

Fig. 38. Mortality (per 1 mn people) and lethality from coronavirus infection (% of the number of registered cases) in Russia and foreign countries, 2020

Source: Data on cumulative cases and deaths: WHO Coronavirus Disease (COVID-19) Dashboard // WHO. 10 February 2020. URL: https://covid19.who.int/; Data on population size: United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019. Online Edition. Rev. 1. URL: https://population.un.org/wpp/Download/Standard/Population/. Verified data on Russia: Natural movement of the population in the context of subjects of the Russian Federation in January-December 2020 / Rosstat, 10.02.2021. URL: https://rosstat.gov.ru/storage/mediabank/TwbjciZH/edn12-2020.html.

areas, as well as patients' reluctance to contact medical organizations during a pandemic seen as potential foci of infection.

A decline in the number of medical visits followed by a subsequent growth in the proportion of diseases detected at late stages and mortality from other causes are observed all over the world. Some experts confirm these effects in Russia. Thus, according to the chief freelance cardiologist of the Ministry of Health of Russia, the number of planned hospitalizations for cardiovascular diseases decreased by 20-50%, while late hospitalizations increased by 25%.[1] According to various estimates, in-hospital mortality from myocardial infarction increased by 1.5-2.5 times.[2]

Oncological care was a specific exception. According to Federal Compulsory Medical Insurance Fund, the scale of medical care for cancer patients increased by 35–40%.[3] Nevertheless, it is possible to identify the pandemic negative impact even on this profile in the long term through late diagnosis of diseases due to overloading of the primary health care system or postponing treatment by the patient.

1 *Kalashnikov I.* Sergey Boitsov announced growth of late CVD hospitalizations by 25% / Medvestnik, 15.10.2020. URL: https://medvestnik.ru/content/news/Sergei-Boicov-zayavil-o-roste-sluchaev-pozdnei-gospitalizacii-po-povodu-SSZ-na-25.html

2 *Kobernik O.* Hospital mortality from myocardial infarction doubled // Medvestnik, 16.10.2020. URL: https://medvestnik.ru/content/news/Gospitalnaya-letalnost-ot-infarkta-miokarda-uvelichilas-vdvoe.html

3 *Pogontseva E.* FCMI recorded an increase in the volume of assistance to cancer patients / Medvestnik, 27.11.2020. URL: https://medvestnik.ru/content/news/FOMS-zafiksiroval-rost-obemov-pomoshi-onkopacientam.html.

5.8.2. Pandemic impacts for health care

At the level of health care, a change in the structure of medical care was the main effect of the pandemic. The measures aimed to ensure the prioritized provision of medical care to patients with a new coronavirus infection (repurposing treatment facilities of other profiles and limiting provision of planned medical care) prevented a critical overload on the medical network, but ended in a decrease in both the current income of medical organizations and long-term investments in the industry.

The requirements to provide beds for treating a new coronavirus infection and the allocation of these beds, approved in March, (subsequently, norms were further revised upward) [1] were the pivot point for transformation. A massive re-profiling of specialized departments and hospitals of other profiles for the needs of patients with COVID-19 started in April,[2] as well as the deployment of temporary stationary modules based on pre-fabricated structures[3] and non-medical facilities,[4] and construction of new infection centers started in some subjects of the Russian Federation.[5]

To release additional beds and prevent the emergence of infection foci in medical organizations, the subjects of the Russian Federation were recommended to suspend the impatient provision of routine medical care,[6] which was later officially approved in most subjects of the Russian Federation by resolutions of chief sanitary doctors[7], or governors' decrees.[8]

At the same time, medical examination of adults[9] and children[10] was suspended. Provision of emergency medical care and planned treatment for cancer, diseases

1 Letter of the Ministry of Health of the Russian Federation of 03.24.2020 No. 30-1 / 10 / 2-24 "On Minimum Requirements to Facilities and Premises Planned for Additional Infectious Beds to Treat Patients with COVID-19.".

2 Resolution of the Government of the Russian Federation of 02.04.2020 No. 844-r "On Approval of Medical Organizations to be Redesigned to Provide Inpatient Medical Care to Patients with a Confirmed Diagnosis or Suspected Coronavirus Infection COVID-19." Resolution of the Government of the Russian Federation of 24.04.2020 No. 1131-r "On Approval of the Preliminary List of Medical Organizations to be Redesigned to Provide Inpatient Medical Care to Patients with a Confirmed Diagnosis of a New Coronavirus COVID-19 infection or Suspected of a New Coronavirus Infection COVID-19 according to a Special Instruction."

3 Temporary modules for coronavirus convalescents to be built in Moscow at 9 hospitals // TASS. April 17, 2020. URL: https://tass.ru/moskva/8274113

4 The temporary hospital at Lenexpo received the first patients with coronavirus // RIA Novosti. May 3, 2020 URL: https://ria.ru/20200503/1570923096.html; The authorities rejected temporary hospitals // Kommersant FM. July 7, 2020 URL: https://www.kommersant.ru/doc/4406843

5 Sobyanin opened a new infectious diseases hospital in Voronovsky built in a month // TASS. April 17, 2020 URL: https://tass.ru/moskva/8273755; The Ministry of Defense completed the construction of 16 multifunctional medical centers to combat coronavirus // TASS. May 15, 2020 URL: https://tass.ru/ekonomika/8482955

6 Order of the Ministry of Health of Russia dated March 16, 2020 No. 171 "On Temporary Procedure for Organizing Work to Prevent and Reduce Risks of the Spread of COVID-19.".

7 Resolution of Chief State Sanitary Doctor for St. Petersburg dated 03.23.2020 No. 3 "On Additional Measures to Reduce Risks of the Spread of COVID-2019 in St. Petersburg."

8 Decree of the Governor of the Altai Krai dated 31/03/2020 No. 44 "On Particular Measures to Prevent the Import and Spread of a New Coronavirus Infection COVID-19."

9 Resolution of the Government of the Russian Federation of March 21, 2020 No. 710-r "On Temporary Suspension of the All-Russian Adults' Prophylactic Medical Examination in the Russian Federation."

10 Decree of the Government of the Russian Federation of 03.04.2020 No. 432 "On Specifics of Implementation of Basic Compulsory Medical Insurance Program amid Threat of Spreading

of the cardiovascular and endocrine systems, as well as renal replacement therapy, was not formally subject to restrictions, and the corresponding specialized departments were not intended to re-profiling[1], but in reality, both the Moscow and regional lists of re-profiled federal and private medical organizations included institutions providing care for cardiovascular and oncological diseases,[2] which indicates a reduction, at least, in the volume of high-tech medical care.

Early and large-scale preparation of health care has helped to avoid an acute shortage of beds for patients with COVID-19. By the time of the first peak in the incidence in May-June, specialized bed capacity for patients with a new coronavirus infection reached 184.000 with at least 35% remained in reserve.[3] In some areas, the epidemic could have been more severe (in particular, in the Sverdlovsk region the occupation of infectious beds in mid-July was 81% , in Yekaterinburg it amounted to more than 90%[4]), but it remained far from the worst foreign scenarios (Lombardy, New York). In autumn, when the epidemic spread to most of the RF subjects, the situation became noticeably more complicated, but still was under control. The total number of beds for patients with a new coronavirus infection increased to 287.000 and their average occupancy up to 77%.[5] The employment threshold of a specialized bed capacity constituting 90% in October was exceeded in 16 regions[6]; by November, their number dropped to six.[7]

Taking into consideration the obvious need to revise the structure of medical care during a pandemic, the question of acceptable scale of reduction in the volume of planned medical care remains controversial. Along with a decline in the availability of medical care and growth in mortality from other causes, the change in the structure of services became an additional factor in disruption of medical organizations.

Targeted funds allocated by the federal government and the RF subjects' authorities in connection with the pandemic did not compensate for the loss of income from provision of medical care in other fields. The suspension or slowdown

Diseases Caused by a New Coronavirus Infection."

1 Decree of the Government of the Russian Federation of 03.04.2020 No. 432 "On Specifics of Implementation of Basic Compulsory Medical Insurance Program amid Threat of Spreading Diseases Caused by a New Coronavirus Infection."

2 Resolution of the Government of the Russian Federation of 02.04.2020 No. 844-r "On Approval of Lists of Medical Organizations to be Redesigned to Provide Inpatient Medical Care to Patients with a Confirmed Diagnosis or Suspected Coronavirus Infection COVID-19." Resolution of the Government of the Russian Federation of 24.04.2020 No. 1131-r "On Approval of Preliminary List of Medical Organizations to be Redesigned to Provide Inpatient Medical Care to Patients with a Confirmed Diagnosis of a New Coronavirus COVID-19 Infection or Suspected of a New Coronavirus Infection COVID-19 according to a special instruction."

3 Information Center for Monitoring the Coronavirus Situation. Operational monitoring of the readiness of regional health systems for hospitalization of patients with pneumonia. URL: https://xn--j1ab.xn--h1ae9a.xn--p1ai/

4 The RF Presidential Envoy in UFO informed about the shortage of beds for patients with coronavirus in the Sverdlovsk Region // TASS. July 17, 2020 URL: https://tass.ru/ural-news/8989555

5 Information Center for Monitoring the Coronavirus Situation. Operational monitoring of the regional health systems readiness for hospitalization of patients with pneumonia. URL: https://xn--j1ab.xn--h1ae9a.xn--p1ai/

6 Meeting with Members of the Government / President of the Russian Federation, 28.10. - URL: http://kremlin.ru/events/president/news/64293

7 Tatiana Golikova named the regions with "the most critical situation" / RBC, November 24, 2020. URL: https://www.rbc.ru/society/24/11/2020/5fbcc2009a7947f7be6e16be?

in the implementation of most of the health care strategic development programs have further exacerbated the situation.

From a formal point of view, health care funding has increased in 2020. According to preliminary estimates, total government spending on health care increased by Rub 589 bn corresponding to 0.6% of GDP. Already next year, government spending is expected to decrease by Rub 162 bn or 0.3% of GDP. *(Table 7)*.

Table 7

Government spending on health care, billions of Rubles

	2019	2020	2021	2022	2023
Federal budget	713	1265	1129	1135	1101
CMI budget	2187	2369	2545	2658	2798
Consolidated budgets of RF subjects	905	761	753	798	849
Total: RF consolidated budget	3805	4394	4428	4591	4748
Share in GDP, %	3,5	4,1	3,8	3,7	3,6

Note. There are projected values for 2020–2023.
Source: Alexander Sokolov. Money does not heal: where health care reform leads //Vedomosti, 15.10.2020. URL: https://www.vedomosti.ru/society/articles/2020/10/14/843300-dengi-lechat.

Most of the additional funding was allocated in connection with the pandemic and aimed at solving a relatively narrow list of tasks for organizing the treatment of patients with a new coronavirus infection: deploying and equipping a dedicated bed fund, purchasing personal protective equipment and testing systems, stimulating payments to medical workers.

The share of long-term investments (permanent intensive care beds, equipment for laboratory testing and radiological diagnostics) that can improve the quality and availability of medical care in the future, is relatively small in this flow of funds.

Another source of additional funds for the health care system was payment for medical care provided to patients with a new coronavirus infection. Since tariffs for such care were on average lower than service charges for specialized medical treatment, which were previously the main source of income for large hospitals, these receipts could not fully compensate for the lost income. For medical organizations operating under CMI program, these losses were compensated by the advance payment permit without taking into account the actual fulfillment of the planned volume of aid,[1] however, only partially. Funds received as part of such an advance can be used only for a limited set of mandatory payments: labor remuneration, payment of taxes and fees, payment of utilities and property maintenance. In December, this list was supplemented with expenses related to the fulfillment of obligations assumed under concluded civil law contracts, but in the amount of no more than 5% of fixed costs for the corresponding period.[2] The

1 RF Government Decree dated 03.08.2020 No. 1166 "On Amending Clause 1 of the Decree of the Government of the Russian Federation dated 03.04.2020 No. 432."
2 Ibid.

balance of unused funds is subject to return to the budget of the corresponding territorial CMI fund.

Another potential source of income for public health care institutions, i.e. provision of paid medical services, also turned out to be practically inaccessible during periods of restrictions on provision of routine medical care or re-profiling of the institution. Consequently, state medical organizations were limited in independent spending for almost a year, and timing of their own investments' recovery is not known.

Private medical organizations were also affected during the quarantine period. In the subjects of the Russian Federation with the most severe restrictions (St. Petersburg, Tver region), their work was completely prohibited. With milder approaches, where medical care was allowed, patient flow tended to decline due to concerns about transmission of the virus in healthcare organizations, and the overhead costs for providing the required grade of security increased.

In April-June, revenues of private medical organizations decreased by an average of 40-50% compared to the same period last year. Non-state market actors approached the Government of the Russian Federation proposing to add health care to the list of industries most affected by COVID-19,[1] however, the respective provision was adopted only in relation to dental practice.[2] Nevertheless, large private actors were able to outlast the difficult period and recover in H 2. It is expected that due to the effect of deferred demand, the market will be able to maintain the volumes of the previous year or even show insignificant growth (up to 5%), which will continue next year as well.[3]

In the long term, the state of health care and its performance will also be affected by a delay or slowdown in the implementation of a number of development programs. In particular, regional programs for modernization of primary health care were postponed (starting from January 1, 2021[4]) as well as regional pilot projects for testing drug insurance mechanisms (launching is expected in 2021, however, exact dates and list of pilot territories have not yet been determined[5]).

The National Health Care Project has not been formally interrupted, but many measures involving large long-term investments (construction and reconstruction of new facilities, purchase of equipment) show a low standard of performance.[6]

1 *Virchenko K*. Private medicine asks the government to include it among the victims of the coronavirus // Vedomosti, 04/06/2020. URL: https://www.vedomosti.ru/business/articles/2020/04/06/827201-chastnaya-meditsina-prosit-pravitelstvo..

2 Decree of the Government of the Russian Federation of 03.04.2020 No. 434 "On Approval of the List of Sectors of the Russian Economy Most Affected in the context of a Deteriorating Situation due to Spread of a New Coronavirus Infection."

3 Private medicine is making good progress / RBC +, 12/17/2020. URL: https://spb.plus.rbc.ru/news/5fdb4b697a8aa99d7f985114; Daria Shubina, Olga Chesnokova, Sergey Galayants, Varvara Kolesnikova, Alla Kraeva. Top-200 private multidisciplinary clinics in Russia / Vademecum, 02.10. URL: https://vademec.ru/article/top200_chastnykh_mnogoprofilnykh_klinik_rossii/

4 *Manuilova A*. Modernization of a viral nature // Kommersant. April 16, 2020 No. 69. P. 2.

5 Tatiana Golikova spoke about the project relative to drug insurance system / RIA Novosti, 04/09/2020. URL: https://ria.ru/20200904/golikova-1576789857.html

6 Operational report on the execution of the federal budget for January-September 2020 / Accounts Chamber, 09.11. URL: https://ach.gov.ru/audit/9-mon-2020

In particular, only 31% of the funds allocated for purchasing equipment for cardiovascular centers was spent in the first nine months.[1]

5.8.3. Consolidating the position of state in health care

Combatting the new coronavirus infection suspended for several months the preparation of the next package of strategic health care reforms, but in the fall of 2020, several important management innovations were approved at once. It has to be emphasized that principal adopted initiatives were developed in accordance with Instructions of the President of the Russian Federation with their deadlines of implementation completed in 2020. Most of the independent proposals of the CMI Fund and the Ministry of Health of Russia were not supported by other participants and remained outside the law.

The crucial event of the year in the health care legal regulation was the adoption of amendments to the CMI law, introducing the so-called federal segment of the basic CMI program, thus, a separate amount of funds covering medical care provided by federal medical organizations with distribution and control over spending maintained directly by the Federal CMI Fund.[2] With an insignificant volume of the federal segment (in 2021, 5.2% of the total funds allocated to finance the basic CMI program[3]), the new law creates a dangerous precedent for abandoning fundamental insurance principles. Proposed new rules for organizing the activities of the federal segment:

- abolish independent quality control and availability of medical care. The Federal CMI Fund becomes both the manager of funds and the sole controller of effective spending;
- restrict competition between health care organizations. Insured individuals lose the opportunity to choose between organizations of the federal and territorial segments, which will inevitably result in a decrease in the system's patient focus;
- identify federal medical organizations into an independent health care subsystem, making it difficult to coordinate the work of federal and regional institutions operating in the same territory.

None of the listed norms was necessary to solve the initial problem, i.e. to ensure a sufficient amount of funding for federal medical centers without prejudice to the implementation of territorial CMI programs. Respective inter-territorial calculations could be made based on the allocation of the federal segment of basic CMI program with the distribution of the respective volumes according to decisions of a specialized federal commission created under the Federal CMI Fund or the Ministry of Health of Russia involving all stakeholders and preserving

1 *Grosheva M.* Regions purchased only 30% of the medical equipment needed to combat CVD in 2020 / Medvestnik. 24.09.2020. URL: https://medvestnik.ru/content/news/Regiony-zakupili-tolko-30-neobhodimogo-dlya-borby-s-SSZ-medoborudovaniya-v-2020-godu.html

2 Federal Law dated 08.12.2020 No. 430 "On Amendments to the Federal Law "On Compulsory Health Insurance in the Russian Federation."

3 Bill No. 1027745-7 "On the Budget of Federal Compulsory Medical Insurance Fund for 2021 and for Planning Period of 2022 and 2023"/ System for Ensuring Legislative Activity, 30.09.2020 / URL: https://sozd.duma.gov.ru/bill/1027745-7

existing mechanisms for monitoring the quality and availability of medical care, protecting patients' rights by medical insurance organizations (MIO hereunder). In this situation, dismissal of non-state actors from federal segment can be viewed as a ready signal of state regulators to return the distributive system of healthcare financing. This trend is confirmed by other regulatory changes.

Along with exclusion of MIO from servicing the federal segment of CMI program, the amendments adopted to the CMI law deprived medical insurance organizations of the authority to conduct medical and economic control and reduced the standard of expenses to administer CMI to 0.8-1.1% (0.5-1% according to the initial draft which made it possible to set the standard obviously insufficient for profitable activity[1]). At the same time, MIOs have finally lost the right to receive income from savings of CMI funds.[2]

A number of discussed but not yet taken measures assumed increased pressure on private medical organizations: transition to a declarative procedure for inclusion in the registers of medical organizations participating in the implementation of the territorial CMI program (as opposed to the notification procedure), abolition of a direct legislative ban on refusal to provide medical care, included in the program of state guarantees, transition to rigid patient routing assuming possible restrictions on seeking health care in medical institutions of other subjects of the Russian Federation and small private medical organizations (proposed by the draft of a new procedure for providing medical care for cancer).[3]

A provision prohibiting to charge for medical care provided in excess of the planned values approved by decision of the Commission for developing territorial CMI program has been in effect since last year, however, only this year there has been a change in judicial practice with regard to this issue. Medical organizations received massive denials of claims requesting payment for such assistance.[4] Eventually, it is proposed to further tighten the requirements for private medical organizations, including the possibility of limiting the volume of their activities in the subject of the Russian Federation and involving them to provide state-guaranteed medical care in an emergency.[5]

Likewise, a top-down system continues to build-up. In November, the Government of the Russian Federation was authorized to establish a unified system of remuneration for employees of the state and municipal institutions,

1 *Grishina T.* MIOs diet prescribed to insurance companies //"Kommersant". - 2020. – No. 201/P.-S.
2 Order of RF Ministry of Health No. 1024n of September 25, 2020 "On Amendments to Rules of Compulsory Medical Insurance, approved by Order of RF Ministry of Health No. 108n of February 28, 2019, and a Standard Form of Contract on Financial Support of Compulsory Medical Insurance, approved by Order of the Ministry of Health and Social Development dated 09.09.2011 No. 1030n."
3 Passport of the draft departmental act "On Approval of the Procedure for Providing Medical Care to Adult Population with Cancer" / Federal portal of draft regulatory legal acts, 03.08.2020. URL: https://regulation.gov.ru/projects?fbclid=IwAR3vuRjFFwl9L9FISMNJHjmUDSMLkmXx9K4nddu8euQC4knyN2G3sr8MKjg#departments=11&StartDate=3.8.2020&EndDate=3.8.2020&npa=106759
4 Clinics were deprived of the opportunity to receive CMI funds through the court for provided medical care/ Medvestnik, 14.09.2020. URL: https://medvestnik.ru/content/news/U-klinik-otnyali-vozmojnost-dobyvat-sredstva-OMS-za-okazannuu-pomosh-cherez-sud.html
5 *Galayants S.* Doctors of private clinics can be recruited to work in state medical institutions during epidemics / Vademecum, 18.06.2020. URL: https://vademec.ru/news/2020/06/18/vrachey-chastnykh-kliniki-mogut-privlech-k-rabote-v-gosmeduchrezhdeniyakh-v-period-epidemiy/

including for health care workers (Instruction of the President of the Russian Federation dated 02.10.2019).[1] Health care will be the first industry to introduce a unified salary system. It is envisaged to take it into effect in all subjects of the Russian Federation from January 1, 2022.[2] At the end of November, a bill was submitted to the State Duma establishing mandatory approval to appoint heads of health authorities in the subjects of the Russian Federation[3] by the RF Ministry of Health (Instruction of the President of the Russian Federation of 02.09.2019).[4]

The new position of the Ministry of Health of the Russian Federation with regard to private market actors raises concerns of other state regulators. Instructions to strengthen control over respect for rights of private medical organizations and MIOs were expressed by the Federal Antimonopoly Service,[5] the Federation Council[6] and the President of the Russian Federation.[7]

* * *

With a relatively successful pandemic experience, the state of national health care is inferior to the "pre-coronavirus" period in all key indicators. The recovery rate in the availability of medical care and public health will directly depend on timing of harnessing the spread of the virus. Today, the most likely scenario for the end of the epidemic within the country is the mass vaccination during 2021. The full recovery of health and provision of medical care indicators even under the most favorable scenario, may take several years.

5.9. The pandemic social and economic lessons in the North Caucasus [8]

The most pressing issues faced by the regions of the North Caucasus in 2020 were associated with the COVID-19 pandemic. In the North Caucasian Republics, particular aspects of the social organization and economic structure of these subjects of the Russian Federation had an impact on the course of the epidemic

1 The list of instructions following the meeting on the modernization of the primary health care unit Pr-2064 dated 02.10.2019.

2 *Kamaev D.* The government was authorized to establish a sectoral system of remuneration for health workers /Vademecum, 09.11.2020. URL: https://vademec.ru/news/2020/11/09/pravitelstvo-poluchilo-pravo-ustanavlivat-otraslevuyu-sistemu-oplaty-truda-medrabotnikov/.

3 Bill No. 1062459-7 "On Amendments to Articles 14 and 16 of the Federal Law" On the Fundamentals of People Health Protection in the Russian Federation."

4 The list of instructions following the meeting on the modernization of primary health care Pr-1755 dated 02.09.2019.

5 *Beskaravaynaya T.* FAS will assess the risks of CMI reform / Medvestnik, 20.11. - URL: https://medvestnik.ru/content/news/FAS-predlojil-monitoring-pravoprimeneniya-popravok-v-zakon-Ob-OMS.html

6 *Kalashnikov I.* Senators demanded quarterly reporting from authors of CMI reform / Medvestnik, 02.12. - URL: https://medvestnik.ru/content/news/Senatory-potrebovali-ejekvartalnoi-otchetnosti-ot-avtorov-reformy-OMS.html

7 List of instructions on improving compulsory medical insurance dated December 12, 2020 No. Pr-2072.

8 This section was written by *Kazenin K.*, Candidate of Sciences (Philology), Director, Center of Regional Study and Urban Planning IAES RANEPA, Researcher of the Gaidar Institute; *Starodubrovskaya I.*, Candidate of Economic Sciences, Head of Center for Political Economy and Regional Development of the Gaidar Institute, Leading Researcher, Center of Regional Study and Urban Planning IAES RANEPA.

and its consequences for the population. To build a state policy aimed to support the economy of the North Caucasus after a pandemic, as well as to improve the system for protecting people from epidemics and other natural threats in this part of the country, consideration must be given to local factors that have complicated the way of coping with the spread of a new infection by Republics of the North Caucasus Federal Okrug (NCFO).

It should be emphasized that according to official statistics presented on the stopcoronavirus.rf website, an increased incidence of coronavirus was not entirely typical for Republics of the North Caucasus compared to other regions of the Russian Federation. Thus, as of January 1, 2021, the total number of COVID-19 cases per 100.000 people was higher than the all-Russia level only in two Republics: Karachay-Cherkess Republic and Ingushetia (3263 and 2521 respectively with the all-Russia number constituting 2188).

However, the reliability of official morbidity data in a number of NCFO regions was repeatedly questioned, and it was caused in some cases by the contradictory policy of regional authorities in informing the population about the course of the pandemic. For example, during April - the first half of May, official data for the Republic of Dagestan indicated a relatively low incidence rate compared to most other regions.

According to republican authorities, the number of people infected with a new coronavirus in the region was 3.553 people as of May 19 with 32 deaths. However, on May 17, the then Minister of Health of the Republic of Dagestan Jamalutdin Gadzhiibragimov reported 657 patients with pneumonia who died having no confirmed diagnosis of COVID-19.[1] At that time, he estimated the total number of coronavirus and pneumonia cases in Dagestan during the epidemic at 13.000. Such contradictions between official sources especially typical for the North Caucasus regions during the spring wave of coronavirus and are suggestive that the real incidence rate there was significantly higher than the official daily statistics claimed.

Emergency measures taken by federal authorities in a number of NCFO regions in May-June implicitly confirm that the real situation regarding the pandemic and fighting against it was extremely unfavorable there. Such measures include the urgent dispatch of Moscow medical teams to Dagestan, Ingushetia and North Ossetia at the end of May[2] at the request of the President of the Russian Federation to fight the coronavirus, as well as the investigation by the central office of the Investigative Committee of the Russian Federation of a criminal case initiated in connection with a large number of violations in ensuring the work of doctors in Karachay-Cherkess Republic.[3]

1 Minister of Health of the Republic of Dagestan announced deaths of 40 doctors from pneumonia and COVID Society RBC (rbc.ru)

2 A charter flight with a team of doctors from Moscow arrived in Dagestan. RIA Novosti, 28.05.2020 (ria.ru); Doctors from Moscow arrived in North Ossetia to fight COVID-19. Rossyiskaya Gazeta (rg.ru); A team of doctors from Moscow arrived in Ingushetia to fight coronavirus Society TASS (tass.ru).

3 Investigative Committee of the Russian Federation initiated a case on non-payments to doctors in Karachay-Cherkessia - News:: Society :: Kommersant (kommersant.ru).

This evidence of the serious challenges faced by the North Caucasus during the pandemic makes it necessary to focus specifically on local factors that adversely affected North Caucasian regions during the period of the coronavirus increasing incidence. Based on the analysis of statistical data, media publications, as well as authors' field observations in 2020, these factors should include primarily the following:

1. Specifics of social contacts and high population mobility assisted to virus increasing incidence;
2. Low level of public confidence in government agencies responsible for anti-epidemic measures;
3. The proportion of the population, higher than nationwide, employed in small business sectors hardly affected by the pandemic.

Social and cultural risk factors in the wake of pandemic

High population mobility is true primarily because a major proportion of the population migrates for work both from villages to the cities of the North Caucasus Federal Okrug, as well as to other regions. According to the available information, due to the deteriorating economic situation, many of migrant workers returned to their homes in spring. Following the tradition, it is a must to meet with relatives, neighbors, friends upon returning. This creates favorable environment for the spread of the virus.

Such rural norms of behavior are one of the reasons for the *high density of social contacts*, making it especially dangerous in a pandemic. It is also largely created by the tradition of regular people mass gatherings in connection with the most important life events, i.e. birth of children, matchmaking, weddings, funerals, commemorations. According to numerous testimonies, it is the funeral rites that largely contributed to the infection. Massive outbreaks of infection were recorded after taziyats (condolence procedure). Moreover, even having information about the possibility of getting sick, people often did not cancel mass events as the pressure of public opinion turned out to be stronger.

In this context, the behavior of religious leaders, whose readiness to respond to epidemic threats differed from region to region, acquired particular importance. Mosques in the North-West Caucasus, i.e. in Kabardino-Balkar Republic, Adygea and in Krasnodar krai, were closed to the public on March 24, in Karachay-Cherkess Republic on March 26, in Ingushetia it happened at the very end of March.

Then, immediately after the first identified cases of infection, mosques not subordinate to the republican Muslim Spiritual Authority began to close in Dagestan. However, long enough, the Spiritual Authority only appealed to believers to refrain from visiting mosques, shorten the time of Friday prayers and observe hygiene requirements. As from April 10, the Spiritual Authority has called for limiting the number of participating prayers in mosques. However, the threat of crowding at the entrance and exit remained. The issue was finally resolved only by the resolution of the Chief Sanitary Doctor for the Republic of Dagestan dated April 16, ordering to prevent religious rites and ceremonies in the presence of people. The next day, the ban was duplicated by the order of the Spiritual

Authority. However, some large mosques in the region did not actually observe it until the end of April.

Generally, the experience of 2020 showed that taking into account the socio-cultural specifics of the North Caucasus Republics they require the development of such measures to counter the spread of dangerous infections, which would involve the interaction of regional authorities with various influential public structures, including religious ones.

The low level of public confidence in the authorities conducting anti-epidemic measures was manifested primarily in the mass protests of the population that took place in spring in a number of regions. Their focus was different. Thus, for instance, in Malokarachaevsky district of the Karachay-Cherkess Republic, residents' claims were related to the work of local doctors, who were accused of refusing to provide free medicines to the sick.[1] The situation demanded urgent personnel decisions from the republican Ministry of Health. The protests in Vladikavkaz, the capital of North Ossetia, ended in April in mass arrests and initiation of criminal cases and were associated with the shutdown of small businesses in the spring wave of the pandemic.[2] Their participants saw the ongoing developments as the officials' attempts to force independent entrepreneurs to close their business, as well as harshly criticized the republican authorities for insufficient assistance to those who suffered from lockdown. It has to be recognized that the high prevalence of conspiracy theories of the pandemic origin was the catalyst for the protests along with a low level of awareness among the population about the work of state bodies and institutions and the persisting people beliefs about a high level of corruption, including in healthcare. The latter is confirmed among other things by the estimates of a quantitative sociological survey conducted by the RANEPA in the Republic of Dagestan in May: almost half of the respondents (41.6%) agreed with the conclusion that the coronavirus was "artificially grown in a laboratory," and 29.7% agreed that the onset of the epidemic was in the interests of "rich and powerful groups" or "bureaucracy".[3]

At the same time, the population in a number of the North Caucasus regions demonstrated a significant potential for self-organization to counter the pandemic. Based on the example of Dagestan, the following main trends of countering the epidemic can be identified within the civil society and local communities[4]:

- *Information campaign*. Public organizations (for example, "Patient Monitor") and individual social activists carried out active raising awareness campaign, explained the danger of the epidemic and the inadmissibility of self-medication, invited qualified medical workers for providing recommendations on prevention and actions in case the disease was confirmed;

1 In Karachay-Cherkessia, the chief doctor of the Malokarachaevskaya hospital was dismissed after protests from the population.
2 Shots, batons, 55 detainees and an epidemiological catastrophe: the results of the protests in North Ossetia (kp.ru).
3 The survey was conducted using online methods. A total of 1129 residents of Dagestan were interviewed. The methodology used made it possible to ensure a fairly complete consideration of the opinions of various gender and age groups.
4 For more details see Symptoms of distrust: why Dagestan is experiencing a difficult epidemic Opinion RBC (rbc.ru)

- *Charity activity.* Numerous republican charity foundations, such as "Hope", "Insan", "Pure Heart", etc., helped those in need amid shutdown of the economic activity due to the epidemic and bought individual protective equipment for the personnel of those medical institutions experiencing shortages;
- *Measures taken by rural communities*. Individual rural communities began to take measures to reduce the epidemiological threat. Such activities are known in four mountain regions. Mainly, they were limited to regulating the village entry. In some villages, in compliance with the decision taken by local authorities, wearing face masks was announced compulsory and mass people gatherings were interrupted;
- *Support of medical institutions by local communities*. Local groups of activists, local entrepreneurs as well as business people and officials coming from these villages, bought personal protective gear, medical equipment and medical supplies. There are facts proving purchases of ALV equipment.

However, the level of cooperation between the republican authorities and social activists was extremely low. No mechanisms for cooperation between the authorities and social activists participating or prepared to participate in the fight against the pandemic were not developed in the spring wave.

Economic impacts of the pandemic: small business

As already mentioned, the specificity of the pandemic economic impacts in the regions of the North Caucasus was determined by the role of small business in the local economy. The fact is that some of its areas represent a sphere of mass employment of the population in the North Caucasian Republics, and their decline can result in major social issues, tangible at the regional level. Likewise, a downturn in small businesses in the North Caucasus can result in growing of imbalances in spatial development and emergence of new "depressed" territories, since a high concentration in certain cities or regions is typical for a number of industries. However, when small business largely remains in the "shadow" zone, the possibility of receiving demanded forms of support from the state in times of crisis may become an incentive for a more complete "whitewashing" of production.

In November 2020, the authors conducted an express survey having interviewed entrepreneurs working in knitwear (Karachay-Cherkess Republic) and footwear industry (Republic of Dagestan). This choice was due to preliminary estimates based on open source data, demonstrating that these two branches of small business in the North Caucasus are characterized by the most massive employment, often informal. Currently, according to the republican authorities' estimates, the shoe business of Dagestan employs at least 15.000 people.[1] The number of people employed in the knitwear industry in Karachay-Cherkess Republic is at least 12.000.[2] Ten in-depth interviews with entrepreneurs were conducted for each of these industries.

1 Several large shoe factories to open in Dagestan- Rossijskaya Gazeta (rg.ru).
2 For further information see *Konstantin Kazenin.* Small business in the North Caucasus Republics: risks amid pandemic and ways to reduce them//Monitoring of the economic situation in Russia:

Generally, the result of the survey was rather unexpected. According to respondents, the share of entrepreneurs who left the market during the pandemic was no more than 10%. The decline in production was recognized by all entrepreneurs, but they assessed its scale mainly as not exceeding the usual year-to-year fluctuations observed earlier.

However, it evidenced that the pandemic has intensified the transformation processes that began in the industries in question even prior to the pandemic. First of all, this refers to abandoning the traditional channels for selling products through the wholesale and retail markets in different regions of Russia, established back in the 1990s. In the wake of the pandemic, the closure of some of these markets and a significant reduction in trade in those markets that continued functioning, forced entrepreneurs to accelerate the transition to other business schemes that they began to develop before the pandemic. However, in almost all cases, such a transition, driven by a pandemic, has proved to be associated with serious challenges.

First, amid pandemic, entrepreneurs in both industries have intensified attempts to conclude contracts for the supply of their products to large retail chains. At the same time, the majority of entrepreneurs assess the actual experience of cooperation with such chains as unsuccessful, since they consider that the chains impose low prices, often demand unrealistically large volumes of supplies for local workshops, and also insist on signing a fixed price year contracts, which threatens losses in the ruble exchange rate amid fluctuations to manufacturers dependent on the supply of raw materials from abroad.

Second, entrepreneurs named trade through online stores as an important way to diversify sales, sensing the advantage in a lower price for the end consumer and in the independence of trade from possible anti-epidemic restrictions. Entrepreneurs in Karachay-Cherkess Republic estimate the volume of their products sold in 2020 through online stores at 20-40%, and those surveyed in the Republic of Dagestan - at 15-20%.

The lack of required experience in cooperation, including experience in building e-commerce-focused supply chains is the barrier to using online stores, which is why intermediaries enter the market buying products at low prices for their subsequent sale online.

Third, entrepreneurs consider fulfilling orders of the large brands of clothing and footwear owners as a promising new working scheme. Today, this scheme is being actively implemented in Dagestan. Entrepreneurs see the main challenge in using this scheme in the insufficiently competitive environment for customers: the owners of only two large Russian brands currently conclude contracts with Dagestan manufacturers of leather shoes, resulting in the opportunity to impose unfavorable terms on small shoe business for a supply of products.

The transformation processes that have accelerated in small business in the North Caucasus due to the pandemic provide the prospect for solving the long-standing issue of "whitewashing" the entrepreneurship in this part of the country if it becomes a condition for providing entrepreneurs with various forms of state support to solve the already listed issues.

trends and challenges of socio-economic development. No.27 (129), November 2020.

Section 6. Institutional Changes

6.1. Public property management[1]

6.1.1. Economic subjects in public ownership

From 2016 onwards, statistical data on public property entities have been published within the framework of the System of Public Property Management Efficiency Estimates. It was approved by Decree of the RF Government No. 72 dated January 29, 2015, and introduced to replace the public sector monitoring data that had been collected and released by the Federal State Statistics Service (Rosstat) since the early 2000s in accordance with the provisions stipulated in RF Government Decree No. 1 dated January 4, 1999 (as amended on December 30, 2002). Among other things, the System contains data on the number of federal state unitary enterprises (FSUEs) and joint-stock companies (JSCs) with RF stakes in their capital; previously, such data were usually published as part of government privatization programs (from 2011, for three-year period; and prior to 2011, for one-year period). In the current Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2020–2022, relevant data are available only as of early 2019 (*Table 1*). So, in order to adequately describe the processes observed over the course of the current year, one must rely specifically on data in the System of Public Property Management Efficiency Estimates.

As of July 1, 2019, the Russian Federation held stakes in 948 joint-stock companies (JSC) and was property owner of 640 FSUEs, 46 federal treasury enterprises (FTE), and 13,915 federal state institutions (FSI).

1 This section was written by: *Malginov, G.*, Candidate of Economic Sciences, Head of the Ownership and Corporate Governance Department of the Gaidar Institute, Leading Researcher at the Center for Institutions Analysis and Financial Markets of the RANEPA IAES; *Radygin, A.*, Doctor of Economic Sciences, Professor, Head of the Center for Institutional Development, Ownership and Corporate Governance of the Gaidar Institute, Director of the RANEPA Institute of EMIT.

Table 1

Societies and organizations in federal ownership entered in the Federal Property Register and the System of Public Property Management Efficiency Estimates in 2010–2020

Date	Economic societies with federal stakes, units		Other holders of ownership rights to registered federal property entities, units		
	stake (share) in capital	special right to participate in company's management ('golden share') without holding any stake[a]	FSUEs	FTEs	FSIs
As of January 1, 2010	3,066/2,950[b]		3,517[b]		
As of January 1, 2013	2,356/2,337[b]		1,800/1,795[b]	72	20,458
As of January 1, 2016	1,557/1,704[b]	88/64[c]	1,488/1,247[b]	48	16,194
As of April 7, 2016 [c]	1,683/1,620[d]		1,236	48	16,726
As of July 1, 2016	1,571	82	1,378	47	16,990
As of January 1, 2017	1,356/1,416[e]	81	1,245/1,108[e]	48	16,846
As of July 1, 2017	1,247	78	1,058	53	16,244
As of January 1, 2018	1,189	77	984	50	15,985
As of July 1, 2018	1,060	77	868	50	15,520
As of January 1, 2019	1,084/1,130[b]	76	792/700[b]	48	15,140
As of July 1, 2019	1,059	73	712	48	14,942
As of January 1, 2020	989	67	672	48	14,576
As of July 1, 2020	948	67	640	46	13,915

[a] – special right is not entered in the Register as a separate registered item; however, it is mentioned in various materials published by the RF Federal Agency for State Property Management (Rosimushchestvo) in the context of data on state stakes in joint-stock capital;
[b] – number of JSCs and FSUEs as stated in the privatization programs for 2010–2013, 2014–2016, 2017–2019 (data based on OKVED Codes (All-Russia Classifier of Economic Activities) refer to companies with shares (or stakes) in federal ownership), and 2020–2022 (number of economic societies);
[c] – according to data published in Rosimushchestvo's annual report for 2015;
[d] – the numerator is the total number of legal entities, including CJSCs and LLCs; the denominator is the number of stakes and shares (it is assumed that the difference between the two figures equals the number of JSCs with a 'golden share', but there is no explicit statement of that fact);
[e] – based on data published in the Report on the implementation, in 2017, of the Forecast Plan (Program) of Federal Property Privatization for 2017–2019.
Sources: Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2011–2013; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2014–2016; URL: www.economy.gov.ru, April 23, 2013; RF Federal Agency for State Property Management (Rosimushchestvo)'s Annual Report for 2015; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2017–2019; Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2020–2022; statistical data from the System of Public Property Management Efficiency Estimates. URL: http://rosstat.gov.ru/, March 20, 2016, September 5, 2016, March 20, 2017, September 5, 2017, March 20, 2018, September 5, 2018, March 20, 2019, September 5, 2019, March 20, 2020, September 5, 2020.

When these figures are set against the corresponding data for the previous year, it can be noted that the number of FSIs plunged by 1,027 units (or 6.9%); that of FSUEs, by 72 units (or more than 10%); and that of JSCs with state stakes, by 111 units (or 10,5%), while the number of JSCs with 'golden shares' (the Russian Federation's special right to participate in their management) declined by 6 units

(8.2%). The number of FTEs shrank by 2 units (4.2%), and this happened in H1 2020.

Over this shorter period, the movement patterns of the main categories (organizational legal forms) of economic subjects appeared to be as follows. The number of unitary enterprises declined by 4.8%, that of state institutions, by 4.5%, and that of JSCs with state stakes, by 4.1%; as a result, in H1 2020, the number of the latter for the first time plunged below 1,000 units.

Now let us look at the category of economic societies with various degrees of state participation, which is more relevant from the point of view of their role in the economy[1] (*Table 2*).

Table 2

The movement patterns of the number and structure of economic societies (JSCs and LLCs) relative to the size of state stakes in their capital (less JSCs subject to special right ('golden share') without a RF stake) in 2010–2020

Date and source	Economic societies (JSCs and LLCs) where RF is shareholder (or participant)									
	total, units	share, %	of these, with RF stake in charter capital amounting to							
			100%		50–100%		25–50%		less than 25%	
			units	%	units	%	units	%	units	%
RF Government (forecast privatization plans (FPP))										
As of January 1, 2016 (FPP)	1,704[a]	100.0	765	44.9	93	5.4	172	10.1	674	39.6
As of January 1, 2019 (FPP)	1,130[b]	100.0	368	32.55	30	2.65	95	8.4	637	56.4
Rosstat (System of Public Property Management Efficiency Estimates, JSCs only)										
As of January 1, 2016	1,557	100.0	816[c]		52.4[c]		174	11.2	567[d]	36.4[d]
As of July 1, 2016	1,571	100.0	711[c]		45.3[c]		189	12.0	671[d]	42.7[d]
As of January 1, 2017	1,356	100.0	575[c]		42.4[c]		128	9.4	653[d]	48.2[d]
As of July 1, 2017	1,247	100.0	514[c]		41.2[c]		108	8.7	625[d]	50.1[d]
As of January 1, 2018	1,189	100.0	488[c]		41.0[c]		102	8.6	599[d]	50.4[d]
As of July 1, 2018	1,060	100.0	448[c]		42.3[c]		87	8.2	525[d]	49.5[d]
As of January 1, 2019	1,084	100.0	442[c]		40.8[c]		85	7.8	557[d]	51.4[d]
As of July 1, 2019	1,059	100.0	429[c]		40.5[c]		85	8.0	545[d]	51.5[d]
As of January 1, 2020	989	100.0	387[c]		39.1[c]		74	7.5	528[d]	53.4[d]
As of July 1, 2020	948	100.0	362[c]		38.2[c]		66	7.0	520[d]	54.9[d]

[a] – the number of JSCs as stated in the FPP for 2017–2019 (the data based on OKVED Codes (All-Russia Classifier of Economic Activities)) refer to companies with shares (or stakes) in federal ownership);
[b] – the number of economic societies;
[c] – the total number of JSCs with federal stakes of more than 50% (without counting separately the JSCs with 100% federal stakes), and their relative share;
[d] – the estimated total number of JSCs with federal stakes and the number of such JSCs in other categories, based on the federal stakes in their charter capital.
Sources: Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2017–2019; Forecast Plan (Program) of Federal Property Privatization

1 Previously, this group of companies could be described in more detail on the basis of information derived from the year-end reports on the management of federal stakes in OJSCs and the use of the Russian Federation's special right to participate in an OJSC's management ('golden share'), which were published by Rosimushchestvo from 2012 until recently.

and the Main Directions of Federal Property Privatization for 2020–2022; statistical data from the System of Public Property Management Efficiency Estimates. URL: http://rosstat.gov.ru/, March 20, 2016, September 5, 2016; March 20, 2017, September 5, 2017; March 20, 2018, September 5, 2018, March 20, 2019, September 5, 2019, March 20, 2020, September 5, 2020; own calculations.

An analysis of Rosstat data published in the framework of the System of Public Property Management Efficiency Estimates revealed, over the period between mid-2019 and mid-2020, the presence of a continuing downward trend in the share of those JSCs where the State as a shareholder exercised full corporate control.[1] Their share as of July 1, 2020 was 38.2% vs 40.5% a year earlier. The share of JSCs with federal blocking stakes shrank from 8% to 7%. Meanwhile, the share of all the other companies with federal stakes, on the contrary, increased from 51.5% to almost 55%.

The movement of data in the System of Public Property Management Efficiency Estimates, which are not limited to the federal level alone, follows the following patterns (*Table 3*).

Table 3

The number of organizations operating in the public sector of the economy on the records of Rosimushchestvo, its territorial branches, and the bodies responsible for the management of public property held by subjects of the Russian Federation in 2013-2014, and the number of economic subjects in public ownership in 2016–2020 (as entered in State registration records), by their organizational legal form

Date	Total	FSUEs, including treasury enterprises	State institutions	Economic societies with shares (or stakes) amounting to more than 50 percent of charter capital owned by	
				State	economic societies operating in public sector
As of January 1, 2013	670,03[a]	4.891	56,247	3,501	2,364
As of July 1, 2013	661,31[a]	4.589	56,100	3,201	2,241
As of January 1, 2014	646,16[a]	4.408	54,699	3,097	2,412
As of July 1, 2014	636,35[a]	4.236	54,173	2,988	2,238
As of January 1, 2016	655,87[b]	4.284	56,693/56,649[c]	3,888[d]	–
As of July 1, 2016	652,18[b]	3.982	56,893/56,856[c]	3,718[d]	–
As of January 1, 2017	644,57[b]	3.719	56,548/56,507[c]	3,532[d]	–
As of July 1, 2017	626,55[b]	3.294	55,414/55,361[c]	3,353[d]	–
As of January 1, 2018	617,34[b]	3.053	54,851/54,814[c]	3,239[d]	–
As of July 1, 2018	603,91[b]	2.763	53,933/53,899[c]	3,125[d]	–
As of January 1, 2019	596,08[b]	2.608	53,394/53,360[c]	3,054[d]	–
As of July 1, 2019	588,39[b]	2.366	52,901/52,870[c]	2,972[d]	–
As of January 1, 2020	579,03[b]	2.225	52,207/52,176[c]	2,864[d]	–
As of July 1, 2020	569,09[b]	2.050	51,474/51,445[c]	2,787[d]	–

[a]– including those organizations whose charter documents, after their State registration, do not specify property types, but less those joint-stock companies where more than of 50% shares (or a

1 Summary statement based on the total number of JSCs with 100% and majority stakes held by the State.

similar stake in charter capital) are in joint RF and foreign ownership;
[b] – including economic subjects with an organizational legal form other than unitary enterprise, state institution, or joint-stock company (production and consumer cooperatives, associations (unions), housing cooperatives, foundations, public law companies, etc.);
[c] – total number of institutions created by the RF and subjects of the Russian Federation (less state academies of sciences and private institutions, which are listed as institutions in the new System, but must not be taken in account here);
[d] – total number of economic societies, the size of their state stake (or shares in charter capital) being irrelevant; data concerning the number of economic societies with controlling state stakes are available only for JSCs with federal stakes.
Sources: On the Development of the Public Sector of the Economy of the Russian Federation in 2012 (pp. 7–11), in H1 2013 (pp. 7–11), in 2013 (pp. 7–11), in H1 2014 (pp. 7–11), Moscow, Rosstat, 2013–2014; Statistical information on public property management efficiency estimates. URL: http://rosstat.gov.ru/, March 20, 2016, September 5, 2016, March 20, 2017, September 5, 2017, March 20, 2018, September 5, 2018, March 20, 2019, September 5, 2019, March 20, 2020, September 5, 2020.

According to data collected within the framework of the new System of Estimates, by mid-2020 the total number of economic subjects belonging to the public ownership category amounted to approximately 56,900 units, which is less by approximately 1,900 units (or by 3.3%) than a year earlier, and by approximately 6,700 units less than the corresponding index for mid-2014.[1]

For some categories of economic subjects it can be noted that, relative to mid-2019, the number of unitary enterprises declined by 316 units (or 13.4%), that of economic societies – by 185 units (or 6.2%), and that of state institutions – by approximately 1,400 units (or 2.7%).

As far as the changes that occurred within a shorter period of time are concerned, over H1 2020 the number of unitary enterprises shrank by 7.9%; that of economic societies, by 2.7%; and that of state institutions, by 1.4%.

According to the results of the Accounts Chamber of the Russian Federation's expert-analytical study "Analysis of the practices of formation and implementation in 2017–2018 and the expired period of 2019 of the dividend policy in the exercise, on behalf of the Russian Federation, of the rights of a shareholder (participant) of business entities, shares (stakes) in the authorized (joint-stock) capital of which are in federal ownership, and the powers of the owner of the property of federal state unitary enterprises in determining the directions of distribution of the amount of profit remaining after taxes and other obligatory payments of federal state unitary enterprises", the decline in the number of state-owned organizations occurred in the main for reasons other than their privatization. According to data released by 37 federal bodies of executive authority (FBEAs), including data on enterprises without any affiliation to government departments, the most significant patterns of reducing the number of federal state unitary enterprises over the period 2017–2019 were their liquidation due to termination of their activities, bankruptcy (32.6%), and mergers of enterprises (28.9%). The input of privatization procedures amounted to 18.3%; and that of transformation of FSUEs into budget-funded and state institutions, to 13.0%.[2]

1 The last bulletin on the developments in the public sector of the RF economy covers the period of January-September 2014; however, for the purpose of a medium-term analysis, the data for H1 2014, released as of 1 July 2014, are quite sufficient.
2 Bulletin of the Accounts Chamber of the Russian Federation. Federal Property Management, No. 8 (273) 2020, p. 17.

6.1.2. Privatization policy

In 2020, the Forecast Plan (Program) of Federal Property Privatization and the Main Directions of Federal Property Privatization for 2020–2022, approved by Directive of the RF Government No. 3260-r dated December 31, 2019, was launched. This is the fourth 3-year privatization program developed with a view towards a longer planning period established for a forecast plan (or program) of federal property privatization (extended from 1 to 3 years) on the basis of the alterations introduced into prevailing legislation on privatization in spring 2010.

As was the case with the previous privatization program, numerous adjustments and alterations were later introduced into that document. Over the course of last year, a total of 15 normative legal acts (NLA) pertaining to these issues were adopted, which is comparable with the legislation adjustments made during the first and the last years of the previous privatization program (15 NLAs in 2017, and 14 NLAs in 2019).

The most relevant alterations were introduced by Directive of the RF Government No. 3573-r dated December 26, 2020.

The basic characteristics of the organizations and property entities included in the forecast privatization plan remained the same,[1] but only two categories of them were left as additional exceptions: (1) joint-stock companies (JSCs) and enterprises entered on the list of strategic organizations, and (2) organizations registered outside of the territory of the Russian Federation. The categories of minority federal stakes in JSCs, as well as shares in JSCs affiliated to the core companies of vertically integrated structures (VIS) earmarked for subsequent redistribution among the latter, have been taken off the list of additional exceptions.

The list of biggest companies to be privatized by special presidential and governmental decisions, with due regard for the market situation and recommendations of eminent investment consultants (Section I of the privatization program), included 4 companies (JSCs) in respect of which the State was planning to withdraw from their capital (Makhachkala Commercial Sea Port JSC, Adler Trout Breeding Farm, Novorossiysk Commercial Sea Port (NCSP), and Foreign Trade Association Almazjuvelirexport); now, NCSP has been struck off that list, as it was repeatedly included in the previous privatization programs but never became subject to any real deal.

Section I has also been augmented by the impending (by 2022) reorganization into JSCs of five federal state unitary enterprises and treasury enterprises (Scientific & Technical Center Khimvest, FSUE National Fish Resources, Amursk Cartridge Plant Vympel, Voskresensk State Treasury Aggregate Plant, and Building Construction Administration No. 30), which will take place if the President of the

1 The privatization plan targets those enterprises (organizations) in federal ownership that are not natural monopolies or organizations belonging to the defense complex; economic societies established by the Russian Federation or created by way of privatization of relevant FSUEs within the framework of the forecast plans (programs) of federal property privatization implemented during the previous planning periods; shares in JSCs transferred gratis by legal entities or individuals; shares in JSCs recognized to be heirless property; and shares in JSCs transferred into federal ownership as a result of reorganization of economic societies, or by a court ruling, or by a decision of the RF Government, or acquired at the expense of the federal budget.

Russian Federation decides that they should be struck off the list of strategic organizations. The reorganization of FSUEs and FTEs into JSCs is for the first time announced within the framework of a 3-year privatization program.

Also in accordance with RF Government Directive No. 3573-r, the forecast privatization plan has been augmented by 73 economic societies and 93 treasury property entities; the relevant procedures targeting these entities will be implemented only in 2021.

After the amendments to legislation designed to regulate the activities of unitary enterprises were adopted in late 2019, the government once again raised the issue of the necessity to accelerate the process of their reorganization. The RF Ministry of Finance, the RF Federal Agency for State Property Management (Rosimushchestvo), the Federal Tax Service, the Federal Antimonopoly Service (FAS), and the RF Ministry of Industry and Trade were assigned the task of corporatization or liquidation of the existing FSUEs by the end of 2021. In this connection, they can either be reorganized into state institutions, or retain their previous organizational legal form with the approval of the Government Commission on Administrative Reform. So far, these developments have had little effect on the implementation of the current privatization plan. By the aforesaid government directive, another 35 enterprises were included in this plan.[1]

When discussing the results of the privatization program implementation over the course of last year, one should first of all make note of the privatization deals arranged according to individual schemes.

The long-standing deal to reduce the state stake in Sovcomflot PJSC was closed at last. It did not generate budget revenue because it was carried out through an additional issue of shares (IPO) and their public offering by open subscription, on condition that the stake held by the Russian Federation in the company's charter capital should be not less than 75% + 1 share. As part of the public offering of shares in the additional issue launched by Sovcomflot PJSC, by Rosimushchestvo's order based on RF Government directives, the essential terms of the forthcoming deal were approved. The company's board of directors issued its decision that the initial offer price of the additional ordinary shares should be Rb105 per share. The amount of funds raised by Sovcomflot PJSC through the public offering of ordinary shares is expected to total approximately Rb42.9 bn.[2]

Under the current forecast privatization plan, similarly to all the previously implemented 3-year privatization programs, Sovcomflot has been listed in the group of biggest companies to be privatized by special presidential and governmental decisions, with due regard for the market situation and recommendations of eminent investment consultants. However, the size of the state stake to be reduced was becoming steadily less in each consecutive program. By the results of the IPO held this year, the state retained its controlling stake in the amount of 82.8% of the company's charter capital.[3] Sovcomflot PJSC plans to use the funds that it has

1 *Grinkevich D.* Subtle reorganization: the Cabinet orders that FSUEs should be get rid of by the end of 2021. Izvestia, November 16, 2020; RF Federal Agency for State Property Management (Rosimushchestvo)'s Annual Report for 2020. URL: http://rosim.gov.ru

2 URL: http://rosim.gov.ru, October 7, 2020

3 Vedomosti, October 7, 2020.

thus raised to finance its investment program that envisages the construction of a fleet to service large-scale gas projects at domestic shipyards.

In the context of this transaction, it is worth mentioning another company that is entered in the list of strategic organizations along with Sovcomflot - Aeroflot PJSC. Although it is not included in the current privatization program, in Rosimushchestvo's annual report for 2020 on the implementation of the forecast plan (program) of federal property privatization, the information on an additional issue of Aeroflot shares immediately follows that on the Sovcomflot deal.

By RF Government Directive No. 1937-r dated July 24, 2020, Rosimushchestvo, the RF Ministry of Transport, and the RF Ministry of Finance are instructed to carry out, in accordance with the established procedure, the measures designed to increase the company's charter capital through an additional issue of shares by open subscription, while securing the state stake in its charter capital in the amount of not less than 51.17%. This decision is in line with the Executive Order of the President of the Russian Federation issued in 2014, whereby it was allowed to increase the charter capital on condition the state stake should remain not less than 50% of the votes + 1 voting share.

In connection with the additional issue of shares, the Board of Directors of Aeroflot PJSC decided to set the offering price of the newly issued ordinary shares, including for the shareholders who subscribed under the pre-emptive rights process, at Rb60 per share. The offering price was derived on the basis of the received applications from shareholders and investors to subscribe for the shares being offered.[1]

The total amount of funds raised by Aeroflot PJSC by way on an additional issue of shares was Rb80 bn, including Rb30 bn from investors in the open subscription. However, the bulk of the additional issue (Rb50 bn) was covered by public money from the National Wealth Fund (NWF), the state stake in the charter capital of Aeroflot PJSC being 57.34%. Meanwhile, 40.65% of its shares are in free circulation (these are held by both institutional and retail investors). Quasi-treasury shares take up 1.96%, while the company's CEOs own 0.05%. VTB Capital was the only global coordinator and bookrunner; and White I Case I.I.P. acted as an international legal consultant.[2]

The purpose of the additional offer of shares was to boost the liquidity of the Aeroflot group in order to play down the negative impact of the coronavirus pandemic. Aeroflot PJSC plans to use the funds thus raised to deal with its general corporate purposes and reduce its debt burden.

From among the companies on the list of assets earmarked for privatization within the framework of individual schemes, Rosimushchestvo sold, on December 8, 2020 for Rb539 mn, 100% of shares in Adler Trout Breeding Farm JSC. The deal was closed by way of complying with RF Government Directive No. 2211-r dated August 31, 2020. According to the government directive, the contract for the

1 URL: http://rosim.gov.ru, October 9, 2020.
2 Rosimushchestvo's report, for 2020, on the implementation of the forecast plan (program) of federal property privatization in 2020-2022. URL: http://rosim.gov.ru, www.aeroflot.ru, October 26, 2020

sale and purchase of shares in a JSC must provide for keeping the existing staff number unchanged, and the fulfillment by the buyer, within 10 years from the date of transfer of ownership rights, of the following conditions: (1) maintaining the company's core activities, (2) complying with a temporary ban on the alienation of real estate, including land plots, (3) complying with a temporary ban on any further transfer of rights to shares over the period established for the fulfillment of the specified conditions.

In addition to these deals, the year 2020 saw the sale of blocks of shares (or stakes in charter capital) in 23 economic societies, including the sale of shares in three JSCs within the framework of the previous privatization program for the period 2017–2019, and the sale of Etna LLC, which was completed in 2020, and the company was struck off the privatization program's list by RF Government Directive No. 3573-r dated December 26, 2020. Besides, relevant decisions were adopted concerning the terms of privatization deals involving 16 FSUEs, 12 of which were corporatized (*Table 4*).

Table 4

Comparative data on the movement of the number of privatization deals involving federal state unitary enterprises and federal stakes in 2008–2020

Period	Number of privatized enterprises (entities) formerly in federal ownership (data released by Rosimushchestvo)		
	privatized FSUEs,[a] units	sold stakes in JSCs, units	sold treasury property entities, units
2008	213	209[b]	–
2009	316+256[c]	52[b]	–
2010	62	134[b]	–
2008–2010	*591+256*[c]	*395*[b]	–[d]
2011	143	317[e]/359[b]	3
2012	47[f]	265[e]	40
2013	26	148[e]	22
2011–2013	*216*	*730*[e]	*65*
2014	33	107[e]	12
2015	35[g]	103[e]	38
2016	60[g]	179[e]	282
2014–2016	*125*[g]	*389*[e]	*332*
2017	69	47	77
2018	4	46	173
2019	8	51	171
2017–2019	*81*	*144*	*421*
2020	16	23[h]	312[h]

[a] – all preparatory work is completed, and the relevant decisions concerning the terms of privatization are adopted;
[b] – including those stakes that were put up for sale in the previous year;
[c] – the number of FSUEs in respect of which the decisions concerning their reorganization into JSCs were made by the RF Ministry of Defense, in addition to those cases where a similar decision was made by Rosimushchestvo;
[d] – available information concerning sales of other property entities over that period is reduced to that concerning the 4 immovable military property entities sold over the period between October 2008 and January 2009, and the decisions, issued in late 2010, concerning some other property entities to be put up for sale and the terms of their privatization, the deals being actually closed in 2011;
[e] – less sales of shares with the participation of investment consultants;

[f] – estimated value based on data on the total number of FSUEs in respect of which directives concerning the terms of their privatization in the form of reorganization into OJSCs (216 units) were issued, taken from Rosimushchestvo's Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2011–2013, and the year-end results of 2011 and 2013;
[g] – for several enterprises, the decisions concerning the terms of their privatization were abolished in 2015–2016 and then readopted, so the number of FSUEs with regard to which privatization decisions were made individually over the three-year period is somewhat higher than in the tabulated period-end data for 2014–2016 (125 units);
[h] – including those stakes in JSCs and treasury property entities that were sold within the framework of implementing the pervious privatization program.

Sources: Rosimushchestvo's annual report for 2008; Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2009, Moscow, 2010; Report of the RF Ministry of Economic Development on the Results of Federal Property Privatization in 2010; Report of the RF Ministry of Economic Development on the Results of Federal Property Privatization in 2011; Report on the Implementation of the Forecast Plan (Program) of Federal Property Privatization in 2011–2013; Rosimushchestvo's reports on the implementation of the Forecast Plan (Program) of Federal Property Privatization in 2014–2016 for 2014, 2015, 2016; Rosimushchestvo's reports on the implementation of the Forecast Plan (Program) of Federal Property Privatization in 2017–2019 for 2017, 2018, 2019; Rosimushchestvo's reports on the implementation of the Forecast Plan (Program) of Federal Property Privatization in 2020–2022 for 2020. URL: http://rosim.gov.ru.

The spread of the new coronavirus infection (COVID-19) and the resulting increased volatility in financial markets, quite logically, translated into a significantly reduced investment demand for privatized property. Out of the 100 biddings for the economic societies put up for sale, 74 were canceled, mainly due to the absence of any bids (67).

Another factor contributing to this state of affairs was that, during the period of selecting legal entities to be commissioned to organize, on behalf of the Russian Federation, the sales of privatized federal property and (or) to perform the functions of a seller, no pre-sale preparation procedures for the 95 economic societies earmarked for sale were carried out. The results of the selection process handled by Rosimushchestvo were approved only as late as Q4. By RF Government Directive No. 2951-r dated November 12, 2020, Auction House *of* the Russian Federation (RAD) OJSC was commissioned to sell shares (or stakes) on behalf of the Russian Federation; that particular agent had already been performing these functions for several years under an agency agreement.

As a result, in 2020, the number of sold economic societies more than halved relative to the year-on-year indicators of the previous privatization program (for 2017–2019). Moreover, this number was record low for the entire previous period.

However, the financial results were by no means the lowest. According to the year-end data for 2020 released by the Federal Treasury as of February 2, 2021, the amount of revenue generated by sales of federal stakes and other forms of capital participation over that year was Rb4.08 bn (including the deals launched in 2019).[1] This is significantly more than the amount of revenue generated by the

1 This figure, cited by Rosimushchestvo, with a reference to the Federal Treasury's data, in its report for 2020 on the implementation of the forecast plan (program) of federal property privatization in 2020-2022, equals about 1/3 of the amount of revenue generated by sales of federal shares and other forms of capital participation specified in the operational data report on federal budget execution as of January 1, 2021 (in particular, on the use of internal sources of budget deficit financing), which is available on the Federal Treasury's official website (Rb12.6 bn). The remaining amount generated under this (deficit financing) budget item was the repayment of debt owed by Sistema Public Joint Stock Financial Corporation. URL: http://rosim.gov.ru

sales of blocks of shares (or stakes) in economic societies that do not belong to the category of biggest companies in 2018 (Rb2,857.05 mn) and 2019 (Rb2,064.64 mn), and equals approximately 3/4 of the corresponding index for the first year of the implementation of the previous privatization program (Rb5,396.14 mn in 2017). Thus, for the first time in several years, it was possible to exceed the revenue targets of the forecast privatization programs (Rb5.6 bn per annum in 2017–2019, and Rb3.6 bn per annum in 2020–2022).

The biggest deal of 2020 was the sale of 100% of shares in Voronezh Experimental Agricultural Station JSC. The sale was handled by VEB Capital Plc.[1] The electronic auction, which was held in an open bidding format both in terms of types of participants and forms of submitting bid price proposals, was participated by 13 bidders. The resulting deal value was Rb1,206.92 mn, jumping more than 46 times over the initial offer price (Rb26 mn).

As for the other five JSCs whose blocks of shares were sold for not less than Rb100 mn each, these were not obviously concentrated in the region surrounding the capital, unlike the situation in 2019. Only two of these JSCs were situated in the city of Moscow, and the other three, in Kaliningrad, Sochi, and Samara. Besides, the total deal value index for the sales of JSCs in the capital (over Rb578 mn) was slightly below the corresponding indices for other three cities (about Rb660 mn). The sales of all the five property entities were handled by VEB Capital Plc.

The evidently sluggish pace of privatization of JSCs (economic societies) clearly contrasts with that of treasury property privatization. In 2020, 312 treasury property entities were sold (including one unit sold within the framework of the previous privatization program for 2017–2019); this is 80% higher than the corresponding index for the previous year (171 units), and also exceeds the previous historic high achieved in 2016 (282 units). The number of sold treasury property entities is almost 14 times higher than that of sold blocks of shares (stakes) in JSCs. According to the year-end data for 2020 released by the Federal Treasury as of February 2, 2021, the amount of federal budget revenue generated by sales of property entities owned by the Russian Federation, including the deals launched in 2019, is approximately Rb0.9 bn. A year earlier, the total value of such deals, according to Rosimushchestvo's data, amounted to Rb755.4 mn.[2]

A new aspect of the ongoing privatization process in this segment has been the accelerated privatization of property entities representing construction-in-progress projects (hereinafter CPP). Out of 49 objects of federal property entities (lots) put up for sale and listed in the privatization program, including 124 CPPs, 30 units (more than 60%) were sold, including 88 CPPs (more than 70%). In 2020, the success of realization of state stakes (or shares in charter capital) and treasury property entities, calculated as the ratio between the number of sold assets and the number of biddings, stayed approximately at the same level (21–23%).

1 URL: http://rosim.gov.ru, March 24, 2020
2 Rosimushchestvo's reports, for 2019, on the implementation of the forecast plan (program) of federal property privatization in 2020-2022; Rosimushchestvo's reports, for 2020, on the implementation of the forecast plan (program) of federal property privatization in 2020-2022.

The most significant sales of treasury properties objects were handled by Rosimushchestvo and its territorial bodies (302 units). To the latter, in order to speed up the privatization procedures shortly after the onset of the pandemic, the powers to handle the privatization deals involving more than 900 treasury property entities were delegated, which resulted in shortened pre-sale preparation procedures and created opportunities for stimulating the interest of regional investors in these auctions, including representatives of small businesses and individual entrepreneurs. The agents commissioned to handle the sales (Auction House of the Russian Federation OJSC), VEB Capital Plc., and Agency for Direct Investments JSC) succeeded in selling 10 property entities (or 3.2%) over the reporting period.

In Q1 2021, the results of the announced sales of 15 economic societies and 245 treasury property entities should be released.

In 2020, within the framework of implementation of 18 Executive Orders of the President and 21 RF Government Directives concerning the creation or expansion of vertically integrated structures (VISs), Rosimushchestvo set out to establish 9 VISs. As of the year-end of 2020, the relevant decisions concerning the terms of privatization were taken with regard to 5 FSUEs, 26 JSCs, and 3 treasury property entities. Among the integrated structures that were expanded in 2020, we can point out state corporations (SC) state corporations (SC) Rostec, Roscosmos and Rosatom; Rosgeologia JSC, Almaz-Antey Air and Space Defence Corporation; Tactical Missile Armament Corporation; United Shipbuilding Corporation; and Russian Railways.

Over the course of that year, some alterations have been introduced into the current privatization law (adopted in 2001).

The previously existing norm concerning the establishment, by the RF Government, of the procedure for developing a forecast plan of federal property privatization now applies not only to all state-owned property entities (i.e. those owned by subjects of the Russian Federation), but also to municipal property entities. The annual report on the results of federal property privatization, which the government is required to submit to parliament, must contain the information entered in the reports on the results of implementation of forecast plans (programs) of state and municipal property privatization, in accordance with the special report forms approved by the RF Government. Previously, the information on the results of privatization of property owned by subjects of the Russian Federation and municipalities, had also to be attached to the report submitted to the State Duma, but its format was not specified. Consequently, the powers of regional and local authorities to develop their own privatization programs at the local level and their own forms for reporting on their implementation must now be regulated within the framework of the said federal documents. Several articles of the privatization law have been properly amended and edited, to bring them in line with these alterations.

The alterations, whereby the rules for the development of forecast plans (programs) of federal property privatization that were approved back in 2005 are now also to be applied to the property entities owned by subjects of the

Russian Federation and municipalities, were introduced by RF Government Decree No. 2352 dated December 29, 2020. By that time, the RF Ministry of Finance had already replaced the RF Ministry of Economic Development in its capacity of the government department responsible for the development of privatization programs. The upshot was the redistribution of powers between government departments in early 2020, and this change more strongly affected the management of state-owned property.

6.1.3. Strategic organizations and the management of economic subjects operating in the public sector

After the subordination of Rosimushchestvo to the RF Ministry of Finance, many of the functions that had previously been performed by the RF Ministry of Economic Development were transferred to the latter. As a result, several dozen normative legal acts had to be properly adjusted, and this was done by RF Government Decree No. 1133 dated July 29, 2020. As far as property management policy is concerned, the alterations addressed the privatization process, the management of economic subjects operating in the public sector, the entry in records of property entities, and many other issues.[1] Basically, this was just a 'mechanical' replacement of one government department by another one, without any changes in their functions. Thus, the RF Ministry of Finance (instead of the RF Ministry of Economic Development) is required to submit to the RF Government, by January 1, 2021, the draft lists of federal state unitary enterprises, state institutions and federal autonomous institutions, the directors of which may be appointed (or their appointment approved), dismissed from their posts, and reimbursed by paying year-end bonuses, only with the consent of the deputy chairs of the RF Government responsible for coordinating the activities of the relevant federal bodies of executive authority.

In principle, the concentration of multiple powers for the implementation of property management policy in the hands of the RF Ministry of Finance, where a special department has been set up for that purpose, may give rise to a situation where the financial issues (the payment of dividends, approval of investment programs) arising within the framework of the relationship between the government and state-owned companies will be resolved at a higher level. On the other hand, interdepartmental controversy cannot be ruled out, either, because the RF Ministry of Economic Development has retained its function of developing government policy and regulating 'corporate relations'.[2]

As far as the list of strategic organizations is concerned, in 2020 it was augmented by one FSUE and two JSCs. Over the same period, nine FSUEs were struck off the list of strategic organizations; of these, four are being reorganized into JSCs, with all their stocks to be subsequently transferred as a property contribution of the State to SC Rostec, three (all of them are treasury enterprises) are to be

1 The changes in the roles performed by the government departments are discussed in more detail later in this secton, on the example of their powers executed during the management of unitary enterprises.

2 *Galieva D.* To give more food, or to milk more often // Kommersant, No. 71, April 28, 2020, p. 2.

merged with another treasury enterprise, and another one is to be reorganized into a federal budget-funded institution. In addition, after the reorganization of Russian Post, it was entered on the list of strategic joint-stock companies and simultaneously struck off the list of strategic unitary enterprises; and another two enterprises remained on that list after having been renamed.

Besides, five JSCs were struck off the list of strategic organizations.

With regard to four JSCs, including two previously created integrated structures (Concern Morinformsystem-Agat JSC and Concern Oceanpribor JSC), their transformation had to do with the establishment of Marine Instrument Engineering Corporation JSC (situated in St. Petersburg), 100% of its shares being in federal ownership. The state contribution to the charter capital of the new integrated structure consists of money in the amount of Rb200 mn and stakes in 20 JSCs, of which only four are nearly in full state ownership (100% - 1 share), while in the other JSCs the State holds only minority stakes (less than 3% each). The newly created structure has also received one share in each of the four JSCs struck off the list of strategic organizations, within the framework of a trust management agreement, without a tender for the right to conclude such an agreement without remuneration. In this connection, the trust management agreements of 11 JSCs with Concern Morinformsystem-Agat JSC and Concern Oceanpribor JSC have been terminated.

Of much greater importance is the fact of Channel One Russia JSC having been struck off the list of strategic organizations at the end of December 2020. Its charter capital is to be increased by an additional issue of shares and its sale to private shareholders, while the state stake should secure for the Russian Federation not less than 34% of votes at a general meeting of shareholders.

The government should determine the list of private shareholders and ensure that they conclude a shareholder agreement with the State, whereby the procedure for exercising the rights secured by shares in Channel One Russia JSC, as well as the titles thereto, should be established in compliance with the requirements of legislative acts and other normative legal acts of the Russian Federation, including those regulating the procedure for the management and disposal of state-owned shares. The lower government corporate control threshold in the capital of Channel One Russia JSC is counterbalanced by the decision that the Russian Federation should hold the special right to participate in the joint-stock company's management ('golden share'). It is important to note that previously, the majority state stake (51%) secured by the company's entry on the list of strategic organizations was of a complex nature, as it consisted of the stake held by Rosimushchestvo (38.9%), and also the stakes held by two FSUEs: ITAR-TASS (9.1%), and Ostankino Television Technical Center (3%).

The additional issue of shares was the response to the need for financial rehabilitation of Russia's leading TV broadcaster, which had accumulated a net loss and huge accounts payable. Presumably, its private shareholders could be VTB Group, SOGAZ and the National Media Group, the latter having already become its second biggest shareholder after Rosimushchestvo (29%). VTB Group, which previously owned a 20% stake that was transferred to SOGAZ, does not

rule out the possibility of converting into shares the debt on existing loans. Representatives of both companies, alongside government officials, have been nominated candidates to the board of directors of Channel One Russia JSC.[1]

The expected reduction of the state stake in the capital of Channel One Russia JSC is on a par with the already closed Sovcomflot deal, because it has launched a trend towards bringing down the size of state stakes in major companies of nationwide importance while retaining government control over their activities through a variety of instruments.

On the other hand, the past year also saw some opposite examples. Thus, on one of its last days, the claim filed by the Prosecutor General's Office concerning the seizure in favor of the State (represented by Rosimushchestvo) of all shares in the Bashkir Soda Company (BSC) JSC was satisfied; this had been preceded by a conflict with the local residents over the company's failure to comply with environmental legislation, and a reprimand by the President of Russia in connection with profits being withdrawn to offshores and a decreasing participation of the State in the company's joint-stock capital. However, in this particular case, the Republic of Bashkortostan performed its shareholder functions through its participation in the Regional Fund JSC, which held a 38.2% stake in the BSC.[2] Meanwhile, Rosatom State Corporation plans to become FESCO's partner in managing Commercial Port of Vladivostok PJSC (VMTP PJSC), which is the main asset held by the latter (so far, without any participation in its capital). FESCO replaced its major stakeholders, which gave rise to an acute corporate conflict. The conflict also affected VMTP PJSC, because the newly appointed management was met with a sharp rejection by the seaport staff.[3]

Special mention should be made of the purchase, by the RF Government from the Bank of Russia, of the 50% equity stake in Sberbank PJSC; the deal was regulated by specially adopted Law No. 50-FZ dated March 18, 2020, and was part of the placement of funds of the RF National Wealth Fund. The deal value was determined on the basis of organized trades executed on the Moscow Exchange over the period from March 9, 2020 through April 7, 2020, at Rb189.44 per share. The total deal value amounted to Rb2,139,435.71 mn.[4]

Leaving aside some important aspects of that deal, which deserve separate consideration (its feasibility and priority from the point of view of budget expenditure in the new socio-economic situation, the ways of spending the money received by the RF Central Bank, etc.), we believe it to be worthwhile to discuss the following point.

As far as administering the collection of non-tax revenues is concerned, it should be noted that previously, the incomes derived by the RF Central Bank from its stake in Sberbank were treated as 'other non-tax budget revenues' and, on the basis of special laws, were to be transferred to the federal budget, and their amount was deducted from the part of the RF Central Bank's total profits

1 URL: www.rbc.ru, January 31, February 3, 2021
2 URL: www.rbc.ru, August 26 and 31, December 4, 2020
3 URL: www.rbc.ru, November 5, December 23, 2020
4 URL: www.minfin.gov.ru, April 10, 2020

earmarked for the federal budget. In view of the new management format, it would be logical to expect an increase in the total volume of dividends received by the federal budget.

From the point of view of corporate governance, it is worthwhile to discuss in detail the provision in the said law whereby a shareholder agreement between the parties on the execution of the rights secured by ordinary shares in Sberbank is regulated, which addresses in the main the formation of its supervisory board.

Until the alienation, by the Bank of Russia, of all its shares, up to five candidates are nominated and elected to that body; these are government officials, who are individuals acting on the supervisory board of Sberbank in accordance with the agreement on representing there the interests of the RF Government, and employees of the Bank of Russia.

They should include not less than one candidate from among government officials, and not less than one candidate from among employees of the Bank of Russia. The proportionate numbers of government officials, the individuals acting on the supervisory board of Sberbank in accordance with the agreement on representing there the interests of the RF Government, and employees of the Bank of Russia to be nominated and elected to the supervisory board by voting of the parties at a general meeting of shareholders (GMS), should be determined with due regard for the actual quantitative distribution of Sberbank ordinary shares between the parties as of January 1 of the relevant calendar year.

After the Bank of Russia has alienated all its shares, up to four candidates, including one employee of the Bank of Russia, are to be nominated and elected to Sberbank's supervisory board by voting at a general meeting of shareholders, on behalf of the RF Government represented by the federal body of executive authority responsible for the development of government policy and legal regulation in the field of budgetary, tax, insurance, currency and banking activities. Likewise, by voting of the parties, not more than one representative of the executive bodies of Sberbank PJSC is to be nominated and elected to its supervisory board.

The government officials, who are individuals acting on the supervisory board of Sberbank PJSC in accordance with the agreement on representing there the interests of the RF Government, are to be independent in their decision-making and voting on the issues included in the supervisory board meeting's agenda, unless the RF Government has issued instructions, in accordance with the procedure established in its normative legal acts, that they should vote in a specific way on the issues determined by the shareholder agreement.

The candidates nominated by the parties to the supervisory board as independent directors must meet the criteria for an independent director established by the rules of the organized of trade appointed to handle the listing of Sberbank ordinary shares.

The shareholder agreement is to be concluded within one month after the transfer of ordinary shares in Sberbank by the Bank of Russia to the RF Government represented by the federal body of executive authority responsible for the development of government policy and legal regulation in the field of budgetary, tax, insurance, currency and banking activities, i.e. the RF Ministry of Finance.

The special role of this particular government department is consolidated by the Regulation on the exercise, on behalf of the RF Government, of the rights of a shareholder of public joint stock company "Sberbank of Russia", approved by RF Government Decree No. 1326 dated August 31, 2020, which directly states that the RF Ministry of Finance should exercise these rights with due regard for the provisions of the shareholder agreement, which is effective from the moment of its conclusion and until its expiration date, set to be three years from the moment of alienation by the Bank of Russia of all its ordinary shares in Sberbank.

The standpoint of the Russian Federation, in its capacity of a shareholder, on making proposals concerning the nomination of candidates to be elected to the supervisory board is to be determined by a decision of the RF Government; and that on including items in the agenda of a general meeting of shareholders, presenting a request to hold an extraordinary meeting of shareholders, or voting on the items entered in its agenda is to be determined by directives (or instructions) approved by the Chairman or Deputy Chairs of the RF Government. The representative of the RF Government, when voting on issues included in the agenda of a GMS, should be guided by the said directives (instructions) and act on the basis of a power of attorney issued by the RF Ministry of Finance.

The proposals concerning the nomination of candidates to be elected to the supervisory board, including one employee of the RF Central Bank,[1] should be submitted by the RF Ministry of Finance to the RF Government not later than 60 days before the deadline for the submission of the relevant proposals to the PJSC (in the event of an extraordinary general meeting of shareholders, not later than 15 days before the deadline for their submission to the PJSC), with all the necessary materials attached to it.

The RF Ministry of Finance, when preparing its proposals concerning the nomination of candidates to be elected to the supervisory board in the capacity of independent directors, should be guided by the assumption that the individual nominated by the RF Government must meet the criteria for an independent director established by the rules issued by the Russian trade organizer who handles the listing of Sberbank ordinary shares.

During the term of the shareholder agreement, not more than four candidates, including one employee of the RF Central Bank and independent directors, should be nominated to the supervisory board on behalf of the RF Government.

The individuals elected in the established procedure to the supervisory board from among the candidates nominated by the RF Government are representatives of the RF Government's interests in that body, who should perform their functions in the procedure established by the said Regulation, with the exception of those individuals who are nominated candidates to be elected as independent directors.

Representatives of the RF Government's interests can be the individuals holding government positions, civil service positions, employees of the RF Central

1 The proposals from the RF Central Bank concerning that individual should be submitted to the RF Ministry of Finance not later than 70 days before the established deadline for submitting relevant proposals to the PJSC (in the event of an extraordinary general meeting of shareholders, not later than 25 days before the deadline for submitting those proposals to the PJSC).

Bank, as well as other individuals acting in accordance with the agreement on representing the interests of the Russian Federation in the supervisory board of the PJSC concluded with the RF Ministry of Finance (professional attorneys).

The agreement should provide for the right of a professional attorney to initiate a discussion in the RF Ministry of Finance, where the other representatives of the RF Government's interests in the supervisory board should also be invited, of the issues submitted to a supervisory board meeting, and to obtain the information necessary for the execution of the powers delegated to the attorney.

Representatives of the RF Government's interests carry out the following duties, which should also be stipulated in an agreement with a professional attorney:

- to conscientiously and reasonably exercise all their delegated duties and powers, which are attributed to the competence of the supervisory board of the PJSC;
- to notify, in due time, the RF Ministry of Finance of those meetings, the agenda of which includes items requiring the issuance of directives;
- to vote in accordance with the issued directives (whenever it is established that there is a need for the issuance of such directives concerning certain items on the agenda of a supervisory board meeting);
- to participate in the work of its committees (if a professional attorney is elected to those committees);
- to call a meeting of the supervisory board and include in the agenda of its meeting the issues proposed by the RF Government (if a professional attorney is elected as chair of the supervisory board).

Representatives of the RF Government's interests in the supervisory board are independent in their decision-making and voting concerning the items included in the agenda of its meeting until the expiration of the shareholder agreement, except for those cases when they vote on the basis of approved written directives (or instructions) concerning the following items included in the agenda of a supervisory board meeting, the list of which is to be determined by the shareholder agreement:

- approval of the agenda of a GMS;
- election (or re-election) of the chair of the supervisory board of the PJSC;
- the creation of the single executive body and early termination of its powers;
- recommendations concerning the size of dividend on shares and the procedure for its payment, as well as recommendations concerning the approval of the PJSC's dividend policy.

In the event of alterations being introduced into the wording of the resolutions to be issued on the items included in the agenda of a supervisory board meeting in the course of the relevant discussions, with regard to which written directives (or instructions) have been received by representatives of the RF Government's interests, the latter should not take part in voting on the said issues.

If certain circumstances impeding the exercise of powers by a representative of the RF Government's interests should arise, as well as in the event of dismissal

of the latter from a public office, the said individual is obliged to notify Sberbank and the RF Ministry of Finance within five workdays from the day on which the said circumstances arose.

The relevant government department, in its turn, should submit to the RF Government, within 15 days from the date on which it became aware of the circumstances impeding the exercise of powers by the representative of the RF Government's interests, one of the following proposals:

- on the feasibility of terminating the powers of the representative of the RF Government's interests who was previously elected to the supervisory board of the PJSC, while simultaneous suggesting, in the established procedure, the candidates to be elected to the supervisory body at a general meeting of shareholders, the agenda of which should include the issue of electing supervisory board members, and, if necessary, suggesting that an extraordinary general meeting of shareholders should be called for the consideration of this issue;
- on the feasibility of keeping in their position the previously elected representative of the RF Government's interests.

If one of the proposals submitted by the Ministry of Finance concerns a member of the supervisory board of the PJSC who has been nominated from among the employees of the RF Central Bank in accordance with the shareholder agreement, the said proposal should be coordinated with the RF Central Bank.

The RF Ministry of Finance, within 15 workdays from the date on which it became aware of the dismissal of a representative of the RF Government's interests from a public office, a civil service position, or from the RF Central Bank, should conclude with the latter the same agreement as with a professional attorney.

After the expiration of the shareholder agreement, the representatives of the RF Government's interests in the supervisory board of the PJSC should vote on the basis of written directives (or instructions) approved by the Chairman or Deputy Chairs of the RF Government. The draft directives (or draft instructions) are to be submitted by the RF Ministry of Finance to the RF Government not later than 7 days before the day of a supervisory board meeting.

It should be noted that the general regulations on the procedure for managing federal stakes in JSCs and the exercise of the special right of the Russian Federation to participate in their management ('golden share'), approved by RF Government Decree No. 738 dated December 3, 2004, do not apply to Sberbank. In fact, the alteration whereby Sberbank was no longer obliged to comply with the core document determining the state-owned property management mechanism in the corporate sector was the only significant alteration introduced in 2020.

At the same time, there were innovations concerning the management of unitary enterprises.

The amendments to the special Law adopted in 2002 (No. 161-FZ) were by no means fundamental.

The minimum size of the charter capital of a state-owned or municipal enterprise was set at not less than Rb500,000 and Rb100,000, respectively. Previously, these caps were calculated relative to the minimum wage. This criterion has also been

removed from the definition of a major deal, and only the threshold value (more than 10% of the charter capital (for a state-owned or municipal enterprise) or the book value of assets (for a treasury enterprise)) were left.

In the event of property alienation, or the possibility of property alienation, the higher of the two values is to be compared with the charter capital of a state-owned or municipal enterprise (or the book value of the assets of a treasury enterprise): the alienation value of the said property, or its book value. In the event of a unitary enterprise acquiring property, the authorized capital of a state-owned or municipal enterprise (or the book value of the assets of a state-owned enterprise) is compared with the purchase price of the said property.

State Corporation Rostec, along with the RF Government, federal bodies of executive authority (FBEA), and State Corporation Roscosmos, have been granted the opportunity to exercise the powers of the owner of property held by a federal treasury enterprise (FTE).

In response to the redistribution of powers between government departments in early 2020, relevant alterations concerning the new role of the RF Ministry of Finance were introduced into RF Government Decree No. 739 dated December 3, 2004, whereby the powers of federal bodies of executive authority to exercise the rights of owner of property held by a federal state unitary enterprise are regulated. The RF Ministry of Finance has replaced the RF Ministry of Economic Development in the exercise of certain powers (approval of a model charter of a federal state unitary enterprise and a model employment contract with its director; approval of standard terms of transactions with real estate held by an enterprise by right of economic jurisdiction, including its transfer under lease agreements, unless established otherwise by other normative legal acts adopted in accordance with federal laws; coordination of draft decisions concerning the reorganization of FSUEs into federal state institutions or autonomous non-profit organizations (ANO) submitted to the RF Government by federal bodies of executive authority; participation in a conciliation meeting at Rosimushchestvo in the event of a proposal by the latter to the effect that the employment contract with the director of an enterprise should be terminated in accordance with RF legislation[1]).

It was also established that the decision-making procedure concerning transactions with property held by FSUEs situated outside of RF territory, the procedure for handling transactions with that property, as well as the decision-making procedure for writing off that property should be introduced by a normative legal act of the RF Government whereby the procedure for managing federal immovable property entities situated outside of RF territory is regulated.

Another innovation is directly linked to the financial and economic issued that arose over the course of last year. In the context of several documents whereby the procedure for coordinating with FBEAs the transactions with immovable property

1 The meeting is to be held in the event of disagreement between Rosimushchestvo and the FBEA responsible for the relevant enterprise, and should be participated not only by representatives of the RF Ministry of Finance, but also by those of the relevant FBEA, as well as the FBEA responsible for the development of government policy and legal regulation in the relevant field.

entities consolidated to federal state enterprises and institutions managed by right of economic jurisdiction or by right of operative management is regulated, one of the norms stipulated in RF Government Decree No. 739 dated December 3, 2004 does not apply to the addenda to agreements on the lease of federal immovable property entities concluded in compliance with RF Government Directive No. 670-r dated March 19, 2020.

This document provided for the possibility, in 2020, of a temporary deferral for the lease payments owed by small and medium-sized enterprises (SMEs) who held federal property entities under lease agreements (RF treasury property and property consolidated to the state-owned enterprises and state institutions subordinated to FBEAs). It was envisaged that addenda to such lease agreements could be concluded, and the said economic subjects were to be informed in advance about their possessing such a right. The lease holders operating in the sectors that were hit hardest by the crisis were entitled to full exemption, over Q2, from the payments that they owed under such agreements. Later on, by RF Government Directive No. 1296-r dated May 16, 2020, the list of recipients of the relief measures was augmented by socially oriented non-profit organizations, and the grace period was extended from three to six months, i.e. until October 1, with the rent arrears to be redeemed within two years (2021–2022).[1]

Rosimushchestvo's territorial bodies carried out the necessary work to inform SMEs of the opportunity to make addenda to their federal property lease agreements concluded in accordance with RF Government Decree No. 645 dated August 21, 2010 "On subsidies to small and medium-sized enterprises renting federal."

According to data released by Rosimushchestvo,[2] its territorial bodies received a total of 3,985 applications for these benefits from SMEs. In response to 3,281 applications, addenda to federal treasury property lease agreements were concluded, whereby a deferral of or exemption from lease payments was granted, to the total value of Rb715.2 mn. This amount cannot be assessed to be particularly significant, even if we give consideration to the fact that in response to 643 applications, the addenda on the provision of benefits were signed by Rosimushchestvo's territorial bodies, and then were sent to the SMEs, to be signed by the latter.[3] For reference: the total budget revenues generated by payments for the lease of federal property in 2020 more than doubled (to about Rb10.2 bn), thanks to the increased payments for the lease of property entities managed by right of operative management by federal bodies of state authority and the institutions created by the latter (with the exception of budget-funded and autonomous institutions) (about Rb7.7 bn). Probably, the most effective channel

1 URL: http://rosim.gov.ru, April 10, 2020, May 20, 2020
2 Rosimushchestvo's annual report for 2020 on the implementation of its plan. URL: http://rosim.gov.ru
3 For more details on the property-generated income of the State, see later in this section. However, the relief measures involving federal treasury property lease agreements cannot be considered to be the only source of support for SMEs; more significant figures could be expected at the level of RF subjects and municipalities.

for supporting small businesses was the lease of RF treasury property (except land plots); the revenues from this source in 2020 shrank (to Rb2.5 bn).

6.1.4. The budgetary effect of Russia's property management policy

In 2020, in contrast to the situation in the previous year, the movement of federal budget revenues that had to do, in one or other way, with public property was multi-vectored. Alongside a certain reduction in the amount of revenues generated by the use of public property (renewable sources), those generated by privatization and sale of property (non-renewable sources) demonstrated significant growth, which was quite unexpected in view of the economic realities of that crisis-ridden year.

Below (*Tables 5* and *6*) we present data taken from the reports on federal budget execution, limited to the revenues generated by the use of public property and the sale of public property entities belonging only to some specified categories of tangible property.[1]

1 Within the framework of this review, we do not consider the federal budget revenues generated by payments for the use of natural resources (including biological water resources, revenues from the use of forest fund, and the extraction of mineral resources), compensation for the losses incurred by the agricultural production sector as a result of confiscation of agricultural land, revenues generated by financial operations (revenues from placement of budget funds, revenues from federal budget residuals and their investment; from 2006 onwards, these include the revenues from the management of the RF Stabilization Fund (and from 2009 onwards, the Reserve Fund and the National Welfare Fund)); revenues from investment of monies accumulated in the course of trading RF stocks in the auction market); interest on budget-funded domestic loans, covered by the federal budget; interest on government loans (monies received from the governments of foreign countries and their legal entities as interest payments on RF government loans); money transfers from legal entities (enterprises and organizations), subjects of the Russian Federation, and municipal formations received as interest and guarantee payments on loans received by the Russian Federation from foreign governments and international financial organizations; revenues from paid services rendered to the population or monies received by way of compensation of government expenditures; transfers of the RF Central Bank's profits; certain categories of payments from state and municipal enterprises and organizations (patent duties and registration fees for official registration of software, databases, integral microcircuit topologies; and other revenues which until 2004 were part of mandatory payments of state organizations (except revenues generated by the operations of Joint Venture *Vietsovpetro* (from 2001) and transfers of part of profits generated by FSUEs (from 2002); revenues from the implementation of product share agreements (PSA); revenues from the disposal of confiscated and other property earmarked as government revenue (including property transferred to state ownership in the procedure of inheritance or gift, or treasure trove appropriation); revenues generated by lotteries; other revenues from the use of property and rights in federal ownership (revenues from the execution of rights to the results of intellectual activity (R&D and technologies) intended for military, special, or dual use; revenues generated by the execution of rights to the results of scientific and technological research held by the Russian Federation; revenues generated by the exploitation and use of property relating to motor roads, motor road levies imposed on transport vehicles registered in the territory of other states; execution of the Russian Federation's exclusive right to the results of intellectual activity in the field of geodesy and cartography; fees for the use of spatial data and materials that are not subject to copyright, kept in the Federal Fund of Spatial Data; and other revenues from the use of property in the ownership of the Russian Federation; revenues generated by organizations from their permitted types of economic activity and earmarked for transfer to the federal budget; and revenues from realization of government reserves of precious metals and precious stones.
By contrast with the previous years, the law on federal budget execution for 2015–2019 contains no aggregate data listed under each revenue classification code or sub-code, or listed according to the classifications of transactions in the public administration sector on revenue side (these are listed only by their classification code for each revenue administrator). Therefore, we used

Table 5

Federal budget revenues generated by the use of public property (renewable sources) in 2000–2020, millions of rubles

Year	Total	Dividends on shares (2000–2020) and revenues generated by other forms of capital participation (2005–2020)	Payment for lease of land in state ownership	Revenues generated by lease of property in state ownership	Revenues from transfer of part of net profits of FSUEs after taxes and other mandatory payments	Revenues from other sources (in 2000–2007 and 2011, those generated by Joint Venture Vietsovpetro; and in 2018–2020, those generated by property transferred as pledge or into trust management)
2000	23,244.5	5,676.5	–	5,880.7	–	11,687.3[a]
2001	29,241.9	6,478.0	3,916.7[b]	5,015.7[c]	209.6[d]	13,621.9
2002	36,362.4	10,402.3	3,588.1	8,073.2	910.0	13,388.8
2003	41,261.1	12,395.8	10,276.8[e]		2,387.6	16,200.9
2004	50,249.9	17,228.2	908.1[f]	12,374.5[g]	2,539.6	17,199.5
2005	56,103.2	19,291.9	1,769.2h	14,521.2[i]	2,445.9	18,075.0
2006	69,173.4	25,181.8	3,508.0[h]	16,809.9[i]	2,556.0	21,117.7
2007	80,331.85	43,542.7	4,841.4[h]	18,195.2[i]	3,231.7	10,520.85
2008	76,266.7	53,155.9	6,042.8[h]	114,587.7[i]	2,480.3	–
2009	31,849.6	10,114.2	6,470.5[h]	13,507.6[i]	1,757.3	–
2010	69,728.8	45,163.8	7,451.7[h]	12,349.2[j]	4,764.1	–
2011	104,304.0	79,441.0	8,210.5[h]	111,241.25[j]	4,637.85	773.4
2012	228,964.5	212,571.5	7,660.7[k]	3,730.3[l]	5,002.0	–
2013	153,826.25	134,832.0	7,739.7[k]	4,042.7[l] +1,015.75[m]	6,196.1	–
2014	241,170.6	220,204.8	7,838.7[k]	3,961.6[l] +1,348.5[m]	7,817.0	–
2015	285,371.1	259,772.0	9,032.3[k]	5,593.8[l] +1,687.8[m]	9,285.2	–
2016	946,723.35/ 254,328.3[o]	918,969.1/ 226,574.1[o]	9,412.4[k]	5,843.25[o] +3,026.7[m]	9,471.9	–
2017	275,168.2	251,327.0	9,825.1[k]	5,318.4o +2,857.7[m]	5,840.0	–
2018	333,396.13	312,565.8	9,783.0[k]	1,988.6[o] +2,922.6[m]	6,136.0	0.13
2019	465,974.25	441,620.4	12,051.65[k]	1,290.4[o] +3,239.2[m]	7,616.9	155.7
2020	451,514.34	422,662.8	10,290.7[k]	7,654.2[o] +2,504.6[m]	8,401.9	0.14

[a] – according to data released by the RF Ministry of Property Relations, in the law on federal budget execution for 2000 this item is not specified separately; instead, the amount of payments received from state-owned enterprises is entered (Rb9,887.1 mn) (without any components being specified);
[b] – the amount of lease payments (i) for the use of agricultural land, and (ii) for the use of land plots in the territories of towns and settlements;
[c] – the amount of revenues from the lease of property consolidated to (i) scientific research organizations, (ii) educational establishments, (iii) healthcare institutions, (iiii) state museums, state cultural and arts institutions, (iiiii) archival institutions, (iiiiii) the RF Ministry of Defense,

data from the annual reports on federal budget execution as of January 1, 2016; January 1, 2017; January 1, 2018; January 1, 2019; January 1, 2020; and operational data on federal budget execution as of January 1, 2021.

(iiiiiii) organizations subordinated to the RF Ministry of Railways, (iiiiiiii) organizations providing research-related services to the academies of sciences with the status of a state entity, and (iiiiiiiii) other revenues from the lease of property in state ownership;

[d] – according to data released by the RF Ministry of Property Relations, in the law on federal budget execution for 2001 this item was not specified separately; this value turned out to be the same as the amount of other revenues received as part of payments transferred by state and municipal organizations;

[e] – total amount of revenues generated by the lease of property entities in public ownership (without specifying the amount of lease payments for land);

[f] – the amount of lease payments (i) for the use of land plots in the territories of towns and settlements, (ii) for the use of land plots in federal ownership after the delineation of titles to land plots between different tiers of government;

[g] – the amount of revenues from the lease of property consolidated to (i) scientific research organizations, (ii) educational establishments, (iii) healthcare institutions, (iiii) state cultural and arts institutions, (iiiii) state archival institutions, (iiiiii) institutions of the federal postal service of the RF Ministry of Communications and Informatization, (iiiiiii) organizations providing research-related services to the academies of sciences with the status of a state entity, and (iiiiiiii) other revenues generated by the lease of property in federal ownership;

[h] – the amount of lease payments after the delineation of titles to land plots between different tiers of government and revenues generated by the sale of right to conclude lease agreements in respect of land plots in federal ownership (with the exception of land plots held by federal autonomous institutions (2008–2011) and budget-funded institutions (2011));

[i] – the amount of revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them, and property held by right of economic jurisdiction by FSUEs: properties transferred for operative management to organizations with the status of a state entity: (i) scientific research institutions, (ii) organizations providing research-related services to the Russian Academy of Sciences and 'branch' (sectoral) academies, (iii) educational establishments, (iiii) healthcare institutions, (iiiii) federal postal service institutions of the Federal Communications Agency, (iiiiii) state cultural and arts institutions, (iiiiiii) state archival institutions, and (iiiiiiii) other revenues generated by the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them, and property held by right of economic jurisdiction by FSUEs[1] (for the period 2006–2009, less revenues from the permitted types of economic activity and revenues from the use of federal properties situated outside of RF territory, which are received abroad, and which were not listed as a separate revenue item in the previous years[2]);

[j] – the amount of revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (with the exception of federal autonomous institutions and budget-funded institutions): properties transferred for operative management to organizations with the status of a state entity: (i) scientific research institutions, (ii) organizations providing research-related services to the Russian Academy of Sciences and to the 'branch' (sectoral) academies, (iii) educational establishments, (iiii) healthcare institutions, (iiiii) state cultural and arts institutions, (iiiiii) state archival institutions, (iiiiiii) properties held by right of operative management by the RF Ministry of Defense and its subordinated institutions (2010), (iiiiiiii) properties in federal ownership disposed of by the Executive Office of the RF President (2010), and (iiiiiiiii) other revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (less revenues from the permitted types of economic activity and revenues from the use of federal properties situated outside of RF territory, which are received abroad);

[k] – the amount of lease payments after the delineation of titles to land plots between different tiers of government and revenues generated by the sale of right to conclude lease agreements in respect of land plots in federal ownership (with the exception of land plots held by federal budget-funded institutions and autonomous institutions), and (i) lease payments received for the lease of land plots

1 For the period 2008–2009, there is no mention of FSUEs as sources of revenues generated by the lease of property consolidated to them by right of economic jurisdiction, while the revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them do not include revenues generated by property held by autonomous institutions.

2 According to data released by the RF Ministry of Property Relations, the revenues from the use of federal properties situated abroad (less the revenues received by the Russian partner in Joint Venture Vietsovpetro) amounted to Rb315 mn in 1999 and Rb440 mn in 2000. Thereafter, the major role in organizing the commercial use of federal immovable property situated abroad was assigned to FSUE Goszagransobstvennost.

in federal ownership, situated in public motor road precincts of federal importance (2012–2020), (ii) payments for the execution of agreements on the establishment of servitude with regard to land plots situated within public motor road precincts of federal importance for the purposes of building construction (or reconstruction), capital repairs and exploitation of road service entities, installation, relocation, reconstruction, and exploitation of utility networks, installation and exploitation of elevated advertising structures (2012 and 2014-2020), and (iii) payments received in the framework of agreements on the establishment of servitude with regard to land plots in federal ownership (2015–2020);

[l] – the amount of revenues from the lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (with the exception of budget-funded institutions and autonomous institutions): properties transferred for operative management to organizations with the status of a state entity: (i) scientific research institutions, (ii) educational establishments, (iii) healthcare institutions, (iiii) state cultural and arts institutions, (iiiii) state archival institutions, (iiiiii) other revenues from the lease of property held by right of operative management by federal treasury institutions, (iiiiiii) federal bodies of state authority, the Bank of Russia, and the managerial bodies of RF government extrabudgetary funds, (iiiiiiii) federal treasury institutions (2015 only) (less revenues from the use of federal properties situated outside of RF territory, which are received abroad);

[m] – the amount of revenues from the lease of RF treasury property (with the exception of land plots);

[n] – less the revenues generated by the sale of the stake in *Rosneft* (Rb692,395 bn) (less interim dividend payments);

[o] – for the period 2016–2020, we apply aggregate data, without identifying by-sector groups of institutions. The more general classification consists only of 2 revenue categories, distinguished depending on the recipient of revenues generated by lease of property (federal bodies of state authority, the Bank of Russia and the managerial bodies of RF government extrabudgetary funds, and federal treasury institutions).

Sources: Laws on federal budget execution for the period 2000–2014; reports on federal budget execution as of January 1, 2016; January 1, 2017; January 1, 2018; January 1, 2019; and January 1, 2020 (annual data); and operational data on federal budget execution as of January 1, 2021. URL: http://roskazna.gov.ru; own calculations.

In 2020, the aggregate revenues generated by renewable sources declined by only 3% relative to the previous year, amounting to Rb451.5 bn.

This was achieved in the main due to the receipts of dividends in the federal budget (Rb442.6 bn), which now stood 4.3% below the record high of 2019 (Rb441,6 bn). The receipts of part of profits paid by unitary enterprises, on the contrary, gained more than 10%. When taken in absolute terms (Rb8.4 bn), this index jumped above its 2014 level, but was still below its record highs of the period 2015–2016.

The aggregate revenues generated by lease of federal property more than doubled (approximately Rb10.2 bn). This happened as a result of an unexpected explosive growth (nearly sixfold) of the revenues from lease of property held by right of operative management by federal bodies of state authority and by the state institutions established by them (with the exception of budget-funded institutions and autonomous institutions) (Rb7.65 bn). This value turned out to be the highest since 2013, when within the general structure of revenues from federal property lease, the revenues generated by lease of property held by the RF Treasury (except land plots) began to be identified in budget reports as a separate entry. The latter, on the contrary, decreased by almost 23%, amounting to Rb2.5 bn. This index is the record low of the last 5 years. After having prevailed for two years in a row, now it amounted to about 1/4 of the total revenue generated by lease of federal property. Probably, this dynamics points to a really widespread reliance on the relief measures introduced in connection with the coronavirus

crisis. The amount of revenue generated by lease of land plots plunged by about 15% (about Rb10.3 bn).[1]

As had been the case a year earlier, dividends held a dominant position in the structure of renewable federal budget revenue sources (approximately 94%, just as in 2019). The relative share of lease payments for land plots amounted to 2.3%; that of payments for property lease, to 2.2%; and that of profits transferred by FSUEs, to 1.9%. Their aggregate relative share remained nearly unchanged relative to 2019; only the share of payments for property lease nearly doubled.[2]

While proceeding to an analysis of federal budget revenues generated by the privatization and sale of state property (*Table 6*), it should be noted that, from 1999 onwards, the revenues from the sale of such assets (state stakes, and over the period 2003–2007, also land plots[3]) have been treated as a source of funding to cover budget deficit.

Table 6

Federal budget revenues generated by privatization and sale of property (non-renewable sources) in 2000–2020, millions of rubles

Year	Total	Sale of shares in federal ownership (2000–2020) and other forms of federal capital participation (2005–2020)[a]	Sale of land plots	Sale of miscellaneous properties
2000	27,167.8	26,983.5	–	184.3[b]
2001	10,307.9	9,583.9	119.6[c]	217.5+ 386.5+0.4 (ITA)[r]
2002	10,448.9	8,255.9[e]	1,967.0[f]	226.0[g]
2003	94,077.6	89,758.6	3,992.3[h]	316.2+10.5[i]
2004	70,548.1	65,726.9	3,259.3[j]	197.3+1,364.6+0.04 (ITA)[n]
2005	41,254.2	34,987.6	5,285.7[k]	980.9[m]
2006	24,726.4	17,567.9	5,874.2[l]	1,284.3[n]
2007	25,429.4	19,274.3	959.6[o]	5,195.5[p]
2008	12,395.0	6,665.2+29.6	1,202.0[q]	4,498.2+0.025 (ITA)[r]
2009	4,544.1	1,952.9	1,152.5[q]	1,438.7[r]
2010	18,677.6	14,914.4	1,376.2[q]	2,387.0+0.039 (ITA)[r]
2011	136,660.1	126,207.5	2,425.2[q]	8,027.4[r]
2012	80,978.7	43,862.9	16,443.8[q]	20,671.7+0.338 (ITA)[r]

1 Probably, this budget item was also influenced by the relief measures. The amount of lease payments for land plots, just as a year earlier, included lease payments received for the lease of land plots in federal ownership situated in public motor road precincts of federal importance; payments for the execution of agreements on the establishment of servitude with regard to land plots situated in public motor road precincts of federal importance for the purposes of building construction (or reconstruction), capital repairs and exploitation of road service entities, installation, relocation, restructuring, and exploitation of utility networks, and installation and exploitation of elevated advertising structures; and payments for the execution of agreements on the establishment of servitude with regard to land plots in federal ownership.

2 In the last two years, the classification of federal budget revenues generated by use of property was augmented by one more new source – proceeds from the transfer of federal property as collateral or for trust management (with the exception of property owned by federal budget-funded and autonomous institutions, as well as property of federal state unitary enterprises, including treasury enterprises). However, the share of that source in the structure of renewable revenue sources was negligible (Rb0.144 mn).

3 Data for the period 2003–2004 include revenues generated by the sale of leasing right.

Year	Total	Sale of shares in federal ownership (2000–2020) and other forms of federal capital participation (2005–2020)[a]	Sale of land plots	Sale of miscellaneous properties
2013	55,288.6	41,633.3	1,212.75[q]	12,442.2+0.310 (ITA)[r]
2014	41,155.35	29,724.0	1,912.6[q]	9,517.7+1.048 (ITA)[r]
2015	18,604.1	6,304.0	1,634.55[q]	10,665.5+0.062 (ITA)[r]
2016	416,470.5	40,6795.2	2,112.7[q]	7,562.6+0.012 (ITA)[r]
2017	21,906.7	14,284.5	1,199.6[q]	6,421.3+1.3 (ITA)[r]
2018	28,252.0	12,787.5	1,660.6[q]	13,803.7+0.2 (ITA)[r]
2019	20,129.3	11,527.5	1,647.5[q]	6,954.3[r]
2020	27,929.9	12,570.7	3,219.2[q]	11,240.1+1.9 (ITA)[r] +898.0[s]

[a] – treated as an internal source of funding to cover federal budget deficit; the Rb29.6 mn received in 2008 (as stated in the report on federal budget execution as of January 1, 2009) is treated as federal budget revenue, but it is absent in the 2008 law on federal budget execution;
[b] – revenues generated by privatization of entities in public ownership and treated as an internal source of funding to cover federal budget deficit;
[c] – revenues generated by the sale of land plots and the right to lease land plots in state ownership (with special entry concerning those land plots in which privatized enterprises are situated), treated as federal budget revenues;
[d] – the amount of revenues generated by (1) the sale of property in federal ownership, treated as an internal source of funding to cover federal budget deficit, (2) revenues generated by (i) the sale of apartments, (ii) the sale of state-owned production and non-production assets, transportation vehicles, other equipment and tangible assets, and (3) revenues generated by the sale of intangible assets (ITA), treated as federal budget revenues;
[e] – including Rb6 mn generated by the sale of shares held by subjects of the Russian Federation;
[f] – revenues generated by the sale of land and intangible assets, their amount not specified as a separate entry, treated as federal budget revenues;
[g] – revenues generated by the sale of property in public ownership (including Rb1.5 mn generated by the sale of properties held by subjects of the Russian Federation), treated as an internal source of funding to cover federal budget deficit;
[h] – this figure includes revenues generated by (1) the sale of land plots in which immovable property entities are situated, which prior to their alienation were federal property, the proceeds being transferred to the federal budget, (2) the sale of other land plots, as well as the sale of the right to conclude lease agreements in respect of those land plots, (3) the sale of land plots after delineation of titles to land plots, as well as the sale of the right to conclude lease agreements with respect to those land plots, the proceeds being transferred to the federal budget; these are treated as an internal source of funding to cover federal budget deficit;
[i] – the sum of (1) revenues generated by the sale of properties in federal ownership, treated as an internal source of funding to cover federal budget deficit, and (2) revenues generated by the sale of intangible assets, treated as federal budget revenues;
[j] – this figure includes the revenues generated by: (1) the sale of land plots prior to delineation of public titles to land plots, in which immovable property entities are situated, which prior to their alienation were federal property, the proceeds being transferred to the federal budget, (2) the sale of other land plots, as well as the sale of the right to conclude lease agreements in respect of those land plots, (3) the sale of land plots after delineation of titles to those land plots, as well as the sale of the right to conclude lease agreements with respect to those land plots, the proceeds being transferred to the federal budget; these are treated as an internal source of funding to cover federal budget deficit;
[k] – the sum of (1) revenues generated by the sale of properties in federal ownership, treated as an internal source of funding to cover federal budget deficit, (2) revenues generated by (i) the sale of apartments, (ii) the sale of equipment, transportation vehicles and other tangible assets, the proceeds being transferred to the federal budget, (iii) the sale of the products of ships recycling industry, (iiii) the sale of property held by state unitary enterprises and state institutions, as well as the sale of military property, (iiiii) the sale of the products of recycled armaments, military technologies and ammunition, (3) revenues generated by the sale of intangible assets (ITA); these are treated as federal budget revenues;
[l] – this figure includes the revenues generated by: (1) the sale of land plots prior to delineation of titles to land plots, in which immovable property entities are situated, which prior to their alienation

were federal property, (2) the sale of land plots after delineation of titles to land plots, the proceeds being transferred to the federal budget, (3) the sale of other land plots, which prior to delineation of titles to land plots between different tiers of government were public property, and which are not earmarked for housing construction (this subdivision is true only with regard to data for 2006); these are treated as sources of funding to cover federal budget deficit;

[m] – revenues generated by the sale of tangible and intangible assets (less federal budget revenues generated by the disposal and sale of confiscated property and other property treated as government revenue), this figure includes revenues generated by (i) the sale of apartments, (ii) the sale of property held by FSUEs, (iii) the sale of property held by right of operative management by federal institutions, (iiii) the sale of military property, (iiiii) the sale of the products of recycled armaments, military technologies and ammunition, (iiiiii) the sale of other properties in federal ownership, (iiiiiii) the sale of intangible assets; these are treated as federal budget revenues;

[n] – revenues generated by the sale of tangible and intangible assets (less revenues received as profit share in the framework of product share agreements (PSA) and federal budget revenue generated by the disposal and sale of heirless property, confiscated property, or other property earmarked as government revenue), this figure includes revenues generated by (i) the sale of apartments, (ii) the sale of property held by FSUEs, (iii) the sale of property held by right of operative management by federal institutions, (iiii) the sale of military property, (iiiii) the sale of the products of recycled armaments, military equipment and ammunition, (iiiiii) the sale of other properties in federal ownership; these are treated as federal budget revenues;

[o] – revenues generated by the sale of land plots after delineation of titles to land plots formerly in federal ownership, treated as sources of funding to cover federal budget deficit;

[p] – revenues generated by the sale of tangible and intangible assets (less revenues received as profit share in the framework of product share agreements (PSA) and federal budget revenues generated by the disposal and sale of heirless property, confiscated property, or other property earmarked as government revenue, and revenues from the sale of timber confiscated from timber poachers), this figure includes revenues generated by (i) the sale of apartments, (ii) the sale of property held by FSUEs, (iii) the sale of property held by right of operative management by federal institutions, (iiii) the sale of redundant movable and immovable military properties and other properties held by federal bodies of executive authority that involve military service, and services that are equated to military service, (iiiii) the sale of military-purpose products from the stores of federal bodies of executive authority within the framework of cooperation in the field of military technologies, (iiiiii) revenues generated by the sale of other properties in federal ownership; these are treated as federal budget revenues;

[q] – revenues generated by the sale of land plots in federal ownership (less land plots held by federal autonomous and budget-funded institutions (data for 2011–2012)) (except 2019–2020), treated as federal budget revenues; prior to 2015, these also include payments for the enlargement of private land plots resulting from their redistribution, as well the redistribution of land plots in federal ownership;

[r] – revenues generated by the sale of tangible and intangible assets (less revenues received as profit share in the framework of product share agreements (PSA), and federal budget revenue generated by the disposal and sale of heirless property, confiscated property, or other property earmarked as government revenue, and revenues from the sale of timber confiscated from timber poachers) (data for 2008–2011), revenues generated by the release of tangible assets from the state reserve of special raw materials and divisible materials (in the part of revenues generated by the sale, temporary lending, and other uses thereof); and with regard to data for 2012-2019, also less revenues generated by the sale of timber produced as a result of measures designed to safeguard, protect, and reproduce forests in the framework of government order for the implementation of such measures without the sale of forest plantations for timber production, and timber produced as a result of use of forests situated in the lands belonging to the Forest Fund of the Russian Federation, in accordance with Articles 43–46 of the RF Forest Code; revenues generated by commodity intervention from the reserve stocks held in the federal intervention fund of agricultural products, raw materials and foodstuffs, revenues generated by the release of tangible assets from the state reserve, revenues generated by the involvement of convicts in reimbursable labor (in the part of sales of finished products), revenues generated by the sale of products requiring special storage conditions); this figure also includes revenues generated by (i) the sale of apartments, (ii) the sale of property held by right of operative management by federal institutions (with the exception of autonomous institutions and budget-funded institutions (data for 2011–2020), less revenues generated by the activities of institutions situated abroad (2015–2020), (iii) the sale of redundant movable and immovable military properties and other properties held by federal bodies of executive authority that involve military service, and services that are equated to military service, (iiii) the sale of the products of recycled armaments, military equipment and ammunition, (iiiii) the sale of products intended for military use and entered

on the list of properties held by federal bodies of executive authority within the framework of cooperation in the field of military technologies (data for 2008 and the period 2010–2020), (iiiiii) the sale of scrapped armaments and other military hardware within the framework of the Federal Target Program of Industrial Recycling of Armaments and Military Equipment (2005–2010) (the period until the year-end of 2017), (iiiiiii) revenues generated by the sale of immovable property held by budget-funded and autonomous institutions (2014-2018 and 2020), (iiiiiiii) revenues generated by the sale of other properties in federal ownership, and revenues generated by the sale of intangible assets (ITA); these are treated as federal budget revenues.

[5] – revenues generated by the privatization of properties owned by the Russian Federation, in the part of non-financial treasury assets.

Sources: Laws on federal budget execution for the period 2000–2014; reports on federal budget execution as of January 1, 2016; January 1, 2017; January 1, 2018; January 1, 2019; and January 1, 2020 (annual data); and the monthly report on federal budget execution as of January 1, 2020 (operational data). URL: http://roskazna.gov.ru; own calculations

When taken in absolute terms, the amount of property-generated federal budget revenues from non-renewable sources in 2020 increased by nearly 39% (to Rb27.9 bn). In spite of the impressive growth, which was unexpected during the crisis, this index, when set against the indices for the entire period after 2010, surpassed the results of only three years (2015, 2017 and 2019), being just below the index for 2018 (Rb28.3 bn).

The revenues generated by the sale of shares increased by 9% (to Rb12.6 bn), this index relative to the period after 2010 exceeding only that for 2015 (Rb6.3 bn). The revenues generated by the sale of land plots jumped nearly twofold, amounting to Rb3.2 bn,[1] which is a record high of the entire decade, with the exception of the index for 2012. The amount of revenues from the sale of miscellaneous properties jumped by nearly 62%, and their index in absolute terms (Rb11.24 bn) is a record low of the entire period since 2013 but for the index for 2018. In this connection it is necessary to note the appearance in the budget reporting forms of a new item, the revenues generated by the privatization of property owned by the Russian Federation, in the part of non-financial assets held by the RF Treasury (Rb898.0 mn).

The sale of shares accounted for 45% (vs 57.3% in 2019); the sale of property (total), for 43.5%[2] (vs 34.5% in 2019); and the sale of land plots, for 11.5% (vs 8.2% in 2019).

The aggregate federal budget revenue generated by the privatization (or sale) and use of state property in 2020 (*Table 7*) shrank by 1.4% relative to the previous year.

1 Including the revenues from the sale of the land plots in respect of which state ownership has not been demarcated, and which are used by budget-funded and autonomous institutions (Rb282.9 mn). This item appeared for the first time in the annual report on federal budget execution as of January 1, 2020 (Rb37.9 mn).
Previously, this budget item did not exist in budget reporting forms.
The data released by the Federal Treasury concerning the efficiency of government property management as of January 1, 2020 offer a slightly higher index (Rb40.1mn), without specifying the land plots in federal ownership. Over previous years, similar data describing the efficiency of government property management were also released by the Federal Treasury (in 2015, Rb0.433 mn; in 2016, Rb2.381 mn; in 2017, Rb 4.962 mn; and in 2018, Rb0.1835 mn).

2 Including the revenues generated by the privatization of properties owned by the Russian Federation, in the part of non-financial treasury assets (3.2%).

Table 7

The structure of property-generated federal budget revenues from miscellaneous sources, 2000–2020

Year	Aggregate revenue generated by privatization (or sale) and use of state property		Privatization-generated revenues (non-renewable sources)		Revenues generated by use of state property (renewable sources)	
	millions of rubles	% of total	millions of rubles	% of total	millions of rubles	% of total
2000	50,412.3	100.0	27,167.8	53.9	23,244.5	46.1
2001	39,549.8	100.0	10,307.9	26.1	29,241.9	73.9
2002	46,811.3	100.0	10,448.9	22.3	36,362.4	77.7
2003	135,338.7	100.0	94,077.6	69.5	41,261.1	30.5
2004	120,798.0	100.0	70,548.1	58.4	50,249.9	41.6
2005	97,357.4	100.0	41,254.2	42.4	56,103.2	57.6
2006	93,899.8	100.0	24,726.4	26.3	69,173.4	73.7
2007	105,761.25	100.0	25,429.4	24.0	80,331.85	76.0
2008	88,661.7	100.0	12,395.0	14.0	76,266.7	86.0
2009	36,393.7	100.0	4,544.1	12.5	31,849.6	87.5
2010	88,406.4	100.0	18,677.6	21.1	69,728.8	78.9
2011	240,964.1	100.0	136,660.1	56.7	104,304.0	43.3
2012	309,943.2/ 469,243.2[a]	100.0	80,978.7/ 240,278.7[a]	26.1/ 51.2[a]	228,964.5	73.9/ 48.8[a]
2013	209,114.85	100.0	55,288.6	26.4	153,826.25	73.6
2014	282,325.95	100.0	41,155.35	14.6	241,170.6	85.4
2015	303,975.2	100.0	18,604.1	6.1	285,371.1	93.9
2016	1,363,193.85/ 670,798.85[b]	100.0	416,470.5	30.6/ 62.1[b]	946,723.35/ 254,328.35	69.4/ 37.9[2]
2017	297,074.9	100.0	21,906.7	7.4	275,168.2	92.6
2018	361,648.13	100.0	28,252.0	7.8	333,396.13	92.2
2019	486,103.55	100.0	20,129.3	4.1	465,974.25	95.9
2020	479,444.24	100.0	27,929.9	5.8	451,514.34	94.2

[a] – including the proceeds received by the RF Central Bank as a result of the sale of a stake in *Sberbank* (Rb159.3 bn), which is probably an overestimation of the actual aggregate share of non-renewable sources, because the budget did not receive the full amount of those proceeds, but their amount less the balance sheet value of that particular asset plus the costs incurred in the deal of sale. Consequently, the share of renewable sources is, on the contrary, somewhat underestimated;
[b] – less the revenues generated by the sale of shares in Rosneft (Rb692,395 bn) (less interim dividend payments).

Sources: Laws on federal budget execution for the period 2000–2014; reports on federal budget execution as of January 1, 2016; January 1, 2017; January 1, 2018; January 1, 2019; January 1, 2020 (annual reports), and monthly report as of January 1, 2021 (operational data). URL: http://roskazna.gov.ru; own calculations.

Beside the corresponding index for 2019, their amount in absolute terms (Rb479.4 bn) was below only the record high of 2016, when the deal of sale of stakes in Rosneft was closed.[1] In 2020, there were no such deals, and the relative

1 The proceeds from that deal were to be paid to the federal budget in the form of dividends from Rosneftegaz, the latter being the parent of Rosneft.

share of renewable sources in the structure of aggregate revenues generated by the privatization (or sale) and use of public property slightly shrank.

The relative share of non-renewable sources in the structure of aggregate revenues generated by the privatization (or sale) and use of public property was less than 6%, vs 4% a year earlier. The revenue generated by the use of public property were above 94%, thus jumping to a record high, in absolute terms, that was below only the historic high of the entire period since the early 2000s, while the revenues generated by the privatization and sale of property amounted to approximately a half of the corresponding index for 2013, at the same time being above the indices for 2015, 2017 and 2019.

6.1.5. Reformatting the public property management program

Last year, the RF Government Program (GP) "Federal Property Management", which had been implemented since 2013, was deprived of the status of a separate document. It consisted of two subprograms: "Improvement of the Efficiency of Government Property Management and Privatization" and "Government Material Reserve Management", the latter being the major recipient of funding.

By RF Government Decree No. 376 dated March 31, 2020, the Subprogram "Federal Property Management" was included in the Government Program "Economic Development and Innovative Economy". One of its goals is to improve government policy in the field of federal property management. In the absence of any relevant qualitative indicators for assessing the implementation of this particular program, the applicable quantitative indicators include an increase, by 2024, in the rate of return on federal property management to 22% (relative to 2018), which is one of its targets, alongside the relative share, in the total number of JSCs where the Russian Federation holds more than 50% of voting shares, of those JSCs that generate net profit according to their year-end financial results (the amount according to data from their annual reports, less the results of audit of their activities),.

The main provisions concerning property management are stipulated in Section I of the GP, where the priorities and goals of public policy are set forth.

With reference to the Key Guidelines for the Government to 2024, which were approved in September 2018, that is, long before the emergence of the current socio-economic situation, in order to increase the rate of economic development, it was declared that the participation of the State in the activities of commercial and non-commercial organizations in competitive markets should be minimized, and the number of organizations with state participation should be annually reduced by 10%. Meanwhile, it is planned to increase the management efficiency of companies with state participation by improving their corporate governance mechanisms.

It is envisaged that new models of state property alienation should be implemented, including tenders in a format that could attract strategic investors with due regard for the industry-based specific features of those property entities, and to switch the bidding for state and municipal property entities entirely into an electronic format. In order to increase the efficiency of the use of public

assets, the mechanisms of targeted redistribution of property entities between different levels of public authority will be implemented, including the possibility of transferring the ownership of property entities to another level.

The planned development and adoption of the Federal Law "On State and Municipal Property" is expected to make more efficient the procedures of management and disposal of state and municipal property entities.

Meanwhile, the certificate of the Subprogram "Federal Property Management" does not even contain a text part. The RF Ministry of Finance is appointed to be the body responsible for its implementation, and Rosimushchestvo is specified as its participant. The Subprogram's implementation period is 5 years (until the end of 2024). The volume of federal budget allocations for the entire implementation period is approximately Rb21.2 bn. The total sum is divided into roughly equal annual parts amounting to Rb4,152.3 mn for 2020, to be gradually increased to Rb4,282.5 over the period 2023-2024 (Rb4,204.8 mn for 2021, Rb4,272.9 mn for 2022). However, it should be borne in mind that these, in fact, are planned targets, and not the real amount of funding; the latter will be determined by the actual federal budget for each year, which may have to bear the burden of sudden and large anti-crisis expenses.

The stated goal of the Subprogram is to improve the efficiency of federal property management, and its specific objectives are (1) to create a universal accounting and management system for handling federal property entities and the property entities transferred into public ownership and other seized properties, as well as to identify the ineffectively used or misused federal property entities; (2) to increase the number of RF treasury property entities and land plots involved in civil law relations, and to ensure the safekeeping of those federal property entities that are restricted in terms of property turnover; (3) to exercise corporate control over the implementation of the tasks specified in the target program documents adopted for economic societies and unitary enterprises, and to optimize composition.

The expected results of the Subprogram are as follows:

- to create, by 2024, an up-to-date integrated database on all federal property entities (with the exception of classified data (treated as state secret), as well as the property entities transferred into public ownership and other seized properties, on the basis of primary data entered into other information systems that have been collecting information on such properties; the database is necessary for making adequate property management decisions;
- to ensure the formation and proper delineation of land plots, and to enter annually into the State Real Estate Cadaster the information on the boundaries of land plots with the total area of not less than 100,000 hectares;
- to reduce, by 2024, the area of treasury land plots that are not involved in economic turnover by more than 60% (relative to 2012);
- to ensure growth of federal budget revenues generated by the lease of federal immovable property entities;

- to ensure an annual increase, by not less than 10%, in the number of joint stock companies where the Russian Federation holds more than 50% of voting shares, and which generate net profit according to their year-end financial results;
- to minimize, by 2024, state participation in the activities of commercial companies in competitive markets, and to ensure an annual reduction in the number of organizations with state participation by not less than 10%;
- to create, by 2024, a comprehensive system for identifying ineffectively used or misused federal property entities.

An analysis of the goals, objectives, and results of the Subprogram adopted in a new format makes it possible speak of its continuity with the Subprogram "Improvement of the Efficiency of Government Property Management and Privatization" adopted within the framework of the previous government program. This is also confirmed by the list of 7 targets and indicators set in the new subprogram.

Two of them (the relative share of RF treasury property entities involved in economic turnover in the total number of RF treasury property entities as of the end of each reporting year; and the percentage of reduction in the area of RF treasury land plots that are not involved in economic turnover relative to the total area of land plots held by the RF Treasury in 2012) are exactly the same as stated in the previous government program.

Another two more indicators represent a modification of those previously applied. Instead of the annual reduction in the number of joint-stock companies with state participation and the number FSUEs, listed separately as two indicators, a single indicator is introduced – that of the absolute number of organizations with state participation; while one of the targets is the annual reduction in the number of organizations with state participation by not less than 10%.

The ratio of the value of state property entities that have been sold or transferred into state ownership to their valuation for purposes of sale is replaced by the coefficient of disposal of movable property transferred into state ownership over the course of a reporting year (the ratio of the number of movable property items transferred into state ownership and the number of those disposed of (by means of processing, sale or destruction) to the total number of movable property items transferred into state ownership in the balance sheet as of year-beginning and those received during that year) (%).

Three indicators can be considered to be new ones. These are the area of land plots in federal ownership whose boundaries have been properly determined and delineated, and the corresponding information entered into the State Real Estate Cadaster (hectares); and the sold stakes in JSCs and RF treasury property entities earmarked for sale in accordance with the forecast plan (program) of federal property privatization (%, if not directly stated that physical indicators should be applied).

At the same time, the new subprogram no longer contains the previously available indicators that described the technological development of management processes at the level of Rosimushchestvo, the management tools to be applied

to joint-stock companies with state participation and, most surprisingly, the budget-based performance indicators (the requirement that privatization should generate revenue, and the payment of dividends on federal stakes).

However, this is by no means the only issue that gives rise to questions about the feasibility of the newly introduced Subprogram "Federal Property Management" in the context of the current situation. The target of minimizing, by 2024, state participation in the activities of commercial companies in competitive markets appears to be only declarative, as it is not supported by adequate norms or organizational tools. The declared targets of annual increase, by not less than 10%, in the number of net profit generating joint-stock companies where the Russian Federation holds more than 50% of voting shares, and that of increasing federal budget revenues generated by lease of federal immovable property entities, are not reflected in the list of its indicators. It is questionable whether these targets could be actually achieved in the current conditions.

* * *

The starting period of the new 3-year privatization program for 2020–2022 coincided with the onset of the crisis, which inevitably affected the course of its implementation.

As far as the major assets earmarked for privatization in accordance with individual schemes are concerned, the long-awaited and repeatedly postponed deal to reduce the state stake in Sovcomflot was finally closed. However, it generated no budget revenue. The funds received through an additional issue of shares (about Rb43 bn) are earmarked for the company development. Aeroflot attracted funding in the same way (Rb80 bn), but the bulk of that funding was supplied by State. In both cases, the State remains a direct majority shareholder, which cannot be said about Channel One Russia JSC, where the state stake reduction was followed by securing the special right of the Russian Federation to participate in the company's management ("golden share") and signing a shareholder agreement with private shareholders. Thus, the coronavirus crisis has sped up the trend of reducing state participation in big and important companies of nationwide status, while the State retained its control over them with the help of a variety of instruments.

There was an obvious failure to keep up the sales of blocks of shares (or stakes) in economic societies in accordance with standard procedures and the corporatization of unitary enterprises. The number of sold economic societies shrank more than twice relative to the annual indicators of the previous privatization program, and hit its record low of the entire previous period. At the same time, the number of sold treasury property entities increased by more than 80%, jumping above its previous record high of 2016; in this segment, the leading role was played by Rosimushchestvo (its territorial bodies).

By the amendments introduced into the privatization law, the federal procedures for developing privatization programs and reporting on the course

of their implementation are extended to the level of subjects of the Russian Federation and municipalities.

The number of economic societies in federal ownership continued to decline. While the relative share of minority stakes increased, that of the companies where the State could exercise full corporate control declined. To the already routine process of creating vertically integrated structures and strengthening state corporations, the government added the transfer of controlling stakes in Sberbank and the Bashkir Soda Company into the direct state ownership. Of these two deals, the former was the purchase of the stake from the RF Central Bank covered by the NWF and regulated by a specially adopted law, and the latter was the result of a court ruling that followed a series of public scandals.

In the structure of federal budget revenue generated by privatization (or sale) and use of state-owned property, just as a year earlier, renewable sources played a dominating role (more than 94%). As before, their bulk was represented by dividends transferred to the budget. There was revenue decline in absolute terms from practically all the sources, with the exception of the transfer, by unitary enterprises, of part of their net profits, and the general revenues generated by the lease of property. The significant growth in the amount of the latter contrasts sharply with the repeated statements made at the official level about supporting small and medium-sized businesses, although the revenues generated by the lease of treasury property entities and land plots have indeed declined. An unexpected phenomenon in the times of crisis was the growth of revenues from all non-renewable sources, the biggest input having been generated by the sale of land plots. However, the sale of shares (stakes) in economic societies remained the most significant revenue source.

Last year, the Government Program "Federal Property Management", which had been launched in 2013 as a separate document, was reformatted. From 2020 onwards, it has been incorporated as a subprogram into the Government Program "Economic Development and Innovative Economy". The RF Ministry of Finance is appointed to be the body responsible for its implementation, and Rosimushchestvo is specified as its participant, supervised by the RF Ministry of Finance in accordance with the new structure of the RF Government adopted at the beginning of this year. The Subprogram's implementation period is 5 years (until the end of 2024). An analysis of the goals, objectives, and targets of the subprogram adopted in a new format points to a certain continuity with the subprogram implemented within the framework of the previous government program.

The prospects for the new Subprogram "Federal Property Management" are relatively good. Among its targets, those that are not obviously pegged to value indicators (which are prone to risks in crisis conditions) prevail. At the same time, the indicators related to property management and value measurements are set forth in the core Government Program "Economic Development and Innovative Economy", while the set of targets and indicators set forth in the subprogram itself gives rise to questions from the point of view of their relevance in the current situation, their relationship with the declared results, and the necessity to

keep up the positive results achieved during the previous phase of implementing the RF Government's property management policy.

6.2. Coronavirus crisis and company bankruptcies[1]

6.2.1. Coronavirus crisis and company bankruptcies worldwide: legal aspect

The coronavirus crisis and the measures taken by national governments to combat the pandemic have led to an acute situation in the field of insolvency of companies. Assessments of the situation vary, and there are many reasons for this: the continuation of the pandemic, the introduction of lockdowns, and the adoption of measures to curb the wave of bankruptcies.

For example, according to the Euler Hermes estimates, the world leader in the field of credit insurance and receivables management, the global insolvency index is likely to reach in 2021 a record level of **+35%** for 2020-2021. That said, half of the countries will record a new high after the financial crisis of 2009.[2] Consequently, the largest increase is expected in North America (+57% compared to 2019), followed by Central and Eastern Europe, Europe (+34%), Latin America (+33%), Western Europe (+32%), and Asia (+31%).

An early termination of emergency government intervention or a longer-than-expected global economic rebound could significantly worsen the situation. For comparison, the projected average number of bankruptcies before the pandemic stood at +6% per year. At the same time, an early rejection of supportive measures can aggravate the situation, increasing the growth of insolvency by 5-10%.[3]

During 2020, only the first reactions of countries to the coronavirus crisis were noted in terms of resolving the issues of preventing the business insolvency, which included such measures as financial support, tax breaks, credit holidays, changes in bankruptcy legislation, etc. The main goal of changing the regulation in the field of bankruptcy in the countries most affected by the coronavirus was *to contain the mass bankruptcy of companies*. The leading mechanisms of such deterrence today are both operational[4] and systemic measures of legal regulation of bankruptcies. Among the operational measures, first of all, we can highlight:

1) ban (extension of timeline, suspension of timeline) on filing applications for insolvency within a certain period of time (moratorium on bankruptcy). Such measures have been taken by many countries, including Russia, Great Britain,

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2 *Maxime Lemerle*. Calm before the storm: Covid-19 and the business insolvency time bomb. URL: https://www.eulerhermes.com/en_global/news-insights/economic-insights/Calm-before-the-storm-Covid19-and-the-business-insolvency-time-bomb.html#:~:text=Our%20global%20insolvency%20index%20is,since%20the%202009%20financial%20crisis.16.07.20

3 *Luca Ventura*. COVID-19 Bankruptcies: A Global Snapshot. URL: https://www.gfmag.com/topics/blogs/covid-19-bankruptcies-global-country. August 12.2020

4 See in detail: Coronavirus (COVID-19) Tracker of insolvency reforms globally (as at 2 July 2020). URL: https://www.insol-europe.org/technical-content/covid19; Squire pattonboggs. Impact of COVID-19 on Insolvency Laws: How Countries Are Revamping Their Insolvency and Restructuring Laws to Combat COVID-19. – Squire pattongboggs.com, 29.04.20

France, Germany, Italy, Spain, the Czech Republic, India, Argentina, Singapore, and Australia;

2) extension of procedures and deadlines (France, Singapore) in case of bankruptcy of companies (Italy, Argentina, China, Japan, Australia), including for debt restructuring (the Czech Republic);

3) suspension of enforcement of court decisions (Belgium) and/or suspension of certain enforcement actions (Russia, Singapore, Australia);

4) setting a higher threshold for initiating insolvency proceedings (India, Australia, Singapore);

5) postponement of the adoption of new insolvency laws (Italy);

6) providing temporary protection to directors of insolvent companies - debtors of companies (Germany, Singapore, Australia);

7) extension of the debtor's response period to the creditor's claims: the debtor's response period to the creditor's statutory claim has been extended to 3 weeks in the case of legal entities (Singapore, Australia);

8) ban on termination of lease agreements for non-residential premises due to non-performance by the lessee. The duration of such measures is 6 months and can be extended for up to 1 year (Singapore);[1]

9) protection of the borrower who is unable to pay rent (Japan);

10) negotiations under the supervision of the court between the debtor and creditors before the opening of bankruptcy proceedings, in the even the cause of the insolvency was a coronavirus infection or measures to combat it (China). As a result of such negotiations, a new agreement can be reached, such as an installment payment, an extension of the debt repayment period, a change in the contract price, etc.;

11) introduction of provisions on virtual (absentee) meetings (meetings of shareholders, meetings of creditors) and electronic signature (Australia).

Japan demonstrates an interesting approach.[2] Thus, one of the key mechanisms in regulating problems related to COVID-19 is the obligation for listed companies to disclose information about the impact of events related to COVID-19 on the results of their performance.

As of April 16, the number of listed companies that disclosed such information came to 1,389 or 36.7% of all listed companies. The downward revision of the performance of these companies amounted to $1,801.3 bn in sales and $1,048.2 bn in profit.

Given that many listed companies were approaching the deadline to announce their financial performance for the fiscal year that ended in March 2020, the Tokyo Stock Exchange recommended disclosing information about bankruptcy risks earlier, stating that financial results can be clarified after the deadline, and this "delay" in meeting the disclosure deadline should only be explained if the delay is significant. In addition, companies can specify their revenue forecasts as "unfixed"

1 Coronavirus (COVID-19) Singapore insolvency reforms COVID-19 (Temporary Measures) Bill. URL: https://www.insol-europe.org/technical-content/covid19national-reports. 14.04. 2020

2 Henceforth: Coronavirus (COVID-19) – Tweaks to ground operations for bankruptcy proceedings in Japan in light of COVID-19 24/04/2020. URL: https://www.insol-europe.org/technical-content/covid19national-reports.

and provide appropriate updates upon completion. In addition, the Financial Services Agency (Japan's financial regulator) has indicated that the deadline for the disclosure of securities reports on the financial performance of companies ending in March will be extended until the end of September this year, i.e. about 3 months later than usual, even if the application for an extension is not submitted.

As of April 17, 2020, the number of companies that became insolvent as a result of events related to COVID-19 was 66 nationwide (41 were bankrupt and 25 were in the process of preparing for bankruptcy), most of which were in the manufacturing industry, retail sales related to personal consumption, and the service sector. In March 2020 alone, there were 740 bankruptcies, which is about 11.7% more than in March 2019. The total debt of bankrupt companies in Japan in March 2020 amounted to $105.49 bn, which is approximately 9.0% more than in March 2019. In this regard, despite the lack of changes in the law, the Tokyo District Court decided to postpone all meetings of creditors in bankruptcy cases, which were scheduled from April 8 to May 8, 2020, i.e., until the date that will come in 12 weeks.

As an example of taking *systemic measures* in the field of corporate bankruptcy, we can consider the *United Kingdom*, which declared a moratorium on bankruptcy in April 2020, and in June adopted the Corporate Governance and Insolvency Act 2020 (The Corporate Governance and Insolvency Act 2020 is in force from June 26, 2020), which made the most serious changes to the UK's insolvency law in 20 years. This law introduces new tools to restore the business solvency, such as:

1) *a moratorium* that gives companies a temporary exemption (no more than 40 work days) from the creditors' claims, while they are looking for opportunities to save or restructure the business. The moratorium will allow insolvent businesses, or companies that can become insolvent, 20 work days when they can try to restructure or attract investment without action from creditors. This period can be extended for another 20 days. During the period of the moratorium, the company's performance must be monitored by a qualified bankruptcy specialist;

2) *the company's supply chain* protection provides that companies can continue trading during the moratorium. Provisions ipso facto (provisions that allow termination of an agreement on the grounds that a party has entered into insolvency proceedings) are currently unenforceable in a wide range of supplier contracts;[1]

3) *a new restructuring plan* binding creditors to this plan;

4) *temporary changes to the trading regime* applied retrospectively from March 1 to September 30, 2020, which envisage that directors can continue to conduct business without fear of worsening the financial situation of companies in the wake of the pandemic and being held accountable for it;

5) *easing the requirements of corporate governance* in relation to certain commitments for the execution and submission of documents.

1 Henceforth: Corporate Insolvency and Governance Act 2020: A New Era for Restructuring. – The National law review. URL: https://www.natlawreview.com/article/corporate-insolvency-and-governance-act-2020-new-era-restructuring, June 29, 2020

The situation with the bankruptcy of companies in the United States is of particular interest. This is due to two factors: the choice by the United States a different strategy from the Russian one, and the provision of the largest economic stimulus package in recent history, worth about $2.9 trillion, to overcome the crisis fallout.

For example, on March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act CARES Act was signed into law, which contains the following key measures to help companies:

- financial relief to companies experiencing difficulties - a fund of $500 bn has been allocated for the program of state lending to distressed companies. Of this amount, $46 billion is intended for sectoral loans (for example, $25 bn for passenger airlines);
- small business protection to the tune of $350 bn, including new Small Business Administration loan programs. However, companies with a debt of more than $7.5 mn will not be eligible for the funds under the new legislation;
- grants to healthcare providers to tune of $100 bn.

Among the costs of businesses support in the second stimulus package to overcome the pandemic fallout (Additional Law on Appropriations, on the response to Coronavirus and Burden Relief of December 27, 2020, Coronavirus Response and Relief Supplemental Appropriations Act, CRRSA Act), one can name the assistance:[1]

- small businesses – $325 bn, including $284 bn for forgivable loans through the Paycheck Protection Program; $20 bn for businesses in low-income communities; and $15 bn for concert venues, movie theaters, and museums;
- the US Postal Service – $10 bn in the form of write-offs of previous federal loans;
- health care providers - $13.5 bn (excluding funds allocated for vaccines and testing);
- agriculture and animal husbandry (both corporations and individual farmers) - $13 bn.

Nevertheless, despite considerable investments of federal funds, the number of applications for bankruptcy recognition by businesses (commercial and non-commercial) shows an upward trend. Compared to 2019, in 2020, the number of business applications increased by 43% to 32,506. The number of commercial applications increased to 7,829 applications, i.e. almost 1.5 times.[2] The areas most affected were retail sales and restaurants, which rely heavily on face-to-face services, as well as tourism, housing, leisure and energy companies.

There are three main factors that affect the situation with bankruptcies in the United States:

1 The Associated Press. Highlights of $900 billion COVID-19 relief, wrapup bills (December 22, 2020). URL: https://apnews.com/article/health-care-reform-health-legislation-coronavirus-pandemic-762f84e4da11d350d8b5be5680ab01c4

2 American Bankruptcy Institute. URL: https://www.abi.org/newsroom/bankruptcy-statistics (дата обращения: 12.01.2021)

1) the unpredictability of the pandemic development, which became the catalyst for the 2020 crisis, in contrast to the previous crises of the 2000s, the causes of which were mainly financial in nature. Predicting the course and end of the 2020 crisis is much more difficult. Today, the United States is at the top of the list regarding the number of cases and deaths from COVID-19, the vaccines distribution is not fast enough. When the main issue is the health and life of citizens, the country's leadership cannot throw all its efforts at supporting business. The situation is aggravated by protests and mass riots, including those related to the outcome of presidential election;

2) the existing problems of businesses exposed by the CAVID-19 crisis: from the inability to meet the rapidly changing needs of consumers to unsustainable debts, an unprecedented amount of which at the pandemic outbreak totaled $15.5 trillion.;

3) the problems of the American bankruptcy system, which have worsened in the context of the pandemic: the system is more effective for large companies, but not for small and medium-sized businesses; the system does not work well enough when the bankruptcy courts are overloaded; the efficacy of the system depends on the availability of the debtor's financing in the event of bankruptcy. Despite the known shortcomings, no direct changes were made to the US bankruptcy law.

Please note that the statistics on applications for declaration of bankruptcy demonstrate that the relationship between economic crises and bankruptcy registration is not always direct. The number of applications is always growing, but not always notably.[1] Even now, experts are cautiously noting that the wave of bankruptcies by the end of 2020 was not as large as expected, but it has not yet reached its peak, and the number of applications for declaration of bankruptcy can exceed the number of any of the previous crises.

For more information on changes in bankruptcy law in connection with the coronavirus pandemic worldwide, see *Appendix*.

6.2.2. Russia awaiting bankruptcy law reform

Russia was one of many countries that responded to the coronavirus crisis by declaring a six-month moratorium on bankruptcy, namely, the filing of bankruptcy applications by creditors of companies and individual entrepreneurs most affected by the coronavirus crisis in April 2020. Later, in early October 2020, the moratorium was extended until January 7, 2021.

By the end of the moratorium, according to the United Federal Register of Bankruptcy Data (Fedresurs), 14.6% of all companies registered in the Russian Federation and about 40% of individual entrepreneurs were in the "moratorium" lists totaling around 2.13 million. From January 8, 2021 all of them can claim previously collected debts in the framework of enforcement proceedings, charge penalties and forfeits for debts incurred before the moratorium was declared, as

1 After the .com bubble in early 2000s, the number of business applications went up slightly, from 37,884 in 1999 to 40,099 in 2001. After the global financial crisis of 2007-2009, this number increased by 2-fold – from 28,322 in 2007 to 60,837 in 2009; separately, the number of commercial applications for declaration of bankruptcy increased from 6,245 in 2007 to 15,240 in 2009, i.e. by 2.5-fold.

well as use such a tool of pressure on debtors as initiating bankruptcy proceedings for their debtors.[1]

The severity of the problem was already evident at the end of May 2020. By this time, more than half of small and medium-sized businesses (53%), according to monitoring data,[2] described their situation as a "disaster" or "crisis". More than half of the respondents (62.2%) estimated the chance of survival of their business at 50% or lower. 13.4% of respondents said that they were fully confident that their business will continue to operate.

Among the main issues faced by small and medium-sized businesses, more than half (52.4%) of the research participants named the inability to pay wages and taxes on wages. In second place were difficulties with paying rent – 42.8%, and 39.1% reported systematic non-payments by business partners.

Since mid-March 2020, the government has put in place anti-crisis measures to support entrepreneurs totaling Rb3.3 trillion.[3] The list of industries most affected by the coronavirus pandemic crisis has been repeatedly edited, as a result, at the end of August, according to the Federal Tax Service, it embraced 15 industries.[4] It is still difficult to assess how effective this assistance was and what percentage of bankruptcies it prevented.

Critics of the government's actions, which include 90% of large companies surveyed by KPMG,[5] argue that the government's proposed anti-crisis tax measures to support businesses were insufficient.[6] KPMG in its research points out that 62% of large companies were unable to take advantage of tax support measures due to non–compliance with the criteria, with the exception of the postponement of the reporting deadline. The reasons for this situation, along with the complexity of the procedure, were the requirements for the disclosure of the final beneficiaries and information representing a commercial secret.

The most popular measure was the use of reduced insurance premium rates (18% of respondents). Five percent of businesses paid up-front income tax payments based on actual profits and received preferential loans for employees salary payments.[7]

1 REVIEW: Moratorium on bankruptcy froze in the dark. URL: https://fedresurs.ru/news/5b26d11e-64dc-4c9b-a909-b4cd54504161. 30.12.20

2 *Poliakova V., Galcheva A.* Half of small and medium-sized businesses called their situation a disaster. URL: https://www.rbc.ru/business/22/05/2020/5ec742969a79470ab2d31eb9?utm_source=yxnews&utm_medium=desktop&utm_referrer=https%3A%2F%2Fyandex.ru%2Fnews. 22.05.20

3 *Shuvalova M.* Business support measures in the context of the pandemic: interim results of implementation during restrictions and new solutions for economic stabilization. URL: https://www.garant.ru/news/1376927/. 28.05.20

4 Plan to overcome the economic fallout of the new coronavirus infection. URL: https://www.economy.gov.ru/material/dokumenty/plan_preodoleniya_ekonomicheskih_posledstviy_novoy_koronavirusnoy_infekcii.html.25.11.20
See in detail: The list of the hardest hit industries due to the spread of the coronavirus infection was approved by a Government Decree dated April 3.04, 2020, No. 434.

5 KPMG – one of the world's largest professional services networks and one of the Big Four audit firms along with Deloitte, Ernst & Young, and PwC.

6 KPMG. Anti-crisis measures 2020: tax aspects. URL: https://home.kpmg/ru/ru/home/insights/2020/07/anti-crisis-measures-2020-tax-aspects.html p. 10

7 *Fedorova N.* Only 2% of large companies took advantage of the tax holidays during the crisis. URL: https://www.rbc.ru/economics/03/08/2020/5f22e8209a794771ae3dcb78?from=from_main_1

In mid-August 2020, it became known that more than 1/3 of Russian companies suffered losses in March-May 2020, losing Rb1.65 trillion (Fin Expertiza estimate).[1] Total profit (excluding small businesses) for the same period decreased year-on-year by 67%, such a drop in profit is was the steepest for the spring months over the entire period of observations, i.e. for at least 16 years. Until now, the 2017 index was considered to be worst, when the Russian companies profits fell by 28%.[2]

As of July 1, 2020, the external debt of the corporate sector of the Russian economy amounted to *$17.25 billion*. This figure was the largest over the last 6 years.[3]

In early September 2020, business ombudsman Boris Titov reported that more than 40% of entrepreneurs believed that they would be unable to fulfill their deferred tax obligations. The greatest difficulties are the need to pay taxes for 2020. In the interests of entrepreneurs, they were asked, in addition to extending the moratorium on bankruptcy, to extend the anti-crisis measures to support businesses: tax deferral for small and medium-sized businesses and also credit holidays.[4]

In early October 2020, the statistics of business bankruptcies for Q3 2020 was released, which showed a decrease in the number of bankruptcies by 19% in January-September 2020 compared to the same period in 2019, which was the result of the moratorium on bankruptcy. The number of reports about the intention to go to court with corporate bankruptcy petition has also decreased. In January-September 2020, the number of such reports from creditors decreased by 11.1% to 19,225 compared to the same period in 2019, and from debtors - by 1.4% to 1,496.

The structure of insolvency petitions exhibits a slight uptick in petitions from debtors from 8.8% to 9.2%, as well as the Federal Tax Service of Russia – from 11.8% to 14.6%. While the petitions from other bankruptcy creditors and employees demonstrate a decrease:

- from 78.8% in January-September 2019 to 75.8% in January-September 2020 (for corporate activities);
- from 0.6% in January-September 2019 to 0.5% in January-September 2020 (for employees).

1 *Kalyukov E., Tkachev I.* Experts have announced the steepest drop in business profits in Russia in 16 years. URL: https://www.rbc.ru/economics/12/08/2020/5f32bc849a79475a2d8faf68?utm_source=yxnews&utm_medium=mobile

2 The debts of Russians have reached a record level in the XXI century. URL: https://dolgi.ru/news/6806.12.08.20

3 Russia's external debt in the corporate sector has exceeded $17 billion. URL: https://finance.rambler.ru/realty/44516053/?utm_content=finance_media&utm_medium=read_more&utm_source=copylink. 16.07.20

4 In addition, Boris Titov proposed the following measures:
1) extending tax deferral to businesses that are not included in the list of affected industries if their revenue fell by 30% for Q2 and Q3 2020 compared to revenue for Q4 2019 and H1 2020;
2) the creation of a "bad debt bank", which will actually allow you to write off obligations that have arisen as a result of force majeure, without worsening your credit history. Boris Titov asked to extend the vacations for business because of "the end of the year" issue. URL: https://www.rbc.ru/economics/03/09/2020/5f4fa7959a79470349463f2e?utm_source=yxnews&utm_medium=desktop.03.09.20

Companies operating in construction, wholesale trade, real estate, services, and agriculture remained at the top of the list of bankruptcies by August 2020 as it was in 2019 (with almost unchanged indexes).[1]

At end-2020, according to the Center for Strategic Research (CSR) "Business Climate in Russia. Year's results", 28% of Russian businesses are exposed to the risk of bankruptcy. At the same time, 1/10 of the companies assess this risk as high and plan to stop their activities in the coming months. In the meantime, 65% of companies note that the situation in their business has improved compared to the summer of 2020, but every fifth company note that it has deteriorated. At the end of December 2020, most companies expect their business to recover by 2022, rather than by mid-2021, as was previously the case. By the end of December 2020, 84% of companies say that they need help from the state.[2]

As for the corporate insolvency statistics for 2020, it was not unexpected and also displayed a decrease in the number of corporate bankruptcies. 9931 organizations were declared insolvent – by 19.9% less than in 2019.

Against this backdrop, the development of *general issues of legal regulation of the activities of the institution of insolvency continued*. So in October 2020, the Ministry of Economic Development of the Russian Federation announced the completion of the preparation of *a new version of the draft law*, conceptually changing the bankruptcy framework, in terms of the corporate bankruptcy. The coronacrisis, the minimal support of businesses by the state and the need to minimize the social implications of such a decision left the government with almost no choice but to change the "rules of the game" in the field of bankruptcy.

The long required measures have been brought forward that according to the developers can ensure an increase in the efficacy of the bankruptcy framework in terms of increasing the number of companies that have restored their solvency in the bankruptcy process. To date, only the mechanisms for declaring the debtor bankrupt and opening bankruptcy proceedings, as well as the introduction of surveillance, are really working. The procedures for the introduction of bankruptcy administration and financial recovery are isolated. The number of rehabilitation procedures carried out in the field of insolvency does not exceed 2% of all bankruptcy cases considered by the court.

Current legal regulation of insolvency framework in Russia formally has a pro-creditor orientation, since the debtor's ability to avoid bankruptcy is minimal. However, in fact it is even more unprofitable for creditors – the average amount of satisfaction of creditors' claims in the bankruptcy process ranges from 2 to 5%. Therefore, the legislation protects the interests of debtors very poorly.

The most significant innovations of the draft law laid out by the Ministry of Economic Development are the abolition of supervision, financial rehabilitation

1 Presentation by A. Yukhnin. "Count bankruptcies in the fall: how non-working days, the moratorium and the Covid affected statistics" at the VI annual conference of the journal 'Vedomosti'" Institute of Bankruptcy in Russia. URL: https://events.vedomosti.ru/events/bankruptcy2020/materials. 11.09.20

2 CSR stated results of the business environment monitoring in Russia in 2020. URL: https://www.csr.ru/ru/news/tssr-sformuliroval-itogi-monitoringa-delovoy-sredy-rossii-v-2020-godu/. 25.12.2020

and bankruptcy administration and the introduction of a new rehabilitation procedure – debt restructuring. The restructuring plan is expected to be flexible and will include various management options. It will be valid for 4 years with a possible extension.[1]

Presenting the previous version of the draft law on the introduction of debt restructuring, representatives of the Ministry of Economic Development said that, according to preliminary calculations, as a result of the implementation of the envisaged restructuring, the solvency of about 10% of businesses against which an insolvency case was initiated will be restored. This level of recovery of the corporate solvency, of course, will not fundamentally change the most pro-lender orientation in the regulation of the insolvency framework, but it will be the first step in the right direction, which will give impetus to the further development of the institution.

The next course of changes is *to raise the efficacy of the activities of arbitration managers*. It is assumed that it will ensure the introduction of the register of arbitration managers and the granting of the self-regulatory organization (SRO) of arbitration managers along with other rights the right to include and exclude its members.

As for the register of arbitration managers, it will become the basis for the score assessment of managers, SROs and the formation of the overall rating of SROs. The manager will be awarded points depending on the effectiveness of the restructuring or bankruptcy proceedings. The SRO score will be equal to the average score of its members. In addition, it is proposed to introduce an obligation for arbitration managers to take an exam every 3 years to confirm their status, etc.

The idea of confirming the level of qualification is not bad in theory, but this mechanism will be quite easy to use, for example, for representatives of the state as a mechanism for influencing arbitration managers.

As for granting SROs the rights to include and exclude its members, there is a high risk that the already established and existing bureaucratic and managerial stratum of SROs will acquire an additional instrument of influence on arbitration managers, which can be used to lobby for the necessary decisions in the field of insolvency.

The modernization of the bankruptcy liquidation procedure and the exclusion of the possibility of control over the debtor by unscrupulous owners or beneficiaries should be another key area of the bankruptcy reform.

The mechanism that should ensure the implementation of this task is the creation of an information system for the disclosure of data on the bankruptcy assets (market place), which will allow to post information about the property, inventory, and sale in advance – for at least 30 days before the auction.

With regard to the exclusion of the possibility of control over the debtor, it puts in place measures to prevent knowingly unprofitable activities of the debtor,

1 Henceforth: "Ilya Torosov: The global bankruptcy reform project will change the entire architecture of this institution in Russia" URL: https://www.economy.gov.ru/material/news/ilya_torosov_globalnyy_proekt_po_reforme_bankrotstva_izmenit_vsyu_arhitekturu_etogo_instituta_v_rossii.html.09.10.20; Presentation by Deputy Minister of Economic Development of Russia I. Tarasov at the II Annual Conference of Fedresurs "Bankruptcy 2020: at the crossroads", October 8, 2020

in particular, the obligation of the arbitration manager after the introduction of bankruptcy proceedings to put to the vote the question of termination of the organization's activities and termination of activities after 9 months, if there is no such decision. Losses if they are within 9 months can be imposed on creditors who voted to extend the supervision. Thus, the choice of arbitration managers and creditors is to go into the restructuring procedure or to liquidate the enterprise as soon as possible.

Furthermore, it is envisaged to abandon the operators of electronic platforms in favor of the sale of property in accordance with the procedure provided for by Federal Law No. 44-FZ of April 5, 2013 "On the Contract System in the Field of Procurement of Goods, Works, and Services for State and Municipal Needs."

Further, it is supposed to *authorize creditors to negotiate with the debtor before the court on a discount on debts*. This will increase the chances for pre-trial settlement of insolvency issues.

In practice, it is important to create transparent mechanisms for implementing the possibility of reducing the level of debt, primarily on the part of tax, customs and other state bodies acting as creditors in most cases.

Another innovation proposed by the Ministry of Economic Development is *the introduction of the institution of collective arbitration managers*. They will manage, for example, strategic enterprises, enterprises of agro-industrial complex. Rostec, Roscosmos, and the Federal Security Service of Russia can act as collective arbitration managers.

Such provisions of the law create a high risk of abuse, for example, by officials and security forces, unjustified and uncontrolled withdrawal of enterprises from the sphere of market interaction to the sphere of administrative regulation, and a decrease in the level of efficiency of such enterprises.

In mid-November 2020, it became known that the specified draft law of the Ministry of Economic Development was sent by the Main Legal Department of the Presidential Administration for re-revision. According to its conclusion:

- the idea to introduce a point rating system for arbitration managers has not been worked;
- it is premature to abandon the procedures of external management and financial recovery;
- authorization of giving state corporations for functions of arbitration managers in cases of insolvency of strategic enterprises contradicts the idea of the independence of the arbitration manager, and can also lead to a conflict of interests.[1]

In addition, at the end of September 2020, draft laws were adopted in the first reading, giving the Bank of Russia the authority to maintain on a permanent basis lists of persons controlling banks, insurance organizations and non-state pension funds. According to the developers, the bill will allow to establish the persons controlling the banks, and possibly the beneficiaries, their assets and bring them

1 General conclusion: Presidential State-Legal Directorate criticized the draft law of the Ministry of Economic Development on reforming bankruptcy institution. URL: https://fedresurs.ru/news/b3918103-c9ad-439b-a81d-607ab52ed6e8?attempt=1.12.11.20.

to subsidiary liability for the obligations of bankrupt financial organizations. To do this, the bank will also have the right to request from Rosfinmonitoring an opinion on the compliance of a person with the distinctive features of the controlling person, as well as information confirming the compliance of this person with these distinctive features.

According to the draft law, the Bank of Russia will form a list of controlling entities in accordance with International Financial Reporting Standards (IFRS). Until proven otherwise, a person included in the relevant list by the Bank of Russia will be recognized as a controlling credit institution. The person will have the right to challenge the inclusion in the list of controlling persons.

The bill also authorizes the Bank of Russia to send an application for bringing the beneficiaries of financial organizations to subsidiary liability. At the same time, until such an application is submitted, the regulator will have the right to seize funds, securities and real estate of beneficiaries of financial organizations where it has identified negative capital through the court.[1]

The proposed legislative changes demonstrate two opposite vectors (which have not yet received their legislative consolidation): the first is a proposal to resolve the economic and social issues associated with insolvency by changing the legal regulation of the institution of bankruptcy towards greater protection of the debtor's rights); the second is the strengthening of government institutions not only in the field of control and supervisory activities, but also in the redistribution and use of large property, which, most likely, will occur at least during 2021-2022.

To a certain extent, these two trends reflect the presence of two different corporate segments in the country with different needs. On the one hand, this is the state-owned government-resource (let's call it so) segment, whose priorities, since 2007, have been put at the forefront, and on the other hand – the private business that has emerged in Russia over the last 30 years. It is the latter that is now particularly in need of flexible mechanisms to resolve the problem of debts and save the business.

Such *flexible mechanisms aimed at preventing mass bankruptcies* could be:

1. A significant (many-fold) increase in the amount of debt, starting from where it is possible to initiate the bankruptcy procedure of the company in court. This measure was implemented in Australia (4 times), Singapore (10 times), and India (100 times). If this is done within reasonable limits, it is possible without spending on the part of the state, which is important in terms of budget deficits, to qualitatively change the situation with the upcoming wave of bankruptcies and social tension in this respect.

2. The introduction of a rule on the payment of taxes and contributions to funds by companies that have incurred losses from COVID-19 from 2021, based on the current monthly income, and the deferral of 2020 debt for 5 years. Or, as an alternative, authorizing the tax service to grant a deferred payment of taxes for 2020. In order for this mechanism to work effectively, in addition to the introduction of competent legal regulation of this issue, we need:

1 Deputies approve in the first reading the bill that tears off "corporate veil" from financiers. URL: https://fedresurs.ru/news/9da42530-0afd-47be-9eb5-aaa45c186ef3. 30.09.20

- efficiently operating situation tracking system (weekly monitoring);
- operational correction of ongoing processes;
- the right to appeal against the refusal of the tax service.

3. Absolution of the debtor for a year (in the meaning of the Federal Law "On Insolvency") to apply to the arbitration court with an application for its insolvency granting signs of bankruptcy, if it is induced by COVID-19.

4. Ban on termination of lease agreements for non-residential premises occupied by companies for, say, 2-3 years, with renewal option.

This is able to provide the same basic conditions for the existence of companies for a period sufficient to prevent bankruptcy and reduce costs in the near future. This is especially important for Moscow and St. Petersburg. The adoption of these measures will allow:

- resolve the problems of both creditors and debtors and, where possible, save the business;
- unload the courts;
- reduce social tension.

The obvious advantage of applying the proposed operational measures is the absence of significant material costs with a relatively high degree of efficacy.

Annex

COVID-19 crisis and changes in bankruptcy law[1]

Countries	Changes in the bankruptcy law
Belgium	*Moratorium* on bankruptcy of companies affected by the COVID-19 crisis and its consequences (effective from 24.04.20): *protection against forced bankruptcy* (exl. - by the decision of the prosecutor or the President of the court, or with the consent of the debtor*); protection from liquidation; protection from preventive (interim) and enforcement arrest and the petition of other enforcement measures*. For enterprises that are subject to a plan approved as part of the judicial reorganization procedure, the payment terms are extended for the duration of the moratorium. Moreover, *the parties cannot terminate agreements* (unilaterally or judicially), with the exception of employment agreements, as a result of a breach of payment obligations by the affected business. However, any person can *challenge the applicability of the moratorium* by petitioning to the President of the Enterprise Court if there are reasons justifying the lifting of the moratorium in whole or in part with respect to the business (i.e. if the company is not affected by the current COVID-19 crisis). Royal Decree No. 15 is in force from 24 April 2020 up to and including 17 May 2020.
Czech Republic	*Cancellation of the obligation to file a petition for the debtor's insolvency*. Effective from the date of entry into force of the Law on the Mitigation of the Consequences of the Epidemic and up to 6 months after the termination of emergency measures (however, no later than *December 31, 2020*), if the insolvency occurred as a result of such a situation. *The possibility of applying for a temporary suspension of the reorganization plan* (if the plan was approved no later than March 12, 2020 and has not yet been fully implemented). In the case of authorization, the reorganization cannot be turned into bankruptcy proceedings during this period (x) excluding the duration of the emergency measures and a further six months from their termination to the relevant period with regards to

1 This analysis is based on data from the following sources: Coronavirus (COVID-19) Tracker of insolvency reforms globally (as at 2 July 2020). URL: https://www.insol-europe.org/technical-content/covid19; Squire pattonboggs. Impact of COVID-19 on Insolvency Laws: How Countries Are Revamping Their Insolvency and Restructuring Laws to Combat COVID-19. – Squire pattongboggs.com, 29.04.20

Countries	Changes in the bankruptcy law
Czech Republic	actions for the relative ineffectiveness of an act (Actio Pauliana) and (xi) the debtor-business operator who is not insolvent as of March 12, 2020, will have the opportunity to file a proposal for an extraordinary moratorium, which can last (if extended) up to six months (hereinafter the «extraordinary moratorium»); the extraordinary moratorium will be newly introduced directly in Act No. 182/2006 on insolvency proceedings. The Act on the Mitigation of the Impact of an Epidemic is effective as of 24 April 2020.
Great Britain	The Corporate Insolvency and Governance Act 2020 *reforms the UK's insolvency framework to add new restructuring tools including: (i) a moratorium for companies* giving them breathing space from creditors enforcing their debts for a period of time while they seek a rescue or restructure. The moratorium will allow insolvent companies, or companies that can become insolvent, 20 working days in which they can try to restructure or raise investment without action from creditors. This period can be extended for another 20 days. During the period of the moratorium, the company's affairs must be monitored by a qualified bankruptcy specialist; (ii) *protection of their supplies* to enable them to continue trading during the moratorium; (iii) *a new restructuring plan,* binding creditors to that plan. The reforms also include temporary changes the wrongful trading regime applying retrospectively from March 1 until September 30, 2020. Directors can trade without fear of a deterioration in the financial situation of companies due to the pandemic. The Corporate Governance and Insolvency Act 2020 is in force from 26 June 2020.
USA	*Suspending enforcement actions*: The Governor of the State of New York signed an Executive Order on March 21, 2020. In part, this order provides that "it shall be deemed an unsafe and unsound business practice if, in response to the COVID-19 pandemic, any bank which is subject to the jurisdiction of the Department shall not grant a forbearance to any person or business who has a financial hardship as a result of the COVID-19 pandemic for a period of ninety days." *Expanded the range of enterprises classified as small businesses*. Under the CARES Act, a debtor with aggregate debts up to US$7,500,000 can qualify as a small business debtor—up from US$2,725,625. (they are covered by the Small Business Loan Program). The CARES Act adds "payments made under Federal law relating to the national emergency declared by the President under the National Emergencies Act" with respect to coronavirus to the exclusions from the definition of disposable income. This amendment applies to all cases initiated before or after the entry into force of the CARES Act and lasts for one year. The CARES Act also provides that the debtor can modify plan after confirmation if "the debtor is experiencing or has experienced a material financial hardship due, directly or indirectly, to the coronavirus disease." The CARES Act further provides that the modification can include extending the repayment period for up to seven years after the first payment under the original confirmed plan was due. President signed the CARES Act into law on 27 March 2020.
France	The ordinance No. 2020-341 of March 27, 2020 provides that *the insolvency test* which would ordinarily be performed for a company as at March 12, 2020 will now be *extended for three months after the state of health emergency ends* on May 24, 2020 (i.e. until August 24, 2020). *Adaptation of the Wage Guarantee Scheme*: the debtor may want to request the opening a restructuring procedure (even though not being under an obligation to do so due to the Insolvency Ordinance), in order to benefit from the wage guarantee scheme of the Association for the Management of Employee Claims. *Extension of the Duration of Procedures and Deadlines*: e.g. conciliation period extended by the duration of the emergency period. Ordinance (ordonnance) No. 2020-341 of March 27, 2020 'Adapting the Rules relating to Difficulties of Companies and Farms in the Health Emergency' (the 'Insolvency Ordinance') entered into force on 29 March 2020.
Germany	*Temporarily suspension* (until 30 September 2020 with the option to extend until 31 March 2021) *directors' duties to file for insolvency* without undue delay and at the latest within three weeks (21 days) after becoming illiquid or over-indebted. For the suspension to apply, it must be proved that the company's insolvency is caused by the coronavirus pandemic and that the company has requested state aid or is engaged in serious financing or restructuring negotiations with reasonable prospects of restructuring. The COVID-19 Insolvency Suspension Act (COVInsAG) was published on 27 March in the Federal Gazette and has retrospective force from 1 March 2020 onwards.

Countries	Changes in the bankruptcy law
Italy	*Hearings and procedural terms suspended*: between March 9 and May 11, 2020. Such suspension has an impact also on terms concerning pending insolvency proceedings, Insolvency Practitioners' reports' filing and the fulfilment of their duties. *The recapitalize-or-liquidate rule suspended*: for companies with a deficit calculated at accounting values has been suspended by the said Decree No. 23 until December 31, 2020. Therefore, in case of a deficit exceeding the amount of its share capital, directors' duty to liquidate a company is suspended. *New insolvency laws postponed*: from August 15, 2019 to September 1, 2021 the entering into force of the new Code of enterprises' crisis and insolvency (approved with Legislative Decree No. 14 of January 12, 2019). *Preventive Composition and Restructuring Agreements extended*: those approved by creditors and ratified by the courts: terms for the fulfilment of the plan expiring between February 23, 2020 and December 31, 2021 have been extended by six months; those approved by creditors but not yet ratified by the courts as on February 23, 2020: the debtor is entitled to apply to the court for obtaining a time-term to file a new plan or proposal for an agreement to creditors, or the extension of the term of fulfilment of the already approved plan. *Bankruptcy and extraordinary administration suspended*: all petitions for bankruptcy (or Administrative Winding-Up (Liquidazione Coatta Amministrativa) or Extraordinary Administration (Amministrazione Straordinaria) filed between March 9 and June 30, 2020 – either filed by creditors or by the debtor itself - shall be declared inadmissible. *Tax claims suspended*: recovery, precautionary and enforcement of tax claims are suspended until May 31, 2020. *Bank and other loans*: *e.g. overdraft facilities cannot be revoked before* September 30, 2020. Mortgages and loans with contractual maturity before September 30, 2020 shall be extended, together with the respective ancillary elements (such as collateral) and without any formalities, until September 30, 2020. Law Decree 17th March 2020 No. 18 converted into law from 24 April 2020; No. 27 and Law Decree 8th April 2020 No. 23 will be converted into law 60 days from its publication on 8 April 2020.
Spain	*Change directors' deadline to file for insolvency*. Spain has relaxed its strict deadline which previously required directors to file for insolvency within two months of the company becoming insolvent. *Stay in procedural timings*: if parties need a homologation court ruling to cram down dissenting lenders, they can still file the writ with the competent court, but note that it will not be resolved until the stay in procedural timings has been lifted. General stay: The measures around COVID-19 *include a general stay on the time frames of court proceedings*, including in this case insolvency proceedings. During the one year period since the State of Alarm started: borrowers who had previously reached a refinancing agreement may launch a new refinancing process, borrowers with a CVA reached within an insolvency may renegotiate the CVA, upon the borrower becoming aware of a breach to an existing CVA, it will not be required to file for liquidation within the insolvency, provided that it submits a CVA amendment proposal and in any insolvencies declared within this period, any auction of assets (aside from the process in the liquidation plan if any) must be made out of court. Further, in any insolvencies declared within two years after the State of Alarm started, any funding provided by specially connected persons to the borrower (or resulting from payments made by those specially connected persons to third parties on behalf of the borrower) and rather be treated as an ordinary claim. Now in force up to 31 December 2020.
Argentina	*Relaxation of various deadlines*: the court resolution that decrees the opening of the reorganization proceeding must set various procedural dates until (or on) which certain relevant legal acts in the insolvency proceeding must take place, such as the date by which creditors must present their claims for verification of credits, the opportunity for the presentation of the individual and general report, and the expiration of the exclusivity period. The determination of the bankruptcy schedule means, in practice, adapting to each specific case the deadlines generically determined in the LCQ. Pursuant to Article 14 of the Argentine Bankruptcy Law number 24522 as amended ('LCQ').

Countries	Changes in the bankruptcy law
India	*Higher threshold to initiate formal insolvency*: The Ministry of Corporate Affairs, Government of India, increased the threshold for the determination of default in insolvency matters from INR One Lakh (100 Thousand) to INR One Crore (10 Million) through the amendment of section 4 of the Code (Notification dated 24 March 2020). *Special insolvency resolution framework for MSMEs*: The Government has decided to notify a special insolvency resolution framework for the MSMEs. This will be in addition to the earlier announced measures regarding the increase in the threshold for the determination of 'default' under the Code. The measures would contribute to ensuring the continuity of business operations and ensure liquidity. *Exclusion of period of lockdown from timelines*. In effect, amendments have been under taken in the IBBI (Insolvency Resolution Process for Corporate Persons) Regulations 2016 and the IBBI (Liquidation Process) Regulations 2016.
Singapore	*Raising the threshold for bankruptcy and insolvency.* The monetary threshold for insolvency for companies and partnerships will be raised from SGD 10,000 to SGD 100,000, a ten-fold jump. *Extending the response period to demands*: the period for a debtor to respond to a creditor's statutory demand will be extended to three weeks (in the case of businesses). Additional provisions suspend certain enforcement actions against non-preforming parties and provides a temporary defense to directors against insolvent trading. *Prohibition from initiating the following legal actions against a non-performing party:* (1) filing court and insolvency proceedings, including, among others, those for schemes of arrangement, judicial management and winding-up (2) enforcing security over immovable property as well as movable property used for the purposes of business or trade (3) calling on a performance bond given under a construction contract, and (4) terminating the leases of non-residential premises. The validity period of these measures is 6 months and can be extended for up to 1 year.[1] Certificate of Urgency the coronavirus (COVID-19) (Temporary Measures) Bill (Bill) On 7 April 2020.
China	*Court-supervised negotiation between the debtor and those creditors before the opening of bankruptcy proceeding*: If the debtor is not eligible to meet its obligation to pay the debt due because of the negative influence of coronavirus (COVID-19) or the epidemic prevention and control measures, although creditors may apply to open bankruptcy proceedings, the court shall direct negotiation between the debtor and those creditors aiming to achieve new agreement such as payment by instalment, extension of the debt performance period, change of contract price, etc. *Distinguishing real causes of insolvency when examining bankruptcy criteria*: When checking the bankruptcy criteria after the submission of a bankruptcy application, and before formally ordering the opening of bankruptcy proceedings, the court is obliged to find the real reason which caused the debtor's financial trouble. If the debtor was insolvent only because of the epidemic situation or the epidemic prevention and control measures, and was in a healthy financial state before the outbreak of coronavirus (COVID-19), the court shall do its best to prevent the debtor from entering into bankruptcy proceedings. *Further promoting the link between execution and bankruptcy proceedings*: During the execution procedure, if the court finds that the debtor meets the bankruptcy criteria due to the spreading of the epidemic but has potential rescue value, the court shall ask the creditors to open bankruptcy proceedings, according to the "Converting from Execution to Bankruptcy" policy. *Extending the reorganization period from maximum of 9 months by another 6 m*onths: Due to the negative impact of the epidemic prevention and control measures, if the eligible body such as the DIP or the administrator according to EBL 2006 could not submit the draft re-organization plan on time within the maximum nine months' time-frame (six months plus three months extending) according to EBL 2006, Art 79, the court could permit extension by another maximum six months based on the application of debtor in DIP or the administrator, by considering the actual impact of the epidemic situation or epidemic prevention and control measures on the reorganization procedure.

1 Coronavirus (COVID-19) Singapore insolvency reforms COVID-19 (Temporary Measures) Bill. URL: https://www.insol-europe.org/technical-content/covid19national-reports. 14.04. 2020

Countries	Changes in the bankruptcy law
Sweden	*Some government subsidies are available;* financial distress is a perquisite for various types of subsidies, however companies that are the subject of insolvency proceedings or otherwise insolvent are excluded from several types of subsidies aimed at alleviating the economic impact of coronavirus, including the new rules regarding short-time working allowance and rent-discount subsidies. *Tax deferral*: The Swedish parliament has (as a to reaction the ongoing pandemic) introduced legislation that allows the Swedish Tax Agency to grant deferral of payment of taxes that fall due between January and September 2020, for example, value added tax. A deferral period may be granted for a maximum of one year. The directors and shareholders of companies which have been granted a deferment will not be personally liable to pay the companies' tax debts, so far as the taxes that are the subject of a deferment decision are paid before the deferment period ends or measures have been taken to settle the company's debts at the latest of the new due date, after the deferment period.
Australia	Australia's Federal Government has ordered *a relaxation of insolvent trading laws* for six months. During this time, directors will be relieved from their duty to prevent a company from trading while insolvent with respect to debts incurred in the ordinary course of carrying on its business. This relief only relates to debts incurred in the ordinary course of business and not where dishonesty and fraud are involved. *Temporary Increase In Thresholds and Time to Comply*: Statutory demand threshold is increasing from $2,000 to $20,000. The time period within which to comply is going from 21 days to six months. Threshold amount for a Bankruptcy Notice to be issued is also increasing, this time from the current amount of $5,000 to $20,000. The government is also increasing the time within which to comply with a Bankruptcy Notice from the existing 21 days to six months. Also, where a debtor declares an intention to present a debtors' petition, the moratorium is extended from 21 days to six months. ATO Enforcement May Be Suspended: Businesses may also seek tailored reductions in, or deferrals of, payments owing to the Australian Tax office (ATO). Power To The Treasurer Under The Corporations Act: The Treasurer is being given temporary instrument power in the Corporations Act 2001 *to amend provisions of it to provide relief or modify obligations* to enable a company to comply with requirements during this time. This power will apply for six months and any instrument made by the Treasurer will apply for six months from the date it is made. *New virtual meeting and electronic signing provisions*: The Corporations Act 2001 (Act), the Corporations Regulations 2001 (Regulations) and the Insolvency Practice Rules (IPR) are modified to allow virtual meetings (such as meetings of shareholders, creditors and those relating to managed investment schemes) and electronic execution of documents by a company for the purpose of s 127 of the Act and 'split executions' where more than one officer is signing for six months from 6 May 2020.
Japan[1]	As of 16 April, the number of listed companies that had disclosed the impact of COVID-19-related events on their performance stood at 1,389, or 36.7% of all listed companies, and the downward revisions to these companies' performance totaled $1,801.3bn in sales and $1,048.2bn in final profit. In view of the approaching deadline for many listed companies to announce their financial results for the financial year ending March 2020, the Tokyo Stock Exchange expressed the view that risk information should be proactively disclosed, that financial results may be disclosed once finalized, and that 'delay' in meeting the disclosure deadline only need to be disclosed if the delay is significant. Further, companies may state their earnings forecasts as 'unfixed', and provide updates appropriately once finalized. In addition, the Finance Services Agency, Japan's financial regulator, has indicated that the deadline for the disclosure of securities reports on companies' financial results ending March will be extended to the end of September this year, approximately 3 months later than usual, even if no application is made for the extension.

1 Henceforward: Coronavirus (COVID-19) – Tweaks to ground operations for bankruptcy proceedings in Japan in light of COVID-19 24/04/2020. URL: https://www.insol-europe.org/technical-content/covid19national-reports

Countries	Changes in the bankruptcy law
Japan	As of April 17, 2020, the number of companies that had become insolvent as a result of COVID-19-related events stood at 66 nationwide (41 were bankrupt and 25 in the process of preparing for bankruptcy), most of which are in the manufacturing, personal consumption-related retail and service industries. In March alone, there were 740 bankruptcies, an increase of approximately 11.7% compared to the same month a year ago. Total debt was $105.49bn in March, up approximately 9.0% year-on-year. In view of these circumstances, notwithstanding no change in the law, the Tokyo District Court has decided to postpone all bankruptcy creditors' meetings that have been scheduled between April 8, 2020 and May 8, 2020 until a date 12 weeks later. In addition, in civil rehabilitation proceedings, rehabilitation debtors and their lawyers, and supervisors are not required to appear at creditors' meetings. Although the court has scaled back its operations, it continues to respond to filings of new petitions, and hold meetings and consultations that are urgent. Regarding out-of-court workouts, the Japanese Association of Turnaround Professionals is accepting general inquiries in relation to a scheme called "Turnaround ADR" by e-mail, and continues to handle applications for advance consultation by phone, email, and even face-to-face. The government has also prepared the following financial support measures for not only small and medium-sized enterprises (SMEs) but also large businesses—*safety-net loans and special guarantee schemes for SMEs, public grants for employment, and protection of borrowers who are unable to pay rent*. However, with the expansion of the Declaration of Emergency on 16 April, it is expected that companies' business performance will deteriorate more sharply due to closures and reduced operating hours. «Declaration of Emergency for Covid-19» (the Declaration of Emergency) on 16 April 2020.

6.3. Platform companies: features of the business model and corporate governance[1]

Digitalization of corporate activities in Russia and the world was of great importance, and until 2020 companies seeking to be competitive in hypercompetitive markets with rapidly changing customer needs, where possible, transferred their business to digital format in different volumes and speed. The rapid transmission of COVID-19 in 2020 gave an additional impetus to digitalize the economy in the wake of the forced social distancing and isolation. Technology companies and other companies that have been able to move their businesses online have stayed afloat, though often not without significant losses. Platform companies, thanks to their inherent speed and flexibility, have come to terms more easily than traditional corporations with the conditions of the pandemic. For example, Sber and Yandex, taking advantage of the current situation, expanded their digital ecosystems, but suffered some profit losses. Wildberries and Mail.ru on the contrary have significantly increased their incomes during the crisis. This viability of the platform business in extreme conditions makes it relevant to consider this mod in more detail.

6.3.1. Digital economy. Platforms as a manifestation of digitalization in the activities of companies

The concept of the digital economy, based on the transition of a human being in his economic activity to the processing of electronic bits (digital interaction), was defined at the end of the XX century. Its advantages are based on the

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virtuality of economic relations, reduced demand for raw materials and transport infrastructure, rapid global movements, etc.[1] It is believed that the transition to the digital economy will result from the forthcoming fourth industrial revolution, or "Industry 4.0".[2]

The third industrial revolution of the mid-60s of the XX century is characterized by the emergence of semiconductors, personal computers, and the Internet. Along with it, the centralized and hierarchical business models inherent in the first and second industrial revolutions must be replaced by horizontal interaction. The fourth revolution will go further. It is distinguished by the global reach of the mobile Internet, the robotization of industry and the service sector (including artificial intelligence and the Internet of Things), the interpenetration of technologies in the physical, biological, and digital spheres. The proliferation of information technology should lead to the organization of a new society with complex network structures.[3]

In accordance with the official definition adopted in Russia, the digital economy is an economic activity where data in digital form is the key factor of production.[4] It is also defined as an economy where economic activity is carried out using electronic or digital technologies, with an emphasis on goods, services and services implemented through e-business, e-commerce,[5] as an economy multiplied by new technological capabilities, primarily the capability to collect, store and transmit huge data array.[6]

Experts note that today the post-industrial economy is arduously changing and is divided into the exponential economy of the physical world and the digital economy of the virtual world (hybrid reality). One of the reasons for this phenomenon is the issue of shortage of material resources amidst the continuous growth of the population, which can be resolved by shifting part of consumption to the "digit". In the digital economy, there are processes of dematerialization of things, democratization and demonetization of products. Speed and flexibility

1 *Negroponte N.* Being Digital. New York: Alfred A. Knopf. 1995. 243 p.

2 See: *Apevalova E., Polezhaeva N., Radygin A.* The standards and practices of corporate governance: relevant current trends // Russian Economy in 2019. Trends and Outlooks. (Issue 41) / [V. Mau et al.; Scientific editing by: Doctor of Economic Sciences, Kudrin A.L., Doctor of Economic Sciences, Radygin A.D., and Doctor of Economic Sciences, Sinelnikov-Murylev S.G.]. Moscow. Gaidar Institute. 2020. pp. 486–496.

3 *Vaipan V.* Legal regulation of the digital economy: history, theory, practice // Legal regulation of economic relations in present-day conditions of the digital economy development: monograph / Edited by: Belitskoi A.V., Belykh V.S., Beliaeva O.F., Egorova M.A. et.al. Publishing editor Vaipan V.A. Moscow. Yustitsform, 2019. 376 p.; Molotnikov A.E. Fourth industrial revolution and modern understanding of the corporate form of doing business // Business law. 2017. No. 2, pp. 3–16.

4 Resolution of RF Government of July 28, 2017 No. 1632-r "On Approval of Program 'Digital Economy of the Russian Federation'" // SZ RF, August 7, 2017. No. 32 Art. 5138 (it is no longer valid owing to succession of the new national program of the same name – Resolution of RF Government of February 12, 2019 No. 195-r // SZ RF, February 25, 2019, No. 8, Art. 803). Datasheet of the National Program "Digital Economy of the Russian Federation. URL: https://digital.gov.ru/uploaded/files/natsionalnaya-programma-tsifrovaya-ekonomika-rossijskoj-federatsii_NcN2nOO.pdf

5 *Vaipan V.* Fundamentals of legal regulation of the digital economy // Law and Economy. 2017. No. 11, pp. 5–18.

6 *Aliev V.* Political and legal aspects of transition to the digital economy in Russia // Rossiiskiy sledovatel. 2018. No. 9, pp. 48–52.

are becoming key in the digital world. As a result, large companies with a rigid corporate vertical and an authoritarian centralized decision-making center do not keep up with changes.[1]

Already today, digitalization is penetrating the activities of corporations. The proliferation of platform companies is a manifestation of this process. The platform economy is characterized by a significant "reforming force that can reshape the landscape of modern market relations, change traditional and form completely new markets, industries and innovative business models, change the perception of methods and instruments for managing organizations, competitive relations, creating and distributing innovations, as well as influence certain aspects of economic and social life of a person, his freedom and independence."[2]

6.3.2. Platform companies and traditional corporations

Originally, corporations were organized as closed centralized hierarchical structures characterized by (1) a highly centralized source of power, (2) a clear boundary between the corporation and the outside world; (3) a strong and formal hierarchy with functionally differentiated roles; (4) standardized operating systems and procedures dictated by centralized authority. Such a highly bureaucratic model makes sense when the company's main goal is to minimize transaction costs and information asymmetry and to provide static products or services on a stable national market.[3]

However, today, working in hyper-competitive global markets against the backdrop of digital change (i.e., exponential technological growth and rapidly changing consumer needs) requires constant development, which is mainly due to innovations in products and services, technologies, and more recently, thanks to innovations based on digital platforms.

In legislation and science, there is no single concept of a platform. For example, platforms are defined as "integrated assets that allow a company to extract additional value through various effects."[4] A number of authors understand digital platforms in a broad sense as "hybrid structures (organizations, systems, technologies) focused on creating value by providing and facilitating direct interaction and exchange between two or more groups of external users within a single digital ecosystem[5] of algorithm-driven relationships".[6] The platform is also considered as "a business based on the implementation of value-creating

1 *Ferents V. Minin A.* ("Deloitte"): Key in digital – speed and flexibility [Interview with A. Minin] // Bankovskoe obozrenie. 2019. No. 4, pp. 42–45.
2 *Osipov Yu., Yudina T., Geliskhanova I.* Digital platform as an institution of technological breakthrough // Economic strategies. 2018. No. 5 (155), pp. 22–29.
3 Here and hereinafter: *Fenwick M., McCahery J., Vermeulen E.P.M.* The End of 'Corporate' Governance: Hello 'Platform' Governance (August 16, 2018). Lex Research Topics in Corporate Law & Economics Working Paper No. 2018-5; European Corporate Governance Institute (ECGI) – Law Working Paper No. 430/2018. URL: https://ssrn.com/abstract=3232663
4 *Markova V.* Platform business models / Voprosy Ekonomiki. 2018. No. 10, pp. 127–135.
5 By analogy with a natural ecosystem, which is a functional unity of living organisms and their habitat, an economic ecosystem brings together the platform and its participants, as well as the resources they invest.
6 *Osipov Yu., Yudina T., Geliskhanov I.* Digital platform as an institution of technological breakthrough // Economic strategies. 2018. No. 5 (155), pp. 22–29.

interactions between external producers and consumers".[1] The first economic ecosystem is sometimes called the telephone network, which appeared in the XIX century on the platform of an analog communicator of telephone channels, to which the telephone network was locked.

Compared to traditional platform companies, they are more competitive, grow fast, and spread across a variety of markets. These new economic entities develop original business development strategies, new sources of competitive advantages and added value, ensure the transition from value chains to partner networks, and create an environment for the joint evolution of companies and markets. Eight out of ten companies in the top ten by market capitalization in the world have a platform at their core (*Table 8*).

Table 8

Top 10 companies by market capitalization in the world as of July 2020

No	Company	Platform	Country	Sector	Market capitalization (USD bn)
1	Saudi Arabian Oil	×	Saudi Arabia	Oil and gas	1741
2	Apple	✓	USA	Technologies	1568
3	Microsoft	✓	USA	Technologies	1505
4	Amazon	✓	USA	Consumer services	1337
5	Alphabet	✓	USA	Technologies	953
6	Facebook	✓	USA	Technologies	629
7	Tencent	✓	China	Technologies	599
8	Alibaba	✓	China	Consumer services	577
9	Berkshire Hathaway	×	USA	Finance	430
10	Visa Inc-Class A	✓	USA	Finance	372

Source: PwC. Global Top 100 companies by market capitalisation (July 2020). P. 11. URL: https://www.pwc.com/gx/en/audit-services/publications/assets/global-top-100-companies-june-2020-update.pdf.

A traditional company creates value for the consumer in a linear (conveyor) way (value chain). Simplified, it looks like this. Suppliers provide the producer with raw materials that undergo some processing on the part of the manufacturer and turn into a product (service) purchased by the consumer. The finished product has a higher value than the raw material. The manufacturer aims to reduce the price of raw materials and processing and increase the value of the finished product.[2]

Unlike a traditional corporation, a platform company does not create tangible goods and creates almost no value. Its "products" can be called:

- a platform that has little value in itself;
- the policy of the company (i.e., the platform owner) to establish rules for the interaction of other platform participants (suppliers, developers,

1 *Novozhilov K., Golubev D., Entin N.* The phenomenon of digital platforms and analysis of the architecture of digital platforms // Colloquium-journal. 2019. № 15 (39).

2 See here and hereinafter: Konopatov S.N., Salienko N.V. Platform-based business model analysis // Scientific journal NRU ITMO. Series Economy and ecological management. 2018. No. 1, pp. 21–32.

partners, and consumers) and the use of its resources (applications, information, products, etc.).

The platform and policy do not require the provision of raw materials for conversion into their products, and are not purchased by the consumer. Thus, the main assets of a platform company are the platform participants and the external resources they invest. Unlike a traditional platform company, it does not own these assets, but only coordinates them through its policies.

The value of the platform for participants is determined by its size. Platforms with a large number of participants attract new participants, becoming even larger and, consequently, more valuable, and thereby attracting even more new participants. Continuous improvements to the platform from vendors and developers increase the value of the platform by attracting new consumers. The growth in the number of consumers, in turn, attracts new suppliers and developers (network effect). Due to this, the growth of the platform business does not require significant material costs, in contrast to the growth of the linear business.

The superiority of external resources over internal ones is well demonstrated by the example of Nokia and Waze. In 2007, Nokia acquired Navteq, the company that owns the world's largest network of traffic sensors, for $8.1 bn, which was supposed to give the company a dominant position in the market of digital maps, mobile and online traffic information. Created at the same time, Waze did not invest in a system of traffic sensors, but used the capabilities of smartphones with GPS sensors, collecting information about the location of their users and, consequently, about road traffic. After 4 years, the number of Waze sources (participants) exceeded the number of Navteq road sensors by 10-fold. At the same time, adding a new source for Waze cost almost nothing, while updating the Navteq system cost a lot of money.

In 2013, Waze, with about 50 million sources (participants), was acquired by Google for $1.1 bn, with almost no infrastructure or a large staff.

Thus, Waze's platform approach proved to be much more effective than Nokia's traditional business model, which is slow and based on the ownership of costly tangible assets.

Platform companies Uber, Airbnb, Alibaba, not owning a single tangible asset, whether it is a taxi, housing or goods, force out traditional companies (car-hailing service, hotels, and supermarkets) from their respective markets.

It should be noted that with the development of the Internet of things, various things – from machine tools to refrigerators - become new components of the platform ecosystem in addition to the platform, its participants and the resources they invest. Combining information and things together with a network effect provides a platform business with rapid growth, which is not available with the traditional linear way of organizing business.

So, platform companies organize their internal activities in a flatter and more inclusive way, increasing opportunities for continuous innovation. We can say that it is the role of an algorithm-driven intermediary that provides and facilitates direct interaction and exchange using tools for accumulating and processing big data, complex algorithms for selecting combinations of subjects, accurate

pricing, etc., together with an organization aimed at innovation, that distinguishes platform companies from traditional ones.

Platforms use network technologies to mediate economic exchange, transfer information, or bring people together. By facilitating the interaction between creators and recipients of value, platform companies make a profit.

In addition to using new technologies for transactional mediation, information exchange, or to bring people together, it is also common for platform companies to organize their internal activities to facilitate multi-stakeholder collaboration to ensure continuous innovation in the platform's functions and related products and services (interactive annual reports; the ability for employees to participate in projects that are personally significant for them, not just for the company, etc.). Stakeholders include managers, employees, investors, consumers, developers, content creators, and other companies, etc. This is how platform companies differ from the centralized hierarchical and closed structure of a traditional company.

The platform company uses the input of stakeholders and feedback to improve the experience and interaction of participants with the platform. Platform companies undermine and decentralize existing business models by removing traditional intermediaries. These companies facilitate more direct, peer-to-peer transactions.

The development of the platforms coincided with a significant reduction in information costs, which transforms the traditional balance between the advantages of the internal (company's market) and external markets. In this sense, information technology contributes to the blurring of the line between the company and the market.

In the best and most successful companies, management is no longer about hierarchy, control, or a clear boundary between the company and the world. Instead, the focus is on creating a flat, open, and inclusive organizational environment that harnesses the talents of all stakeholders in that company's network. Thus, the platforms are built on the idea of ensuring continuous innovation through an open and inclusive collaborative process. The innovation-driven organization of platforms separates them from the well-defined, fixed hierarchies, static roles, and authorized procedures of traditional companies.

Thus, the platforms are an adaptation to the realities of rapidly developing technologies and hyper-competitive global markets.

6.3.3. Benefits of the platform participants.

A platform company creates a value proposition not only for consumers, but also for other participants – suppliers and developers. The benefits to suppliers, developers, and consumers are clear. The first two groups get access to a large market with all its users. In addition, the developer can create their own platform based on their application, making the ecosystem multi-layered. For example, the Instagram app, originally developed on the IOS software platform, is itself a social platform. In turn, the consumer saves effort and time by performing many functions on a single platform (for example, the Sber digital ecosystem combines banking and manifold non-banking elements).

A platform company does not sell products and services, but offers a certain technology that allows you to create value for all participants of the platform. Therefore, an important issue is monetization – extracting part of the additional value created by the platform by the platform owner - without destroying the network effect of the platform. Today, there are several main ways of monetization in the form of payment:

- access to the platform and the data generated by it, subscriptions (Netflix, partly YouTube);
- комиссии (Delivery Club, Yandex.Taxi);
- advertising space (VKontakte, Google, Alibaba);
- transactions (Visa);
- applications programming interface (eBay);
- franchising (BlaBlaCar);
- different ways.

6.3.4. Platform types

The platform business is primarily associated with technology companies that manage:

- social platform (VKontakte, Odnoklassniki, Facebook, Instagram);
- platform for exchange (services platform) (Avito, Amazon, Airbnb, Uber);
- information platform (content platform) (RuTube, YouTube, Medium, Netflix);
- software platform (Apple iOS, Google Android);
- blockchain platform (smart-contract platform) (Ethereum, EOS).

However, the platform business model is also used, for example, by companies engaged in retail sales. Platforms have also begun to penetrate the financial services industry.

According to the number of groups of platform participants, one can distinguish:[1]

- Two-sided integrated platforms (or transaction platforms);
- Multi-stakeholder platforms (or innovation platforms).

Two-sided integrated platforms (*transaction platforms*) (Yandex.Taxi, Avito, Aviasales, Airbnb) combine 3 groups of participants, matching supply and demand in a particular market:

- platform owner (attracts, brings together and encourages users of the platform);
- suppliers of goods and services;
- consumers.

Such platforms offer innovative solutions to some issues: they facilitate access for consumers (educational platforms Stepik Смотри.Учись, etc.), get rid of unnecessary intermediaries (Yandex.Taxi, online stores Wildberries, Ozon, etc.), and help in finding tickets, accommodation, etc. (Skyscanner, Tutu, Booking, Ticketland, and many other).

1 See hereinafter: *Markova V.* Platform business models // Voprosy Ekonomiki. 2018. No. 10, pp. 127–135.

The popularity of the integrated platform depends on the number of its users, since its main result is the network effect enhanced by digital technologies. The development of digital technologies contributes to the emergence of more complex integrated platforms.

Fundamentally, integrated platform itself is an intermediary, since it only brings together suppliers through a centralized closed platform and resells their goods and services using available technical means (smartphones, GPS systems, and complex payment systems). In this regard, it is interesting to suggest the rejection of this type of platform with the development of blockchain technology, which will allow suppliers to directly interact with consumers.[1]

Multi-stakeholder platforms (innovation platforms) (Yandex, Telegram, iPhone, payment systems) thrive on mass cooperation, organized on the principles of openness, information exchange, and global activities.

Multi-stakeholder platform brings together at least four groups of participants:

- platform owner;
- independent developers;
- partners in sales, promotion, and service delivery (suppliers, sellers, consultants, etc.);
- consumers.

Independent developers create additional products and services, contributing to the development of the platform and the formation of an ecosystem based on it.

In addition to the network effect, the assets of independent developers (knowledge, resources, time) intended to create additional value, which allows us to talk about the economy of participation or shared consumption (sharing), as well as joint innovations produced by the platform big data, new partnership and competition mechanisms aimed at the development of the platform, are important sources of the development of multi-stakeholder platforms.

Accordingly, the considered type of platform forms an economic ecosystem is a new business model that brings together participants and resources to create and distribute value to consumers.

They also sometimes separate a *"digital twin" platform - a complex product or project* (Boeing, BMW), which is a digital workspace in the production sphere. This network structure replaces the traditional model of manufacturing outsourcing within the supply chain.

The platform brings together two groups of participants:

- platform owner;
- suppliers as partners and developers.

Today, the development and introduction of new complex physical objects to the market requires working with a wide ecosystem of partners. In this regard, the platform owner focuses more on managing both the distributed partner base and the design and development received from partners and developers. At the same time, the owner relinquishes part of their production competencies.

1 *Tapscott A., Tapscott D.* Blockchain technology. Moscow. Eksmo, 2017. p. 42, 43.

For example, the Boeing collaboration platform, which is open to partners, allows them to view and change drawings and models, and check their components for compatibility. Despite the possibility of information leakage, this approach contributes to the development of cooperation and specialization of participants. The platform owner increases the efficacy and flexibility of the business, and its partners by taking over part of the development eventually increase their share of revenue in the final product.

As a result of the gradual opening of access of independent developers to platforms, companies are increasingly moving from internal platforms and integration platforms to multi-stakeholder platforms. For example, Amazon invited independent companies, including competitors, to its trading platform.

It should be noted that depending on unit analysis in addition to the economic platform ecosystem, there are also a business ecosystem focused on the company and its environment, and an innovation ecosystem that is built around a particular innovation or new economic value and a set of supporting actors.[1]

Platforms can be open or closed, depending on whether non – platform owners can view and change the platform.

Open platforms include the Boeing collaboration platform, which allows as already mentioned partners of the platform owner and developers to view and change the content of the platform, check for compatibility of components.

One of the most striking examples of an open platform is Android, a mobile operating system owned by Google. In December 2019, Android's share of the mobile operating systems' market totaled 74.13%.[2]

Android allows any independent developer not only to provide their application to 2 billion users of this operating system through the online store Google Play, but also to work on the platform itself, i.e. the first and main set of programs, to improve it. The owner reviews the proposed changes, implements them if they are relevant, and sends updates to the platform users. With this approach, the potential of the entire outside world is open to Android.

Unlike Android, Apple's iOS mobile operating system is a closed platform. In order for an independent developer's product (app) to gain access to the iOS market (the online App Store), it must meet the strict requirements set by the platform owner. Developers cannot make changes to the platform itself. Also, unlike Android, iOS is sold only together with Apple products (iPhone, iPad, Apple TV, etc.).

Nevertheless, iOS is quite popular, occupying the 2nd place in the mobile operating system market after Android with a share of 24.79% (in December 2019). Apple's iPhone smartphones, thanks to the built-in iOS software platform, which brings together independent developers and consumers through the App Store, have seriously challenged manufacturers such as LG, Motorola, Nokia, Samsung, and Sony Ericsson.

1 См.: *Jacobides M., Cennamo C., Gawer A.* Towards a theory of ecosystems (March 2018). Strategic Management Journal, Vol. 39: 2255–2276, 2018. URL: https://ssrn.com/abstract=3218233

2 Statista. Mobile operating systems' market share worldwide from January 2012 to December 2019 (9.05.2020). URL: https://www.statista.com/statistics/272698/global-market-share-held-by-mobile-operating-systems-since-2009/

An example of a partially closed platform is Microsoft's Windows computer operating system. Independent developers are free to develop applications, but cannot make changes to the platform itself. Due to limited access, the content of the platform is not developing fast enough. However, the huge market share of computer operating systems represents an almost insurmountable barrier to entry into the market of other systems, even if they are of higher quality, but do not have a comparable number of users. In 2016, Microsoft has returned to the mobile operating system market with Windows-10. It seems that, for example, Android, which already has a sufficient number of participants, could compete with Windows in the market of computer operating systems.

Table 9

Distinctive features of the three types of platforms

	Platforms		
	Integration platform	**Multi-stakeholder platform**	**Digital twin platform of complex product or project**
Aim	Facilitating the interaction of participants in a particular market	Ecosystem development	Development and production of a complex product or project
Position on the market	Intermediary	Platform ecosystem	Value creation network
Participants	– Platform owner; – Suppliers of goods and services; – Consumers	– Platform owner; – Independent developers; – Distribution, promotion and services provision partners; – Consumers	– Platform owner; – Suppliers as partners and developers
Owner's role	– Data collection; – Organization of participants interaction	– Determining the architecture and the degree of openness of the platform; – Management and development of the platform; – Organization of participants interaction	– Coordination; – Design and development management
Degree of openness for partners	Closed	Different degree of openness	Open
Examples	Яндекс.Такси, Avito, Aviasales, Airbnb	Яндекс, Telegram, iPhone, payment systems	Boeing, BMW

Source: Markova V. Platform business models / Voprosy Ekonomiki. 2018. No. 10, pp. 127–135.

Platforms differ in ownership and management models, which also reflect the degree of openness of the platform-from the most closed to the most open model:[1]

– proprietary platform model (Mac, iOS, Monster.com) – owned by *one* company, managed by *one* company;

1 *Yablonsky S.* Multi-stakeholder platforms and markets: main approaches, concepts and practice // Russian Journal of management. 2013. No. 4, pp. 57–78.

- license platform model (Google Android, Microsoft Windows) – owned by *one* company, managed by *several* companies;
- joint platform model (Orbitz.com, CareerBuilder.com) – owned by *several* companies, managed by *one* company;
- sharing platform model (Linux, AOSP) – owned by *several* companies, managed by *several* companies.

6.3.5. Platform companies and traditional corporate governance: the problem of inconsistency

Corporations, as we know them, are characterized by centralized power and a clear hierarchy. The state provides them with an appropriate political and legal environment that helps corporations to operate efficiently. Corporate law and governance were designed to support businesses organized in this way. The problem with centralized organizations, however, is the slow, cumbersome, and expensive decision-making process in a rapidly changing consumer-driven economy.[1]

Traditionally, the main goal of corporate governance is to protect the interests of shareholders (investors) - the real, legal, and moral owners of the company. Corporate structures and procedures ensure (a) the descent of authority, responsibility and control from shareholders through the board of directors to management and employees, and (b) the ascent of accountability. Thus, corporate governance is designed for closed, centralized, and hierarchical organizations with well-defined roles, mainly for large corporations. This approach is relevant when large corporations are the main engine of economic growth.[2]

Shareholder primacy implies that other members of the company act as if they were shareholders, and the company's performance, as measured by the value of the shares, is improved, benefiting all stakeholders, including the public, who receive the goods and services of a successful company.

In practice, the model of shareholder primacy is associated with corporate scandals, and the corporate governance reforms of recent decades are aimed at reducing the risks of these scandals, in other words, at minimizing the risks of improper management behavior (any actions to the detriment of the interests of the shareholders-owners) and at maximizing shareholder value. Having said that, executives, managers and other employees of the company are considered as self-serving, ignoring the negative fallout of their actions for shareholders and

1 Hereinafter: *Apevalova E., Polezhaeva N., Radygin A.* The standards and practices of corporate governance: relevant current trends // Russian Economy in 2019. Trends and Outlooks. (Issue 41) / V. Mau et al.; Scientific editing by: Doctor of Economic Sciences Kudrin A.L., Doctor of Economic Sciences Radygin A.D., Doctor of Economic Sciences Sinelnikov-Murylev S.G. Moscow. Gaidar Institute Publishers. 2020. pp. 486–496.

2 Hereinafre: *Fenwick M., Vermeulen E.* The End of the Corporation (October 20, 2019). Lex Research Topics in Corporate Law & Economics Working Paper no. 2019-7; European Corporate Governance Institute - Law Working Paper No. 482/2019. URL: https://ssrn.com/abstract=3472601; *Fenwick M., McCahery J., Vermeulen E.* The End of 'Corporate' Governance: Hello 'Platform' Governance (August 16, 2018). Lex Research Topics in Corporate Law & Economics Working Paper No. 2018-5; European Corporate Governance Institute (ECGI) – Law Working Paper No. 430/2018. URL: https://ssrn.com/abstract=3232663

society. Consequently, increasing shareholder control over other members of the company becomes the main objective of the reforms.

A credible corporate governance structure is considered to be based on: (1) an accountable board of directors overseeing governance; (2) a set of internal control and monitoring processes; (3) transparent disclosure of information about the company's financial performance and (4) measures aimed at protecting the interests of minority shareholders. The main result is the shareholder value maximization.

However, shareholder value maximization is not always the best way to ensure a company's success, as this emphasis creates a corporate environment where conservative decision-making, short-term benefits, and formal compliance with the rules are prioritized. Betting on the stock price can lead to a focus on following a business model based on existing and successful products or services, which hinders innovation, identifying strategies that help the company stay relevant in the medium and long run.

Also, the focus on maximizing the value of shareholders can lead to practices that run counter to the interests of employees who work directly with clients, which can be destructive to the corporate culture, since only an interested, engaged employee can attract a client, become the key to innovation and long-term commercial success of the company.

Some measures are being taken to mitigate such unintended effects of traditional corporate governance.

Firstly, national codes of good governance (investment) (steward ship code) are being implemented, aimed at creating more engaged and responsible shareholders. Shareholders, especially institutional investors, should be treated as management companies.

Secondly, initiatives are being taken to encourage companies to adopt a more responsible and sustainable approach to their activities. Most often, we are talking about disclosure and transparency of information. Also, some companies are changing the way they distribute their profits, for example, investing it in environmental research and development.

However, in both cases, more dynamic and innovative company behavior may become their secondary effect, but it is not the main objective, whereas in the digital age, constant innovation is a necessity.

Accordingly, today there is a mismatch between traditional corporate governance that supports centralized hierarchical organizations, and the needs of platform companies, which bring together and promote cooperation between several stakeholders, seeking to increase engagement. It is necessary to reconsider the attitude to corporate governance that traditionally emphasizes shareholder primacy.

New technologies are undermining the "old world". Changing the practice and thinking of modern society, they lead to the emergence of more "flat" decentralized organizations that attract by speed and ease of use.

All the most successful companies of the digital age strive to create an open corporate culture without intermediaries, based on technology, data and

algorithms. A technology-driven business culture helps companies stay relevant in the digital network marketplace, which means developing and redesigning products and services that continuously deliver customer satisfaction. This culture gives companies a competitive advantage in attracting talent, capital, suitable partners, and in maintaining relevance in hyper-competitive global markets. Leading companies understand that it is necessary to introduce new technologies in every aspect of the organization and management of the company.

On August 19, 2019, An Association of Chief Executive Officers of America's Leading Companies, Business Roundtable (BR), stated that "chief executive officers endeavor every day to create value for all our stakeholders, whose long-term interests are inseparable."[1] The focus on all stakeholders is important because it reflects the growing trend that companies are not static hierarchies with a focus on shareholder primacy, but complex, dynamic ecosystems that include diverse, interacting elements in hyper-competitive global markets. Leading companies understand that it is necessary to introduce new technologies in every aspect of the organization and management of the company.

In order to engage with all stakeholders and remain relevant and competitive, companies must keep up with the latest technological innovations and encourage an open and inclusive dialogue with stakeholders. For example, Philips has made its annual report interactive for a wider range of stakeholders, using a variety of strategies and online platforms. Microsoft has appointed a Chief Storyteller to help stakeholders, including the public, better understand the company. Air Asia has appointed an influencer to the board of directors (a person who has an impact on the audience in a particular area) to make the board more receptive to a new generation of stakeholders. Yandex holds a large technology conference "Yet Another Conference" every year, discussing technologies and some aspects of the company's activities (in 2020, due to the pandemic, the film "Yet Another Conversation" was prepared instead of the traditional conference). Companies use social media as a communication tool in the interests of business that somewhat transforms the value of transparency.

Consumers, made more aware by digital technologies, no longer value mass production and expect that data and data analysis will provide them with more sophisticated services that consumer feedback and social media will allow them to express their opinions and learn about the activities of companies. The same can be said about the employee. He doesn't want to be an extra in a corporation anymore. Employees endeavor to increase their potential by doing things that really matter to them, and stay in the ecosystem if it gives them the opportunity to participate in projects that matter to employees because of their work for the system. Digital technologies expand the opportunities of investors (artificial intelligence instruments, blockchain technology, etc.).

However, it should be noted that with the transformation of some technology companies into the largest enterprises in history (the so-called "super-platforms"), they (Amazon, Google, Facebook and a number of others) have become more

1 Business Roundtable. Our Commitment. URL: https://opportunity.businessroundtable.org/ourcommitment

controversial and are now considered as problematic.[1] With the proliferation of platforms, especially globally, their owner companies have come to rely on corporate hierarchical organizational structures. In addition, in order to maintain their growth, many platform companies have become public and at the same time vulnerable to short-term (quarterly) financial pressures. The problem is that such a hierarchical organization can lead to the bureaucratization of the platform, to its closeness and, accordingly, to the problems inherent in traditional corporations.

Consequently, a platform (ecosystem) company should combine the following features:

1. *Leverage the unique capabilities of new digital technologies (software, big data, cloud databases, the Internet, social networks, etc.) to deliver meaningful experiences to end-users*.

The technology-driven platform company's business model is marked by economies of scale and network effects resulting from prioritizing software across all of its operations. This allows you to collect user data on a continuous and systematic basis, improving the productivity and experience of end-users. It follows that in an ecosystem, the end-user is vital. The main strategic goal of a technology platform company is to retain the users needed to generate revenue by providing them with a meaningful experience. To do this, the company's employees must directly contact the end-users, which means moving from mass production to personalization through interaction and interactivity. In the digital age, the combination of user ratings and reviews has become more important than brand loyalty in establishing trust and shaping consumer choice. An additional advantage of this approach is that it reduces the need for traditional advertising and marketing.

New technologies (artificial intelligence, sensors, and blockchain technology) are increasingly facilitating the organization of ecosystems. Platform companies should be constantly on high alert for technological changes.

2. *Adopt a flatter, more flexible and inclusive style of organization, involving collaboration with different partners, built around a network of individual high-performance teams focused on collaborative creativity.*

In the ecosystem, the boundaries between the internal and external aspects of the business are blurred, the traditional separation of the corporation and the market is erased. In a platform company, the boundaries between internal vertical divisions and horizontal levels are blurred – between the production department, marketing department, legal department, between different levels of managers, employees, etc. Within such a company, traditional roles are broken.

With such a flat and flexible organizational structure, it is crucial to maintain a network of individual, highly effective, entrepreneurial teams focused on collaboration and collaborative creativity. Technology-driven innovation is the foundation of this style of organization. A complex innovation system is hard to develop from the top down.

1 *Galloway S.* The Four: The Hidden DNA of Amazon, Apple, Facebook & Google / Random House Large Print, 2017. 448 p.

3. *Have a more open and transparent approach to the transfer and management of information.*

The best platform companies understand that the transfer of information should not be a one-sided disclosure of information, but also an open dialogue with the involvement of stakeholders. Digital technologies provide new instruments for such a dialogue – social networks, blogs, annual letters, making communication even more personalized, open and effective.

4. *Apply a new style of digital leadership focused on creating an environment that promotes creativity.*

In a platform company, the role of the board of directors should be more complex. In addition to the classic functions, additional responsibilities should be provided to help create a suitable environment for key figures in the ecosystem to make better strategic decisions. Also, the board of directors should become more experimental, and its members should have more diverse experience related to technology, millennials, influencers, disruptors (disruptive startups), storytellers, etc. Leaders of platform companies must be visionary, enterprising, ready to innovate, and understand the dynamics of the platform.

6.3.6. The place of platform companies in the modern Russian economy

The rapid spread of the COVID-19 virus in 2020 led to extremely negative fallout for a large number of companies and the economy as a whole. Nevertheless, the forced social distancing has become an incentive for even more active development of the Russian digital platform business that has displayed stable growth in the past few years. Platform companies, whose operation is based on new technologies, were able not only to continue to operate in isolation, but also to expand their activities, now meeting the more "digital" needs of consumers and filling in empty niches of traditional companies that could not adapt to the current conditions in time.

Consequently, an obvious trend for Russian companies, especially large ones, in 2020 was the transition to a platform business model and the increased development of existing digital platforms and ecosystems with business diversification.

Against the backdrop of the total volume of the global platform economy and in comparison with such giants as Google or Amazon, the share of Russian platform companies is very small. However, in Russia itself, which is one of the world leaders in Internet access, national digital platforms have become relatively widespread. However, in contrast to the world (*Table 8*), in Russia, the top ten largest companies by capitalization in 2020[1] comprised only one digital ecosystem that one of Sber, which is rated 2nd on the rating list. The remaining places are taken by traditional companies in the fields of oil and gas production, oil refining and metallurgy (Gazprom, Rosneft, LUKOIL, NOVATEK, etc.). The next Yandex ecosystem is in 11th place.

1 RIA rating (31.01.2020). URL: https://riarating.ru/infografika/20200131/630152195.html

In 2020, in the wake of the pandemic, Sberbank accelerated its transformation into a full-fledged technology company, shortening its name to "Sber" and including in its digital ecosystem many new non-bank services in various areas (food, goods, transport, entertainment, health, etc.), each offers several platforms (Scooter, SberMarket, Yudrive, Okko, Sberaptek, etc.). Sber expands its ecosystem through partnerships (for example, with Mail.ru and City Mobile) or by purchasing a competitor's share (Sberbank acquired 46.5% of Rambler). As a result, the consumer has access to financial and non-financial services through a single mobile application. However, we should not forget about the issues that the bank may have in connection with the assumption of business risks associated with non-banking areas.

Other banks are also aiming to merge with technology companies, but so far they can't compete with the Sber on the same level. For example, Gazprombank ceased to be a co-owner of Megafon in 2019. Tinkoff Bank made public its refusal to merge with Yandex in 2020.[1]

There are *several main aspects that limit the development of the platform business in Russia*, as well as a number of other issues that Russian platform companies face.

Firstly, the issue of legal regulation of the platform companies' activities. Although platform companies play an important role (in 2018, the revenue of digital platforms exceeded $17 bn and amounted to around 1% of Russia's GDP), Russian legislation does not consider them as a separate type of company and, therefore, does not apply special regulations for them. Nevertheless, the business model of these companies and their needs in the field of corporate governance have pronounced features, and therefore the extension of the rules originally developed for a traditional corporation to platform companies may hinder their development. At the same time, regulatory gaps can lead to abuse by the platform companies themselves.

It should be noted that owing to the specifics of its activities (it does not create material goods, does not own assets, etc.), a platform company can choose any country as the place of registration. If Russia wants to have a competitive advantage in attracting new promising companies, it must be proactive in creating a favorable legal environment for the development of platform business. However, stemming from the increasing speed and complexity of technological progress and the length of rule-making procedures, it is difficult for the legislator to calculate in advance possible directions of digitalization with associated risks. He has to constantly catch up with this process, while trying not to interfere excessively until it is more fully understood. It is necessary to find a balance between ensuring the interests of all platform participants and supporting the development of the platform business as one of the key elements of the digital economy of Russia.

1 *Сидоров М.* «Сбер» меняет банк на экосистему (25.09.2020). URL: https://www.vedomosti.ru/finance/articles/2020/09/24/841151-sber-menyaet; *Kozlovsky S., Rynda A., Shamina O.* The struggle of ecosystems. How Sber will compete with Yandex and Tinkoff. (24.09.2020). URL: https://www.bbc.com/russian/features-54270603

It seems that in the modern world, where speed and flexibility come to the fore, laws alone will not be enough. We need a more flexible approach to the regulation and control of platform business – the principle of "observe or explain", which is already familiar in Russia under the Corporate Governance Code, or a completely new approach developed specifically for digital companies, based on new technologies, openness and active involvement of stakeholders (co-regulation).

Secondly, the problem of competition with foreign platform companies in the domestic markets and worldwide. For some countries, including a number of countries of the European Union, the dominance of foreign (global) platform companies that absorb and drive national competitors from domestic markets has become a problem.

In Russia, foreign platform companies prevail mainly in the field of mobile applications (for example, WhatsApp messenger has considerably more participants than similar Russian instant text messaging systems, for example Mail.ru Agent) and operating systems for personal computers and lag behind national companies in terms of share and coverage in other markets (their share in the total market volume of digital platforms in Russia is around 30% by revenue). So, the number of participants in VKontakte is twice as large as in Facebook. Yandex partakes a dominant position with the Google web search engine and is constantly expanding its digital ecosystem with other platform services in various areas. In the 4 years preceding the coronavirus crisis, Yandex's revenue doubled. The company's revenue for Q3 2020 gained 30% compared to the same period last year and amounted to Rb58.4 bn.[1] Mail.ru also exhibits stable growth in various economic indicators.[2]

Despite the success of the platform business in the country, there are only a few Russian companies that have achieved the international level. For example, the Equid company that owns a platform for creating online stores for small and medium-sized businesses, has more than 1.5 million users in 175 countries around the world.[3]

Today, competition with foreign platforms encourages Russian companies to further develop and innovate in order to raise the number of participants and market capitalization growth. Nevertheless, in some important sectors of the economy, platform companies are either not represented at all, or are not developing fast enough. Such a state of affairs without state support can lead to the loss of a national company in the relevant area in case of arrival, where possible, of a foreign platform company.

Thirdly, the limited number of areas where platform companies are developing, and the lack of prominent government support for the growth of the platform business. In Russia, platform companies thrive mainly in the supply of goods and

1 *Batrov T.* Yandex increased revenue in the third quarter by 30% (28.10.2020) // URL: https://www.forbes.ru/newsroom/tehnologii/412401-yandeks-uvelichil-vyruchku-v-tretem-kvartale-na-30.
2 *Eferin Ya., Rossotto K., Khokhlov Yu.* Digital platforms in Russia: competition between national and multi-stakeholder platforms promote economic growth and innovations // Information society. 2019, No. 1–2. p. 31, 32.
3 Briefly about Ecwid // URL: https://www.ecwid.ru/intro

services.[1] However, in such key areas of the economy as oil and gas production, oil refining and metallurgy, agriculture, construction and public health, the platform business is underdeveloped or almost absent. Some traditional companies are starting to put in place their own platforms to improve their internal operations and consolidated supply chains. For example, Gazprom Neft is developing the EvOil digital platform for continuous production management throughout the entire chain. The proliferation of platform companies in these industries can help accelerate economic growth, expand employment opportunities, and improve the quality of services. For example, in France, there is a network of platform companies in the agricultural industry, operating as virtual trading platforms where retailers, wholesalers, farmers and consumers interact with each other (Agriconomie, WeFarmUp).

Active government policies can promote the development of platform business in these important industries. For example, the emergence of China's leading platform companies has been supported by notable government intervention, including protection from foreign competition. The rise of Chinese platform giant Alibaba has been driven in part by government restrictions on foreign investment in e-commerce, which were lifted more recently. Today, China and the United States account for 90% of the market capitalization value of the world's 70 largest digital technology companies.[2]

Fourthly, the risks of establishing monopolies posed by large platform companies. Platform companies are able not only to create, but also to destroy, to be both a source of competitive advantages, and to drive out competition, to stifle small and medium-sized enterprises.

The network effect may sooner or later lead to the situation where there will be not enough participants in the initial sphere of operation of the platform company for further business growth, and the company will begin to expand its activities to other sectors of the economy. The expansion will be faster as traditional industries become increasingly digitized. It is easier for a leading platform company with a stable consumer base to seize new markets (for example, non-bank services of Sberbank).

To develop new areas of the market, large platform companies can get possession of existing competitors there. So, Yandex, using its stronger position in the field of web search and e-commerce, teamed up with Uber in the field of car-hailing service. If a competitor refuses to merge, the strategy of a larger company with a larger number of participants may be to duplicate the functions of the competitor, which will lead to a reduction in its users and, consequently, to losses.

1 Web-search (Yandex, Mail.ru), e-commerce (Wildberries, Ozon), financial services (Sber, Banki.ru), entertainment (Kudago, Vashdosug), education (Stepik, Smotri.Uchis), medical services (Docdoc), car-hailing service (Yandex.taxi), etc.

2 I*vanov A., Shustova I.* Research on digital ecosystems as a fundamental element of the digital economy // Creative economy. 2020. Vol. 14. No. 5, pp. 655–670; *Eferin Ya., Rossotto K., Khokhlov Yu.* Digital platforms in Russia: competition between national and foreign multi-stakeholder platforms promote economic growth and innovations // Information society. 2019. No. 1–2, pp. 20, 23, 29, 30.

Platform companies resort to other methods on the fringes of the law in order to eliminate competitors. For example, in 2020, Ivi, Avito, CYAN, Profi. url and a number of other companies have filed a complaint with the Federal Antimonopoly Service about the abuse of Yandex's dominant position, accusing it of hiding competitors from its web search results.[1] In 2019, one of the most high-profile scandals was the case of patent raiding – a criminal case on the application of Rambler against the developers of the NGINX web server for copyright infringement.[2]

Platform companies can extract, monitor, and analyze huge amounts of data, thereby reducing costs, satisfying consumers, and improving products, giving them a competitive advantage over traditional corporations. The ability of the owner of a digital ecosystem to unilaterally control a huge amount of data about its participants can lead to information asymmetry and manipulation. Other participants in the ecosystem do not have this information and are not able to estimate such volumes.[3]

Platform companies can create some "attachment". For example, 1C company is a leader in the development of software products for the automation of business processes in companies of all sizes and directions, specifically the system of programs "1C: Enterprise". Paid software products, although it is possible to rent programs with a monthly subscription fee through cloud storage. The funds invested in the acquisition of the software system, the complexity of setting up basic configurations for the tasks of a particular company, and the lack of compatibility of 1C: Enterprise system with similar software products of competitors force companies to use 1C: Enterprise.

As a reminder that with the proliferation of platforms, their owner companies may begin to rely on corporate hierarchical organizational structures, which can lead to issues inherent in traditional corporations.

Today, the development of the platform business is one of the key components in the making of the Russian digital economy. For the implementation of the national program "Digital Economy of the Russian Federation", the Government of the Russian Federation has been assigned the task until 2024 to ensure: (1) through the introduction of digital technologies and platform solutions, transformation of priority sectors of the economy and social sphere (health, education, industry, agriculture, construction, energy infrastructure, financial services, etc.); (2) creation of a comprehensive system for financing projects for the development and implementation of digital technologies and platform solutions.[4] The development of digital platforms and ecosystems within the framework of the digital transformation of economic sectors and cross-industry transformation

1 *Shestoperov D., Lebedeva V.* They will make Yandex responsible for the answers. Online services complained about the search engine // Kommersant daily. No. 140 of August 7, 2020 p. 7.

2 Case Rambler against NGINX: criminal risks of digitalization – round table discussion May 16, (15.05.2020) // URL: https://habr.com/ru/company/analogbytes/blog/502156/

3 *Ivanov A., Shustova I.* Study of digital ecosystems as a fundamental element of the digital economy // Creative economy. 2020. Vol. 14. No. 5, pp. 655–670.

4 Executive Order of the RF President of May 7, 2018 No. 204 "On National Goals and Strategic Objectives of Development of the Russian Federation for a period until 2024" // RG, No. 97c, 09.05.2018.

is one of the main directions of the implementation of the Digital Agenda of the Eurasian Economic Union until 2025.[1]

Russian platform companies are developing steadily at the country level, but in a limited number of industries. This is partly due to the peculiarities of the economy, including the continued dependence on hydrocarbons and centralized power and property. For traditional areas where digitalization is slower, active government support for platformization is especially important.

The state's policy directions for expanding the platform business can be divided into legal and applied ones.

In the first case, the goal is to create a legal environment that encourages the positive and reduces the negative effects of digital platforms. In general, it is necessary to adjust the legislation, including tax and labor legislation, in order to establish a balance between the interests of all stakeholders, including society and the state. In particular, among other things, it is necessary to develop and implement effective mechanisms for arbitration and dispute resolution, mechanisms for ensuring the security of big data management and transactions.

At the application level, it is necessary to support Russian production in the area of new technologies in every possible way, and to develop the infrastructure of broadband access networks. National transportation and logistics capacities need to be improved in order to significantly increase the use of digital e-commerce platforms and improve the quality of services provided.

* * *

The proliferation of platform companies is directly linked to the digitalization of the economy. In recent years, it is precisely innovations based on digital platforms that increasingly provide companies with the continuous development necessary to maintain competitiveness in hyper-competitive global markets.

Today, traditional corporations continue to prevail, and it is unlikely that this situation will change in the near future. Nevertheless, practice demonstrates that when a platform company appears on the same market as a traditional corporation, the former, as a rule, begins to lead. Therefore, it is important for traditional corporations to master the platform business. At the same time, there is no need to reject traditional forms of production.

Platform companies are not without their drawbacks. The level of trust in the platform giants is being reduced due to the concentration of power, finance and information. However, such companies are rapidly expanding, and obviously their even greater proliferation in the future makes us talk about the need to use new technologies (artificial intelligence, blockchain technology, etc.) to minimize these issues, for a truly more decentralized organization.

The regulatory environment should facilitate the creation and promotion of platforms, establish corporate governance rules that meet the specific needs of

1 UEC. The Digital Agenda of the EAEU 2025: prospects and recommendations // URL: http://www.eurasiancommission.org/ru/act/dmi/Pages/digital_agenda.aspx

platform companies. Due to the close connection of the platform business with rapidly changing technologies, the new regulation must be sensitive to constant changes, prompt and flexible. The most active jurisdictions in this area will have a competitive advantage in attracting new promising companies.

In Russia, the development of platform companies is one of the main components in the making of the digital economy at least in the medium term. An additional impetus to the growth of the platform business, which has been gaining momentum in recent years, was the COVID-19 pandemic. Thus, in 2020, platformization has become a more pronounced trend in the Russian corporate sector.

At the global level, the share of Russian digital platforms is insignificant, however in the national highly digitized areas, domestic platform companies occupy firm positions (web search, e-commerce, entertainment, etc.). In key sectors of the economy (oil and gas production, agriculture, etc.), platformization is slow and requires state support.

It is particularly necessary to point out several problematic aspects that limit the development of platform companies in Russia, which are addressed by the state policy on the expansion of platform business:

- legal regulation of the platform companies' activities;
- competition with foreign platform companies in domestic markets and at the global level;
- a limited number of areas where platform companies are developing, and the lack of clear support for the growth of the platform business from the state;
- risks of establishing monopolies by large platform companies.

6.4. Transnational corporations' participation in the Russian economy and foreign investments regulatory policies[1]

Foreign companies' declining interest in the Russian economy in the 2010s was accompanied by rather cautious activities of foreign investors which had already entered the Russian market. Sluggishness of foreign companies' activities in Russia can be substantiated not only by slowdown of economic growth rates, but also a lack of progress in liberalization of foreign direct investments regulation. To rekindle investment activities in the Russian economy again, it is necessary to revise investment policies, switch over to the single nondiscriminatory policy in respect of foreign and Russian investors and combine the policy aimed at underpinning mid-sized projects with the one aimed at supporting investments in strategically important sectors, including fast-growing industries and short-term cycle sectors.

Transnational corporations (TNC) are the sources of not only financial resources, but also technologies and managerial know-how facilitating the

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integration of national economies into global value chains.[1] It is customary to assess the participation of transnational companies in host economies in terms of inflows of foreign direct investments (FDI). The advantage of such an approach consists primarily in the fact that the data on them are more available and easier to verify. The downside of the approach is that the FDI data do not show the scale of economic activities of companies with FDI in a host economy.[2]

In the international and Russian scientific literature, there is a large number of papers assessing spillovers from foreign direct investments on companies' activities in a host economy on the basis of macroeconomic data. So, they identified negative spillovers from FDI for Russian companies in 1990s,[3] positive horizontal spillovers;[4] negative vertical spillovers[5], as well as nonlinear horizontal and vertical spillovers.[6] In addition, some papers point to spillover effects from FDI on technological modernization of Russian manufacturing industries and the expansion of Russian non-oil and gas exports.[7]

The variety of the received results can be probably explained by the findings based on the meta-analysis which reveals weak sustainability of the observed spillover effects; this can be related in particular to a "publication shift", that is, expectations of reviews and authors' determination to stick to the previous results.[8] This suggests that spillover effects from transnational corporations are

1 World Bank Group; IDE-JETRO; OECD; UIBE; World Trade Organization, 2017; Global Value Chain Development Report 2017: Measuring and Analyzing the Impact of GVCs on Economic Development. Washington, DC; World Bank; *Simachev Yu., Fedyunina A., Kuzyk M., Daniltsev A., Glazatova M.* and *Averyanova Yu*. Russia in Global Production // The 21st April International Scientific Conference on Challenges Facing the Economic and Social Development. Moscow: The NRU HSE Publishers, 2020. 1–147; World Investment report 2013. Global Value Chains: Investment and Trade for Development. UN, 2013.

2 Also, the volumes of investments from abroad also reflect a portion of the overall borrowed capital in capital assets, thus making it infeasible to measure the real contribution by foreign-owned companies in the host economy. The utilization of the data on FDI contribution across sectors fails to approximate the assessment of foreign-owned companies' contribution in these sectors.

3 *Sabirianova K., Svejnar J., Terrell K*. Distance to the efficiency frontier and foreign direct investment spillovers // Journal of the European Economic Association, 3(2–3), p. 576–586. 2005.

4 *Kadochnikov S., Fedyunina A*. Spillover of Companies with Foreign Investments on Export Activities of Russian Firms in 2014–2016: the Size Matters // The Voprosy Ekonomiki. 2017. Issue No.12. pp. 96–119; *Fedorova E., Korkmazova B., Muratov M*. Spillover effects of the Russian economy: Regional specificity. Economy of region, 1(1), 139-149. 2016; *Yudaeva K., Kozlov K., Melentieva N., Ponomareva N*. Does foreign ownership matter? The Russian experience // Economic soft transition, 11(3), 383–409. 2003.

5 *Drapkin I., Lukyanov S*. External Spillover Effects from Foreign Direct Investments in the Russian Economy: The Outputs of the Empirical Analysis // The Voprosy Ekonomiki, (2), 97–113. 2019; *Yudaeva K., Kozlov K., Melentieva N., Ponomareva N*. Does foreign ownership matter? // The Russian experience. Economic soft transition, 11(3), 383–409. 2003.

6 *Drapkin I., Lukyanov S*. External Spillover Effects from Foreign Direct Investments in the Russian Economy: The Outputs of Empirical Analysis // The Voprosy Ekonomiki, (2), 97–113. 2019.

7 *Fedudina A., Simachev Yu., Kuzyk M., Averyanova Yu*. The Sectoral Specifics of Integration of the Russian Economy in Global Value Chains and Effects on the Structural Policy. The Journal of the New Economic Association, 47 (3), 106127. 2020; *Simachev Yu., Fedyunina A., Kuzyk M., Daniltsev A., Glazatova M., Averyanova Yu*. Russia in Global Production // The 21st April International Scientific Conference on Challenges Facing the Economic and Social Development. Moscow: The NRU HSE Publishers. pp. 1–147. 2020.

8 *Demena B*., and *P.A.G. Van Bergeijk*. A meta-analysis of FDI and productivity spillovers in developing countries // Journal of Economic Surveys, 31(2): 2017, 546–571; Smeets R., & de Vaal, A. Intellectual property rights and the productivity effects of MNE affiliates on host-country firms //

specific not only to the sector and host economy as a whole, but arise only in case of certain regulation and "adjustment" of the industrial policy.

The authors of this section do not set the objective of discussing and specifying spillovers from transnational corporations in the Russian economy. The goal of this study is to look at the role of TNC in a new way, assess the views of TNC and the government on regulation and outline the vectors of changes in government regulation of TNC in response to global trends and demands of foreign companies. The novelty of the approach to the analysis of TNC participation in the Russian economy consists in the fact that along with the utilization of the data on FDI inflows we follow the methodology[1] and use the AMNE OECD database on TNC participation in global output and creation of value added in national economies.[2]

6.4.1. The global distribution of FDI and TNC and Russia's position in attraction thereof

In the past two decades, foreign direct investment flows in the global economy were characterized by high-profile periodization and country orientation. So, FDI flows to developed countries were more volatile and depended more on the macroeconomic situation than investment flows to developing countries (*Fig. 1*). It was particularly explicit in 2006–2010 with a slump during the global financial crisis of 2008–2009. A dramatic drop in the FDI flow to developed countries was justified by a sharp decrease in the number of mega-deals on mergers and acquisitions (worth over $1 bn) which used to be actively transacted in the 2000s.

Overall, in transition economies FDI inflows depend the least on the global market situation, but Russia is an exception. In 1995–2002 when the Russian economy experienced a severe transformation shock, the volumes of inflow and outflow of investments were insignificant. Later on, amid high economic growth rates till the crisis of 2008–2009 the volume of investment flows increased a great deal (primarily because of the fuel and energy sector's attractiveness to foreign investors). After the crisis, amid unsustainable and lower GDP growth rates as compared with the pre-crisis period, the volumes of investment flows failed to recover and fluctuated sharply depending on growth rates of the economy as a whole (*Fig. 2*).

International Business Review, 25. 2016, 419–434; *Meyer K.*, & *Sinani E.* When and where does foreign direct investment generate positive spillovers? A meta-analysis. // Journal of International Business Studies, 40, 2009. 1075–1094; Havranek T., & Irsova Z. Estimating vertical spillovers from FDI: Why results vary and what the true effect is // Journal of International Economics, 85(2), 2011.234–244; *Irsova Z.*, & *Havranek T.* Determinants of horizontal spillovers from FDI: Evidence from a large meta-analysis // World Development, 42, 2013. 1–15.

1 OECD. Multinational enterprises in the global economy. Heavily debated but hardly measured. OECD Publishing, Paris. 2018.

2 In accordance with this approach, a transnational enterprise is determined as a company where 50% +1 equity belong to a foreign investor. The data on the activities of transnational corporations are based on economic transactions (sales volumes, added value) and reflect the performance of companies with foreign investments regardless of the fact whether they were financed additionally by a foreign investor at a certain period of time.
Deemed as TNC output in host economies is gross output of companies whose ownership belongs to transnational companies and which are located beyond the borders of the home country where the transnational corporation is based.

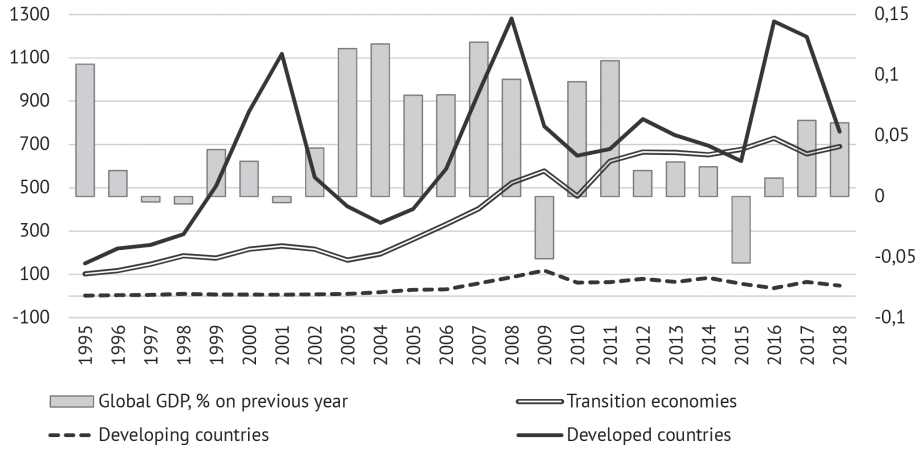


Fig. 1. FDI flow by the type of economies (billion US Dollars) and global GDP dynamic (right-hand axis)

Source: own calculations, UNCTAD data.

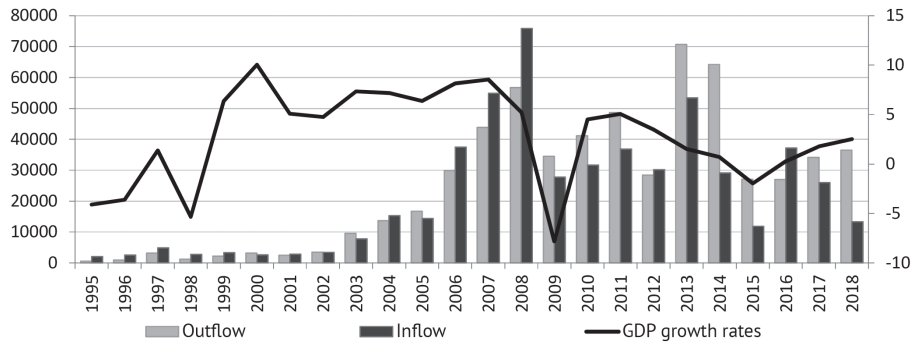


Fig. 2. FDI dynamic (million US Dollars) and GDP in Russia (growth on the previous year, %)

Source: own calculations, the data of UNCTAD and the Rosstat.

For Russia it is typical that the FDI outflow volume prevails over the FDI inflow volume as economic growth rates dynamic gets worse; it became explicitly clear in periods shortly after the global crisis 2008–2009. This points indirectly to the probable orientation of a larger volume of FDI in the Russian Federation to the needs of the domestic market whose potential demand was contracting during economic growth slowdown. At the same time, the upward trend of Russian capital flight abroad consolidated because domestic market investment opportunities were shrinking. The dynamics of FDI inflow and outflow were formed most probably under the impact of investment demand fluctuations and domestic

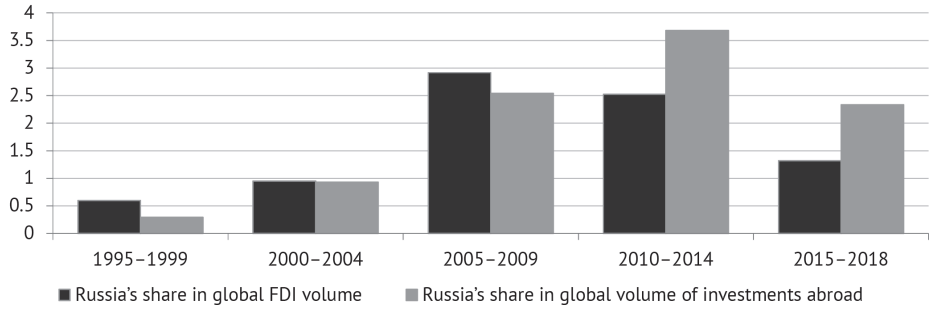


Fig. 3. Russia's share in global FDI, %

Source: own calculations, the data of UNCTAD and the Rosstat.

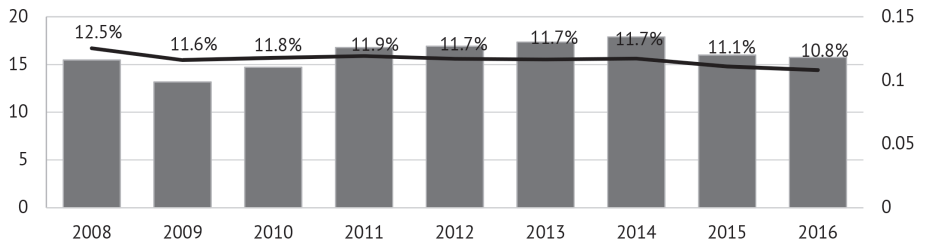


Fig. 4. TNC contribution to host economies' gross output, 2008–2016, trillion US Dollars and % of global output

Source: own calculations, OECDAMNE data.

market opportunities, rather than considerations regarding the development of international production.

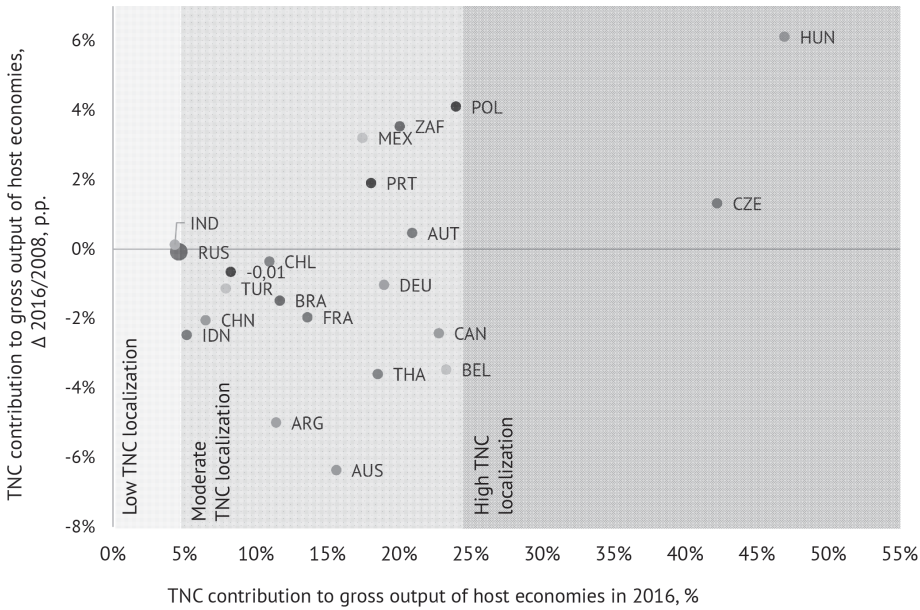
In terms of Russia's participation in the global market of foreign direct investments, it can be stated that the share of Russia as a FDI recipient increased before the crisis of 2008–2009 and surpassed the share of Russia as an investor-country on the FDI market. After the global financial crisis, the situation changed: the FDI inflow to Russia shrank and Russia's share in attraction of FDI decreased considerably, while the investment outflow increased; this is related sooner to capital flight. Importantly, after 2010–2014 the share of Russia as the exporter of capital in terms of FDI was growing in the world amid the reduction both in the FDI inflow and overall volume of investments in capital assets in Russia (*Fig. 3*).

By estimates, in the 1970s there were about 7,000 transnational corporations, while by the year 2000 their number was equal to 38,000 and by the end of the 2000s the number of non-financial transnational corporations amounted to 82,000 with over 200,000 international subsidiaries.[1] Despite exponential growth in the number of transnational corporations, they still make a modest contribution

1 OECD. Multinational enterprises in the global economy. Heavily debated but hardly measured. OECD Publishing, Paris. 2018.

to global output: in 2016 host economies produce only 11% of global gross output (*Fig. 4*). In 2000-2016, growth in TNC gross output had the specifics of its own. In 2000–2008, host economies saw a higher expansion of TNC output as compared with the national one. In that period, TNC gross output increased from $7 trillion to $16 trillion, while the share of TNC in gross output rose from 11% to 14%. The global financial crisis affected considerably the contraction of TNC output in absolute and relative terms and slowed down considerably TNC future growth rates so that the same level of output was achieved only by 2011–2012, while TNC output growth rates amounted to the mere 2% in 2008-2016. For reference, in the same period global output of national companies which were not transnational corporations was growing faster and was equal to 20% in 2008-2016.

The OECD countries are the main host economies for TNC. In 2016, transnational corporations which entered the OECD countries' markets produced about 70% of TNC global output. A slight decrease in contribution of TNC in OECD countries to gross output of these companies from 77% to 70% in 2008-2016 was justified by redistribution of TNC interest to BRIC countries. Early in the 2000s and 2008, the BRIC countries accounted for less than 10% and 11% of TNC output in host economies, respectively, while in 2018, for 6%.



Note. Low localization – up to 5%, moderate localization – from 5% to 25%, high localization – from 25%.

Fig. 5. TNC contribution to gross output of host economies by the country in 2008 and 2016

Source: own calculations, OECDAMNE data.

Amid slowdown of growth rates of TNC output, there are a few countries in the world which can be called attraction points for transnational corporations. For instance, Hungary and the Czech Republic stand out prominently in terms of TNC concentration in the economies. Both the economies are actively integrated in global value chains and are a kind of production bases for EU countries. In term of TNC concentration, Hungary and the Czech Republic are followed closely by Poland, another Post-Soviet economy with mostly similar structural specifics and level of economic, scientific and technological development.

Among other countries which increased TNC contribution to gross output was Mexico, the country which had served for long a number of North American markets; South Africa, the only BRIC country with a positive contribution to TNC output, as well as Portugal and Austria.

Russia and India had a very low TNC concentration (slightly below 5% as per the data of 2016) and demonstrated virtually zero growth in TNC contribution in 2008–2016 (*Fig. 5*).

Without analyzing the dynamic of the past few years which was obviously weak, it can be stated that high TNC localization (a relatively high TNC contribution to gross output) is typical of mid-tech and high-tech industries, that is, manufacturing of computers, electronic and optical goods, motor vehicles, chemicals and chemical products, including pharmaceuticals. Most manufacturing industries and services sector industries can be attributed to the category of moderate TNC localization.

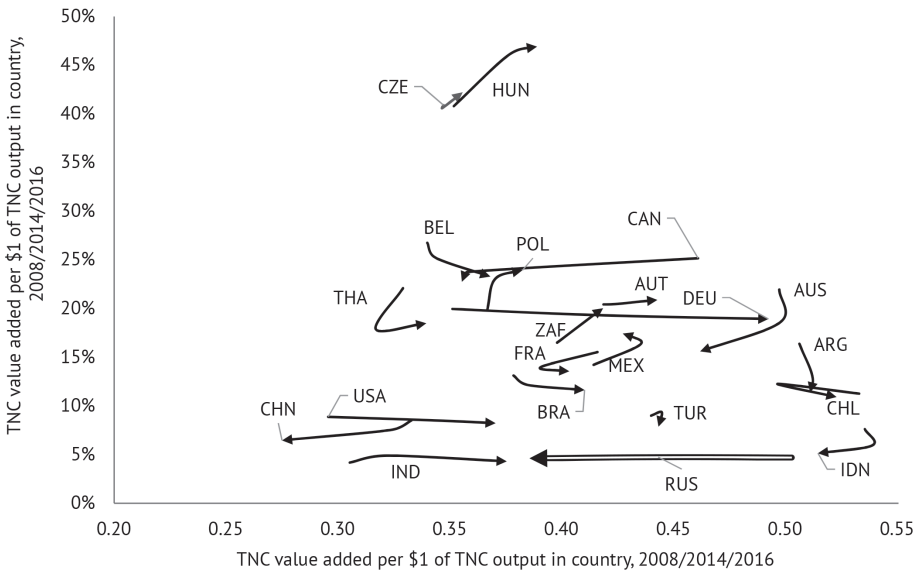


Fig. 6. TNC participation in host economies and TNC unit value added by the country, 2008–2016

Source: own calculations, OECDAMNE data.

Industries with low TNC localization in global production include the agriculture, the textile industry and the building industry. There are only three industries which increased TNC contribution to global output in 2008–2016: the furniture industry, manufacturing of computers, electronic and optical goods and motor vehicles. All these industries have different research-intensity levels, however, the past decade saw a substantial advance in complexity of manufacturing processes and value chain extension. The largest decrease in TNC contribution to gross output took place in the financial and insurance sectors. It is probably related largely to investors' cautiousness and the implications of the global financial and economic crisis.

Even with relatively weak structural changes in output brought about by a change in TNC contribution, TNC activities in the territory of host economies change considerably value-added which situation is typical both of developed and developing economies. A special horizontal shift (a constant level of TNC contribution to gross output and growth in value-added) in 2008–2016 turned out to be specific to Germany, the US and India (*Fig. 6*).

TNC contribution and value-added increased in Hungary, the Czech Republic, Poland, South Africa and Mexico and fell in China, Russia, Canada and Australia; specifically, in Australia the decrease was also driven by a substantial contraction of TNC contribution to the economy, while in Canada, by modification of the structural pattern of TNC presence (a decrease in TNC contribution to manufacturing industries and a two-fold increase in TNC contribution to the agriculture). In China, the observed effect is related to the squeezing out of foreign TNC and the policy of cultivation of own companies with an aggressive internationalization strategy, but this is not typical of Russia. A number of sectors saw growth in TNC contribution to the economy (including the automotive industry, the food industry and the chemical industry), however, no substantial value-added growth was evident in any sector.

6.4.2. The specifics of TNC participation in the Russian economy

In 2008–2016, Russia saw the contraction of gross output of foreign TNC situated in the territory of the country and a simultaneous reduction in output of Russian TNC abroad. On one side, Russia is not an exception. A decrease in output of ingoing and outgoing TNC turned out to be specific to most developed economies of the EU (including France, Belgium, Switzerland, Finland, Italy, Hungary, Austria, the Netherlands and the UK), as well as Canada. On the other side, the Russian economy, the only one among the BRIC countries, saw the contraction of output of its own TNC in the global economy in 2008-2016 (*Fig. 7*).

The contraction of output of Russian TNC abroad is determined by contraction of the amount of business in the real-estate operations sector (a drop of 95% in 2008–2016), manufacturing of computers and electronics (a drop of 93%) and production of charred coal and petrochemicals (37%).

A gross decrease in foreign TNC contribution to output in the Russian economy in 2008-2016 can be explained for two-thirds by the shrinking of TNC amount of business in the services sector, including the financial and insurance sectors

Fig. 7. Change in TNC output volumes by domestic and host economies

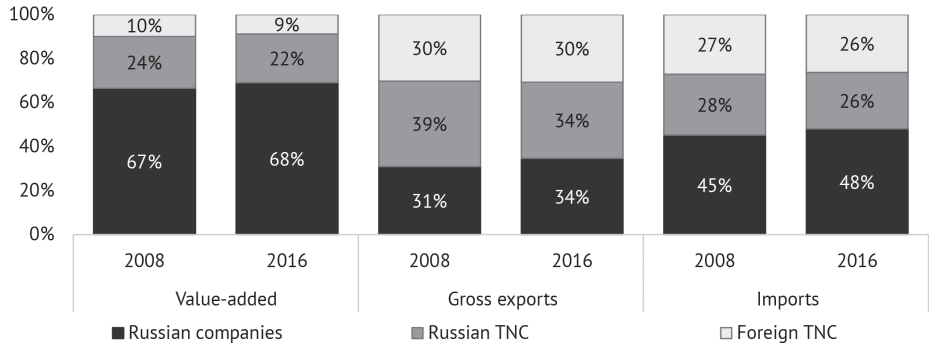
Source: own calculations, OECDAMNE data.

(a 45% drop in TNC amount of business in nominal prices in 2008–2016), retail and wholesale trade (15%) and business services sector (36%). In addition, about 25% of the overall drop can be justified by a decrease in TNC revenues in production of oil and petrochemicals (a 47% decrease in revenues). Most manufacturing industries did not see any growth and actually stagnated, while other sectors were growing, for example, the food industry (revenue growth of 28.7% in 2008–2016) and the automotive industry (29.8%).

At the same time, a decrease in output of TNC situated in Russia was partially related to growth in Russian companies' contribution to the economy in 2008–2016: the share of Russian companies increased as regards value-added (from 67% to 68%), gross exports (from 31% to 34%) and imports of semi-finished products (from 45% to 48%) (*Fig. 8*).

As transnational corporations are normally viewed as the source of technologies, managerial/organizational practices and expertise, the analysis of the sectorial pattern of TNC situated in Russia may supplement the analysis of the pattern of imports of goods in terms of Russian industries' dependence on imports. Also, the sectorial pattern of ingoing TNC, except for sectors depending directly on imports, reflects foreign companies' interest in the Russian economy (*Fig. 9*).

The pattern of TNC gross output in Russia illustrates primarily foreign companies' interest in the Russian fuel and energy sector, however, sanctions



Note. Only imports of semi-finished products are taken into account.

Fig. 8. The pattern of gross value-added, gross exports and imports to Russia by the form of companies' ownership, 2008 and 2016

Source: own calculations, OECDAMNE data.

imposed in 2014 determined the partial exit of foreign companies from the sector; on the back of it TNC share in TNC gross output of the sector fell from 18.1% to 10.4% in 2008–2016.

Comparable shares in the patterns of gross imports of goods and TNC output in Russia can be found in the sectors of Russia's traditional and relative advantage which do not depend a great deal on imports, that is, the metallurgy, including the manufacturing of finished metal products (5.6% in imports and 6.0% in gross output in 2016), the chemical industry, including the manufacturing of rubber and plastic articles (16.5% and 21.3%), as well as the manufacturing of transport vehicles and equipment (12.2% and 18.0%), that is, industries where along with the high level of dependence on imports the domestic production in numerous sub-industries in the period under review was also determined by anchor foreign investors (in the automotive industry: Hyundai, Ford and Toyota, while in the railway machinery: Siemens) (*Fig. 9*).

Let us single out two industries with the largest difference in shares in gross imports and TNC gross output, that is, the food industry and the manufacturing of machinery and equipment. The food industry's share in gross imports was equal to 4.4%, while the industry's TNC contribution to TNC gross output amounted to 18.2% in 2016. This is an example of transnational corporations' orientation on the Russian domestic market and substitution of real imports for foreign companies' production in Russia. In the 2000s, Russia's growing domestic market and the prospect of potential exports to neighboring countries attracted to Russia the world's largest food producers, such as PepsiCo, Nestle, Mars, Coca-Cola, Danone, Unilever and others.

As per the breakdown by country, the US is the largest player on the Russian market (22% of foreign TNC overall output in Russia): US-owned TNC make the largest contribution to output of chemicals and chemical products, pharmaceuticals,

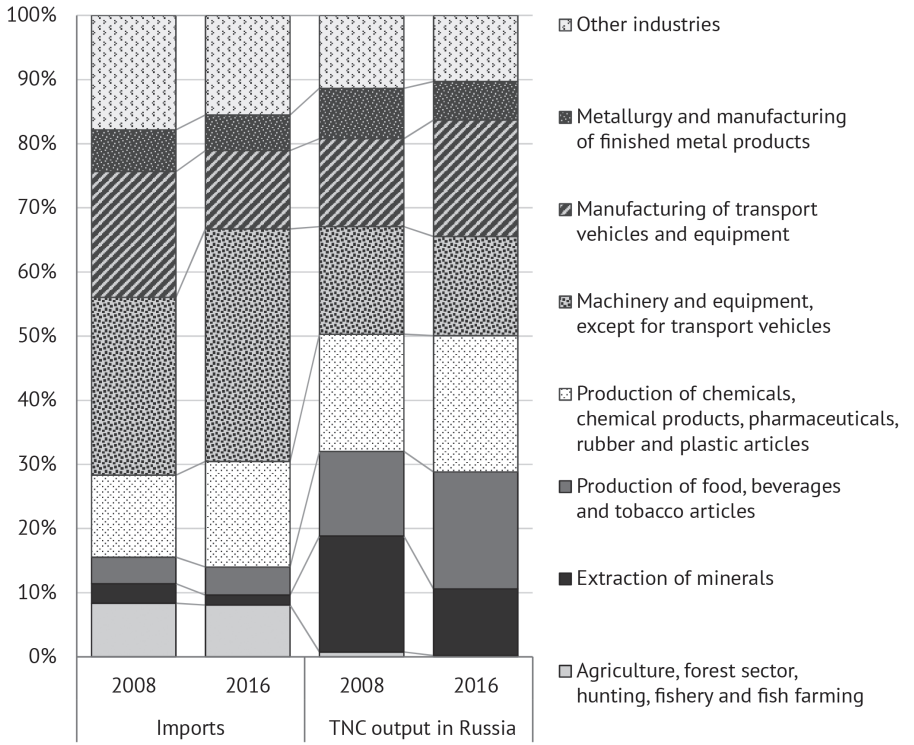


Fig. 9. TNC output sectorial pattern and the pattern of tradable sectors' imports, 2008 and 2016.

Source: own calculations, data of OECDAMNE and COMTRADE.

retail and wholesale trade and extraction of mineral resources. The second largest country in terms of output in Russia is Germany: German companies produce 17% of foreign TNC overall output in Russia. German TNC sectorial patter is as follows: wholesale and retail trade, manufacturing of motor vehicles, trailers, semi-trailers, chemicals, chemical products and pharmaceuticals. The top-3 includes France, as well (11% of foreign TNC overall output in Russia). French TNC operate in Russia in such sectors as retail and wholesale trade, production of chemicals, chemical products and pharmaceuticals and manufacturing of motor vehicles, trailers and semi-trailers. As regards TNC output volumes, China is rated the 6th (4% of foreign TNC overall output in Russia). Chinese corporations in Russia operate mainly in the services sector: professional, scientific and technical activities, as well as transportation and storage.

In the territory of Russia, there are a few foreign manufacturers producing machinery and equipment; their contribution to TNC gross output in Russia is equal to 15.5%, while the share of the industry in gross imports amounts to 36.3%. On one side, this difference can be explained by the fact that machinery

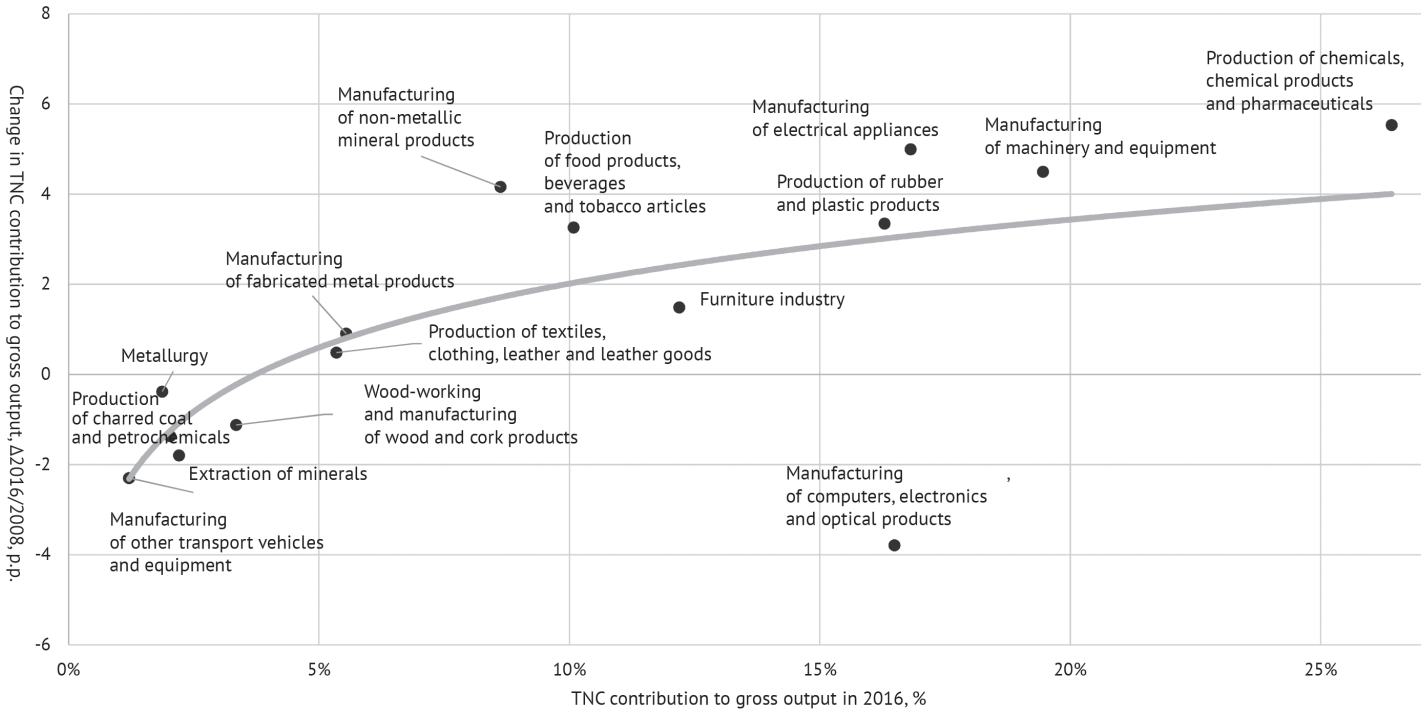


Fig. 10. TNC contribution to industries' gross output in Russia in 2016 (%) and its change relative to 2008 (p.p.)

Source: own calculations, OECDAMNE data.

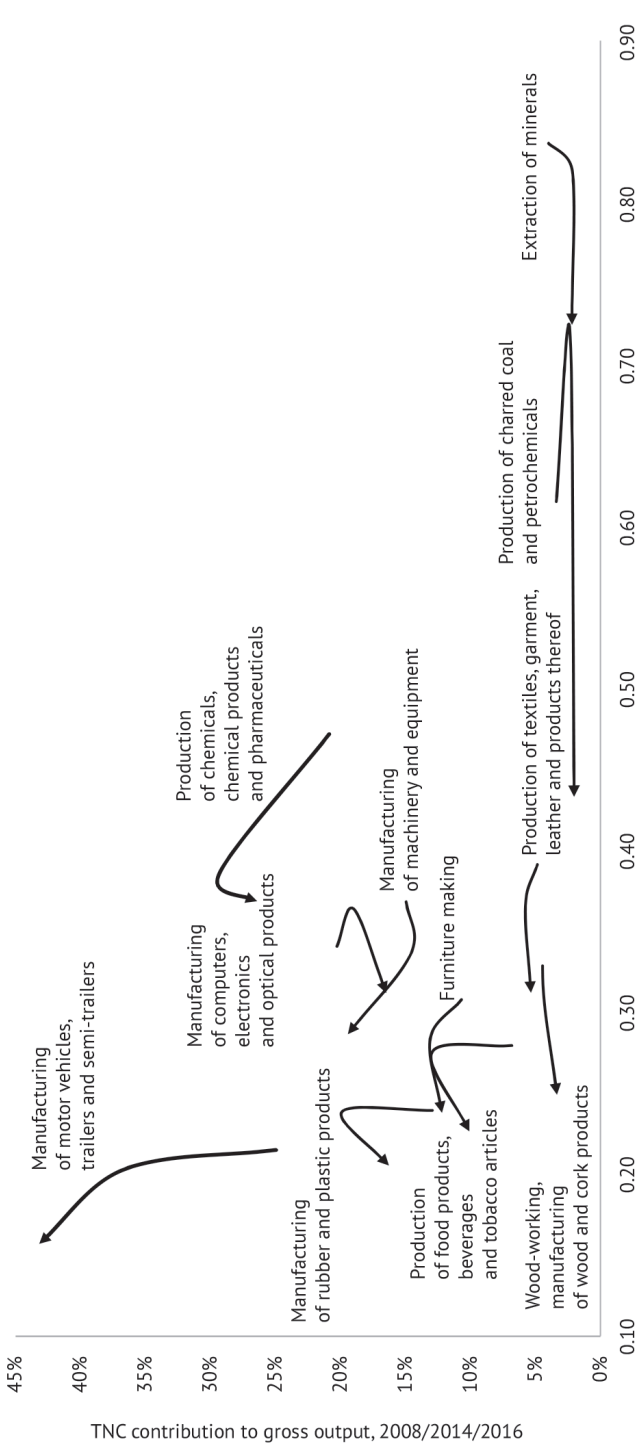


Fig. 11. TNC contribution to gross output and TNC unit value added in the Russian economy, 2008–2016

Source: own calculations, OECDAMNE data.

and equipment manufacturing is normally strongly involved in global value chains, which factor can determine a high share of imports of semi-products and components used in the national economy. On the other side, it is known that a high share of imports of ready for service machinery and equipment is specific to Russia. So, the industry is an example of the situation where the economy is not that competitive for foreign manufacturing location and a substantial share of the industry's products is represented by imported ready for service products.

As was stated above, the overall negative dynamic of TNC output in the manufacturing sector was driven by the exit of TNC from extractive industries and production of charred coal and petrochemicals. At the same time, *TNC contribution to gross output of the sectors with a relative TNC concentration in Russia increased somewhat in 2008–2016*. It concerns primarily the automotive industry, as well as the chemical industry, manufacturing of rubber and plastic products and machinery and equipment, including electrical appliances (*Fig. 10*).

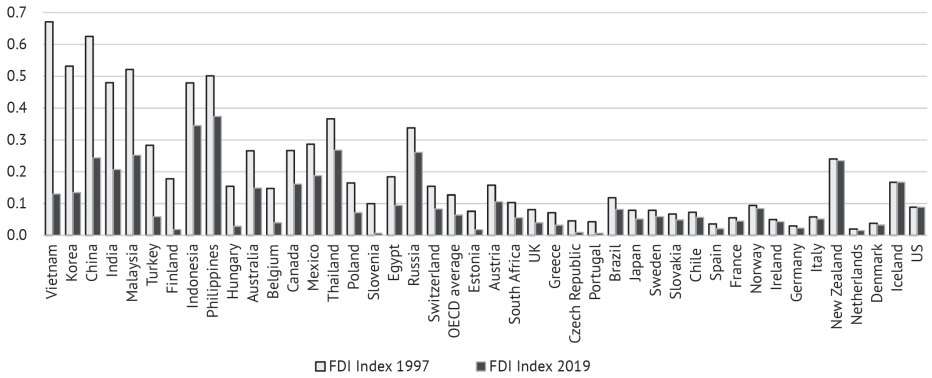
In 2008-2016, a pickup in TNC contribution to most Russian industries was accompanied by contraction of unit value added produced by TNC. An exception is the manufacturing of other transport vehicles and equipment (*Fig. 11*).

At first sight, a decrease in TNC unit value added in the Russian economy can be interpreted as a negative signal. However, in reality it is not true. On the back of building up the localization of manufacturing, transnational corporations increased their contribution to industries' gross output, however, a certain decrease in unit value added is related specifically to localization. To a large extent, this is typical of the automotive industry and the chemical industry.

6.4.3. Regulation of foreign companies in Russia: as seen by the government and business

Based on the results of 2019, Russia is rated the 7th economy in the list of 85 economies in the world as regards restrictiveness of FDI regulation in accordance with the FDI Restrictiveness Index. The more restrictive FDI regulations can be found only in Libya, Algeria, Palestine, the Philippines, Indonesia and Thailand. Though Russia has succeeded in advancing towards easing of foreign investments regulation (in the 1997 rating Russia was rated the 9th with a smaller number of countries reviewed), a number of fast-growing economies was ahead of Russia in terms of the pace of liberalization. So, Vietnam, Korea, China, India and Malaysia used to have tougher FDI restrictions than Russia in 1997, but they caught up with Russia and even surpassed it in terms of liberalization by the end of the 2000s (*Fig. 12*).

The liberalization of regulation of inflowing FDI is directly related to countries' progress in FDI accumulation in the period under review (*Fig. 13*). Korea's breakthrough dates back to early 1990s, so it is less explicit in the reviewed period of 1997–2018. The progress of Malaysia and Vietnam is more evident: Malaysia's FDI regulatory restrictiveness index fell by two-fold. Of all the reviewed economies, Vietnam used to have the highest barriers for FDI in 1997, but moved 24 positions upwards by 2018. No progress in upgrading of the FDI regulation in



Note. 0 – no restrictions, 1 – maximum restrictions. The countries are ranked in accordance with the progress in liberalization in 1997–2019. The index takes into account 4 types of FDI restrictions: restrictions on the share of ownership, screening, restrictions in respect of the key personnel (CEO), other restrictions (repatriation of capital, land tenure and other). Based on assessment, each restriction is assigned the weight; the overall country index is the weighted average of sectors' indices.

Fig. 12. The FDI regulatory restrictiveness index by the country, 1997 and 2019

Source: own analysis, the data of the OECD FDI Regulatory Restrictiveness Index.

Russia from 2010 till 2017 can probably be regard as an important factor which determined the lack of positive shifts in FDI accumulation in the 2010s.[1]

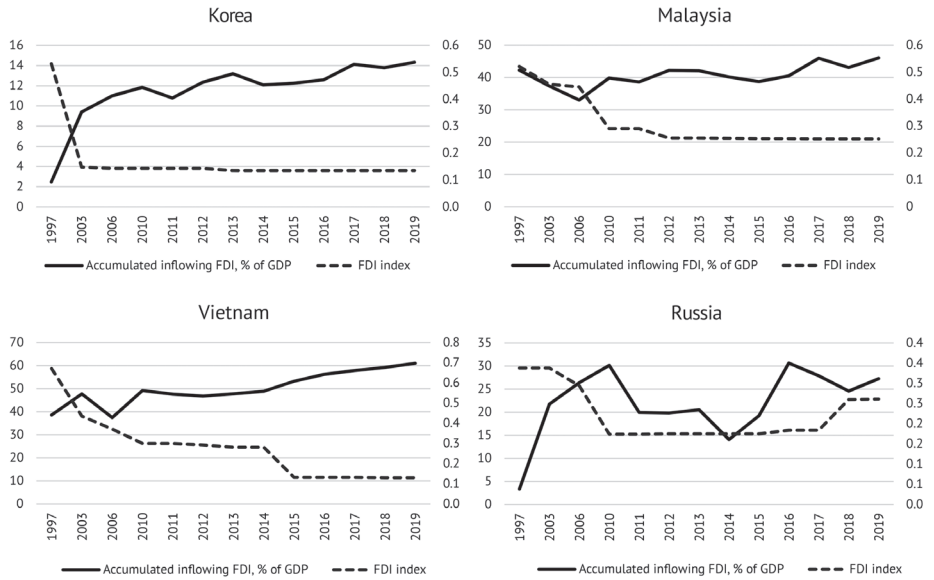
As stated in a number of studies, though institutional factors are generally crucial to countries' attractiveness in terms of FDI, some institutional factors are more important than others.[2] It is common practice to discuss the importance of such institutions as a level of tax burden, corrupt practices and uncertainty related to red-tape and political instability.[3] However, it seems that under conditions in which Russia found itself in the 2010s (low economic growth rates, lack of progress in liberalization of the FDI regulation and complication of foreign policy relations with the West since 2014) the factor related to the nature of relations between the government and the business became increasingly important.[4] If in the 1990s, there were two diametrically-opposed types of cooperation between

1 It is difficult to say whether it is the key factor determining the lack of FDI accumulation in Russia after 2010. It seems that an equally important factor is a sudden decrease in Russian economic growth rates as compared with the 2000s, as well as chilling relations between Russia and western countries since 2014 and the introduction of sanctions and countersanctions.

2 *Daude C., & Stein E*. The quality of institutions and foreign direct investment // Economics & Politics, 19(3), 2007. P. 317–344.

3 *Mauro P*. Corruption and growth // Quarterly Journal of Economics 110, 681–712. 1995; Wei S. Why is corruption so much more taxing than tax? // Arbitrarinesskills. NBER Working Paper 6255. 1997; Wei S.J. How taxing is corruption on international investors? // Review of economics and statistics, 82(1), 1–11. 2000.

4 This is in line in particular with the outputs of the "Determinants of FDI in transition economies: The case of CIS countries" study by Shukurov S. (Journal of International and Global Economic Studies, 9(1), 75–94. 2016), where it is underlined that the size of the market and access to mineral resources were the key determinants of the FDI influx to CIS countries in 1995–2010, while the negative macroenvironment (the rate of inflation and high tax burden) reduced their investment attractiveness.



Note. The index takes into account 4 types of FDI restrictions: restrictions on the share of ownership, screening, restrictions in respect of the key personnel (CEO), other restrictions (repatriation of capital, land tenure and other). Based on assessment, each restriction is assigned the weight; the overall country index is the weighted average of sectors' indices.

Fig. 13. The accumulated volume of inflowing FDI, % of GDP (left-hand axis) and the FDI Regulatory Restrictiveness Index (right-hand axis) in picked up countries, 1997–2019

Source: own analysis, data of the OECD FDI Regulatory Restrictiveness Index.

the government and business: that is, distancing from the state, on one side, and, on the contrary, close cooperation with the state, on the other side, in the 2000s these relations promoted to a new level where they became more open and the role of business amalgamations as mediators of the relations between the business and the government increased.

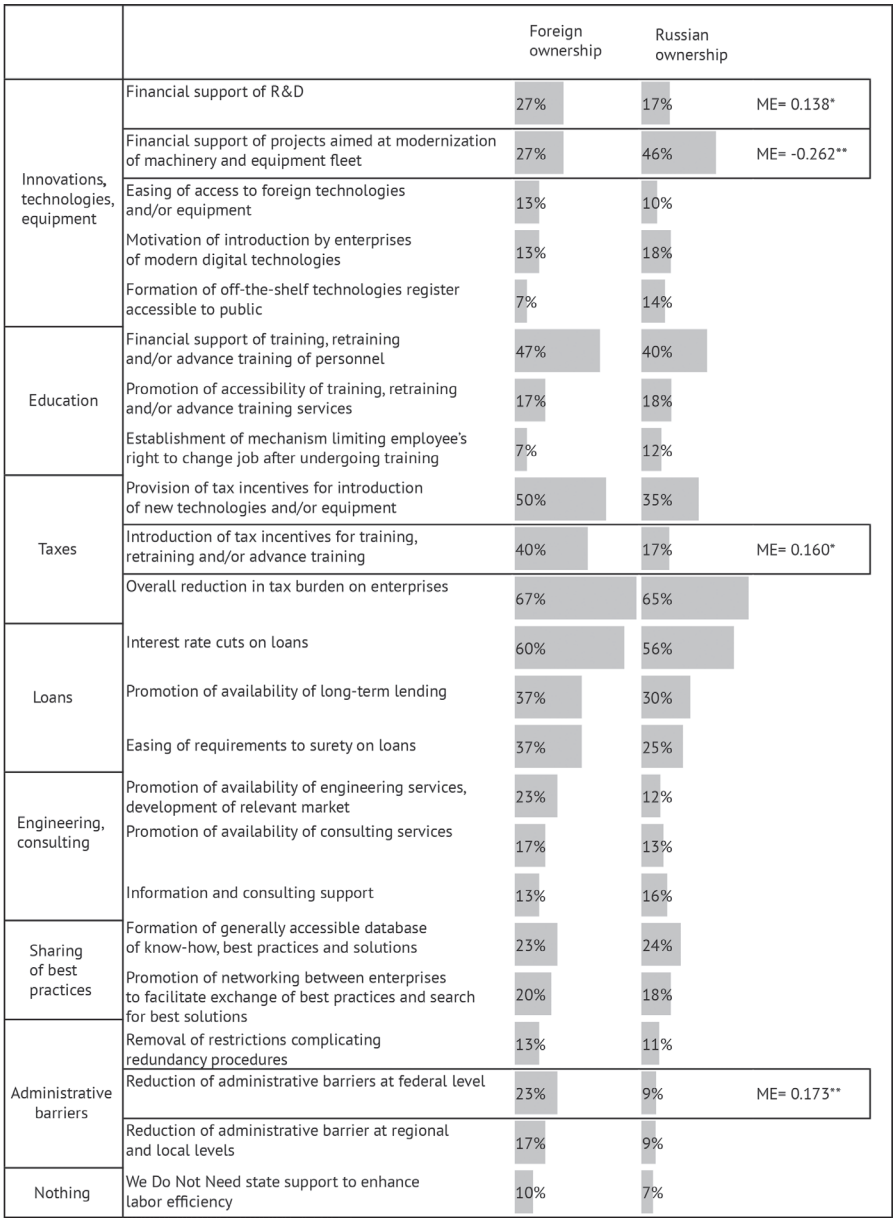
At first sight, the nature of cooperation of foreign and Russian companies with the government at the federal, regional and local levels does not differ considerably (*Fig. 14*). According to the outputs of the "Factors and Obstacles Preventing Growth in Labor Efficiency at Russian Enterprises of the Main Non-Oil and Gas Industries" study prepared by the NRU HSE in 2019, in manufacturing industries both Russian and foreign companies referred most frequently in their answers to the model where government officials regarded business as a source of budget revenues and had less interest in other issues. The other most frequently referred to model in answers of Russian and foreign companies was the one where the government did not actually interfere in business development having limited its activities to formal control over compliance of the business with the laws.

	At federal level of authority		At regional and local levels of authority	
	Foreign ownership	Russian ownership	Foreign ownership	Russian ownership
Government regards business as equal partner, attraction of investments and upgrading of business climate are priorities for government authorities	3%	8%	10%	13%
Government does not obstruct business development, but regards it as junior partner and seeks to control strategic decisions	17%	9%	13%	9%
Government focuses on ensuring social responsibility of business, but does not interfere in other issues	17%	12%	17%	14%
Government seeks to engage enterprises in various innovation and/or modernization projects and programs	3%	9%	10%	10%
Government officials look primarily after political loyalty of business	0%	5%	3%	4%
Government is not actually involved in development of business and limits its activities to formal control over compliance with laws	27%	25%	17%	25%
Government officials regard business as source of budget revenues and take little interest in other issues	63%	38%	57%	42%
Individual government officials try to use business in their own interests	7%	5%	7%	7%

Note. The sample includes the manufacturing sector's enterprises, N=342.

Fig. 14. Distribution of the manufacturing sector's companies with foreign and Russian ownership by the type of relations with the government at the federal, regional and local levels of authority

Source: own calculations, data of the "Factors and Obstacles Preventing Growth in Labor Efficiency at Russian Enterprises in Main Non-Oil and Gas Industries" NRU HSE project, 2019.



Note. ME is the marginal effect based on probit regression results; the sample includes manufacturing industry enterprises, N=342.

Fig. 15. Requests by companies with foreign and Russian ownership for government support

Source: own calculations, data of the "Factors and Obstacles Preventing Growth in Labor Efficiency at Russian Enterprises in Main Non-Oil and Gas Industries" NRU HSE project, 2019.

However, the outputs of econometric modeling[1] show that the only statistically significant difference in the shares of Russian and foreign companies which entered in relations with the government is true for the model where the government regards business only as a source of budget revenues: this model is referred to 20.5% more often by foreign companies than Russian ones.

It appears that the outputs suggesting the government's "indifference" to foreign investments and perception thereof as a source of tax revenues make it feasible to determine on the top of that the inertia of foreign companies' activities in Russia in the 2010s. As per the previous outputs, a predictable FDI policy was the main attractive institutional factor out of all institutions, while the government's perception of foreign business as a "milk cow" did not contribute to the formation of a favorable FDI environment.

There are much more differences between foreign and Russian companies in Russia's manufacturing industries as regards their request for government functions (*Fig. 15*).

The outputs of econometric modeling[2] show that all other things being equal companies with FDI make 26.2% less requests for financing modernization of the machinery and equipment fleet as compared with Russian companies, but make more requests for R&D support (13.8% more), tax incentives for advance training of personnel (16%) and reduction of administrative barriers at the federal level (17.3%). Such outputs underline time and again a higher orientation of companies with foreign capital on innovations and their greater request for human resources as compared with Russian companies.

6.4.4. Expected trajectories of changes in government regulation of foreign direct investments in Russia

It seems that if the country has a receptive and growing market and/or mineral resources (as it was in Russia in the 2000s), foreign investors will come themselves and care less than in any other case about whether the FDI regulation is going to be eased. However, if attractive market factors lose their appeal (as it was in Russia in the 2010s) and no easing of the FDI regulation takes place, foreign investors will be less interested to come to the country. The role of chemistry between the business and the government, as well as privileges and incentives which the government can offer foreign investors is on the rise. It makes sense with taking into account negative effects on investment attractiveness of the Russian economy after the "Ukrainian crisis" and subsequent spate of sanctions and countersanctions which affected investment attractiveness not only of individual sectors against which the sanctions were introduced, but also the Russian economy as a whole.

1 Probit regression-based evaluation where a dependent variable is the relationship model, explaining variables are the form of business ownership, categorial variables are the age and size of business and dummy variables indicate companies' sectorial and regional affiliation.

2 Probit regression-based evaluation where a dependent variable is a company's request for government functions, explaining variables are the form of business ownership, categorial variables are the age and size of business and dummy variables indicate companies' sectorial and regional affiliation.

As seen from the experience of attracting FDI and TNC to Russia in the 2000s, they both can become the source of new technologies, competences and best practices for host economies. In the past 20 years, the examples of transformation of Russian industries, such as the woodworking industry, the food industry and the chemical industry are evidence of positive effects of foreign investments[1]; specifically, the government adopted a technocratic approach and supported largely business initiatives.[2]

However, all examples of the 2000s were related to technological catch-up. Foreign investments are an important channel for receiving modern technologies, but as applied to industries close to technological frontiers, foreign investments are characterized by a more limited potential. However, the potential of foreign capital's positive effect on the Russian economy is far from being exhausted. In particular, it corresponds to the specifics of request of companies with foreign capital for government support. At present, the interests of TNC in the Russian economy do not fit their model of networking with the government. TNC are interested in building up intangible assets, that is, investments in R&D and training of the personnel.

The state motivation of international companies to come to Russia should be aimed primarily at the world's technological leaders and this goal can be achieved to a great extent through the development of technological regulation. For expansion of positive spillover effects from TNC activities in the Russian economy, it is also important to form the regulation in such a way that it will reduce the risks of TNC opportunistic (rent-seeking) behavior by means of the system of formal and informal institutions.

As businesses' investment activities are still rather low in Russia, there is evident stagnation in the innovation sector; efforts to make up for a lack of FDI by means of Russian investments and create own chains without reference to science and technology progress cannot reproduce completely advantages from the presence of foreign investors, that is, access to advanced technologies, more flexible terms of integration into global value chains and training opportunities. So, it is important to take further measures and use new forms for attracting foreign investors, both to emerging high-potential sectors of the Russian economy and technologically backward industries oriented not only on the domestic market, but also exports. For this reason, the Russian policy of attracting FDI and regulating TNC activities should ensure a switchover:

- from individual policies of motivation of foreign and Russian investments to a single nondiscriminatory policy which does not suggest any choice between Russian and foreign companies;

1 A positive spillover effect from foreign investments became visible in higher value-added, new product line output, introduction of modern technologies and expansion of exports geography.

2 *Simachev Yu., Fedyunina A., Kuzyk M., Daniltsev A., Glazatova M., Averyanova Yu.* Russia in Global Production // The 21st April International Scientific Conference on Challenges Facing the Economic and Social Development. Moscow: The NRU HSE Publishers, 2020. pp. 1–147; *Fedyunina A., Simachev Yu., Kuzyk M., Averyanova Yu.* The Sectorial Specifics of the Integration of the Russian Economy in Global Value Chains and Effects of the Structural Policy, 2020, 47 (3). pp. 106–127.

- from the policy of regulation of individual fields of TNC activities in Russia to formation of strategically important sectors with special conditions for foreign investors (retail frontage, expansion of regional integration, digitalization of production, cultivation of digital skills, R&D) and motivation of strategically-oriented foreign investments (against FDI oriented at market growth and mineral resources) amid growing competition between countries for FDI;
- from support of TNC large priority projects in manufacturing industries to support of mid-sized projects of multi-site operations, including liberalization of FDI entry into dynamically growing industries and short-term cycle sectors;
- from the policy of attracting TNC capital assets to that of attracting intangible assets, that is, platforms, R&D and the services sector supporting TNC activities.

6.5. The reform of control and oversight activities in 2020[1]

Until recently, in various types of control and oversight activities there were systemic problems related to the conflict between mandatory requirements (primarily between different types of control and oversight activities) entailing an additional burden on entities and supervised facilities in view of the need to carry out scheduled audits while there was no evidence of the risk of violation and/or high damage and also because of a lack of transparency of audit due to ambiguity of interpretation of the substance of mandatory requirements or subjectivity of the audit thereof. As a result, auditees and supervised facilities incurred substantial financial and time costs related to such audits and preparation for them. Started in 2019, the reform of control and oversight activities is meant to solve these issues within the framework of the Plan of Actions ("Road Map") on Implementation of the Mechanism of "Regulatory Guillotine" (approved by Resolution No.4714p-P36 of May 29, 2019 of the Government of the Russian Federation, hereinafter the "Road Map" on implementation of the "regulatory guillotine" mechanism).

The year 2020 was symbolic in terms of the reform of control and oversight activities and implementation of the "regulatory guillotine" mechanism: on July 31, 2020 the President of the Russian Federation signed two key laws:

- Federal Law No.247-FZ of July 31, 2020 "On Mandatory Requirements in the Russian Federation" (hereinafter – the Law on Mandatory Requirements). This law came into effect on November 1, 2020, except for individual provisions which become effective from February 1, 2021 and March 1, 2021;
- Federal Law No.248-FZ of July 31, 2020 "On State Control (Oversight) and Municipal Control in the Russian Federation" (hereinafter – the Law on

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State Control (Oversight)). This law will become effective from July 1, 2021, while its individual provisions, from January 1, 2022 and January 1, 2023.

These laws regulate the oversight activity's both aspects: substantive (mandatory requirements) and procedural (procedures, types and forms of control (oversight)).

The above specified laws define the overall legal foundations of the upgraded model of oversight activities based on the risk-oriented approach. The existence of risk of damage to law-protected values is a prerequisite for the establishment of mandatory requirements. Specifically, such requirements should be aimed at minimizing and eliminating risks. To manage risks, the supervising authority attributes monitored entities to one of the risk categories (the law envisages six risk categories, while the supervising authority has the right within its competence to choose at least three risk categories): extremely high, high, substantial, moderate, minor and low. The attribution of a monitored entity to the specific risk category determines the type and rate of frequency of scheduled control (oversight) audits in respect of that entity. The indicators of the risk of violation of mandatory requirements give rise to random control (oversight) audits and determine the type thereof.

The Law on Mandatory Requirements establishes for all state authorities the unified rules and procedure for introducing mandatory requirements, the effective period of mandatory requirements, the order of auditee's actions if conflicting mandatory requirements have been found out, mandatory assessment of the regulatory and actual impacts, obligation of supervising (oversight) authorities to provide official explanations in respect of introduced mandatory requirements.

Mandatory requirements to be introduced must be in harmony with the principles of legality, justifiability, legal certainty and consistency, transparency and predictability, as well as enforceability.

In developing the legislative act which introduces mandatory requirements, the supervising (oversight) authority has to assess the regulatory impact. After such a legislative act has become effective, the supervising (oversight) authority assesses the actual impact to analyze whether the introduced established mandatory requirements were justified, define and estimate the actual consequences of establishment thereof and identify unreasonable conditions, limitations, bans and liabilities.

Also, the new legislation provides for the mechanism of practical removal of conflicting mandatory requirements. In case of such conflicts, the supervised entity has to comply either with the mandatory requirement of the legislative act of a higher legal force or one of the conflicting mandatory requirements if such mandatory requirements are provided for in acts of equal legal force.

For classifying mandatory requirements and informing interested persons, the mandatory requirements register is established; it includes the list of mandatory requirements, information on legislative acts which introduced them and the period of their validity.

The law has established the unified date on which mandatory requirements come into effect: from March 1 or September 1 of the relevant year, but not

earlier than 90 days after the official publication of the relevant legislative act. In introducing mandatory requirements, the Government of the Russian Federation, federal executive authorities and other authorized agencies have to envisage mandatory requirements' effective period which cannot exceed six years. Based on the results of assessment of mandatory requirements in practice, a decision can be taken to extend the effective period thereof, but no more than for six years.

The Law on Mandatory Requirements provides for the obligation of the Government of the Russian Federation to cancel until January 1, 2021 the RF Government's and federal executive authorities' laws and regulations, as well as RSFSR and USSR executive and regulatory authorities' statutory acts that include mandatory requirements the compliance with which is assessed in carrying out of state control (oversight) audits.

So, in 2020 the Government of the Russian Federation passed a number of resolutions[1] which canceled and recognized null and void over 6,000 statutory acts and individual provisions approved by the USSR, RSFSR and RF state authorities in respect of mandatory requirements. A portion of those statutory acts has become void right after the official publication of the RF Government's resolutions, while the other one becomes ineffective from January 1, 2021 or July 2021.

It is particularly emphasized in the Law on Mandatory Requirements that regardless of whether the abovementioned statutory acts were recognized null and void, from January 1, 2021 in carrying out state control (oversight) the assessment of compliance with mandatory requirements provided for in the specified statutory acts, if they came into effect before January 1, 2020, is inadmissible equally as the imposition of administrative sanctions for violation of mandatory requirements.

The assessment of compliance with mandatory requirements is to be carried out in conformity with the Law on State Control (Oversight). This law secures such principles of state control (oversight) as validity and justification, motivation of scrupulous compliance with mandatory requirements, proportionality of interference in auditees' activities, protection of rights and legitimate interests, respect to human dignity and auditees' business repute, prohibition of abuse of law, maintenance of law-protected confidentiality, transparency and availability of information on the entity and state control (oversight), as well as efficiency in carrying out state control (oversight).

The law on state control (oversight) includes a number of novelties: the inspector's legal status, preventive measures mechanism, independent appraisal of compliance with mandatory requirements, new types of control (oversight), online networking with supervising authorities and mandatory pre-action procedure for filing an appeal against supervising (oversight) authorities' decisions.

1 See, in particular, RF Government Resolution No.7 of January 13, 2020, Resolution No.80 of February 3, 2020, Resolution No.296 of March 18, 2020, Resolution No.841 of June 09, 2020, Resolution No.851 of June 11, 2020, Resolution No.857 of June 13, 2020, Resolution No.897 of June 20, 2020, Resolution No.1136 of July 29, 2020, Resolution No.1168 of August 3, 2020, Resolution No. 1169 of August 04, 2020, Resolution No.1181 of August 04, 2020, Resolution No.1290 of August 26, 2020 № 1290 and Resolution No.1496 of September 18, 2020.

The law introduces the notion of the "inspector" which is deemed to be the supervising (control) authority's official carrying out state or municipal control (oversight) functions. Also, the law sets overall eligibility requirements for substitution of the post of inspector, as well as the scope of the inspector's rights and obligations.

The preventive measures mechanism is introduced to mitigate risks of damage to law-protected values and has priority over conventional audits carried out by supervising (control) authorities. Preventive measures are carried out in compliance with risk mitigation programs which are to be approved annually by supervising (oversight) authorities. Preventive measures include: provision of information, aggregation of compliance practice, measures of motivation of scrupulous compliance, issuing of warnings, advising, self-examination and a preventive visit. As a general rule, preventive measures are carried out without networking with auditees, but if such networking is required, it is conducted only by auditees' consent or initiative.

Independent appraisal of compliance by auditees with mandatory requirements is carried out by agencies which are independent from the supervising (oversight) authority and the auditee and accredited in the national accreditation system as an inspection agency. Such independent inspection agencies issue to auditees a certificate on compliance with mandatory requirements with the list of appraised mandatory requirements specified. Laws on the type of control may establish the maximum validity period of compliance certificates issued by independent inspection agencies; within this validity period scheduled supervising (oversight) audits are not carried out.

The law on state control (oversight) has systemized supervising (oversight) activities which are carried out by inspectors. The list of supervising (oversight) activities has been supplemented by new types of activities, such as monitoring of procurement, random checks, inspection-purpose visits and on-site inspection.

Auditees will be able to network online with supervising (oversight) authorities by means of the latter's information systems, as well as the pre-action appeal information system. For the purpose of state control (oversight) information provision, the law provides for the establishment of the unified register of the types of supervision, the unified register of supervising (oversight) activities and the register of certificates of compliance with mandatory requirements. At the same time, it is inadmissible to carry out supervising (oversight) activities in case of a lack of information on them in the register of supervising (oversight) activities.

The auditees who believe that their rights and legitimate interests were directly infringed upon within the framework of state control (oversight) may appeal against decisions of supervising (oversight) authorities, as well as officials' action (inaction). The law has introduced a mandatory pre-trial grievance procedure which is carried out by way of sending complaints in an electronic format to the single website or regional websites of state and municipal services.

The principal novelty of the Law on State Control (Oversight) is the introduction of the risk-oriented approach: audits should be carried out pro rata the likelihood of and (or) damage from unfavorable developments related to a failure to comply

with one or more mandatory requirements. A switchover to risk-oriented regulation will facilitate a reduction in the burden on supervising and oversight primarily owing to the departure from the practice of audits in respect of entities which are highly unlikely to commit violation. The evidence from practice suggests that in individual types of supervising and oversight, for example, customs and tax control, the shift to risk-oriented regulation has facilitated a reduction of on average 15%-20% in the burden on auditees.[1]

The scope of work on abolishment and approval of the new legislation which defines the list of mandatory requirements and formulates the new pattern of regulation for each social relation domain or type of control (oversight) was carried out by 43 working groups. In accordance with new principles approved by the legislation, the new system of legislation is to become effective from January 1, 2021; specifically, as per Clause 3-5 of the "Road Map" on implementation of the mechanism of "regulatory guillotine" 477 laws and regulations on new mandatory requirements should have been approved by now, however only 247 were actually passed and 3013 legislative acts should have been cancelled (all have been cancelled by now, indeed).

Apart from substantial amendments introduced into the federal legislation, in 2020 the moratorium was introduced on audits of legal entities and private entrepreneurs within the framework of activities to prevent the spread of the coronavirus infection.[2] By Resolution No.438 of April 3, 2020 (revised on September 14, 2020) "On the Specifics of Carrying Out State Control (Oversight) and Municipal Control in 2020 and Amendment of Clause 7 of the Rules of Preparation by State Supervising (Oversight) Authorities and Municipal Supervising Authorities of Annual Plans of Scheduled Audits of Legal Entities and Private Entrepreneurs", monitored entities were divided into two groups: the first group included legal entities entered in the register of SME whose average staff number did not exceed 200 persons in 2019, while the other group included other legal entities and private entrepreneurs.

The RF Government passed a decision on random audits of entities from the established list and individual scheduled audits of legal entities from the first group and scheduled audits of monitored entities from the second group to be carried out if their activities and (or) production facilities are attributed to the

1 In accordance with the final evaluation reports on the outcomes and main guidelines for the RF Federal Customs Service's activities in 2018-2019, the overall number of customs audits decreased by 16%–43%; it is noteworthy that owing to automation the time of audit decreased by 3%-10% (also, the share of such audits was growing by 57% and 76% in case of imports and exports, respectively).
Based on the data of the final evaluation reports on the outcomes of the RF Federal Customs Service's activities in 2017-2019, tax control saw a reduction of 30%-34% and 4%-30% in the number of on-site tax audits and foreign-exchange control audits. Specifically, such a reduction was accompanied by simultaneous growth of 40%-70% both in tax revenue volumes and efficiency of audits identifying violations (a pickup in tax revenue volume was facilitated by identification of violations).

2 Within the framework of state control (oversight) and municipal control envisaged by Federal Law No.294-FZ of December 26, 2008 (revised on July 13, 2020) "On protection of the Rights of Legal Entities and Private Entrepreneurs in Carrying Out State Control (Oversight) and municipal Control."

category of high and extremely high risk. In carrying out state control of the quality and safety of medical activities, there are no scheduled audits. The moratorium is not applicable to audits which are held on the grounds of harm caused or the risk of harm to individuals' life and health and occurrence of man-made emergencies and natural disasters, as well as audits which are allowed by the Government of the Russian Federation. It is noteworthy that audits were to be carried out in 2020 with use of online networking, including audio- or videoconferencing. According to the findings of the analysis of monitoring and oversight activity dynamics in 2020, the overall number of audits decreased by 77.4% as compared with the year 2019, that is, from 1,347,677 in 2019 to 304,366 in 2020. There was a decrease in the number of audits carried out by supervising authorities, such as the Rospotrebnadzor (71.6%), the RF Federal Tax service (54.4%) and the RF Ministry of Internal Affairs (78.8%).

In November 2020, the RF Government's moratorium on audits of SME was extended till the end of 2021.[1] In addition, in 2021 it is planned to limit the period of scheduled audits of SME to 10 business days, while scheduled audits can be replaced by inspection visits.

Overall, it can be noted that in 2020 the new framework of supervising and oversight activities was formulated, particularly, such notions as mandatory requirements, state control (oversight), as well as the main principles of formation of the lists of mandatory requirements and carrying out of audits; also, utilization of the risk-oriented approach in supervising and oversight activities was legislatively established. The new upgraded model of supervising and oversight activities in the Russian Federation is meant to be consistent with to the modern level of development of science and technology in various areas of activities, the national economy and physical infrastructure. This model of supervising and oversight activities is aimed at relieving business entities' burden to comply with excessive and unreasonable mandatory requirements, motivate business entities to comply scrupulously and voluntarily with mandatory requirements and minimize potential benefits from violation thereof.

Despite a breakthrough in modifying the approach to audits, some issues still remain unsolved:

1) the need of systemizing and assessing the substance of a large number of mandatory requirements. Despite the substantial work done to reduce the number of outdated mandatory requirements, there is still the need of drawing line between oversight's different types of competences, removing the conflict between different requirements and making it illegal for experts to verify compliance with the requirements beyond their competence. This issue can be solved through introduction of big data analytics and artificial intelligence technologies for formation and analysis of the unified register of mandatory requirements;

1 For more details, see Resolution No.1969 of November 30, 2020 of the Government of the Russian Federation "On the Specifics of Formation of Annual Plans of Carrying Out Scheduled Audits of Legal Entities and Private Entrepreneurs in 2021 and Audits in 2021 and Amendment of Clause 7 of the Rules of Development by State Control (Oversight) Authorities and Municipal Control Authorities of Annual Plans of Scheduled Audits of Legal Entities and Private Entrepreneurs."

2) duplication of audits of documents within the framework of different types of oversight. This issued can be solved through combination of individual types of audits in due course, as well as organization of inter-agency exchange of monitored entities' documents;

3) subjectivity of audit of individual mandatory requirements because of non-transparency of their substance and subjectivity of assessment; a broad scope of functions of experts and expert organizations. This issue can be solved by means of amendment of the approach to audits, particularly, through automation of a portion of audit procedures and development of guidelines for complying with mandatory requirements which experts believe are more often infringed upon;

4) carrying out of audits irrespective of the likelihood of violation, the scope of potential damage (losses) and lack of the risk category with auditees. This issue can be solved by switching over to the risk-oriented regulation based on the risk management system incorporating quantitative analysis and monitoring of supervised entities' data that indicate the level of risk;

5) failure to utilize the available data on the findings of previous audits. This issue can be solved by implementation of the abovementioned proposals on formation and utilization of the unified register of mandatory requirements, development and utilization of risk management systems and introduction of recommendation systems based on the modelling of the risk of violation to pick up monitored entities for audits.

Further changes in the supervising and oversight system should suggest practical implementation of the specified principles, particularly, the development and introduction of new audit rules with taking into account the presumption used in audit, risk indicators and criteria pointing to the need of audit.

6.6. Trends in regulating online platforms worldwide: international experience[1]

Online platforms play a key role in digital economy. They make a significant contribution to increasing productivity and development of innovations, facilitate the easing of foreign economic activity, create environment for social development by supporting new forms of employment, involving small and medium-sized enterprises (SMEs) in the economy. The OECD member countries, as well as the Organization's partner countries (primarily China), strive to create conditions for the development of online platforms and ensure their competitiveness in global markets. Currently, the EU has adopted the most detailed regulation aimed, on the one hand, at creating conditions for developing digital platforms, and on the other, at protecting local consumers of goods and services provided by global digital platforms against misconduct. In order to improve the tools for protecting

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Russian users of the services provided by global online platforms, it is advisable to carefully analyze the EU experience in protecting the interests of consumers of digital platforms.

Digital platforms have significantly developed in different sectors in the EU countries. They cover a wide range of activities, i.e. online advertising platforms, marketplaces (e-commerce platforms for trading goods), search engines, social networks, app distribution platforms, sharing platforms (sharing economy platforms), including provision of professional and non-professional services through platforms (for example, taxi services, rental housing, freelance services, etc.). Digital platforms can contribute to developing new markets and digitalizing traditional ones, creating network effects, i.e. situations where various parties of the platform market are interdependent in so far as their decisions affect each other, even indirectly (for example, the number of vendors and goods affects the buyers' selection of the platform, as well as the number of buyers). There are direct network effects, for example, when an increase in the number of content providers makes the platform more valuable to content consumers, or indirect, when the platform provides better conditions for users, thereby making it more attractive to product or service providers and advertisers.

Digital platforms stimulate new forms of business, digitalize traditional businesses. For example, in 2018, every fifth EU enterprise (20%) began making electronic sales, while such sales accounted for 18% of their total annual turnover, whereas in 2009, electronic sales were made by 13% of all enterprises, i.e. growth over this period amounted to 5 p.p.[1]

International trade platforms account for 56% of European cross-border online purchases. Amazon is the most popular international online trade platform in Luxembourg (72%) and Austria (64%), eBay plays a leading role in Cyprus (63%).

Back in 2016, the European Commission set the task to establish uniform rules for regulating platforms in every EU member state. In addition, it was critical to subject digital platforms, including foreign ones, to the existing EU rules in such areas as competition, protection of consumer and personal data, freedom of the single market.

Currently, the European Union plans to establish a Single Digital Market, aiming to contribute to economic growth, job growth, increased competition, investment and innovation growth in the EU in the amount of € 415 bn per year.

It is assumed that data economy will ensure growth of the GDP by 5.4% by 2025, equivalent to € 544 bn.[2] The Digital Single Market is based on 3 *basic principles*:[3]

1) *ensuring consumer and enterprise access to digital goods and services across Europe*. Thus, for instance, measures were taken to eliminate unjustified geo-blocking in cross-border trade in goods and services, preventing purchases on websites located in another EU member state, to strengthen consumer protection in e-commerce, to lower prices for cross-border parcel delivery services aimed at publishing price information, so that consumers could choose the cheapest

1 URL: https://ec.europa.eu/eurostat/statistics-explained/index.php/Digital_economy_and_society_statistics_-_enterprises#Enterprises_engaged_in_e-commerce
2 URL: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_2749
3 URL: https://ec.europa.eu/commission/presscorner/detail/en/IP_19_2749

delivery methods (previously, international parcel delivery in the EU was 3-5 times higher on the average than prices for domestic delivery).

2) *establishing conditions for developing digital networks and innovation services*. This trend is intended for establishing digital skills, standards for using the artificial intelligence, cloud computing and blockchain for developing the 5G communication and Internet of things, cybersecurity, etc.

There are plans to introduce legislative measures in order to manage access and re-use of data, including personal data, to establish the exchange of data between business and government for the public benefit, to allow free reuse of data, and to invest € 2 bn in a European high-performance project to develop data processing infrastructure, data exchange tools, architecture and governance mechanisms for the successful exchange of data and the integration of energy efficient and reliable cloud infrastructures and related services. This area includes issues related to copyright infringement due to digitalization of content;

3) *the economy and society*. This trend is associated with digitalization of skills, as in the near future 90% of workforce will be demanded certain digital skills.[1]

The European Union sets a number of requirements for the operation of global digital platforms (for example, Google, Facebook, Amazon, Netflix, Uber, etc.) in the European market, aimed on the one hand at protecting the interests of European consumers, and on the other, they turn into new barriers to international trade in digital services and goods

Among the key requirements (barriers) in the EU market, the following have to be highlighted: assessment of tax on digital services; regulation of network policy rules for handling personal data of EU residents; the need for online platforms to comply with consumer legislation; the option of applying labor law to individuals providing services or performing work using platforms (gig-workers); supervision of information intermediaries in terms of protection of intellectual property rights.

6.6.1. Taxation of digital services

Today, the income tax paid by the largest digital corporations in the market countries is disproportionately low relative to the profit, equivalent to the extent of their virtual presence in these countries through interaction with users of digital products, collection and analysis of their data.

It is the user data that is the required input for creating value. Instead, global profits end up in low-tax though highly competitive jurisdictions and offshores, locations of key intangible assets of such corporations.[2] In a pandemic, digital giants operate in antiphase to the crisis and receive additional profit from the forced transition of mankind to digital reality, thereby exacerbating the discussion about ways of more equitable taxation of their global profits.[3]

1 URL: https://ec.europa.eu/digital-single-market/en/economy-society
2 Corporate Taxation in the Global Economy. IMF Policy Paper, 2019. URL: https://www.imf.org/en/Publications/Policy-Papers/Issues/2019/03/08/Corporate-Taxation-in-the-Global-Economy-46650
3 *Leigh T.* France to impose digital tax this year regardless of any new international levy // Technology news. 14 May 2020. URL: https://www.reuters.com/article/us-france-digital-tax/france-to-impose-digital-tax-this-year-regardless-of-any-new-international-levy-idUSKBN22Q25B

The EU initiated the revision of the actual corporate taxation rules at the international level, obsolete according to the EU and not reflecting the evolution of digital technologies and solutions that assist digital companies grow much faster than the economy as a whole.[1] Current regulations are no longer in compliance with the context that facilitates online commerce across borders without a physical presence, where businesses rely heavily on intangible assets that are difficult to value, and where user content and data collection have become core activities for creating digital business value. In the EU, about 500 mn users consume digital content of global companies. Back in 2018, the European Commission published a draft Directive related to general tax system on income derived from the provision of certain digital services.

Countries plan to continue working on an agreement defining uniform approaches to taxing digital services by mid-2021.[2] While this agreement has not yet been reached at the OECD level, the EU member states introduce taxes on digital services nationally. From January 1, 2020, Italy applies a digital services tax (DST) of 3%, replacing the "web tax" in force in 2019.[3] DST applies to services such as advertising through a digital interface, provision of a digital multilateral interface allowing users to interact (also to facilitate the direct exchange of goods and services), transfer of data collected from users and created through a digital interface. DST thresholds have been set as follows: total revenues equal to or greater than € 750 mn, however, digital services revenues (originating in Italy) equal or exceed € 5.5 mn. A similar tax on digital services of 3% applies in France.

In Great Britain, DST is applied since April 1, 2020 and suggests a 2% tax from incomes received from digital services provided in this country and emerging due to business digital activity associated with British users.[4] Digital Services Tax applies to social networking services, Internet search engines, online marketplace services. The following thresholds apply: the global revenue from related digital services exceeds £ 500 mn annually and more than £ 25 mn of these annual digital service revenues come from GB users.

According to OECD estimates, the global trade war engineered by unilateral taxes for digital services across the world and inability to reach agreement, can reduce the global GDP by more than 1% per annum.[5]

Russia, as a jurisdiction that often consumes digital services provided by non-resident companies (Google, Facebook, Netflix, etc.), has to participate in agreeing a unified approach to taxation in the digital economy at the OECD platform (an agreement on a unified approach should be reached in mid-2021). It is important for Russia to maintain an integrated approach to taxation in the context of digital economy, so that it is applied to all multinational companies (MNCs) meeting the requirements of the OECD unified approach rather than only to a limited number

1 URL: http://www.oecd.org/tax/international-community-renews-commitment-to-address-tax-challenges-from-digitalisation-of-the-economy.htm
2 Ibid.
3 URL: https://www.gazzettaufficiale.it/eli/gu/2019/12/30/304/so/45/sg/pdf.
4 URL: https://www.legislation.gov.uk/ukpga/2020/14/section/46/enacted
5 URL: http://www.oecd.org/tax/international-community-renews-commitment-to-address-tax-challenges-from-digitalisation-of-the-economy.htm

of companies participating according to the safe harbor principle. Implementing a unified safe harbor approach can create significant challenges to renegotiate regulations and increase uncertainty.

It should be emphasized that taking into account the current OECD proposals (approval of a threshold value for the annual income of MNCs to apply a new tax law in the amount of € 750 mn annually), the new tax rules will apply only to a very limited number of Russian digital companies. If for some reason a consensus is not reached at the OECD platform, Russia may consider the possibility of introducing nationally a tax on digital services based on the EU experience.

6.6.2. Regulating personal data

The European regulation related to protection of personal data ("General Data Protection Regulation", GDPR) is intended to ensure the respect for rights of data subjects in the EU by domestic as well as foreign companies. Processing of the EU residents' personal data by a controller or processor that is not established in the EU (for example, the American social network Facebook) is subject to the GDPR if:

- processing of personal data of data subjects in the EU is related to the offer of goods or services to data subjects in the EU, regardless of whether it is relevant to their payment or not. The use of language or currency commonly used in one or more member states with the possibility to order goods and services in this language is considered as a proof confirming the intention to offer goods or services to data subjects in the EU; making reference to consumers or users staying in the EU;
- processing of personal data of the EU data subjects is related to monitoring of actions or behavior of the data subjects in the EU since their actions are performed in the territory of the European Union. With a view to determine whether data processing activities evidence monitoring of actions of the data subject, it has to be proved whether individuals perform Internet activities, including potential opportunity for their consistent use of personal data processing technology, etc.

It should be emphasized that foreign technological or digital companies have been repeatedly referred to violations of the EU regime of the personal data protection. In January 2019, the Supreme Administrative Court of France found that the French division of Google was responsible for violating the GDPR provisions regarding the consent of personal data subjects and the requirement for transparency of data processing.[1] Google did not comply with the requirements for the consent form: this form should be informative, understandable, expressed in clear and simple language, while the consent form for data processing intended for users creating google accounts included 6 pages in very vague wording. Consequently, users were not properly informed about the purposes of data processing, period of their storage, procedure for data processing, making their consent invalid. The company was fined € 50 mn for these violations.

1 URL: https://www.huntonprivacyblog.com/2020/06/23/french-highest-administrative-court-upholds-50-million-euro-fine-against-google-for-alleged-gdpr-violations/

In June 2020, after years of the Schrems vs Facebook litigation, the EU Court ruled[1] that companies can transfer data from EU to other countries only if they ensure a level of data protection that meets the requirements of the EU law.

In 2013, Max Schrems, privacy activist, initiated the proceedings having contacted the Irish Commissioner for Personal Data Protection with a complaint that Facebook and other social networks cannot transfer his data to the United States, since the US legislation does not guarantee European users of social networks the same security clearance as GDPR, namely, protection from surveillance by US security authorities.

In 2015, the EU Court recognized the inconsistency of the so-called Safe Harbor Agreement between the EC and the USA (Safe Harbor Agreement) with the European data protection mode, where cloud providers could do without building centers for storing and processing personal data of the EU citizens in the EU countries. In 2016, the EU and the US have signed a new agreement on the principles of confidentiality of the EU citizens personal data processed by American companies, the so-called Privacy Shield Framework. According to this agreement, American companies handling data of the European users, should be certified and guarantee data confidentiality and exclude the possibility of their transfer to the US security authorities.[2]

Finally, in July 2020, The EU Court of Justice found that even this agreement does not make a sufficient tool for protecting personal data of the EU citizens, therefore, companies can now transfer data only if they comply to ensuring a level of protection which is equivalent to the European one. This means that foreign companies will have to bear the burden of providing technical guarantees for the safety of data, mechanisms and procedures for exercising the rights of the personal data subjects established by the GDPR, as well as effective means of legal protection.

Thus, the assessment of the protection conformity level takes place not only according to fulfillment of contractual clauses between the exporter and the recipient of data, but also according to the following criteria:

- conformity of the legal system of the data recipient country;
- access of the state services of the recipient country to the transferred data.

Experts note that such an approach to ensuring data protection on the one hand prevents the formal implementation of the clause related to the transfer of data under equal legal conditions, but on the other hand results in the data localization in the EU, thereby meaning that many more users will stay within the European digital market.[3]

Taking into account the EU experience, Russia needs to clearly define the feasibility of the extraterritorial application of the national legislation requirements on personal data towards foreign operators handling data of RF

1 URL: https://www.cnbc.com/2020/07/16/european-court-rules-on-facebook-vs-schrems-case.html
2 URL: https://legalitgroup.com/ru/sootnoshenie-eu-us-privacy-shield-i-gdpr/
3 URL: https://www.thestandard.com.hk/breaking-news/section/6/151087/EU-court-voids-US-data-sharing-pact-on-privacy-issues

people (offering goods and services to Russians, monitoring their actions and behavior) and also provide additional guarantees and rights for data subjects to be observed by both national and foreign operators (the right to data portability, the right to be forgotten, the notification of violation, etc.).

In 2015, the Federal Law of July 21, 2014 No. 242-FZ "On Amendments to Certain Legislative Acts of the Russian Federation in Specifying the Procedure for Processing Personal Data in Information and Telecommunication Networks" came into force in Russia having approved the requirement for localization of personal data of the Russian people. Collecting, updating and changing personal data of Russians should be carried out using databases within the territory of Russia.

Personal data of Russian people initially entered into a database in the Russian territory (primary database), can subsequently be transferred abroad to the so-called secondary databases. The relevant requirements are an encumbrance for data operators, primarily foreign ones, however, they maintain the option for subsequent cross-border data transfer in accordance with the personal data legislation. The requirement to localize data in Russia becomes an obstacle for foreign companies to operate in the country and consequently for the import of services. The OECD countries (both the EU and the USA) do not apply the data localization requirement and regard it as a restriction on international trade of services.

The OECD countries are concerned that existing measures of data localization that are applied in some countries including Russia, have a significant impact on business activity. In particular, such requirements increase costs and limit the benefits of digital commerce.

6.6.3. The need for online platforms to comply with consumer laws

The aggregate value of e-commerce retail revenue in Europe amounted to $ 393.8 bn in 2020.[1] The share of e-commerce users in the EU (i.e. the share of the population that made online purchases) was 53% in 2019.[2] The share of e-commerce sales in the retail sector increased. Thus, from 2014 to 2019, the share of retail e-commerce sales increased in Great Britain from 13.5 to 19.4%, from 10 до 15.9% in Germany, from 4.9 to 10.9% in France[3]. At the same time, the average annual per capita expenditure on e-commerce amounted in 2019 to € 921 in Great Britain, 784 in Germany, 746 in France, 668 in Italy, and 665 in Spain.

The largest number of users in e-commerce in 2020 was in Germany (62.4 mn), Great Britain (57.2 mn) and France (46.2 m), and the smallest was in Poland (24.6 mn).[4] The most popular on-line purchases were associated with clothes and sports goods (65%), vacation vouchers and holidays (54%), housewares (46%), event tickets (41%) and books, magazines and newspapers (33%).[5]

1 URL: https://www.statista.com/topics/3792/e-commerce-in-europe/.
2 URL: https://www.statista.com/topics/3792/e-commerce-in-europe/; https://www.ecommerceeurope.eu/wp-content/uploads/2019/07/European_Ecommerce_report_2019_freeFinal-version.pdf
3 URL: https://www.statista.com/statistics/281241/online-share-of-retail-trade-in-european-countries/
4 URL: https://www.statista.com/topics/3792/e-commerce-in-europe/
5 URL: https://ec.europa.eu/eurostat/statistics-explained/pdfscache/46776.pdf

To protect consumers' rights on online platforms, including foreign ones, the EU has a Regulation on the "Promotion of Fairness and Transparency for Business Users of Online Intermediation Services" (2019).[1] Platforms to be used by vendors for offering goods or services to consumers, regardless of where these transactions are ultimately concluded, can provide online mediation services. The Regulation establishes a number of requirements related to provision of information, as well as a number of obligations for online platforms regarding rules of transparency for using platforms by operating merchandisers. In particular, the following obligations have been established:

- a fair rating of merchandisers of goods and services;
- warning merchandisers about changes in the rules for using platforms;
- creating mode for providing personal data to merchandisers;
- establishing systems for dispute resolution and handling complaints received from merchandisers using platforms.

The Regulation applies to online platforms operating in the EU to protect European merchant companies, in particular SMEs, from unfair actions by both European and foreign platforms.

It is worth noting that many countries are also strengthening NET consumer protection. Among the EU countries, France is pursuing a policy of regulating online trading platforms since 2016 with the adoption of Law No. 2016-1321 for the Digital Republic (Loi pour une République numérique). The law amends the Consumer Code and introduces the concept of an "operator of an online platform" ("opérateur de plateforme en ligne"). The operator is any individual or legal entity professionally involved for a fee or free of charge in providing people with online NET services based on computer algorithms to classify the content, goods or services, or on the use of links to content, goods or services proposed or posted online by third parties (for example, rating systems or collecting feedback on goods or services, or following a link of the marketplace to visit a merchandiser's website), or by bringing together many parties to sell goods, provide services or exchange (association for exchange is a form of C2C trade), or mutual use of content, goods or services.[2] Therewith, a special obligation has been included in the Consumer Code of the most visited platforms with a monthly number of more than 5 mn unique visitors to follow best practices in terms of clarity, transparency and loyalty to online consumers.[3] Now. platforms have the following responsibilities: for example, to publish criteria for classifying the content and offers of goods and services, indicate information on agreements between the platform and the merchandiser when promoting goods or services, etc.

Further EU consumer protection policy aims to remove geo-blocking restrictions, i.e. prohibiting to restrict purchasing goods and services in the territory of individual states. Online stores, including foreign ones, based in the EU are obliged now to inform consumers whether they are buying from a professional

1 URL: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2019.186.01.0057.01.ENG&toc=OJ:L:2019:186:TOC
2 URL: https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000035720908/
3 URL: https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000035720925/

merchandiser or from an individual (non-professional vendor), so that consumers know about their rights if something goes wrong. Likewise, a 14-days rule was introduced when a consumer pays for a digital service and is entitled to refuse this service within 14 days.

Moreover, the EU applies safety requirements for products sold by online platforms set out in the EU technical and sanitary regulations. According to a study by the European Consumer Protection Organization, out of 250 verified consumer goods purchased on Amazon, AliExpress, eBay, and Wish, 66% were found to be ineligible to EU laws and technical standards.

The following goods were tested: inactive smoke and carbon monoxide detectors; children's clothing with long laces (constituting a suffocation hazard); toys containing chemicals with a hazard level 200 times higher than permissible; power supply that melted during testing.[1] Therefore, the EU operates a Safety Gate system for exchanging information between countries about unsafe goods to be taken into account by foreign electronic trading platforms in order to remove goods that do not meet EU technical requirements, sold to European consumers.

In 2018, a "Product Safety Pledge" between the EU and AliExpress, Amazon and eBay was concluded[2]. Under this Pledge, the platforms have made commitments, whereby consumer non-food products placed online in the EU market must be safe. The Pledge establishes the platforms' obligation to track unsafe goods following the information published within the Safety Gate system. Besides, contact points should be established for the authorities of the EU member states to be used for notifying the platforms about dangerous products.

In order to strengthen consumer protection in Russia, the Ministry of Economic Development together with Rospotrebnadzor and other competent authorities, should develop Guidelines on consumer protection in e-commerce for electronic trading platforms, including foreign ones. A draft of such Guidelines was developed by the Club Russia - OECD RANEPA in 2018 for Rospotrebnadzor (to-date, the Guidelines have not been adopted). The Guidelines should reflect the recommendations of the electronic trading platform on ensuring the identification and verification of merchandisers, providing complete and reliable information about the merchandiser, use of merchandisers ratings, as well as measures to ensure that foreign electronic trading platforms sell goods taking into account Russian requirements for technical regulation and safety of goods.

Thus, in order to ensure a clear and transparent system for rating merchandisers and organize self-regulation in terms of transparency of users' opinions and comments, it is necessary to: 1) disclose information on commercial agreements with merchandisers; 2) calculate and remove falsified reviews from vendors; 3) inform that reviews for the product or the vendor were left by consumers in exchange for promising any incentive or reward; 4) refuse to delete or edit negative reviews due to a contractual relationship with the vendor.

1 URL: https://www.beuc.eu/publications/beuc-x-2020-068_beuc_and_anec_views_for_a_modern_regulatory_framework_on_product_safety.pdf
2 URL: https://ec.europa.eu/info/sites/info/files/voluntary_commitment_document_4signatures3-web.pdf

Among the tasks for developing digital trade in the EAEU is to ensure the safety of goods coming from foreign platforms. The introduction of a domestic ban on foreign Internet platforms to sell goods in the EAEU is being considered if the merchandiser cannot document compliance with the EAEU technical standards. The Ministry of Economic Development has initiated activities to simplify compliance assessment for small companies and self-employed to promote their goods in trade through online platforms. In parallel with measures aimed at simplifying compliance assessment procedures for vendors, the responsibility of online platforms should be defined for providing consumers with inaccurate or incomplete information about the compliance of goods with the requirements of technical regulations or other requirements for technical regulation established by the legislation of the Russian Federation and the EAEU.

6.6.4. Applying labor law to platform gig workers

According to the analysis of the European Commission's Joint Research Center, about 2% of the working-age population in the EU receives their main income through gig platforms (service delivery platforms) and up to 8% of workers(gig workers) use platforms to generate additional income.[1] However, foreign platforms such as Amazon, Deliveroo, Uber, operating in the EU, do not take measures to ensure labor rights and guarantees of gig workers. Gig platforms interact with gig workers without concluding an employment contract, similar to a civil law contract for provision of services. Accordingly, gig workers act as equal parties to civil law contracts with companies, although actually they are under control and do not receive counter labor guarantees, for example, the minimum wage, work schedule, payment of social insurance contributions.

While this position of gig workers is challenged from time to time in many countries only spontaneously (for example, by way of strikes), there is a legal framework being established in the EU providing legal remedies for protection of gig workers.

In the EU, measures are being taken to resolve the issue about the status of outsourcing workers (platform workers). Most often this is the self-employment status.[2] In the EU, both national and regional practice is developing for recognizing an individual as an employee in the absence of an employment contract. It should be noted that the absence of a formal employment contract does not negate the possibility of applying labor standards in regulating the relationship between the platform employee and the real platform or the customer. For example, the EU Directive on health and safety in fixed-term and temporary employment (91/383) may apply as well to temporary workers. This logically follows from considering temporary employment primarily as the establishment of employment relationship (fixed-duration employment relationship), while availability of an employment contract is a special case.

1 URL: https://digitalforeurope.eu/the-gig-economy-a-tax-and-labour-challenge-for-the-eu
2 OECD Employment Outlook 2019: The Future of Work, OECD Publishing. Paris, OECD, 2019. URL: https://doi.org/10.1787/9ee00155-en. P. 55

According to the request of the German Federal Labor Court to issue a preliminary ruling, the European Court should have determined the conditions for employment relationship in the absence of special legislation.[1] The European Court of Justice has determined that Directive 2008/104/EU on temporary work applies to cases when an employee without an employment contract performs tasks for a specific user for a pay, and this activity is the main source of income and is implemented under the guidance and control of the customer. Noteworthy is that the Directive applies to such cases regardless of the national regulation of the status of actual workers having no employment contract. This means that users of platforms in the EU, including foreign ones, are protected by the proper effect of the Directive.

In France, the Court of Cassation determining the status of a self-employed Uber driver, clarified in its decision No. 374[2] the differences between labor and civil contracts for formalizing the relationship between the online platform and employees. The Court has partially satisfied the driver's claims, recognizing him as an employee under the labor laws of France, although Uber insisted on the application of presumption of no employment, referred to individual entrepreneurs and self-employed.

In this case, the Court concluded that this presumption was inapplicable, motivating the decision by the presence of indicators of the driver's subordinate position. First, after signing a contract, the driver was forced to become a "partner" of Uber, which did not indicate the freedom to organize his working activities, search for customers or choose suppliers, since the driver used a system created and fully organized by Uber, where the driver could not independently choose the clientele, freely set prices or conditions for providing transport services, fully regulated by Uber. Second, with regard to freedom of linking and free choice of working hours, it was found that the way of choosing working days and hours may indicate the subordination to the employer, which is relevant to labor relations, because in any case, the driver accepted the terms of business offered by Uber regardless of when he began to cooperate. Third, with regard to tariffs: they are set on a contractual basis using the forecasting algorithms of the Uber platform that dictates a certain route to the driver, i.e. the driver does not have the freedom to choose the route, and if the driver deviates from this route, the tariff can be recalculated at a loss to the driver. Fourth, with regard to conditions for the provision of transport services, the Uber application controls orders, in particular, if the driver is offered trips several times (usually 3 times) and he refuses them, then the application can deactivate the account, which indicates lack of freedom of choice whether the ride fits the driver or not. Thus, the use of self-employed status for Uber employees is fictitious, since the company issued working orders (by offering orders, setting routes and prices), monitored fulfillment of an order (the company could recalculate the tariff when deviating from the route), could apply sanctions.

1 URL: http://curia.europa.eu/juris/liste.jsf?language=en&num=C-216/15
2 URL: https://www.courdecassation.fr/jurisprudence_2/chambre_sociale_576/374_4_44522.html

It was recognized that labor relations based on a subordinate position of the driver and lack of freedom to organize activities, search for customers, choose suppliers, set tariff, have been established. Thus, labor guarantees and rights enshrined in the EU acts can be applied in the EU to employees regardless of the employment contract. Hence, gig workers providing services on the online platforms (including foreign ones) in the EU countries enjoy labor guarantees and can assert their rights based on the European law, regardless of whether an employment contract has been concluded.

The self-employed differ from workers in the traditional sense not only because as a general rule they do not enjoy the rights and guarantees provided for by labor legislation, but also the regime of taxation of their profits is different. In the EU member states, special rules apply to the taxation of self-employed. For example, in Italy, the tax regime for self-employed provides for a flat tax rate of 15% instead of the usual progressive tax rates from 23 to 43%.

For reference: the tax on professional income for self-employed in Russia is 4% from incomes resulted from sale of goods and services to individuals, 6% from incomes received from sale of goods and services to legal entities and individual entrepreneurs (in contrast to personal income tax in the amount of 13% for residents and 30% for non-residents).

Moreover, it should be noted that tax treatment for taxing income from employment and doing business through digital platforms should not theoretically create distortions in favor of digital platforms, otherwise the further spread of such digital practices will erode the foundations of the fiscal system.

Digital platforms can also potentially act as tax agents, and therefore the use of tax incentives aimed at reducing the burden of tax compliance by small businesses is not always justified with regard to digital platforms. In this context, a number of EU countries (for example, Estonia, France)[1] are currently studying ways to improve tax regulation of digital platforms striving to increase their taxing role as participants in economic relations similar to labor relations or entrepreneurial activity, which entails a full range of tax obligations, including VAT, social contributions and personal income tax.

Today, Russia lacks special regulation for online platforms workers, including an obligation for online platforms to apply labor legislation. This creates risks of violation of labor safety, limits rights to have rest, to minimum wage, and results in a lack of social protection for platform workers. Therefore, Russia, in particular the Ministry of Labor, has to develop recommendations "Addressing the extension of certain labor guarantees to online platforms workers", which will provide definitions of the basic concepts of the gig-economy, criteria for labor relations (platform control over the procedure for providing services, logistics support related to services, approving the operating mode, tariffs, clients, etc.), as well as draft recommendations for providing labor guarantees to gig-workers (workplace safety, a minimum wage not lower than the minimum statutory monthly pay, etc.),

1 *Ogembo D., Lehdonvirta V.* Taxing Earnings from the Platform Economy: An EU Digital Single Window for Income Data? // British Tax Review. 16 January 2020. URL: https://ssrn.com/abstract=3576426

recommendations to platforms on taking measures of social support (salary funds, etc.), recommendations on the delineation of responsibility for providing services between the platform and the worker, on arranging online dispute resolution.

Russia, has to develop rules against the "mimicry" of labor relations for self-employment for the purpose of applying the preferential tax treatment (self-employment tax). Restrictions options are as follows: 1) absolute amount of income received, 2) share of income from one source in all incomes, 3) regularity of receiving income through platform. It is also advisable to expand obligations of digital platforms in relation to enterprises and individuals receiving orders through these platforms in proportion to the expanding role of digital platforms in the economy, including introducing the duties of tax agents with regard to digital platforms.

6.6.5. Regulation of information intermediaries regarding the protection of intellectual property rights

The information intermediaries are regulated in the EU by the 2000 EU Electronic Commerce Directive.[1] According to Articles 12-14 of this Directive, the information intermediary is an individual conducting a simple transfer, temporary as well as permanent placement of the material.

The Article 14 stipulates the following conditions for exemption from liability of information intermediaries: 1) the information intermediary did not know about the illegality of the content; 2) the information intermediary promptly deleted the illegal information or interrupted access upon receiving a notification about the illegal content.

European courts apply sanctions when information intermediaries fail taking measures to ensure the protection of intellectual property rights after the intermediary was informed about illegal content. In particular, if the information intermediary receives a notification about illegal content and does not delete the information after receipt, then the copyright holder can sue and then the court will assume the information intermediary's responsibility. In this regard, information intermediaries, including online platforms, post instructions for dealing with complaints of intellectual property violations on websites and take active steps to consider notifications upon their receipt.

However, information intermediaries are not obliged to take any action to identify the infringement of intellectual property rights before receiving a notification. Thus, in accordance with Article 15 of the Directives in the national legislation of the EU member states, it is unacceptable to impose the obligation of providers to monitor posted information in search of facts or circumstances indicating their illegality. In other words, the information intermediary is not obliged to take any action to monitor illegal content before receiving a notification of an infringement of intellectual property rights. However, if the information intermediary has not removed or restricted access to illegal content after receiving a warning, he will be liable.

1 URL: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32000L0031

Thus, the legislation makes it possible for information intermediaries to avoid responsibility for infringement of intellectual property rights if they fulfil a number of conditions.

The litigation Lancôme vs eBay is illustrative[1]. Lancôme, a cosmetics and perfumery manufacturing company, discovered the sale of its counterfeit goods on eBay and filed a lawsuit against it. Hence, the Brussels Commercial Court ruled that eBay is only a platform offering information services on the sale of goods, and being an information intermediary, eBay is not obliged to track information published by its users or actively search for illegal counterfeit information. Consequently, eBay is not liable for counterfeit goods, as they were not aware of them and did not receive any relevant notification.

However, according to the EU Court of Justice, despite banning obligations to monitor the content, the EU member states are entitled to impose requirements on the information intermediary, aimed at preventing a future specific violation. In the case of L'Oréal vs eBay, the court ruled to take future actions "that not only help to stop violations of intellectual property rights, but also prevent further violations".[2] Thus, the EU jurisprudence uses an extensive approach for defining the boundaries of responsibility of information intermediaries.

For example, in the case of LVMH vs eBay, the court ruled that eBay was liable for negligence resulted in infringing the plaintiff's exclusive rights and for failing to take effective action to prevent infringements.[3] In this case, eBay was held accountable, as it was not just a "passive host", but rather an "active broker" playing an important role in commercializing counterfeit products and making a profit from those sales.

Thus, EU legislation allows information intermediaries to avoid liability for infringing rights of intellectual property if they take prompt measures to remove illegal content after receiving a notification. Information intermediaries should not monitor in search for illegal content, however, they need to take measures to prevent future violations, for example, by creating a mechanism for prompt response to notifications.

To develop Russia's legislation, it is recommended to add the provision demonstrating lack of financial benefits as a ground for exemption of an information intermediary from liability to the list of conditions suggesting exemption from liability of an information intermediary (Article 1253.1 of the Civil Code of the Russian Federation). This aspect may reflect presence or absence of the intent of the information intermediary to violate the intellectual property rights of the copyright holder. Furthermore, it is possible to establish a list of required and sufficient measures to protect intellectual property under paragraph 3 of the Article 1253.1 of the Civil Code of the Russian Federation to be accepted by an information intermediary (for example, deleting, blocking, disabling links

1 URL: http://www.unitalen.com/xhtml/report/16124398-1.htm
2 URL: http://recent-ecl.blogspot.com/2011/07/cjeu-case-c-32409-loreal-v-ebay-end-of.html
3 URL: https://www.americanbar.org/groups/intellectual_property_law/publications/landslide/2014-15/may-june/liability-e-commerce-platforms-copyright-trademark-infringement-world-tour/#6

to illegal material, as well implementing preventive measures in case of repeated downloads of the same illegal material).

The following measures have to be established as preventive: the information intermediary must have a special copyright protection policy suggesting deleting the account of users repeatedly downloading illegal content; there should be a dedicated contact person specializing in interaction with copyright holders; assistance in copyright protection.

Such measures will allow the platforms to prevent potential violations of intellectual property rights, and can also be used as a court evidence of taking sufficient measures to prevent violations of intellectual property rights.

6.7. Russia in key international institutions[1]

The whole complex of pandemic, economic, and social crises has become a kind of a stress test for the system of multilateral cooperation as it is weakened by geopolitical conflicts, contradictions between the key members and growing mistrust due to stalled reforms of international organizations and their inability to cope with a host of global issues. Even prior to the pandemic outbreak, 2020 did not promise to be easy. Deepening inequality, deceleration of economic growth, acceleration of climate change, fiercer competition for digital technologies, and the fragmentation of cyberspace demanded joint efforts at the regional and global levels. The human toll, contraction of GDP by 5.2%,[2] a 13% drop in trade,[3] a 60% plunge in oil prices,[4] and a loss of an equivalent of 495 mn of full time jobs[5] have aggravated long-term challenges by simultaneously casting aside cooperation to overcome them. In this context, it was paramount to balance the urgent agenda and long-term objectives.

6.7.1. The BRICS Chairmanship

Russia was making preparations to assume the BRICS chairmanship under the overall theme "BRICS Partnership for Global Stability, Shared Security, and Innovative Growth." The program comprised more than one-and-a-half hundred evens on three "group of five" priorities: strengthen multilateralism, promote common interests in international organizations, intensify trade, economic and investment cooperation, expand people-to-people contacts and extend cooperation in humanitarian and cultural spheres. It is a success that, despite the new conditions, almost all the events were held, although in a virtual format, and all the planned documents were agreed upon. The fight against coronavirus

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2 The Global Economic Outlook During the COVID-19 Pandemic: A Changed World. URL: https://www.worldbank.org/en/news/feature/2020/06/08/the-global-economic-outlook-during-the-covid-19-pandemic-a-changed-world

3 Trade shows signs of rebound from COVID-19, recovery still uncertain. URL: https://www.wto.org/english/news_e/pres20_e/pr862_e.htm

4 Oil Price Charts. URL: https://oilprice.com/oil-price-charts/67

5 ILO Monitor: COVID-19 and the world of work. Sixth edition. URL: https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/wcms_755910.pdf

and cooperation to overcome the pandemic and its consequences have been on the agenda since the first event of the chairmanship - the February meeting of Sherpas.[1] The participants pledged to coordinate efforts aimed to combat the pandemic outbreak, including in the framework of WHO and expressed their support for the PRC and emphasized the unacceptability of discrimination and overreaction, bearing in mind the accusations of the US President that China is responsible for the spread of the pandemic. The expression of solidarity was important for China and the cohesion of the "group of five."

All ministerial documents dealt with the collaboration in combating the pandemic. Participants of the extraordinary meeting of the BRICS Ministers of Foreign Affairs held in April 2020[2] discussed not only political issues but measures aimed at coordinated efforts to counter the COVID-19 pandemic including development of vaccine, coordination of fiscal and monetary policy, financial sustainability, and employment support.[3] Different ministers present at the meeting adopted a special statement on the need to conduct a policy promoting early economic recovery. Ministers of economy and foreign trade highlighted the fact that any restrictive measures imposed to face COVID-19 should have targeted, proportionate, transparent, and temporary nature. Heads of tax agencies discussed actions aimed at easing tax burden and relief for business and people during the pandemic and recovery thereafter. Ministers of agriculture laid out measures on minimizing the impact of COVID-19 on supply chains of food products, stabilization of agricultural markets, protection of farmers' incomes and achievement of sustainability and productivity of agricultural systems. It was obvious that joint efforts on resolution of issues aimed at protecting the health and wellbeing of humanity what was a priority and was institutionalized in 2012 focused on the containment of COVID-19. Russia proposed to set up a complex system of early warning of risks for the spread of mass infections within BRICS.

BRICS leaders confirmed the obligation to jointly work in such arears as risk management of new infections with pandemic potential, the most rapid implementation of 2019 decision regarding setting up of BRICS Center for research and development of vaccines. Russian can host such Center on the basis of one of the leading Russian institutes which could have contributed not only to a speedy development and deployment of new technologies but to promote them in partner countries. The New Development Bank (NDB) funds could be used for the creation of the Center, moreover Russia is the only BRICS member that did not take advantage of the NDB funds to combat the pandemic and its social and economic fallout.

1 Meeting of Sherpa/sous-Sherpa of BRICS member states. URL: https://brics-russia2020.ru/calendar/20200211/6974/Zasedanie-sherpsu-sherp-stran-BRIKS.html

2 Extraordinary meeting of the BRICS Ministers of Foreign Affairs in video conference format. URL: https://brics-russia2020.ru/news/20200428/390145/O-vneocherednom-soveschanii-glav-vneshnepoliticheskikh-vedomstv-gosudarstv-BRIKS-v-formate.html.

3 Statement and answer to media questions of Mr. Sergey Lavrov, Minister of Foreign Affairs of the Russian Federation at the press-conference on the outcome of the extraordinary meeting of the BRICS Ministers of Foreign Affairs, Moscow, April 28, 2020. URL: https://www.mid.ru/ru/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/4107702

Already in March 2020, the New Development bank approved a Program of urgent assistance aimed at providing crisis-related loans to the member-states to the tune of $10 bn. From March till June the Bank approved loans to China, India, Brazil, and South Africa in the amount of $1 bn each.[1] The Bank successfully issued two trounces of 3-year and 5-year COVID Response Bonds valued $1.5 bn and $2 bn, respectively on the international capital markets. The Bank continued financing previously approved projects. Over 2020, the Board of Directors approved financing of the new projects to the tune of $3.6 bn of which around $700 mn for projects in Russia. The NDB Eurasian regional center was launched whose objectives include search for and preparation of new projects, build-up of Russian projects portfolio. The decision on extension of the NDB shareholders and the kick start of negotiations with potential members should contribute to resource mobilization for financing the infrastructure and sustainable development projects. The results of the financial track performance also encompass the third testing of the pool mechanism of contingent currency reserves of the BRICS members, initiative on launching of special information channel on cyberattacks and cyber threats between the central banks of the BRICS members, the BRICS central banks working group research on potential architecture of cross-border payments and prospects for national bank cards systems integration.

Prepared in the framework of Russian Chairmanship, the Strategy for the BRICS economic partnership 2025 defines the trajectory of cooperation strengthening of the "group of five" in three priority areas: trade, investment, finance; digital economy; and sustainable development. In order to diversify trade within BRICS and ramp up trade turnover within the "group of five", it is envisioned to implement measures aimed at reducing barriers on mutual trade of goods and services; promote cooperation in the sphere of technical regulation; standardization, metrology, conformity assessment and accreditation; strengthen customs cooperation. Improvement of transparency and enhancement of investment climate should contribute to attraction of mutual investments. In the field of finances, the following objective were set: to promote work to increase the share of national currencies in mutual payments, strengthen cooperation with regard to payments systems, develop domestic capital markets, continue cooperation on establishing the BRICS Local Currencies Bond Fund the implementation of which the BRICS members have not progressed since 2016 when it was first laid down during chairmanship of China.

Issues of digital economy and sustainable economy were missing in the first five-year Strategy adopted in 2015. A set of measures on digitalization is aimed at bridging digital divide primarily through the creation of digital infrastructure. That said, such aspects as security of important infrastructure and cooperation in the sphere of digital economy regulation have remained beyond the Strategy. Tasks of sustainable development in the sphere of climate change envisage creation of conditions for the development, adoption and production of technologies and practices that contribute to the reduction of greenhouse gas emissions in the

1 New Development Bank COVID-19 Response Programme. URL: https://www.ndb.int/covid-19-response-programme/

atmosphere; encourage the use of low-carbon technologies and the development of special instruments for stimulating such incentives. Regarding energy, the priorities focus to promote balanced energy mix of non-renewable and renewable sources, promote effectiveness and stability of energy markets, develop and deploy advanced clean energy technologies.

The Strategy prioritizes the shaping of external conditions of cooperation. The BRICS members have laid out their common position on reforming international financial architecture and commitment to promote enhancement of open, non-discriminative the WTO rules of multilateral trade system and the central role of the Organization in this system, refusal to introduce trade and investment protectionist measures and unilateral trade and investment restrictions incompatible with international obligations.

The implementation of the Strategy tasks can contribute to the achievement of the national objective of Russia's development for the period until 2030. However, the Strategy has no direct force. The development of sectoral programs and road maps for which the Strategy creates a frame work will be a mechanism for its implementation. The Strategy's implementation efficacy will depend on the continuity and quality of cooperation in concrete arears within further chairmanships.

6.7.2. Chairmanship in the Shanghai Cooperation Organization

The Shanghai Cooperation Organization (SCO) that has emerged from the informal mechanism of cooperation on regional security traditionally focuses on the issues of combating terrorism, extremism and drug trafficking. Historically Russia played the leading role regarding security issues and China – regarding the economic cooperation issues. Russia's chairmanship was not an exception. The tasks earmarked for 2020 encompassed intensification of geopolitical cooperation and enhancement of SCO's leading positions in terms of security support and stability. The economic block focused on such priorities as synergy of the national development strategies and multilateral integration projects as a basis for the formation of a wide and mutually beneficial cooperation in terms of security provision and sustainable development on the Eurasian space as well as expansion of economic cooperation first of all in transportation and logistics, infrastructure, scientific and technological and innovation spheres. Summarizing the results of Russia's chairmanship one can note that significantly more impressive results have been achieved in terms of regional security the in the economic sphere. The Russian initiative to create the Great Eurasian Partnership (GEP) with the participation of the Shanghai Cooperation organization members, the Eurasian Economic Union, the Association of South-East Asia states and other interested states and multilateral associations was noted by the partners however it did not get enough support. That said, all partners, except India, confirmed their support for the Chinese initiative One Belt, One Road (OBOR) and efforts aimed at coupling the Eurasian Economic Union with the OBOR. The competition between two initiatives and the lack of concrete projects and resources behind the GEP does not benefit the development of economic cooperation in the SCO.

Many leaders highlighted at the summit that the SCO had accumulated a significant economic and investment potential, had created the normative base including the Program of Multilateral Trade and Economic Cooperation (2019), the Plan of Actions on its implementation (2020), the Plan of Action for 2021-2025 for the implementation of the SCO Development Strategy until 2025 (2020), however in order to achieve success the Organization needs to transfer this potential into real projects. All the participants, except Xi Jinping[1] and Vladimir Putin,[2] spoke for the accelerated establishment of mechanisms for project financing, the SCO Bank and Development Fund. The idea has been in the works since 2004, the financial institutes could have been the accelerators of development of infrastructure in the region including in the field of transportation, logistics, energy, and digital, however due to the lack of support on the part of Russia the decision have been put off from one year to the next. As a result, the partners will look for a possibility to finance project through banks where China is the largest shareholder. According to the General Secretary, "it is long past time to tackle this issue from a new angle including by way of establishing the SCO's partnership with international financial institutions such as the Asian Infrastructure Investment Bank, the BRICS Bank, and Silk Road Fund in order to use their potential in the implementation of mutual transborder projects in the framework of our organization."[3] For Russia, which seeks to contain China's economic influence in the region, such an approach will be counterproductive. Emomali Rahmon, the President of the Republic of Tajikistan, who will hold the chairmanship in 2021, stated that the establishment of specialized financial institutions will be one of the priorities in the course of the twentieth year of SCO cooperation. Russia's support will be of paramount importance although not exclusively for obtaining consensus regarding the establishment of institutions and determining their parameters but also for enhancing Russia's influence in the organization and in the region, strengthening relations with partners and financing of priority projects, for example, in the field of digital economy.[4] As the BRICS NDB performance demonstrates, the SCO Bank can become a source of resources for financing anti-crisis programs.

Combatting the pandemic and its consequences affected the chairmanship's agenda and cooperation in the field of healthcare.[5] The leaders expressed their commitment to expand cooperation in the field of public health, comprehensively coordinate emergency response in the field of health and epidemiology, and deepen scientific and technical cooperation in the development of drugs, vaccines and test systems.[6] They adopted a Comprehensive Plan of Joint Actions of the SCO

1 The PRC is the initiator of its creation.
2 Russia does not support the creation of financial institutions considering they will promote strengthening the Chinese influence.
3 TASS: The SCO member states must speed up the establishment of financial institutions of the organization – general secretary. URL: http://rus.sectsco.org/news/20201201/696740.html
4 A statements of the SCO Heads of State on cooperation in the field of digital economy (2020) highlights the importance of practical cooperation in this field.
5 Implemented in the framework of an Agreement between the SCO member states governments on cooperation in the field of healthcare as of 2011.
6 A statement of the Council of Heads of State of the SCO member states on a mutual combatting the novel coronavirus infection. URL: https://sco-russia2020.ru/images/108/43/1084305.pdf

Member States to counter threats of epidemics in the region. Given the upcoming Tajikistan chairmanship, the development of the Plan of urgent practical measures for 2021-2022 was intended aimed at mitigating socio-economic, financial and food COVID-19-induced fallout in the region.

The SCO partners proactively promote cooperation between scientific and research and analytical centers of the member states on economic issues in order to determine promising fields for its further extension and deepening. Economic cooperation will become the same important field of cooperation within the SCO as the security. The containment strategy of its development can result in the loss of its importance. Active participation in determining the priorities for the future economic partnership, its filling with specific projects including through the initiative for establishing the SCO expert centers would have been a more productive approach to achieve the objective of sustainable development on the Eurasian space laid out by the Russian chairmanship.

6.7.3. The G20

Cooperation in the framework of the G20 remained a priority area in Russian foreign economic activity in 2020. The crisis demonstrated high demand for the leadership potential of the G20, although it is not always able to meet it. However, the G20 took on the role of a driving force and coordinator of the anti-crisis actions of international organizations.

Commitments of the urgent G20 Summit on support of the WHO efforts, strengthen its mandate, close the financing gap in the WHO Strategic Preparedness and Response Plan, provide immediate resources to the WHO's Solidarity Response Fund, development of urgent short-term actions to step up global efforts to fight the COVID-19 crisis have kick started the program of coordinated measures and allowed to mobilize new resources for public health purposes. The commitment to inject over $5 trillion into the world economy, as part of targeted fiscal policy, economic measures, and guarantee schemes to counteract the social, economic and financial impacts of the pandemic was aimed at the support of economic resiliency and safeguard jobs. The commitment to counteract disruptions to the world supply chains should ensure the flow of vital medical supplies and other critically important goods and services across borders. Although these commitments have failed to avert the social and economic fallout of the pandemic, nevertheless they have promoted global cooperation in deployment of comprehensive financial measures taken by the IMF, the World Bank Group, and multilateral development banks to assist the most vulnerable countries.

In his address to the emergency Summit, the President of the Russian Federation outlined as an absolute priority of international cooperation joint efforts to the earliest development and provision of vaccines and medicines. In order to mobilize resources, Russia suggested setting up a special fund under the IMF aegis funded by the central banks – emitters of currencies in the IMF's currency basket with the view to provide any member of the IMF the wright to borrow from this fund in proportion to its share in the world economy at zero rate for a long term. The President of Russia also emphasized the need to create "green corridors" for free

movement of supplies and technologies intended for the countries the hardest hit by the pandemic.[1] Unfortunately, Russian proposals regarding the fund and green corridors were not reflected in the summit commitments and later G20 documents. The enhanced cooperation and urgent financing of the development of drugs and vaccines was one of the priorities of the Plan of Actions to support the world economy due to COVID-19 adopted in April 2020 and the G20 subsequent decisions. Russia joined the Coordination Council on the Initiative to speed up assess to the resources to combat COVID-19, support development of vaccines in the framework of the WHO, expressed its readiness to provide its vaccine for vaccination of the UNO employees. At the G20 Riyadh Summit, the President of Russia reiterated Russia's position that vaccines should be available to everyone and Russia is ready to provide its coronavirus vaccines Sputnik V and EpiVacCorona to the countries in need.

Russia has significantly contributed to the implementation of the emergency summit commitments in other fields: mitigation of the pandemic fallout, support of the economy, hardest hit industries and micro-, small and medium-sized enterprises (MSME), safeguard jobs and provision of social protection for vulnerable groups of population. Total volume of anti-crisis fiscal relief packages amounted to 4.5% of GDP. Of course, it is incomparable with the fiscal stimulus packages adopted by Japan (21.1% of GDP) or the USA (13% of GDP), but approximately comparable to the volume extended by the EU (4.3% of GDP).[2]

Russia has support the G20 Debt Service Suspension Initiative despite the fact that the Initiative does not lead to a reduction in debt and solely suspends it and encompasses only 73 poorest countries of the world,[3] and does not cover private debt, and so far applies to merely 3.65% of total cost of debt service of the developing countries in 2020[4] and even after been extended for another 6 months will allow to suspend payments to the tune of $11.7 bn.[5] At G20 Riyadh Summit, the President of the Russian Federation Vladimir Putin suggested to think out additional measures to avoid deterioration of the situation and increase in economic and social inequality. It appears that such measures can include the issuance of special drawing right (SDR) to the tune of $500 bn in support of efforts taken by the developing countries in combating the pandemic. The Trump Administration has blocked the corresponding proposal by the IMF Board of Governors, however, considering its importance and occurred changes in the US President administration, it is possible to return to discuss this idea. Moreover, the SDR issue can be implemented simultaneously with the agreement that the

1 G20 summit. URL: http://kremlin.ru/events/president/news/63070
2 Value of COVID-19 fiscal stimulus packages in G20 countries as of October 2020, as a share of GDP. URL: https://www.statista.com/statistics/1107572/covid-19-value-g20-stimulus-packages-share-gdp
3 COVID 19: Debt Service Suspension Initiative. URL: https://www.worldbank.org/en/topic/debt/brief/covid-19-debt-service-suspension-initiative
4 Shadow report on the limitations of the G20 Debt Service Suspension Initiative: Draining out the Titanic with a bucket? URL: https://www.eurodad.org/g20_dssi_shadow_report
5 The G20 "Common Framework for Debt Treatment beyond the DSSI": Is it bound to fail? Part 1. URL: https://www.eurodad.org/the_g20_common_framework_for_debt_treatments_beyond_the_dssi_is_it_bound_to_fail#:~:text=The%20G20%20recently%20announced%20the,of%20the%20Covid%2D19%20pandemic

rich countries that had no need for them could transfer some of their new SDRs to IMF or a special vehicle for the pandemic jointly overseen by IMF, the World Bank and/or regional development banks on condition of their subsequent use by corresponding institutions for issuing soft credits and debt relief of the poorest countries.[1]

The G20 commitment to enhance cooperation on digitalization to overcome the pandemic fallout, counteract COVID-19, recover and ensure sustainable and inclusive growth are among the Russian priorities. In 2020, G20 defined cooperation priorities,[2] adopted Recommendations for national policy and international cooperation for reputable artificial intellect, approved fields of work on transborder data flows, adopted the Roadmap to a common measure of the digital economy (DE). The reorganization of the Digital Economy Task Force into the Digital Economy Working Group confirms increased attention of G20 to corresponding issues. Integration of the DE regulation issues into G20 opens up potential opportunities for raising Russia's influence on the formation of regulation which is especially important taking into account restrictions in OECD that is striving to strengthen its statutory leadership in DE and legitimate its instruments through the Group of Twenty. Consequently, we see it fit to plan and prepare proactive Russia's participation in the Working Group working out common approaches towards data management. Russia could have proposed for G20 agenda issues of digital platforms regulation and establishment of the Digital Stability Board. Establishment of such institution (by analogy with the Financial Stability Board) charged with the development, coordination and monitoring of digital economy regulation, will help to avert the crisis due to weaknesses of international regulatory system as it happened in 2008 simultaneously allowing countries with emerging economies and developing countries comprehensively participate in the formation of new mechanisms. Joint initiative of the Development Working Group and the Digital Economy Working Group on integration in current tasks and indicators of digitalization into the Sustainable Development Goals could have contributed the use of the digitalization advantages for sustainable development and be a concrete contribution of the G20 in the Agenda in the field of sustainable development for the period until 2030.

6.7.4. The International Monetary Fund

In 2020, Russia being a creditor of the International Monetary Fund (IMF) continued to participate in the facilities of the Fund, including New Arrangements to Borrow and Bilateral Borrowing Agreements. These facilities serve as a second and third line of defense ensuring temporary addition after its quota resources in

1 What You Really Need to Know about the SDR and How to Make it Work for Multilateral Financing of Developing Countries. URL: https://www.tandfonline.com/doi/full/10.1080/05775132.2020.1802178

2 Development of infrastructure and network interdependency; safe data exchange; research and development of digital technologies for health; application of digital technologies and solutions to secure economic activity in the wake of pandemic; ensure security and trustworthy online environment; support of MSME transition to the digital production system, e-commerce and digital business model.

case of need. Granted that the Bank of Russia extends funds to the IMF within the RF quota (from February 17, 216 at the period-end of the 14th general review of quotas it came to SDR 12,903.7 mn) on a constant basis and the IMF obligations to extend funds are timeless, the life term of these credit facilities are usually prolonged by Russia on proposed by the IMF terms.

Consequently, Russia has approved a doubling of the New Arrangements to Borrow approved by the IMF Executive Board on January 16, 2020.[1] According to this decision, Russia will participate in this facility until November 16, 2022 and potential RF obligations in their framework amounting to SDR 4,440.91 mn[2] will hit SDR 8,881.82 mn. The decision will become effective following the approval of corresponding procedures by all creditors at the national level (the targeted effectiveness date – January 1, 2021).[3] Furthermore, the terms of Russia's national agreement in the Bilateral Borrowing Agreements were extended by an additional year until December 31, 2020 with potential obligations of Russia not exceeding $10 bn.[4] Russia's participation in the IMF credit facilities is important for increasing the Fund's resources the need for which has done up due to the COVID-19 pandemic but cannot be satisfied by raising quotas capital because the 15th general review of quotas has not been conducted and the current 16th general review has to be completed solely in 2023.

Russia is eligible for financial assistance via the IMF Rapid Financing Instrument. However, at present, there is no such need – Russia did not apply for financial assistance from IMF during the pandemic.[5] At the same time, given cross-border crisis effects, it is important for Russia to participate in the IMF facilities as a donor with the aim to minimize the crisis fallout in other countries.

2020 saw continued consultations between the IMF and Russia with technical assistance been provided on the basis of those consultations. An International Monetary Fund mission conducted remotely the 2020 Article IV annual consultations with the Russian authorities from November 9 till 23, 2020. At the end of the discussion, the mission issued the concluding statement assessing the undertaken measures and providing recommendations related to the current Russian economic policy. The idea behind the recommendations concentrates on the need to sustain efforts to address structural factors that constrain potential growth coupled with the implementation of measures counteracting pandemic-induced crisis. The mission highlighted that the Russian economy had demonstrated healthy recovery owing to adopted by the government measures.

1 IMF Executive Board Approves Decisions to Implement a Package on Resources and Governance Reform. URL: https://www.imf.org/en/News/Articles/2020/01/17/pr2010-nab-and-quota-imf-executive-board-approves-package-resources-governance-reform

2 On credit agreements of the Bank of Russia with IMF. URL: https://www.cbr.ru/StaticHtml/File/36568/NAB20170615.pdf

3 IMF Executive Board Approves Decisions to Implement a Package on Resources and Governance Reform. URL: https://www.imf.org/en/News/Articles/2020/01/17/pr2010-nab-and-quota-imf-executive-board-approves-package-resources-governance-reform

4 2016 Bilateral Borrowing Agreements (about US$ 433 billion): Terms Extended by an Additional Year to End-2020. URL: https://www.imf.org/en/News/Articles/2019/11/05/pr19395-2016-bilateral-borrowing-agreements-about-us433bil-terms-extend-by-an-additional-yr-end2020

5 Europe's COVID-19 Crisis and the Fund's Response. URL: https://blogs.imf.org/2020/03/30/europes-covid-19-crisis-and-the-funds-response/

At the year-end 2020, the IMF project the economy to contract by about 4% and to expand by 2.5% in 2021 assuming the COVID-19 situation gradually normalizes. The feasibility of a repeated imposition of tough restrictive measures coupled with persistent geopolitical tensions are among the main downside risks. In fiscal policy, the IMF recommends to continue policy aimed at combating the pandemic and to be ready to extend existing measures in case of deteriorated situation. The IMF experts also recommend "to consider reinstating the higher unemployment benefits while the crisis persists and until there is a meaningful recovery in employment, as the pre-crisis benefits are very low relative to the cost of living."

Regarding monetary policy, with due regard for inflation projections to stay below the target level, further easing of the current policy measures is recommended. The IMF experts recommended the Bank of Russia to separate regular foreign currency purchases/sales under the fiscal rule earmarked at reducing disorderly market conditions. The banking sector noted the efficacy of measures to mitigate the consequences of the crisis, which are recommended to be gradually canceled against the background of normalization of the situation to preserve financial stability. It is paramount to focus on measures aimed to secure sustainable growth. In recent years, Russian GDP growth averaged barely 1.5%, stalling Russia's convergence to advanced economy income levels. In view of this, still hold relevance previous IMF recommendations related to improvement of the business climate, raising competition within and across regions, and strengthen corporate governance of state enterprises. The national projects present opportunities to bolster potential growth in the economy should not be seen as a substitute for the important reforms, nor should they contribute to expanding the already large footprint of the state on the economy.[1]

In the context of Russia's proactive participation in the IMF activities as a donor country and deployment of the Fund's expert support, there is no progress in the areas of its reform that are relevant for Russia, including raising the share of quotas and votes in the IMF of our country and other countries with emerging economies and developing nations, revising the formula for calculating quotas, extending the list of reserve currencies and adjusting the composition of the SDR currency basket.

6.7.5. The World Bank Group

In 2020, Russia prioritized cooperation with the World Bank Group (WBG) in the fields of information, scientific research and expert-analytical activities aimed at obtaining the WBG expertize for the improvement of financial regulation and introduction of world best practices.[2] Besides, as before the WBG institutes is providing a share of multilateral official assistance to Russian development.[3]

1 Russian Federation: Staff Concluding Statement of the 2020 Article Mission. URL: https://www.imf.org/ru/News/Articles/2020/11/23/mcs112420-russia-staff-concluding-statement-of-the-2020-article-iv-mission
2 The World bank Group. URL: https://www.cbr.ru/today/ms/smo/wb/
3 Russia and the World Bank: International Development Assistance. URL: https://www.worldbank.org/en/country/russia/brief/international-development#3

Long-term issues remain in relations between Russia and the World Bank Group. In particular, in 2020, the approval process for new IBRD projects on the territory of Russia is still frozen. According to the data for December, the implementation of 5 projects continued, which were approved before 2014, the St. Petersburg economic development project was completed in 2020.[1] Restrictions on the interaction of the Russian Federation with other institutions of the WBG also in force since 2014, have remained. As in the case of the IMF, there is no progress on further reform of the World Bank including the issues advocated by Russia of raising the share of countries with emerging economies and developing nations in equity capital, as well as improving democratic governance structure of the Bank. Given the low feasibility of resolving these issues in the coming years, other multilateral development banks, such as the New Development bank and the Asian Infrastructure Investment Bank (AIIB), are becoming the principal partners for financing projects on the territory of Russia.

As for the wide-scale measures in the area of financing the fight against the COVID-19 pandemic worth of $160 bn for 15 months, they would have low relevance for Russia even in case of the resumption of the WBG new activity in our country, since those funds are principally earmarked at assisting developing countries. The participation of Russian providers in the WBG projects to finance coronavirus vaccination in developing countries may be of particular interest. Furthermore, with due regard for the need to develop effective measures aimed at managing socio-economic pandemic-induced fallout, cooperation should be strengthened to use the research and expert-analytical potential of the World Bank, which is actively developing appropriate tools.

6.7.6. The World Trade Organization

Over 2020, the Russian Federation proactively participated in the World Trade Organization (WTO) within the envisaged negotiation mechanisms including the Dispute Settlement Body. By December 2020, all in all Russia participated in 8 disputes as complainant, in 9 as respondent, and in 86 as third party.[2]

Russia continued participating in other negotiation formats. In 2020, Russia came out with a total of 97 statements and notifications (including collective ones) on the WTO negotiation platforms. Russian representatives were more active in coming out with statements within the informal working group on micro-, small and medium enterprises, agricultural committee, committee on sanitary and phytosanitary measures, and committee on technical barriers to trade. On February 7, 2020, Russia issued a statement within the initiative on Common statement on e-commerce. Notably, the contents of this statement are not to disclose.[3]

On March 24, 2020, the WTO Director-General Roberto Azevedo called on the WTO members to ensure publicity regarding trade measures put in place due to

1 Projects in Russian Federation. URL: https://projects.worldbank.org/en/projects-operations/projects-list?lang=en&searchTerm=&countrycode_exact=RU
2 WTO, Disputes by member. URL: https://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm
3 WTO Documents Database. URL: https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx

the COVID-19 pandemic. In view of this, on March 25, 2020, the WTO launched a special information portal dedicated to trade aspects and pandemic fallout. Russia was among the first who submitted data on adopted trade measures. Over 2020, Russia submitted information on seven measures affecting trade in goods,[1] one – affecting trade in services,[2] and five – regarding trade-related intellectual property rights.[3]

Pursuant to Mr. Azevedo's call to ensure publicity of cross border flows of goods, services, and investments,[4] the Russian Federation introduced urgent trade measures for a limited periods of time. For example, out of 7 measures affecting trade in goods about which Russia informed the WTO two measures were of protectionist nature: restrictions on export of medical goods and personal protective equipment. These measures were lifted on June 30 and September 30, 2020, respectively.[5] However, the Russian Federation has failed to provide to the WTO information of relief measures for domestic producers imposed during the COVID-19 pandemic[6] (only 34 members (21%) have shared this information with the WTO).[7]

Since the crisis outbreak, the RF Government adopted a number of resolutions regarding relief for businesses in various sectors of the economy: light,[8] electronic,[9] automobile[10] industries, and agriculture.[11] Moreover, funds were extended for employment support including in small and medium-sized businesses.[12]

1 COVID-19: Measures affecting trade in goods. URL: https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm
2 COVID-19: Measures affecting trade in services. URL: https://www.wto.org/english/tratop_e/covid19_e/trade_related_services_measure_e.htm
3 COVID-19: Measures regarding trade-related intellectual property rights. URL: https://www.wto.org/english/tratop_e/covid19_e/trade_related_ip_measure_e.htm
4 Azevêdo sees sharp fall in trade, calls for global solutions to COVID-19 crisis. URL: https://www.wto.org/english/news_e/news20_e/dgra_25mar20_e.htm
5 COVID-19: Measures affecting trade in goods. URL: https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm.
6 COVID-19: Support measures. URL: https://www.wto.org/english/tratop_e/covid19_e/trade_related_support_measures_e.htm
7 Report on g20 Trade Measures (Mid-October 2019 to Mid-May 2020). URL: https://www.wto.org/english/news_e/news20_e/report_trdev_jun20_e.pdf
8 On approval of the Regulations for provision of the federal budget subsidies earmarked for reimbursement of part of costs incurred on credits service earmarked for raising volumes of products sale and strengthening competitiveness of Russian industrial goods. URL: https://стопкоронавирус.рф/ai/doc/539/attach/wX3mTL3zasw3In86AHAaE2Pe8cX5ckaW.pdf
9 On specifics of application in 2020 Rules for provision of the federal budget subsidies to Russian organizations financing part of costs incurred on the development of scientific and technical backlog in the development of basic technologies for production of priority electronic components in radio-electronic equipment. URL: https://стопкоронавирус.рф/ai/doc/444/attach/KduExWbMNOO6vZ0ZI2gmt3jdohzZ8Hxw.pdf
10 Order dated May 22, 2020 No. 1374-r. URL: https://стопкоронавирус.рф/ai/doc/300/attach/rasporyaxhenie_ot_22_maya_2020_goda_1374-r.pdf
11 On measures to ensure sustainable economic development. URL: http://static.government.ru/media/files/kTj6vbMop2fN43iEZ16idfPSKriXYK5o.pdf
12 On approval of Regulations for provision and distribution in 2020 of other intergovernmental fiscal transfers from the federal budget to budgets of the subjects of the Russian Federation, which are financed by the budget allocations from the reserve fund of the Government of the Russian Federation and aimed at co-financing expenditure obligations of the subjects of the Russian Federation emerging at the implementation of additional measures earmarked at the reduction of disruptions on the labor markets of the subjects of the Russian Federation. URL: https://стопкоронавирус.рф/ai/doc/417/attach/dok.pdf

In the wake of the pandemic, there are still problems associated not only with the effectiveness of the WTO as a productive institute that ensures the equitable participation of the Russian Federation in cross-border trade, but with a potential impact of the anti-crisis measures taken on the competitiveness of Russian enterprises in global markets.

The first block of problems reflects the institutional crisis of the Organization associated with the inability to deal with unilateral and protectionist trends demonstrated by its certain members. Both mounting contradictions between certain actors (the USA-China-the EU) and the lack of consensus between traditional groups of interests (advanced – developing countries) on the main issues of Doha round do not allow to achieve agreements able to ensure sustainability and integrity of regulatory regimes in the framework of multilateral trade system. Despite the fact that Russia repeatedly stated about its adherence to WTO central role in international trade, potential contribution of Russia in determining fundamental contradictions between the key participants of the system have not been significant.

The second block of problems is due to the objective impact of the pandemic on the growth rates of Russian economy and its foreign trade potential. Most likely, the imposed anti-crisis measures will not be enough to maintain an acceptable economic growth rates – the IMF projects a contraction of GDP by 4.1% by the end of 2020.[1] The decrease in economic activity in the country coupled with the unfavorable situation in the global energy markets, in turn, will lead to a reduction in the share of Russia in world trade. For example, according to the WTO data, in Q2 2020, Russian exports decreased by 37.5% and imports – by 52% which is the utmost decrease among all economies of the Group of Twenty regarding both indicators.[2]

6.7.7. The World Health Organization

From the start of the crisis induced by the outbreak and proliferation of COVID-19, the Russian Federation considered the position and recommendations given by the World Health Organization (WHO) related to combatting the disease and measures aimed at containing its transmissibility. At the same time, Russia stressed the central coordinate role played by WHO in global efforts to combat COVID-19. For example, Russia supported the resolution adopted by the UN General Assembly on April 20, 2020 "International Cooperation to Secure Global Access to Medicines, vaccines and medical Equipment to face COVID-19" which "reaffirms the fundamental role on the United Nations system in coordinating the global response to control and contain the spread of the coronavirus disease COVID-19".[3] The decision on extending additional funding for WHO was adopted on April 3, 2020. This resolution of the Government of the Russian Federation

1 Russian Federation, IMF. URL: https://www.imf.org/en/Countries/RUS#countrydata
2 Report on g20 Trade Measures (Mid-May 2019 to Mid-October 2020). URL: https://www.wto.org/english/news_e/news20_e/report_trdev_nov20_e.pdf
3 Resolution of the UN General Assembly "International Cooperation to Secure Global Access to Medicines, vaccines and medical Equipment to face COVID-19". URL: https://undocs.org/ru/A/RES/74/274

envisaged "payment of a single additional voluntary contribution to the World Health Organization for the implementation of measures to combat the new coronavirus infection in the amount of $1 mn."[1]

Besides that, Russia reiterated on the unacceptability of any attempts to politicize WHO activity. In the context of the US President Donald Trump to leave the World Health Organization, the Foreign Minister of the Russian Federation Sergey Lavrov highlighted the effectiveness of collective efforts and Russia's intention to continue multilateral cooperation to combat the coronavirus infection in WHO format.[2]

At the end of the day, restrictive measures imposed by the Russian Federation to face the spread of the infection have corresponded WHO recommendations. For example, restrictions envisaged by the Executive Order of the President dated April 2, 2020 on the measures to ensure health security of the population due to the proliferation of the coronavirus infection[3] correspond to WHO recommendations on the principles of adjustment of measures to protect the health of the population and social measures released on April 16, 2020[4] (in particular, measures to minimize the movements of the citizens and consider halting of some types of activities associated with high risk of infection transmission when there is no chance to provide the necessary hygienic measures).

The recommendations issued by the Ministry of Health of the Russian Federation regarding prophylactics, diagnosis and treatment of COVID-19 also refer to the WHO materials, in particular, to Temporary Recommendations for the rational use of personal protective equipment and Clinical Recommendations for treating patients with severe acute respiratory infection.[5]

The decision to impose state border travel restrictions was adopted on March 27, 2020. That said, it should be noted that at the early stage of the pandemic WHO did not recommend any travel restrictions stressing low effectiveness of significant negative economic effect of total ban on cross border travel.[6]

The World Health Organization also commended Russia's contribution to the global effects to combat COVID-19. At a meeting between WHO Regional

1 Resolution of the Government of the Russian Federation dated April 3, 2020 No. 863-r. URL: http://publication.pravo.gov.ru/Document/View/0001202004060017

2 Interview of the Foreign Minister of the Russian Federation S.V. Lavrov for Russian and foreign media in videoconference format on urgent issues of international agenda, Moscow, April 14, 2020. URL: https://www.mid.ru/vsemirnaa-organizacia-zdravoohranenia-voz-/-/asset_publisher/u11zRQA4uRzH/content/id/4099053

3 Executive Order of the President of the Russian Federation dated April 2, 2020 on measures to ensure health security of the population due to the spread of the coronavirus infection. URL: https://стопкоронавирус.рф/ai/doc/87/attach/0001202004020025.pdf

4 The WTO recommendations on the principles of adjusting measures aimed at protecting the health of the population and social measures. URL: https://www.who.int/publications-detail/considerations-in-adjusting-public-health-and-social-measures-in-the-context-of-covid-19-interim-guidance

5 Temporary methodological recommendations on prophylactics, diagnosis and treatment of the novel coronavirus infection. URL: https://стопкоронавирус.рф/ai/doc/332/attach/03062020_mR_COVID-19_v7.pdf

6 A Joint Statement on Tourism and COVID-19: UNWHO and WHO Call for Responsibility and Coordination. URL: https://www.who.int/ru/news-room/detail/27-02-2020-a-joint-statement-on-tourism-and-covid-19---unwto-and-who-call-for-responsibility-and-coordination

Director for Europe Hans Kluge and Russian Foreign Minister Sergey Lavrov held on September 22, 2020, Mr. Kluge commended Russia for provision to WHO information on the vaccine development and also highlighted an important role been plaid by Rospotrebnadzor in the activities of the Global Infection Prevention and Control Network and countermoves including combating COVID-19.[1]

On October 2, 2020, Russia and WHO signed a memorandum of understanding for a contribution by the Russian Federation an amount of exceeding $15 mn to support priority health actions including on implementation of the COVID-19 Strategic Preparedness and Response Plan.[2]

Consequently, Russia and WHO demonstrate a rather high level of mutual support in their efforts to combat COVID-19 both in terms of an official discussion and setting up effective cooperation. Exchange of information on development of vaccine becomes the principal area of collaboration to date. Russia provided WHO information within the Global Vaccine Safety Initiative. In late October 2020, the Russian Fund of Direct Investment (RFDI) submitted to WHO a request for the registration and requalification of COVID-19 vaccine Sputnik V.[3] WHO confirmed the request receipt and started negotiations with RFDI and Gamalei Center behind the vaccine.[4] On December 8, 2020, Russia submitted an entry to WHO on a second vaccine – EpiVacCorona developed by Novosibirsk research center Vector.[5]

6.7.8. The United Nations Organization

The central role played by the United Nations Organization (UNO) in the development and implementation of joint efforts to mitigate the consequences of the pandemic has determined a proactive participation of Russia in the coordination of plans to weather the current crisis on the platform of the Organization and their practical implementation.

In March 2020, Russia submitted for discussion at the UN General Assembly a draft resolution on international solidarity to combat coronavirus. The Russian draft confirmed the central role of WHO in global response to the pandemic as well as the need to surmount the conflict of interests in the field of world trade and rejection of economic sanctions as means of pressure in the interests of rapid recovery of countries hit by the pandemic.[6] Proposed by Russia draft was rejected – the decision was blocked by delegations of Ukraine, Georgia, Great

1 Europe's regional director begins visit to the Russian Federation with commitment to global solidarity in fight against COVID-19. URL: https://www.euro.who.int/ru/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/9/whoeuropes-regional-director-begins-visit-to-russian-federation-with-commitment-to-global-solidarity-in-fight-against-covid-19

2 The Russian Federation steps up support to WHO for global health security and non-communicable diseases. URL: https://www.who.int/ru/news/item/02-10-2020-the-russian-federation-steps-up-support-to-who-for-global-health-security-and-noncommunicable-diseases

3 Russian request for WHO prequalification of Sputnik V vaccine was one of the first since the requests start date. URL: https://rdif.ru/fullNews/5962

4 WHO eyes granting emergency use listing for Sputnik V vaccine. URL: https://news.ru/en/society/who-eyes-granting-emergency-use-listing-for-sputnik-v-vaccine

5 WHO received Vaccine EpiVacCorona documents for review. URL: https://tass.ru/obschestvo/10207795

6 Russia proposed the UNO to adopt resolution to combat coronavirus. URL: https://www.kommersant.ru/doc/4307688

Britain, the USA, and the EU.[1] Discussion at the General Assembly platform resulted in the adoption of a draft resolution proposed by Ghana, Indonesia, Lichtenstein, Norway, Singapore, and Switzerland.[2]

Unlike the Russian draft resolution, the adopted resolution is limited to general calls for joint efforts of all relevant stakeholders to work together "at the national, regional and global levels" and acknowledging the crucial role played by the World Health Organization." Central elements of the Russian draft – rejection of trade wars and unilateral sanctions with the corresponding decision of the UN Security Council, counteracting financial speculations with essential goods and reaffirm the need to disseminate reliable information about the coronavirus have not been considered.

Russia was among the first countries to back the call of the General Secretary Antonio Guterres to cease all internal and international conflicts to stabilize humanitarian situation in the wake of the spread of the COVID-19 pandemic.[3] At the same time, our country declared in favor of the suspension of unilateral sanctions "that seriously limit the potential of the country to react to the challenges induced by the pandemic."[4] Despite comprehensive support for the call to ceasefire, it took three months to coordinate common position of the international community at the UN Security Council which was due to different views of the UN Security Council members on the issue of resolving a number of regional conflicts as well as on the activities of non-governmental paramilitary forces as well as terrorist groups. The final version of the resolution adopted by the Security Council included an important adjustment that declared durable humanitarian pause for at least 90 consecutive days does not apply to military operations against certain Council-designated terrorist groups,"[5] which was favorably assessed by Russia. Nevertheless, provisions to suspend sanctions promoted by Russia were again taken out of the final version of the text.

In the interests to strengthen the fight against the spread of the pandemic and reconstruction of affected countries, the United Nations announced fundraising on the basis of several international programs. In this context, the Global Humanitarian Response Plan for COVID-19 with funding requirements of $9.5 bn became the central UN program. As of December 2020, of the required sum contributions amounted to $3.81 bn and contribution of the Russian Federation came to $1mn.[6] In 2020, Russia also transferred to the UN budget around $74.1 mn according to the scale of regular country contributions.[7]

1 Russian draft of the UN GA resolution to combat pandemic has been blocked. URL: https://www.interfax.ru/world/702322
2 Global solidarity to fight the coronavirus disease 2019 (COVID-19). A/RES/74/270. Resolution adopted by the General Assembly on April 2, 2020. URL: https://undocs.org/ru/A/RES/74/270
3 UN chief called for global ceasefire to fight the common enemy – COVID-19 URL: https://news.un.org/ru/story/2020/03/1374872
4 Statement on motives for to vote on the draft resolution of UN SC to fight the coronavirus pandemic. URL: https://russiaun.ru/ru/news/eov_covid_010720
5 Resolution 2532 (2020), adopted by the Security Council on July 1, 2020. URL: https://undocs.org/ru/S/RES/2532(2020)
6 Russian Federation, Government of. URL: https://fts.unocha.org/donors/3006/emergencies/2020
7 Assessment of Member States' advances to the Working Capital Fund for 2020 and contributions to the United Nations regular budget for 2020. URL: https://undocs.org/en/ST/ADM/SER.B/1008

In 2020, Russia supported the UN system organizations activities on the territory of the Commonwealth of Independent States (SIC) to resolve humanitarian issues escalated in the wake of restrictions imposed due to COVID-19 pandemic. Russia transferred around $8 mn to implement targeted relief program for households in need in Kirgizia through the UN World Food Program (WFP).[1] It was also announced that Russia will extend $21.2 mn to implement the UNWFP project in Tajikistan aimed at providing meals for Tajik school children.[2]

Resolution on the humanitarian crisis in Syria was discussed in the UN along with the issue of combating the COVID-19 pandemic. From 2014 the flows of international humanitarian aid deliveries for the Syrian people went through the limited number of border crossings deployed along the borders with neighboring countries. In June 2020, Russia submitted a draft resolution envisaging liquidation of a number of current border crossings due to the extension of territory controlled by the government troops and directing supply chains through the controlled regions of the country to strengthen food security of the Syrian Arabic Republic. Along with the issue of termination of the current international border crossings mandates, the Russian draft envisaged revision of sanctions regime imposed on Syria. A draft resolution supported by four members of the Security Council was not adopted due to its failure to obtain the required number of votes and the strong stand of the Federal Republic of Germany in relation to sanctions.[3] Earlier, Russia and China vetoed a draft resolution presented by Belgium and Germany which extended mandate of two current border crossings until one more year.[4]

In 2020, Russia consistently pursued the policy to jointly counter the global crisis. A number of Russian initiatives faced opposition by our foreign partner driven by political motives when proposing alternative occasionally impractical or not corresponding to changing terms and conditions of the projects. However, even in the context of existing constraints, Russia significantly contributed in the development of basic parameters of intergovernmental cooperation on fight against COVID-19 pandemic as well as in the implementation of coordinated multilateral practical steps.

6.7.9. The Organization of the Petroleum Exporting Countries

In 2020, the activities of the Organization of the Petroleum Exporting Countries (OPEC) significantly influenced the situation in the Russian economy due to its although gradually declining dependence on the export of raw materials and correspondingly on the oil prices fluctuations.

1 Russian Federation provides assistance to UNWFP to help poor families in Kyrgyzstan. URL: https://ru.wfp.org/news/rossiyskaya-federaciya-pomogaet-vpp-oon-podderzhivat-bednye-semi-v-kyrgyzstane

2 Russia will allocate over $21 mn for the development of school meals system in Tajikistan. URL: https://ru.wfp.org/news/rossiya-vydelit-bolee21-mln-dollarov-ssha-dlya-razvitiya-sistemy-shkolnogo-pitaniya-v

3 FRGexplainedwhyvotedagainstRussianresolutiononSyria.URL:https://ria.ru/20200709/1574088820.html?in=t

4 UN SC did not support Russian resolution on Syria. URL: https://ria.ru/20200709/1574086743.html

In recent years, the situation in the oil market was relatively stable following the OPEC+ Declaration of Cooperation (DoC) to adjust downwards their overall crude oil production signed on December 10, 2016.[1] The deal has been rather successful in the span of three years, however against the backdrop of the conflicting positions of Russia and Saudi Arabia (Saudi Arabia insisted on a further reduction in their overall crude oil production by an additional 1.5 mb/d, and Russia opposed), restrictions on oil production were lifted on April 1, 2020, which led to a drop in price of crude oil by around 30% to the lowest levels seen in a span of 18 years. However, in the context of the spread of the coronavirus pandemic, which caused a sharp drop in demand and additional pressure on prices, the OPEC+ deal participants signed a new deal on price cut effective from May 1, 2020 until May 2022, after which prices stabilized. The deal provided for a gradual recovery of oil production, subject to the normalization of the market situation. Originally the deal went for a 9.7 mb/d cut in the oil production for three months through July. From August through December 2020, the OPEC+ producers committed to adjust downwards their overall crude oil production by 7.7 mb/d. It will be followed by a 5.8 mb/d adjustment for a period of 16 months, from January 1, 2021 to April 30, 2022.[2,3]

However, against the backdrop of the repeated deterioration of the situation with the spread of COVID-19, the participants of the Declaration of Cooperation discussed a more gradual recovery of crude oil production from the next year. Finally, on December 3, the DoC participating countries committed to adjust downwards the overall crude oil production by only 0.5 mb/d from 7.7 mb/d to 7.2 mb/d against the originally planned downward adjustment by 1.9 mb/d. This decision was a compromise between Saudi Arabia proposing to put off the January reduction by 3-6 months and Russia whose crude oil producers favored a gradual (by 0.5 mb/d monthly reduction) achievement of the original plan of downward adjustments by 5.8 mb/d. The DoC participating countries agreed to hold monthly meetings to assess market conditions and decide on further production adjustments for the following month, with further monthly adjustments being n more than 0.5 mb/d.[4]

Reduced oil supply owing to the OPEC+ deal and projected oil price growth on the back of the mass COVID-19 vaccines rollout coupled with gradual easing of restrictions including in the field of transportation, should lead to the market stabilization and price growth on crude oil in the future. Such situation is acceptable for Russia, since the oil price of around $42 bbl and over ensures budget receipts from oil export revenues to be at the planned level.[5] In view of

1 OPEC and non-OPEC Ministerial Meeting. URL: https://www.opec.org/opec_web/en/press_room/3944.htm
2 The 9th (Extraordinary) OPEC and non-OPEC Ministerial Meeting concludes. URL: https://www.opec.org/opec_web/en/press_room/5882.htm
3 The 10th (Extraordinary) OPEC and non-OPEC Ministerial Meeting concludes. URL: https://www.opec.org/opec_web/en/press_room/5891.htm
4 The 12th OPEC and non-OPEC Ministerial Meeting concludes. URL: https://www.opec.org/opec_web/en/press_room/6257.htm
5 A meeting on the situation of global energy markets. URL: http://kremlin.ru/events/president/news/63145

this, Russia will continue to back up agreements on production cut within OPEC+[1], however the national oil sector will promote a gradual easing of restrictions to raise revenues. For Saudi Arabia, whose budget is balanced at $80 bbl, i.e. twice as high as for Russia, on the contrary, it is advantageous to continue maintaining restrictions at the current level or even tighten them. The divergence of positions poses risks for cooperation between Russia and OPEC member states within the OPEC+ group, however, as the 2020 experience has demonstrated, the parties can achieve compromise solutions.

6.7.10. The European Union

There is a stand-off in the relationship between Russia and the European Union (EU) in 2020, and there was no tendency to improve and resume cooperation in important fields.

In March 2020, the President of the Russian Federation Vladimir Putin called for a moratorium on sanctions during the coronavirus pandemic. However, in July, the EU's personal and sectoral sanctions were extended yet against and it was noted that they do not affect the fight against the pandemic. Obviously, there was no progress in this area.

The EU approved a number of strategic documents that envisage the development and adoption of legal norms that directly affect the Russian interests. In early 2020, the European Commission unveiled the new European Digital Strategy. In contrast with the previous stage, that was tasked to total harmonization of internal market and remove remaining barriers in digital sphere, the new document openly states on the EU aspiration and intention to become a world leader in the development and regulation of digital economy. That said, certain planned normative documents demonstrate active polarization and securitization and digital environment. The European Democracy Action Plan in the field of democracy aimed to improve the resilience of democratic systems, support media pluralism and address the threats of external intervention in European elections is a key example of this process.[2] They do not hide in the EU that this document will principally protect Russian interference in the EU international affairs and their member states. The EU is on track to promote its norms and values on international platforms and through the inclusion of those values in partner agreements including within the European Neighborhood and Partnership Policy. With due regard for current contradictions, polarization of digital environment hampers cooperation between Russia and the EU as well as poses risks for adoption of unfavorable for Russia legal norms including on international level due to the EU's significant influence. The European Green Deal is the new growth strategy for Europe to become climate-neutral continent by 2015, which was announced in December 2019. A European Climate Law was legislatively proposed under the Green Deal implementation. This means

1 Telephone conversation with the Crown Prince Muhammed bin Salman bin Abdul-Aziz Al Saud. URL: http://kremlin.ru/events/president/news/64239

2 COM (2020) 67 final: Shaping Europe's digital future. URL: https://ec.europa.eu/info/sites/info/files/communication-shaping-europes-digital-future-feb2020_en_3.pdf

achieving net zero emissions for EU countries as a whole by 2050. By June 2021, proposal on required changes into instruments linked to climate legislation should ne formulated including foreign policy tools. Moreover, adjustment of current EU Energy Taxation Directive has been envisaged "with focus on ecological aspects" that can include implementation of differentiated taxation depending on energy source "carbon trace." The EU plans to put in place carbon border adjustment mechanism, which envisages taxation of carbon-intensive imports from countries without mandatory payments for emissions. The new regulation will affect trade and economic relations of Russia with the EU both directly and indirectly. The BCG experts have already estimated losses of Russian exporters to the tune between €2.8 and €6 bn per year.[1] This is fraught with the loss of a part of the oil market to Saudi Arabia whose production costs are lower as well as a serious impact on producers of fertilizers.

The implementation of the Nord Stream 2 project was recently an important area of cooperation between Russia and the EU. Despite the existing contradictions, calls from certain countries and the European Parliament to ditch the project coupled with the US active counteraction, which was expressed in the adoption of sanctions against all companies that participate in the project participation at any stage, the cooperation was not completely terminated. Imposed US sanctions angered the EU and its members and were perceived as a direct interference in internal affairs. Even the European Parliament that has adversely perceived the project, stressed that its future will be decided in Europe and not in Washington. The completion of work on the project and its launch are necessarily to increase from gas exports, as well as to maintain cooperation important both for Russia and the EU.

Taxation of digital economy is one of important areas that was on the table in 2020 and where the EU and Russian interests coincide. Both Russia and the EU can obtain additional benefits and revenues to the budget when taxation of significant digital presence is put in place. The EU proposal encompassing taxation of large companies coincide with the interest of Russia: raise budget revenues and not subject their companies to additional tax burden. That said, the EU influence in OECD which is the principal platform for developing the reform is markedly higher than Russia's. Accordingly, could have used notable EU influence to promote its interests.

Russia and the EU relations do not demonstrate positive dynamic for a while and 2020 was not an exception. Nevertheless, total termination of cooperation does not correspond to Russian interests. It is paramount to proceed with Nord Stream 2 and general cooperation in the energy sphere. It is feasible to promote an idea to decouple sustainable green energy projects from the sanctions. At the same time, it is necessary to develop carbon regulation agenda in Russia and stop seeing in it only a threat for Russian interests and analyze potential benefits. This will allow to minimize additional duties in case of the implementation of carbon border adjustment mechanism in the EU. China has already been working in this

1 Carbon challenge for Russian exporters. URL: https://www.bcg.com/ru-ru/press/29july2020-carbon-challenge-to-russian-exporters

area understanding the for EU development of green energy is already a priority direction for general economic development. Source of growth, technological and normative leadership. Finally, it is important to actively develop the digital agenda, including within EAEU, in order to incorporate integration partners in the common system of digital infrastructure and regulation, so as not to concede to the EU positions in the key regions for Russian foreign policy.

6.7.11. The Eurasian Economic Union

The development of the Eurasian Economic Union (EAEU) is one of central fields of Russian foreign policy. In 2020, despite many barriers, the process of expanding and deepening integration within the Union went on.

The fight against the pandemic and its fallout was one of the key areas for cooperation in 2020. On April 10, members of Eurasian Intergovernmental Council adopted a packet of measures to ensure the vital needs of the population, maintain mutual trade, and free movement of goods in the context of COVID-19 pandemic. The block of urgent measures includes the creation of a "green corridor for supplying critical goods as well as introduction of single temporary restrictions on export and temporary reduction of zeroing out of import customs duties on components and materials for specific industries. The participants coordinated systemic measures aimed at creating conditions for the recovery and further economic development.[1] On June 10, the Comprehensive plan to prevent the spread of COVID-19 and other infectious diseases was adopted.[2]

In 2020, the main objective of the EAEU development centered in coordination of strategic directions for developing the Eurasia economic integration until 2025. The draft document went through several stages of coordination, but so far was not approved. Strategic directions include general provisions and 330 measures and mechanisms grouped into 11 system blocks. The document hardy can be called a breakthrough. It only partially expands national mandates and does not ensure a qualitative comprehensive integration mainly focusing o the development of certain narrow spheres or projects on priority fields of cooperation such as trade and customs regulation, macroeconomic policy and finance, industry and agriculture, energy, digital economy, and transportation. The Strategy implementation will complete shaping common market raising effectiveness of its regulation, increased quality of customs regulation and administration, ensuring quality guarantees and security of goods, formation of the EAEU digital space, setting up of mechanisms for targeted support of economic development, providing incentives for scientific and technical progress, raising efficacy of the EAEU institutes, deployment of mechanisms of cooperation in the sphere of education, public health, tourism and sport, evolvement of EAEU in one of the most important development centers in modern world.[3]

1 Intergovernmental Council approved urgent anti-crisis measures to stabilize, restore and further develop the EAEU countries' economies. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/10-04-2020-1.aspx
2 EEC Board approved draft comprehensive action plan to prevent spreading coronavirus in EAEU. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/10-06-2020-01.aspx
3 Draft document defining strategic directions for development of Eurasian economic integration until 2025. URL: https://docs.eaeunion.org/docs/ru-ru/01427742/err_25112020_166

New measures were adopted within the implementation of the EAEU digital agenda until 2025. On January 31, a time-phased action plan was approved for forming the ecosystem of digital transport corridors. In the framework of its implementation, the EEC Council approved a list of measures implementation of which is required to form and launch the ecosystem of digital transport corridors. The project is aimed at refusing paper support for transport and logistics operations, creating common standards for transport and logistics services and switching to an end-to-end integrated surveillance system, which removes much of the administrative burden from carriers.[1] Three more processes of interstate electronic interaction in the customs sphere as well as a process of customs tariff and non-tariff regulation have been "digitalized" and put into effect. Data on these processes will be transmitted and processed by the Union's integrated information system.[2]

Cooperation on issues of export trade development got momentum. On October 9, the Eurasian Intergovernmental Council adopted disposition" On joint export development measures." The Heads of Governments of the EAEU Member States, jointly with the Commission and the Eurasian Development Bank, were set a task to explore the possibility to expand export support instruments, primarily for jointly manufactured products. As for export credit support, it is suggested to explore, based on the EDB, the issue of forming a resource base and creating financial products to support transactions and projects with an integration effect in the Member States' national currencies. For the purpose of export insurance support, it is suggested to explore the issue of creating a supranational reinsurance company or the Eurasian reinsurance pool to form a mechanism for reinsuring part of the risks.[3]

Development of integration in industrial area went on. The EAUS countries approved the Union's industrialization map. The document encompasses information on 177 major investment industry projects in 21 economic sectors totaling $194.5 bn. The map also indicates more than 500 technological directions in 30 industries the Union requires import substitution.[4] Shaping up EAEU common exchange space was on the table.[5] It was designed to strengthen the investment attractiveness of financial markets and enable attracting additional resources to the Member States' national economies.

Moreover, there was a pent-up demand for introduction of mechanisms and programs for targeted financing of the EAEU catch-up economies in 2020. The Kirgiz Republic submitted the request and added to the draft of the Strategic

1 The EEC Council approved a list of measures implementation of which is required to form and launch the ecosystem of digital transport corridors. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/24_11_2020-1.aspx
2 The Union digitalized four more intergovernmental processes. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/28-04-2020-3.aspx
3 The EAEU countries will jointly encourage export trade. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/2020-10-09-6.aspx
4 EAEU countries approved Union's industrialization map. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/25_11_2020-1.aspx
5 EEC Board approved roadmap for forming Eurasian Economic Union's common exchange space. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/06_11_2020-2.aspx

integration development directions the need to create a new institution for development and support of the EAEU as well as introduction of mechanism and programs for targeted financing. In the course of analyzing this proposal a possibility of creation of The Eurasian direct investment fund on the basis of the Astana International Financial Center (AIFC) was explored.[1]

In 2020, the EAEU faced the task to form strategic integration development directions and implementation of already launched initiatives. The pandemic outbreak has added to the list of objectives the fight against the spread of the virus, as well as coordination of measures to weather economic crisis. The Committee's response to the pandemic outbreak was rather swift, and it was possible to agree on the necessary trade policy measures. The intergovernmental cooperation was successful, and measures to weather the crisis were agreed upon. The implementation of previously launched initiatives went according to plan, new projects and initiatives were on the table, and cooperation with the Eurasian development bank was strengthened. The coordination of strategic integration development directions has not been completed, although the current draft document can not be considered a breakthrough. It will allow to resolve the problem of developing cooperation on current substantive projects, but it will not manage to lay the foundation for a qualitative extension and deepening of integration. Thus, another chance to ensure the functioning of a real, rather than a declared economic union is being wasted, which means that in the next 5 years, the EAEU should not be expected to make a breakthrough in development.

* * *

The COVID-19 pandemic has tested society, economy national institutions and international organizations, and have led to the worst global recession since the Great Depression and posed a threat to the implementation of the sustainable development agenda until 2030. The global crisis requires joint efforts. Russia has consistently called for the development and implementation of coordinated and solidary solutions aimed at protecting human life, jobs and livelihoods of the population, and maintaining economic recovery. At the same time, Russia continues to work with its partners to achieve long-term solutions to strengthen the international trade system and the global monetary and finance architecture, eradicate poverty and eliminate inequality, and ensure sustainable development and inclusive growth. In general, Russia managed to balance the urgent agenda and long-term objectives in the framework of international institutions.

6.8. Customs administration[2]

The 2020 was the final year for implementing fundamental policy documents that determined the development vector of the customs authorities of the Russian Federation in the expiring decade, i.e. the RF FCS Comprehensive Development

1 EAEU will review a possibility to finance catch-up economies in the framework of development institutes. URL: http://www.eurasiancommission.org/ru/nae/news/Pages/11-09-2020-2.aspx

2 This section was written by *Balandina G.*, Senior researcher of the Control/Audit Institute.

Program until 2020 and the Development Strategy of the Customs Service of the Russian Federation until 2020.

The main outcome of the reforms based on the updated customs legislation in respect of the Customs Code of the Eurasian Economic Union, entered into force on January 1, 2018, are as follows:

- opening of 16 e-declaration centers ensuring the declaration of goods throughout Russia. At 2020 year-end, these centers processed 98% of all customs declarations filed electronically. The number of customs offices was reduced from 84 to 66. 92% of all export and 80% of all import declarations were registered automatically, not involving customs officials. About 80% of goods consignments declared by foreign trade operators, classified as a low risk category, were rcleared for exports and 64% for imports in automatic mode. Furthermore, it took about 5 minutes on the average to clear such goods;
- introduction of advance notification of customs authorities about imported goods by all modes of transport;
- reduction of the list of documents to be submitted for customs declaration due to the operating system of interdepartmental electronic interaction;
- expansion of international cooperation, use of information received from the relevant authorities of foreign states by customs bodies of the Russian Federation.

The imposed restrictions on the movement of individuals and vehicles due to the spread of coronavirus infection COVID-19 required the customs service to adapt to the changing conditions in conducting routine economic activities. Until the end of the year, there were restrictions in place on the conduct of on-site customs inspections. The customs authorities ensured compliance with the ban on the export of personal protective equipment, protective means and disinfectants, medical supplies and materials, certain types of foodstuffs.[1] Advanced technologies for goods' customs clearance were used to import food and medical supplies.

On the whole, the year 2020 influenced by the changes associated with the spread of the coronavirus infection COVID-19, did not add to significant amendments in the field of customs administration, except for completing the previously planned activities.

The Federal Law of 13.07.2020 No. 193-FZ "On state support for entrepreneurial activity in the Arctic zone of the Russian Federation" was adopted, providing for the application of the customs procedure relevant to a free customs zone in the Arctic, as well as simplified procedures for implementing customs and other types of state control similar to those envisaged for the Free Port of Vladivostok.

The list of goods continued to expand with their marking being the condition for circulation within the territory of Russia. From October 1, mandatory labeling

1 Decision of the Board of the Eurasian Economic Commission of March 24, 2020 No. 41 "On amendments to the Decision of the Board of the Eurasian Economic Commission of April 21, 2015 No. 30 "On measures of non-tariff regulation."

of perfumes and eau de toilette[1], as well as cameras (except for movie cameras), photo flashes and flash lamps[2], was introduced, and from November, tires and tire casing.[3] Customs authorities allowed marking of imported goods within the territory of Russia subject to their placement in customs warehouses.

Development strategy of the Customs Service of the Russian Federation has been approved by the Resolution of the Government of the Russian Federation of 23.05.2020 No. 1388-r until 2030.

The key development goal is to establish a brand new, packed with "artificial intelligence", quickly reconfigurable, informationally connected with domestic and foreign partners, "smart" customs service by 2030, invisible to law-abiding businesses and effective for the state. The Action Plan for implementing the Strategy has been approved for the period up to 2024. Priority areas include: development and implementation of an "intelligent" checkpoint model; setting the stage for development of the EAEU unified transit system; further development of the institution of an authorized economic operator; development of customs administration of e-commerce; introduction of the customs audit institution; establishment of interdepartmental integrated information systems including transformation of the customs authorities fiscal function.

Despite the evident progress in improving customs administration, challenges in key areas of the RF customs system development remain pressing.

The risk management system behind the organization of customs control is based on a subject-oriented approach and includes several dozen risks profiles in various areas of control envisaged for different goods. However, there are different risk profiles for each stage of customs clearance. Data on global production and individuals involved in supply chains are poorly used in the information processed for risk analysis.

Due to risk fragmentation at different stages of customs procedures, the risk analysis system does not provide support for releasing "risky" goods by controlling them after customs clearance. Advanced procedures for clearing goods of foreign trade operators classified as a low risk category, using technologies for automatic registration and clearance of goods, do not present a stable situation for importers/exporters, which could allow them to rebuild their business processes and reduce costs (for example, to reduce stocks pending the just-in-time delivery).

The procedure for customs clearance of any goods may be held up for inspection. Moreover, the regulation for procedure of the customs clearance

1 Decree of the RF Government of 31.12.2019 No.1957 "On approving rules for labeling perfumes and eau de toilette with identification means and on particular aspects of introduction of the state information system for monitoring the circulation of goods subject to mandatory labeling with identification means in relation to perfumes and eau de toilette."

2 Decree of the RF Government of 31.12.2019 No.1953 " On approving rules for labeling cameras (except movie cameras), photo flashes and flash lamps with identification means and on particular aspects of introduction of the state information system for monitoring the circulation of goods subject to mandatory labeling with identification means in relation to photographic equipment."

3 Decree of the RF Government of 31.12.2019 No.1958 "On approving rules for labeling tires with identification means and on particular aspects of introduction of the state information system for monitoring the circulation of goods subject to mandatory labeling with identification means in relation to tires."

of goods in respect of foreign trade operators that are not classified as a low risk category, allows to retain goods for inspection, notwithstanding that such inspection can be conducted after the goods have been cleared.

Customs procedures containing an economic substance (processing in the customs territory, free customs zone, free warehouse) are applied with difficulties. Customs control technologies based solely on checking the information in each specific customs declaration, prevent a comprehensive analysis of the company's activities for a certain period, not only reducing the effectiveness of control but also imposing additional costs on foreign trade operators associated with the forced accounting by batches.

The system of financial guarantees is based on determining the extent of security for payment of customs duties in the amounts corresponding to customs duties potentially payable for each imported product. Global guarantees implying flexibility in determining their size, depending on risk assessment of violations resulting in the requirement to pay customs duties, and on the solvency and financial stability of a potential payer, are not virtually practiced. For this reason, financial guarantees do not present, the instrument that would reduce the level of customs control in clearing the goods. Consistency, clarity and predictability of customs rules for foreign trade operators are critical and required elements for managing the costs of Russian companies. However, these principles disaccord with frequent changes in the competence of individual customs authorities, affecting logistics, changes in sustainable law enforcement practice in terms of approaches to the classification of goods according to the TN VED, determining customs value after informing about the new requirements and recalculating the size of customs duties for already released goods (customs control conducted by the customs authorities within three years after clearance of goods).

Developing the institution of provisional solutions in respect of certain customs issues (for example, with regard to classification of goods, determination of the country of origin, methods for determining the customs value, application of customs benefits and preferential customs procedures) without their retrospective changes, will significantly reduce the risks of the unforeseen costs for companies due to changing conditions in the context of goods imported previously.

Annex

Timeline of the key events in the spread of the new coronavirus infection[1]

	Day[2]	Date	Event[3]
⊕	–31	12.31.19 🌐	Cases of pneumonia caused by the coronavirus infection are reported in Wuhan, People's Republic of China. Subsequently, a new, previously unknown type of coronavirus is reported to the World Health Organization (WHO).
⊕	–24	01.07.20 🌐	Chinese scientists identify the causative agent of the disease: 2019-nCoV coronavirus. WHO assigns to the pathogen the official name, SARS-CoV-2, and to the disease it causes, COVID-19 (abbreviation for Corona Virus Disease).
⊕	–22	01.09 🌐	In Wuhan, the first death of a patient with confirmed new type of coronavirus infection is recorded.
⊕	–19	01.12 🌐	Chinese scientists release and make publicly available data on the genome sequences of 2019-nCoV.
⊕	–18	01.13 🌐	The first novel coronavirus case outside mainland China is officially reported in Thailand.
⊕	–11	01.20 🌐	The chair of the special commission of experts set up by the National Health Commission of the People's Republic of China officially confirms the human-to-human transmission of 2019-nCoV.
⊕	–11	01.20 🌐	The first confirmed novel coronavirus case in South Korea.
⊕	–11	01.20 🌐	The first confirmed novel coronavirus case in the USA.
⊕	–10	01.20	Rospotrebnadzor develops tools for laboratory diagnostics of the novel coronavirus.
⊕	–7	01.24 🌐	In the province of Hubei (PRC), strict quarantine is introduced to check the novel coronavirus spread.
⊕	–7	01.24 🌐	The first two confirmed novel coronavirus cases in Europe (France).

1 The Annex is authored by *Ponomarev, Y.*, Candidate of Economic Sciences, Head of the Center for Infrastructural and Spatial Research, IAES RANEPA, senior researcher at the Center for Real Sector, the Gaidar Institute; *Borzykh, K.*, junior researcher at the Center for Infrastructural and Spatial Research, IAES RANEPA; *Makarov, A.*, researcher at the Center for Infrastructural and Spatial Research, IAES RANEPA; *Radchenko, D.*, junior researcher at the Center for Infrastructural and Spatial Research, IAES RANEPA.

2 From the date of the first officially confirmed case of COVID-19 in Russia.

3 Event category: ⊕ – events related to the health care sector, sanitary and epidemiological measures; 💼 – events related to the economic sphere; 👥 – events related to the social sphere and information coverage; 🎛 – events related to the management sphere; 🌐 – global-scale events or those happening outside Russia.

	Day[2]	Date	Event[3]
	–7	01.24	In order to prevent imported cases and the spread of the novel coronavirus infection caused by 2019-nCoV across the territory of the Russian Federation, the top government officials of subjects of the Russian Federation are recommended to approve regional organizational plans for sanitary and anti-epidemic measures, and measures to enhance the current disinfection regime; heads of the regional offices of Rospotrebnadzor should develop and submit a draft plan of organizational sanitary and anti-epidemic measures for the consideration by the bodies of executive authority of subjects of the Russian Federation (Decree of the Chief State Sanitary Physician of the Russian Federation No. 2 dated January 24, 2020 "On Additional Actions to Prevent the Import and Spread of the Novel Coronavirus Infection Caused by 2019-nCoV").
	–6	01.25	The Russian Ministry of Health launches an information section on its website, dedicated to the new coronavirus.
	–5	01.26	Rospotrebnadzor of Russia issues recommendations to citizens on prevention of the novel coronavirus infection.
	–3	01.28 	The number of deaths from the novel coronavirus infection in China jumps above 100.
	–4	01.29	The composition of the newly created interdepartmental operational headquarters to monitor the situation with the coronavirus spread is approved.
	–1	01.30 	WHO at an emergency meeting declares the novel coronavirus to be a public health emergency of international concern.
	–1	01.30	Temporary restrictions imposed on traffic at the checkpoints on certain sections of the state border of the Russian Federation with the People's Republic of China (RF Government Directive No 140-r dated January 30, 2020).
	+0	01.31	Two (first) cases of coronavirus infection are reported in the territory of the Russian Federation (both of them citizens of China).
	+0	01.31	The novel coronavirus infection is included in the list of diseases that pose a danger to other people (RF Government Decree No 66 dated January 31, 2020).
	+0	01.31	Temporary restrictions imposed on the traffic of citizens of the PRC at the checkpoints on certain sections of the state border of the Russian Federation with Mongolia (RF Government Directive No. 154-r dated January 31, 2020).
	+0	01.31	Rospotrebnadzor determines a temporary procedure for specialists involved in sanitary and anti-epidemic measures in the event of a laboratory confirmed case of the novel coronavirus infection (Rospotrebnadzor's Recommendations No 02/1297-2020-33 dated January 31, 2020).
	+1	02.01	By President of the Russian Federation Vladimir Putin's order, aircraft of the Russian Aerospace Forces are to be involved in the evacuation of Russian citizens from China.
	+2	02.02	In response to the epidemiological situation, an emergency regime is introduced in the two districts of Primorsky Krai bordering China. Special isolation centers are opened for Chinese citizens with a residence permit and those arriving in Russia.
	+3	02.03	Due to the spread of the novel coronavirus epidemic, the dates for the Russian Investment Forum in Sochi are rescheduled.
	+7	02.07	In Khabarovsk, individual face masks are made mandatory for the staff of enterprises in several industries for the purpose of checking the spread of coronavirus.
	+7	02.07	The Bank of Russia decides to cut the key rate by 25 basis points to 6% per annum amid significant global economic slowdown risks.

	Day[2]	Date	Event[3]
	+8	02.08	By way of humanitarian aid to China, Russia sends to China an aircraft of the Russian Emergencies Ministry with a cargo of humanitarian aid, including medicines and means of individual protection.
	+9	02.09 	The mortality rate of the novel type of coronavirus infection rises above that of SARS in 2002–2003.
	+14	02.11	Rospotrebnadzor receives registration certificate No. RZN 2020/9677 for a test system for the detection of the novel coronavirus, developed by the State Research Center of Virology and Biotechnology VECTOR.
	+15	02.15 	The first death from the coronavirus is recorded in Europe (France).
	+17	02.17 	The first case of coronavirus infection contracted by a RF citizen is recorded on the Diamond Princess cruise ship in Japan.
	+25	02.25 	The Russian Embassy in Italy recommends that Russian citizens refrain from travel to the northern regions of Italy due to the unfavorable epidemiological situation there.
	+27	02.27	The admission and entry of citizens of the Islamic Republic of Iran and the Republic of Korea into the territory of Russia (except for the entry through Sheremetyevo) is suspended (RF Government Directives No. 446-r, No 447-r, and No. 448-r dated February 27, 2020).
	+31	03.02	The Moscow Health care Department confirms the first infection of a Russian citizen with the new coronavirus infection in Russia (in Moscow).
	+32	03.03	At all Russian airports that receive flights from Italy, Iran and South Korea, sanitary control is toughened and measures designed to organize mandatory checks and control of the health status of passengers on arriving aircraft are introduced.
	+33	03.04	Temporary ban is imposed on exports of medical products from Russia (RF Government Decree No. 223 dated March 02, 2020).
	+34	03.05	The state of high alert for Moscow city services is introduced; the requirements for preventive checkups and control of citizens arriving from countries with an unfavorable coronavirus infection situation are toughened (Decree of the Mayor of Moscow No. 12-UM dated March 5, 2020).
	+35	03.06	The coronavirus infection spreads further across the country: in addition to Moscow that sees the highest spike, cases are also registered in Nizhny Novgorod (March 6), St. Petersburg and Lipetsk (March 7), Kaliningrad, Belgorod and Moscow regions (March 8). All cases are imported (Italy).
	+38	03.09 	Italy introduces a strict isolation regime in order to contain the spread of coronavirus infection.
	+39	03.10	Temporary ban is imposed on all sports, entertainment and other public events of more than 5,000 people in Moscow (Decree of the Mayor of Moscow N. 17-UM dated March 10, 2020)
	+40	03.11 	WHO announces the novel type coronavirus COVID-19 outbreak a pandemic.
	+41	03.12	The construction of a new infectious diseases hospital complex in Troitsky and Novomoskovsky administrative districts of Moscow is launched. The hospital has a capacity of 500 beds, including up to 250 intensive care beds.
	+42	03.13 	WHO director-general announces that the European Union has become the epicenter of the coronavirus pandemic, with the number of reported cases and deaths exceeding China's spike.

	Day[2]	Date	Event[3]
	+42	03.13	Restrictions are imposed on passenger air traffic between Russia and Italy, Germany, Spain, and France. Exceptions are made for some regular flights and repatriation charter flights for Russians.
	+43	03.14	By instruction of Chairman of the Government of the Russian Federation Mikhail Mishustin, the Government Coordination Council to control the incidence of the novel coronavirus infection is created, and its composition approved (RF Government Decree No. 285 dated March 14, 2020; RF Government Directive No. 623-r dated March 14, 2020).
	+43	03.14	The RF Ministry of Education issues a recommendation to the regions on a temporary switchover of schools to distance learning to prevent the spread of coronavirus infection.
	+43	03.14	The RF Ministry of Science and Higher Education issues Order No. 398 dated March 14, 2020 whereby it recommends, from March 16, a temporary switchover of universities to distance learning.
	+45	03.16	Russia's Prime Minister Mikhail Mishustin announces the first set of economic support measures. An anti-crisis fund is created in the amount of RUB 300 billion. The proposals include tax incentives for some industries (tourism, aviation), the permission to order over-the-counter medications on the Internet, more relaxed regulation of transportation of goods and an easier access to loans for SMEs.
	+45	03.16 	The introduction of lockdown measures in Germany.
	+45	03.16	The government creates a single portal at Stopkoronavirus.rf to inform the public of the situation with the spread of coronavirus infection in the country and preventive measures, and to refute false information.
	+45	03.16	A temporary restriction on passenger air traffic between Russia and the European Union member states is introduced (with a few exceptions).
	+45	03.16	Expansion of restrictive measures in Moscow in response to the coronavirus (the enforcement of stay-at-home regime for all individuals arriving from abroad, a ban on events with more than 50 participants, the shutdown of general education and sports schools from March 21).
	+46	03.17	A temporary shutdown of institutions under the jurisdiction of the RF Ministry of Culture (museums and organizations involved in exhibition activities, theaters, philharmonic societies, circuses and other performing arts organizations) (amendments to the RF Ministry of Culture Order No. 357 dated March 16, 2020 'On sanitary restrictions in connection with the pandemic for the subordinate institutions').
	+46	03.17	The RF Government and the Bank of Russia launch the first set of economic support measures. The economic package is designed to ensure financial stability, maintain the sustainability of sectors and industries across the national the economy, and support the population and regional budgets.
	+46	03.17	A coronavirus monitoring center (CMC) is established in Moscow to collect and analyze information about the developments regarding coronavirus. The opening ceremony is attended by President of Russia Vladimir Putin, Chairman of the Government of the Russian Federation Mikhail Mishustin, Deputy Prime Minister of the Russian Federation Dmitry Chernyshenko, Moscow Mayor Sergey Sobyanin.
	+47	03.18	The postponement of the European Football Championship.
	+47	03.18	The entry of all foreign citizens and stateless persons into the territory of Russia is restricted.
	+47	03.18	Restrictions on the entry of foreign citizens into EU member states.

	Day[2]	Date	Event[3]
	+47	03.18 	WHO announces the launch of the first trials of a vaccine against the coronavirus.
	+48	03.19	In Russia (in Moscow), the first death of a patient with confirmed coronavirus infection is recorded.
	+48	03.19	The state of high alert is introduced in all subjects of the Russian Federation.
	+48	03.19	Decree No. 7 of the Chief State Sanitary Physician of the Russian Federation "On ensuring the isolation regime to prevent the spread of COVID-2019" enters into force, whereby everyone arriving in Russia should be in isolation for 14 days and undergo tests.
	+49	03.20	The State Research Center of Virology and Biotechnology VECTOR under Rospotrebnadzor launches tests of a vaccine against the new coronavirus.
	+49	03.20	The first Russian-Japanese coronavirus diagnostic test system 'Smartlife' (Evotech-Mirai Genomics) is registered in Russia.
	+51	03.22	Russia sends military medical specialists, virologists and medical equipment to Italy, as part of its humanitarian assistance to the country significantly affected by the pandemic.
	+52	03.23	The RF Ministry of Education decides to switch over Russian schools to a vacation mode or distance learning from March 23 to April 12. Likewise, from March 25, the universities under the jurisdiction of the RF Ministry of Science and Higher Education are switched over to distance learning.
	+53	03.24	Russian President Vladimir Putin visits a hospital for patients with suspected coronavirus infection at Kommunarka near Moscow.
	+53	03.24	The postponement of the Olympic Games for 1 year.
	+54	03.25	Address of President of Russia Vladimir Putin on the situation with the coronavirus pandemic, his announcement of a weeklong paid national holiday from March 30 to April 3, the introduction of priority measures to support individuals and businesses (benefits and payments to families with children, tax incentives for SMEs, credit holidays, etc.), and postponement of the voting on amendments to the Constitution of the Russian Federation).
	+54	03.25	The Central Research Institute of Epidemiology under Rospotrebnadzor develops and registers a highly sensitive diagnostic test (Registration Certificate No RZN 2014/1987) for detecting RNA virus genomes of the novel coronavirus and SARS-Cov- and MERS-Cov-related viruses.
	+54	03.25 	The end of lockdown measures in Hubei province (PRC).
	+55	03.26	Expansion of the measures to control the spread of the coronavirus in Moscow: the introduction of a self-isolation regime for senior citizens and individuals with chronic diseases, temporary shutdown of shopping and entertainment centers, and cultural, leisure, sports facilities, and temporary cancellation of free transportation passes.
	+55	03.26 	The number of new coronavirus cases in the world exceeds 500,000.
	+56	03.27	A ban is imposed on regular and charter flights to and from other countries, with the exception of repatriation charter flights for Russians.
	+57	03.28	The allocation of RUB 1.5 billion from the RF Government's reserve fund to the Federal Air Transportation Agency to subsidize its air transportation organizations (RF Government Directive No 767-r dated March 28, 2020).

	Day[2]	Date	Event[3]
	+59	03.30	A temporary restriction on all cross-border traffic (road, rail, pedestrian, river and mixed) at all border checkpoints along the state border of the Russian Federation, including the land section of the state border between Russia and Belarus (RF Government Directive No. 763-r dated March 27, 2020).
	+60	03.31	With the participation of the Bank of Russia and the RF Ministry of Finance, amendments to legislation are prepared whereby a 'credit holiday' (a suspension of repayment of principal and interest on loans) is to be granted for citizens, individual entrepreneurs, small and medium-sized businesses.
	+62	04.02	Address of President of Russia Vladimir Putin in connection with the situation with the coronavirus: delegation of additional powers to heads of regions whereby they may on their own choose the type of regime to be established in the territory of a particular region depending on the objective situation with regard to the spread of the novel coronavirus infection in the corresponding RF subject (Executive Order of the President No. 239 dated April 2, 2020).
	+62	04.02	Until January 1, 2021, a moratorium is introduced on charging and collecting penalties for payments in arrears for housing and amenities.
	+62	04.02 	The number of coronavirus infection cases in the world exceeds 1 million. The highest numbers are recorded in the USA, Italy, Spain, Germany, and China.
	+63	04.03	A 6-month moratorium is introduced on initiation of bankruptcy proceedings against debtors who have suffered from the spread of coronavirus infection or are on the list of strategic enterprises (Government Decree No 428 dated April 3, 2020).
	+63	04.03	Prolongation for 12 months of the fixed-term licenses and other permits expiring over the period from March 15 through December 31, 2020 (RF Government Decree No. 440 dated April 3, 2020).
	+63	04.03	Rospotrebnadzor prepares its recommendations on mandatory disinfection of infrastructure facilities, common areas, including those in residential apartment buildings, and open spaces in urban territories (Rospotrebnadzor's Recommendations No. 02/5925-2020-24 dated April 3, 2020).
	+63	04.03	Approval of the list of sectors of the Russian economy that have been affected most by the deteriorating situation as a result of the spread of the novel coronavirus infection (RF Government Decree No. 434 dated April 3, 2020).
	+64	04.04	Suspension of international repatriation flights for Russian nationals stuck abroad in order to elaborate, in the meantime, a proper repatriation schedule and sanitary measures for Russian tourists.
	+65	04.05	The number of coronavirus cases in Russia exceeds 5,000.
	+65	04.05	Suspension of railway communication with Belarus and the Kaliningrad region (from April 6).
	+66	04.06	Resumption of repatriation flights for Russian citizens who remained abroad.
	+68	04.08	The President of Russia's meeting with heads of regions concerning prevention of the spread of coronavirus in Russia: the announcement of support measures, including: - additional payments to medical personnel; additional insurance guarantees; from April, an additional monthly payment of RUB 25,000 to 80,000, for three months; - social support measures (including unemployment benefits in the amount of minimum wage to families with children aged 3-7 years where the parents have lost their jobs); - measures to support businesses (including a six-month deferral of social contributions to insurance funds).
	+69	04.09	The number of coronavirus cases in Russia exceeds 10,000.

	Day[2]	Date	Event[3]
	+70	04.10 	The number of coronavirus deaths in the world exceeds 100,000.
	+70	04.10	The State Research Center of Virology and Biotechnology VECTOR under Rospotrebnadzor registers a test system for identifying antibodies to coronavirus, whereby population immunity can be studied.
	+70	04.10	The introduction of a system of large-scale restrictions in Moscow: shutdown of enterprises and organizations, the introduction of digital transportation passes for trips to the workplace and back from April 13, and then digital transportation passes for trips for other purposes (Decree of the Mayor of Moscow No. 42-UM dated April 10, 2020). Similar restrictions are introduced in the Moscow region.
	+71	04.11	Instructions of President Vladimir Putin following his meeting with representatives of the business community on March 26, 2020: elaboration of the criteria for defining a company as a SME; the issues associated with tax installment payments by SMEs; the compensation for canceled entertainment events and excursion programs.
	+72	04.12	The daily increase in the number of COVID-19 cases in Russia for the first time jumps above 2,000. Approximately two-thirds of the 15,800 recorded cases are in Moscow. At the same time, the number of pneumonia patients in the capital is also on the rise: over one week, the number of cases doubled.
	+72	04.12 	In the USA, all 50 states receive a federal disaster declaration (it allows states and territories access to funds from the federal government to fight the coronavirus spread).
	+72	04.12	In Russia, a ban on exports of buckwheat, rice, garlic and other food products is imposed in response to the pandemic in the framework of the decisions of the Eurasian Economic Commission.
	+73	04.13 	Extension of the lockdown in Italy until May 5, and in France, until May 11.
	+74	04.14 	In some European countries (Spain, Denmark), certain restrictions are eased: some organizations reopen.
	+75	04.15 	The number of people infected with coronavirus in the world exceeds 2 million.
	+75	04.15	More than 1.5 million laboratory tests for the novel coronavirus have been performed in Russia, and the country now ranks second in the world for the total number of tests for the novel coronavirus.
	+76	04.16	The COVID-19 pandemic is recorded in all regions of Russia (the last region with no cases of the disease was the Altai Republic).
	+77	04.17	Instructions of President Vladimir Putin in the medical field: to ensure short-term forecasting of the number of citizens who may contract the novel coronavirus infection (COVID-19), provision of PPE, hospital readiness, and other measures).
	+77	04.17	Additional measures to protect citizens and support the economy, measures against money laundering, foreign exchange control, measures to maintain the potential of the banking sector to lend to the economy (Bank of Russia).
	+78	04.18	Tightened lockdown regime in Moscow (Decree of the Mayor of Moscow No. 44-UM dated 04/18/2020): lockdown is extended until May 1, CCTV roadway surveillance, traffic video and digital still cameras are used for the purpose of increasing the lockdown regime efficiency, single-use tickets on public transportation are canceled to reduce the number of passengers, and other measures.

	Day[2]	Date	Event[3]
	+78	04.18	Labor migrants who were staying legally in this country as of March 15, are allowed to freely stay and work in this country until June 15 without paying for a patent (Executive Order of the President No. 274 of April 18, 2020).
	+78	04.18	The list of sectors of the Russian economy that have been affected most by the deteriorating situation as a result of the spread of the new coronavirus infection now includes museums; zoos; a number of non-food retail trade sub-sectors (RF Government Decree No. 540 dated April 18, 2020).
	+79	04.19	Additional measures are taken to promote blood donation. In particular, in Moscow the amount of payments to blood donors with antibodies to coronavirus is set as follows: individuals who have had COVID-19 are to receive RUB 1,250 for every 150 ml of blood plasma, or RUB 5,000 for 600 ml of blood plasma (Decree of the Moscow Government No 412-PP).
	+80	04.20 	Many European countries continue to ease lockdown restrictions. For example, in Germany, small stores with a sales area of up to 800 m2 reopen from April 20.
	+80	04.20	Rospotrebnadzor issues recommendations for organizations in the transportation industry on how to operate in a situation of the persisting risks of the spread of coronavirus infection (Rospotrebnadzor's Recommendations No. 02/7373-2020-32 dated April 20, 2020).
	+81	04.21	The number of cases in Russia exceeds 50,000.
	+81	04.21	Rospotrebnadzor sends its recommendations to the bodies of executive authority of subjects of the Russian Federation concerning the organization of the services sector's operation in order to prevent the transmission of coronavirus infection (non-food stores, road transportation maintenance enterprises, dressmaking shops, laundries and drycleaners, beauty and hairdressing salons) (Methodological Recommendations MR 3.1/2.2.0173/1-20).
	+82	04.22	Instructions of President Vladimir Putin to support the building construction industry (preferential mortgage plans at a rate of 6.5% until November 1, 2020 for amounts under RUB 3 million (in 4 regions, under RUB 8 million), compensation of interest rates on loans for building construction companies, the issuance of government guarantees to DOM. RF Corporation in the amount of RUB 50 billion, other measures).
	+82	04.22	In Moscow from April 22, individuals with acute respiratory viral infection symptoms are also required to comply with the mandatory self-isolation regime rules (Decree of the Mayor of Moscow No. 47-UM dated April 21, 2020).
	+84	04.24	The Bank of Russia cuts its key rate by 50 basis points (to 5.5%) for the purpose of stimulating the Russian economy amid the pandemic.
	+84	04.24 	The US Centers for Disease Control and Prevention (CDC) update and expand the list of possible coronavirus signs to include 6 new symptoms (chills, sudden fatigue, muscle aches, headache, sore throat, loss of taste and smell).
	+84	04.24	The RF Ministry of Health issues new recommendations to maintain the routine vaccination schedules in order to prevent an epidemic of other diseases alongside the coronavirus pandemic (previously, Rospotrebnadzor recommended exactly the opposite: the suspension of routine vaccinations in order to reduce contacts between individuals).
	+84	04.24	Medium-sized and large enterprises from the affected industries, alongside small and micro-businesses, can now also receive interest-free loans to pay wages (RF Government Decree No. 575 dated April 24, 2020).
	+84	04.24	The possibility for credit institutions to receive federal budget subsidies to compensate for their lost income on working capital loans issued to systemically important credit institutions (RF Government Decree No. 582 dated April 24, 2020).

	Day[2]	Date	Event[3]
	+85	04.25	In several Russian regions, a relaxation of lockdown measures is considered (in the Kaliningrad, Kirov and Leningrad regions, in the Crimea). Thus, in the Tver region, government services centers, beauty salons, clothing and footwear stores, and multifunctional state services centers (MFCs) reopen.
	+88	04.28	Extension of the non-working period in Russia until May 11, 2020.
	+90	04.30	The number of coronavirus cases in Russia exceeds 100,000; more than 1,000 coronavirus deaths since the onset of the epidemic are registered. Prime Minister of Russia Mikhail Mishustin is diagnosed with the coronavirus.
	+90	04.30 	In the world, there are nearly 3.2 million coronavirus cases. The majority of cases have occurred in the USA (more than 1 million), Spain, Italy, France, and Germany.
	+90	04.30	The Government of the Russian Federation ahead of time lifted the moratorium imposed on March 4 on export of medical goods from Russia. Restriction should have been in force until June 1, 2020, (Resolution of the Russian Federation as of April 30, 2020 No. 637).
	+94	05.04 	The government of the Russian Federation lifts the moratorium on exports of medical devices from Russia imposed on March 4, ahead of schedule. It was to last until June 6, 2020 (RF Government Directive No. 637 dated April 30, 2020).
	+94	05.04	From May 4, coronavirus lockdown measures are relaxed in some countries: in Serbia (cafes and restaurants reopen, public transportation begins to operate); Spain (bookstores, hairdressers, shoe and clothing repair shops reopen, takeaway from cafes and restaurants is allowed); Italy (takeaway restaurants reopen, industrial production and building construction operations are resumed); Cyprus (travel agencies, shops, temples reopen (for groups of not more than 10 people)); Malaysia (all traffic and travel restrictions are lifted, businesses reopen). Restrictions are eased in Greece, Poland, Tunisia, Armenia, Kazakhstan.
	+95	05.05	Instructions of President Vladimir Putin to support the automotive industry (ahead-of-schedule purchases in May – July of automobiles previously planned for 2020–2022; the allocation of RUB 7 billion to preferential car loans; the allocation of RUB 5 billion to purchase of ambulances; and other measures).
	+96	05.06	Adjustment of the regions' budget loan repayment schedules: in 2020, full exemption from debt repayment; in 2021–2024, annual payment of 5% of debt (RF Government Decree No. 619 dated April 30, 2020).
	+98	05.08	In Moscow, a total of 1 million coronavirus tests have been performed to date.
	+99	05.09	Rospotrebnadzor issues guidelines for determining the indicators for phased lifting of lockdown measures.
	+100	05.10	The number of reported COVID-19 cases in Russia exceeded 200,000.

	Day[2]	Date	Event[3]
	+101	05.11	Изменены ограничительные меры и предложены новые меры Adjustment of lockdown measures and new measures designed to support individuals and business (within the framework of President Vladimir Putin's meeting concerning the sanitary and epidemiological situation): - the period of non-work days will end on May 12 (on condition of compliance with the general sanitary requirements); - social support measures: within the period from April to June, monthly benefit amounting to RUB 5,000 for each child aged up to 3 is assigned to the families entitled to the maternity capital; from June 1, the families with income per family member below the subsistence level can apply for benefits to their children aged 3 to 7. Besides, there will be a one-time payment of RUB 10,000 for each child aged 3 to 16; - business support measures: from June 1, a special employment support loan program is to be launched (for enterprises in the affected industries and for socially oriented NPOs); a six-month tax deferral plans for enterprises in the affected industries, with the possibility of tax installments to be spread throughout the year; the possibility of registration of self-employed individuals is already available in 23 regions, the provision of all self-employed individuals with the so-called 'tax capital' in the amount of one minimum wage to cover their tax payments due this year, so that they could keep their own funds; additional capitalization of those regional financial institutions that provide support to small and medium-sized businesses, with RUB 12 billion earmarked for these purposes (the funds were allocated to the National Project 'Support for Small and Medium-sized Businesses' for the next few years).
	+102	05.12	The first phase of lifting of restrictions in Moscow: the period of non-working days ends on May 12; reopening of building construction and industrial enterprises (Decree of the Mayor of Moscow No. 55-UM dated May 7, 2020).
	+109	05.19	Prime Minister Mikhail Mishustin recovers from the coronavirus and resumes work in the Government House.
	+110	05.20	In Russia, the number of coronavirus recoveries exceeds new cases for the first time.
	+111	05.21	The next stage of lifting of restrictions in Moscow: multifunctional state services centers (MFCs) reopen, car sharing is resumed.
	+115	05.25	Rospotrebnadzor issues recommendations concerning the functioning of health-resort organizations in face of the persisting risks of the spread of the coronavirus infection: in 2020, summer recreational activities for children should be limited to the territory of their region of residence, each health-resort organization will be supervised by a specially assigned medical organization (Methodological Recommendations MR 3.1/2.4.0185-20).
	+117	05.27	The organization of free-of-charge testing for antibodies to coronavirus in Moscow.
	+119	05.29	Refund to self-employed individuals of their tax payments for 2019 (the allocation of RUB 1.6 billion) (RF Government Decree No. 783 dated May 29, 2020, RF Government Directive No. 1431-r dated May 29, 2020).
	+120	05.30	The RF Ministry of Health approves the first drug in Russia to treat the coronavirus infection.
	+121	05.31	The number of coronavirus patients in Russia rises above 400,000.
	+122	06.01	The next stage of lifting the lockdown in Moscow: non-food stores reopen, outdoor walks and sports are allowed (according to a specific schedule).

	Day[2]	Date	Event[3]
	+123	06.02	Prime Minister Mikhail Mishustin presents to the President of the Russian Federation a national action plan to restore employment and people's incomes, ensure economic growth and provide long-term structural changes. The plan consists of 9 sections and envisages the implementation of approximately 500 measures. President Vladimir Putin instructs the Government of the Russian Federation to prepare proposals for a more specific elaboration of national projects.
	+124	06.03	The provision of routine medical care in medical institutions is resumed (RF Government Directive No. 1470-r dated June 3, 2020).
	+130	06.09	The self-isolation regime, digital passes and the schedule of walks are cancelled in Moscow (Decree of the Mayor of Moscow No. 68-UM dated June 8, 2020).
	+134	06.15	From June 15, Dagestan plans to begin to lift the restrictions imposed to curb the coronavirus pandemic: non-food stores with a sales area less than 400 m2 and service enterprises reopen; outdoor walks and sports are allowed, on condition that face masks should be worn.
	+137	06.16	The next stage of lifting the lockdown in Moscow is announced: summer verandas of cafes and restaurants, libraries, real estate offices, rental services, advertising, consulting and other agencies, museums, exhibition halls and the city zoo reopen; the restrictions on the provision of planned dental care are lifted; the attendance of sports events is allowed, provided that the venues should be filled up to 10% of their capacity.
	+138	06.17	Clinical trials of COVID-19 vaccines are launched in Russia.
	+139	06.19	The Bank of Russia cuts the key rate by 100 basis points (up to 4.5%) in response to the long lockdown period and a deep plunge of external and domestic demand.
	+140	06.20	The finalized draft of the national economic recovery plan is submitted to the President of Russia.
	+141	06.21	In the Murmansk region, the mandatory self-isolation regime for individuals entering its territory is canceled.
	+143	06.23	The next stage of lifting the lockdown in Moscow: the resumption of registration acts in register offices; restaurants, fitness centers, and kindergartens reopen; the restrictions on the use of urban infrastructure facilities for sports and recreation are lifted (Decree of the Mayor of Moscow No. 74-UM dated June 22, 2020).
	+143	06.23	Address by President Vladimir Putin to the citizens of Russia: additional support measures for individuals and business are announced (the incentive payments for medical personnel who directly provide medical care to patients with the coronavirus infection are extended until August, and those for employees of social institutions are extended until September 15; an additional payment of RUB 10,000 per every child under 16 years of age in July; the decisions to support the labor market, to increase unemployment benefit, and to pay child benefits to families with temporarily unemployed parents are to remain in force in July and August; a change in the income tax rate for individuals earning an annual income of more than RUB 5 million from 13% to 15%; and other measures).
	+146	06.26	The following sectors are added to the list of sectors of the Russian economy most affected by the deterioration of the economic situation as a result of the spread of the new coronavirus infection: intercity passenger rail transportation; maritime passenger transportation; inland waterway passenger transportation (RF Government Decree No 927 dated June 26, 2020).

	Day[2]	Date	Event[3]
	+150	06.30	Decree of the Chief State Sanitary Physician of the Russian Federation No 16 dated June 30, 2020 approves the sanitary and epidemiological requirements for the organization of work and the functioning, during the notable spreading of the coronavirus infection, of the social infrastructure facilities intended for children and young people (educational, leisure, sports, health-resort, and other specialized institutions, including those that provide care to minors).
	+151	07.01	The removal of restrictions, by EU member states, on the movement across their external borders of residents of 14 countries: Algeria, Australia, Canada, Georgia, Japan, Montenegro, Morocco, New Zealand, Rwanda, Serbia, South Korea, Thailand, Tunisia, and Uruguay. The Russian Federation and the USA are not included in this list.
	+151	07.01	The summer tourist season is launched in Russia (in a number of regions, a preliminary lifting of restrictive measures on tourism is undertaken).
	+153	07.03	The first Unified State Exams in certain subjects take place in Russia. The examination procedure is conducted in accordance with the recommendations of Rospotrebnadzor.
	+153	07.03	Rospotrebnadzor imposes a ban on large-scale events for children until the end of the year, special sanitary requirements are established for the operation of schools and kindergartens during the coronavirus pandemic for the period until January 1, 2021. A temporary ban is imposed on the traffic of children to summer camps situated outside the territory of the subject of the Russian Federation which is the place of their actual residence (with the exception of the Arctic zone, the cities of Moscow, St. Petersburg and Sevastopol).
	+158	07.08	The start of a second wave of the coronavirus infection in several countries, re-introduction of lockdown measures: Australia (Melbourne), Serbia (Belgrade), Israel, Spain (Catalonia), Uzbekistan, Kazakhstan.
	+163	07.13	The continuation of lifting the lockdown in Moscow: educational institutions reopen in a full-time mode; attractions in amusement parks, recreation parks, cultural centers and leisure-type organizations reopen; all restrictions on entrepreneurship, the provision of retail services and other types of activities, are lifted, except the requirement to comply with sanitary rules; children's summer camps and children's entertainment centers reopen. It is no longer mandatory to wear a face mask in the streets.
	+164	07.14	The number of coronavirus cases in the world rises above 13 million: the USA tops the list with 3.4 mn cases, followed by Brazil with 1.9 mn cases.
	+165	07.15	The mandatory 14-day isolation regime for the individuals arriving in Russia by regular air flights from the countries with which it is planned to resume air traffic is canceled. All the arriving individuals must provide a certificate of a negative PCR test result (polymerase chain reaction, a method that detects the presence of the virus in the body) or undergo the test in Russia within 3 calendar days of their arrival.
	+165	07.15	Small and medium-sized businesses and socially oriented non-profit organizations can apply for subsidies to cover the cost of preventive and disinfection measures (RF Government Decree No. 976 dated July 2, 2020).
	+166	07.16	In Moscow, all citizens may take a free-of-charge PCR test at 207 outpatient city hospitals.
	+166	07.16	The first group of volunteers vaccinated against the coronavirus is discharged from hospital (all of them acquired confirmed immunity to the virus).
	+166	07.16	The amount of soft loan for systemic companies and their subsidiaries is raised to 5 billion rubles (RF Government Decree dated July 16, 2020 No. 106).
	+168	07.18	The number of cases of the new coronavirus in the world exceeds 14 million; the death toll is 600,000.

	Day[2]	Date	Event[3]
	+170	07.20	The Gamaleya Research Institute of Epidemiology and Microbiology discharges the second group of volunteers on whom its coronavirus vaccine has been tested, the tests were successful, all of them developed immunity.
	+171	07.21	By President Vladimir Putin's Executive Order No. 474 dated July 21, 2020, the national development goals of the Russian Federation for the period until 2030 are set. The RF Government is instructed to submit proposals for bringing in conformity with the Executive Order of the President No. 204 dated May 7, 2018, adjusting (elaborating) national projects, developing a single plan to achieve the national development goals of the Russian Federation for the period until 2024 and the planning period until 2030.
	+174	07.24	The Bank of Russia cuts the key rate by 25 basis points (to 4.25%), which hits its new all-time low.
	+177	07.27	RF Minister of Education Sergey Kravtsov announces that the new academic year in schools institutions will start in the framework of the traditional learning process (not in the distance education format).
	+182	08.01	The mandatory 14-day isolation regime for the individuals arriving in Russia by special repatriation flights chartered for Russian citizens and by regular flights (with the exception of foreign citizens arriving for their employment purposes). Foreign citizens must produce their PCR test results, Russian citizens must undergo the test within 3 days of their arrival (Decree of the Chief State Sanitary Physician of the Russian Federation No. 22 dated 27 July 2020).
	+182	08.01	Cinemas reopen in Moscow.
	+182	08.01	International flights to and from the UK, Turkey and Tanzania are resumed.
	+182	08.01	RF Minister of Health Mikhail Murashko states that the clinical trials of the coronavirus vaccine developed by the Gamaleya Research Institute of Epidemiology and Microbiology are completed, and announces plans for a mass vaccination campaign from October 2020.
	+183	08.02 	The number of cases of the novel coronavirus infection in the world rises above 18 million, the highest spikes are observed in the USA (4.6 million) and Brazil (2.7 million). The death toll rises above 687,000. Russia has the fourth-highest caseload in the world.
	+187	08.06	The Federal Medical-Biological Agency (FMBA) receives a patent for Leitragin, a drug that can prevent or mitigate complications of COVID-19 (severe respiratory and general systemic disorders).
	+187	08.06	The list of instructions of the President of the Russian Federation concerning the preparation of the health care system for the autumn-winter period 2020–2021 is approved (financing of the measures designed to prevent acute respiratory infections; financing of the purchases of pharmaceuticals, PPE, disinfectants, the creation of their stocks; maintaining a reserve of specialized beds; organizing a free-of-charge medical examination and vaccination campaign to fight influenza, to cover up to 60% of the general population and 75% of individuals in the high risk groups, and a vaccination campaign to fight the new coronavirus infection after the corresponding vaccines receive State registration; other measures).
	+187	08.06	RF Government Decree No. 1191 dated August 8, 2020: the medical workers who have been involved in the fight against the coronavirus are entitled to early retirement, their retirement record to be recalculated on the basis of the principle "one workday counts for two days."
	+188	08.07	The railway communication between Russia and Abkhazia is resumed.
	+191	08.10	The charter flights of Russian and Turkish airlines in the direction of Turkish resorts (Dalaman, Bodrum, Antalya) are resumed.
	+191	08.10 	The number of cases of the new coronavirus infection in the world rises above 20 million (the USA, Brazil, and India taken together account for more than half of all reported cases). The death toll exceeds 728,000.

	Day[2]	Date	Event[3]
	+192	08.11	The vaccine against the novel coronavirus (the first in the world, named 'Sputnik V') developed by the Gamaleya Research Institute of Epidemiology and Microbiology is officially registered. The planned date of the start of its commercial use is January 1, 2021.
	+192	08.11	The second Russian vaccine against coronavirus (EpiVacCorona), developed by the State Research Center of Virology and Biotechnology VECTOR, successfully passes the first stage of testing on volunteers.
	+193	08.12	The simplified procedure for the assignment of pensions and social benefits for the population is extended until the end of August.
	+195	08.14 	Re-introduction of some lockdown measures to fight the novel coronavirus infection in Spain (shutdown of nightclubs and restaurants, ban on visits to nursing homes) due to an increase in the incidence.
	+196	08.15 	Flights between Russia and Switzerland are resumed.
	+196	08.15	The first batch (15,500 doses) of Russia's first vaccine against coronavirus (Sputnik V) is produced at the Binnopharm pharmaceutical plant in Zelenograd.
	+197	08.16	The coronavirus vaccine is included in the list of medications the delivery of which to the subjects of the Russian Federation is to be controlled at the federal level.
	+198	08.17	Head of Rospotrebnadzor Anna Popova announces the start of the second stage of clinical trials of Russia's Sputnik V vaccine.
	+199	08.18	Almaz-Antey ASD Corporation jointly with the RF Ministry of Health develops and prepares for implementation its regional telemedicine system for remote diagnosis and treatment of patients with COVID-19.
	+200	08.19	RF Government Decree No 1256 dated August 19, 2020 reduces to 3% the interest rate on education loans and extends the grace period for the principal debt servicing deferral from the moment of graduation from an educational establishment.
	+201	08.20	Rospotrebnadzor issues recommendations on the organization of an anti-epidemic regime in medical institutions during the seasonal surge of acute respiratory viral infections and influenza in the context of the persisting risks of the coronavirus infection spread.
	+201	08.20	Mass ELISA testing of employees of preschool and educational institutions is launched in Moscow. The planned coverage by September 1 should be 180,000 people.
	+201	08.20 	WHO Regional Director for Europe Hans Kluge states that there is no need for strict containment measures (lockdown) in European countries.
	+205	08.24	In the Moscow region, the stay-at-home regime for citizens over 65 years of age and those with chronic diseases is lifted.
	+210	08.29	RF Government Decree No 1312 dated August 29, 2020 established, for 2020, incentive payments for special working conditions and additional workload for medical personnel, military personnel, and the staff of the organizations providing medical care to coronavirus patients and implementing sanitary and epidemic measures.
	+212	08.31	Head of Rospotrebnadzor Anna Popova announces the necessity for tutors and students at higher educational establishments to comply with the face mask wearing regime during the educational process.
	+213	09.01	The number of the new coronavirus cases in Russia rises above the psychological threshold to 1 million.

	Day[2]	Date	Event[3]
	+214	09.02	By RF Government Resolution No 2236-r dated September 2, 2020, Russia resumes air service with Egypt, the Maldives and the United Arab Emirates.
	+216	09.04	Rospotrebnadzor lifts the restrictions on teaching in a full-time mode for employees over 65 years of age or those with chronic diseases.
	+219	09.07 	Moscow Mayor Sergey Sobyanin and RF Defense Ministry Sergey Shoigu announce their taking part in the vaccination against the coronavirus. Earlier, RF Deputy Prime Minister Marat Khusnullin and RF Minister of Industry and Trade Denis Manturov have been vaccinated.
	+220	09.08	India ranks second in the world by the number of coronavirus cases, thus getting ahead of Brazil. The USA tops the list, Russia is in fourth place.
	+221	09.09	The first batch of Russia's Sputnik V coronavirus vaccine is released into civilian circulation.
	+222	09.10	Moscow launches a program of free vaccination of volunteers against the coronavirus infection.
	+223	09.11 	The Armenian government introduces a quarantine regime, banning entry into the country for non-citizens until January 11, 2021.
	+223	09.11	By RF Government Resolution No 2315-r dated September 11, 2020, the budgets of subjects of the Russian Federation are granted subventions in the amount of RUB 35,334,355.4 for financing the 100% payments of unemployment benefits to unemployed citizens.
	+224	09.12	By RF Government Resolution No 2338-r dated September 12, 2020, the border of the Russian Federation with South Ossetia is opened.
	+230	09.18	By Decree of the Chief State Sanitary Physician of the Russian Federation No 27 dated September 18, 2020, the RF citizens arriving from abroad are required to observe a stay-at-home regime at their place of stay until the results of their clinical tests for the coronavirus infection (PCR test) are received.
	+232	09.20	By RF Government Resolution No 2406-r dated September 20, 2020, Russia resumes air service with Belarus, Kazakhstan, Kyrgyzstan, and the Republic of Korea.
	+233	09.21 	WHO reports a record weekly increase in coronavirus cases (2 million) and an acceleration in the infection spread around the world.
	+235	09.23	By Executive Order of the President of the Russian Federation No 580 dated September 23, 2020, the expiry date of temporary or permanent stay for foreign citizens or individuals without Russian citizenship is moved to December 15.
	+236	09.24	The trial lots of the vaccine against the coronavirus infection have been delivered to all Russian regions. Vaccination of medical workers against the coronavirus infection is launched in Moscow. The vaccination should primarily target the medical doctors and medical personnel of outpatient CT centers, ARVI stations, and home health care departments.
	+237	09.25	By Decree of the Mayor of Moscow No 92-UM dated September 25, 2020, some containment measures are reintroduced in Moscow, including the stay-at-home regime for citizens over 65 years of age and those with chronic diseases, the mandatory number of employees to be switched over to remote work by employers, and tighter control over compliance with the requirements to prevent the spread of the coronavirus infection. The authorities of Moscow and St. Petersburg announce the re-expansion of hospital bed capacity for patients with the coronavirus infection.

	Day[2]	Date	Event[3]
	+241	09.29	The number of deaths from COVID-19 in the world rises above the psychological threshold of 1 million.
	+241	09.29	By Decree of the Mayor of Moscow No 93-UM dated September 29, 2020, vacations in Moscow's educational establishments (primary general, basic general, secondary general, and supplementary education) are established from October 5 to October 18, 2020.
	+242	09.30	The second stage of clinical trials of Russia's Sputnik V vaccine for preventing the coronavirus infection is completed.
	+243	10.01	By Decree of the Mayor of Moscow No 96-UM dated October 1, 2020, starting from October 5, employers are required to switch over not less than 30% of their employees, as well as their employees in the risk groups (age 65+, chronic disease), to remote work.
	+243	10.01	The RF Ministry of Health releases its new Guidelines for the prevention and treatment of the coronavirus (version 8.1).
	+244	10.02	It becomes known that US President Donald Trump has contracted the coronavirus.
	+246	10.04	The number of detected cases of the coronavirus infection in the world exceeds 35 million, with more than 1.034 million deaths. The highest infection spikes are observed in the USA (7.4 million), India (6.55 million), and Brazil (4.9 million). More than 1.2 million infection cases have been reported in Russia.
	+247	10.05	According to WHO estimates, 10% of the world population could have already had coronavirus, with regard for by-country and by-region variations.
	+247	10.05	In New Zealand (Auckland), containment measures are lifted, the second coronavirus wave has been stamped down by a successful lockdown introduced on August 12.
	+248	10.06	By Decree of the Mayor of Moscow No 97-UM dated October 6, 2020, from October 9 until the end of the school vacation, free travel passes for schoolchildren are suspended; until October 28, free travel passes for pensioners aged over 65 are likewise suspended.
	+248	10.06	The second vaccine against the coronavirus (Vector Center) passes the stage of preclinical tests on animals.
	+249	10.07	In Brussels (Belgium), pubs and bars are shut for a month.
	+250	10.08	The daily incidence of new coronavirus cases in Russia reaches a new peak (12,126; the previous maximum was recorded in the spring during the first wave: 11,656 (May 11).
	+250	10.08	At a RF Government meeting, additional economic support measures for individuals are approved, in particular, the allocations from the reserve fund to cover the monthly payments for children aged three to seven years.
	+251	10.09	In Madrid (Spain), a state of emergency is introduced in response to the coronavirus, to sustain the containment measures (stay-at-home regime, restrictions on shops, restaurants).
	+254	10.12	More than 10,000 people have received doses of the coronavirus vaccine developed by the Gamaleya Research Center (as part of ongoing post-registration clinical trials).
	+255	10.13	Rospotrebnadzor releases the results of its monitoring survey of environmental objects. Out of 100,000 tests targeting medical institutions, retail outlets and transport facilities, the coronavirus was detected in 0.13% of cases.

	Day[2]	Date	Event[3]
	+256	10.14	Announcement of Russia resuming air service with Serbia, Cuba, Japan (from November 1), RF Government Resolution No 2649-r dated October 14, 2020.
	+256	10.14	Decree of the Mayor of Moscow No 100-UM dated October 14, 2020: after 2-week vacation, grade 6-11 schoolchildren should continue their studies in a remote mode.
	+256	10.14 	The Czech Republic imposes lockdown measures (online learning for schoolchildren, shutdown of bars and restaurants).
	+256	10.14	Russia's second vaccine EpiVacCorona is registered (Vector Research Center under Rospotrebnadzor).
	+257	10.15	From October 15, the second stage of the tourist cashback program is launched by way of support of the tourism industry. The cashback is limited to 20% of the tourist package cost, and not more than RUB 20,000.
	+257	10.15	By Moscow Region Governor Andrey Vorobyov's Decree 455-PG dated October 15, 2020: from October 17, entertainment events are banned from 0 to 8 am. Mayor of Moscow Sergey Sobyanin's Decree No 101-UM dated October 15, 2020: from October 19, a registration procedure is introduced for participants in entertainment events from 0 to 6 am.
	+258	10.16	The RF Ministry of Economic Development extends more than 500,000 permits until July 1, 2021, by way of anti-crisis support of the economy.
	+258	10.16	By Decree of the Chief State Sanitary Physician of the Russian Federation No 31 dated October 16, 2020 "On additional measures designed to reduce the risks of the spread of COVID-19 during the seasonal rise in the incidence of acute respiratory viral infections and influenza", a universal face mask wearing regime is introduced in public places; it is recommended that entertainment events should be canceled between 23 pm and 6 am; and some other measures.
	+258	10.16	To combat the coronavirus, Moscow resumes large-scale disinfections of public spaces and transport infrastructure.
	+259	10.17 	The number of detected cases of the coronavirus infections around the world rises above 39.16 million, with more than 1.10 million deaths. The highest infection spikes are observed in the USA (8 million), India (7.3 million), and Brazil (5.1 million). More than 1.3 million infection cases have been reported in Russia.
	+259	10.17 	In the biggest cities in France (about a third of the country's population), a 9 pm to 6 am curfew is introduced.
	+261	10.19	By Moscow Region Governor Andrey Vorobyov's Decree 463-PG dated October 19, 2020, new containment measures are introduced (shopping and entertainment centers are required to measure the body temperature of their visitors, shutdown of museums and exhibitions).
	+263	10.21 	Ireland becomes the first EU country to introduce strict lockdown measures to combat the second wave of the coronavirus (prescribing people to stay within 5 km from their homes, and shutting down shops and restaurants).
	+264	10.22 	The Czech Republic introduces a nationwide lockdown with travel restrictions, shops and restaurants are shut. The Czech Republic reports the highest per capita infection incidence rate in Europe in the third week of October.
	+264	10.22 	A lockdown is introduced in Cyprus: a ban on meetings of more than 10 people in public places and at home, a face mask wearing regime, restrictions on the occupancy of cinemas and restaurants.
	+265	10.23	According to the RF Ministry of Health, more than 200,000 beds are deployed to treat coronavirus patients (prior to the pandemic, about 52,000 beds were used).

	Day[2]	Date	Event[3]
	+266	10.24	The list of instructions of the President following an expanded meeting of the State Council Presidium: 82 instructions for the implementation of national projects and achievement of national goals, with due regard for the negative effects of the COVID-19 pandemic.
	+266	10.24 	Containment measures are tightened in Brussels (Belgium): from October 26, a curfew from 22 pm is introduced, restaurants and cultural institutions are shut, the face mask wearing regime is extended.
	+269	10.27 	In the Czech Republic, a 9 pm to 5 am curfew is introduced in response to the worsening epidemic situation.
	+271	10.29	RF Government Resolution No 2808-r dated October 29, 2020 on the allocation of more than RUB 24.6 billion for incentive payments to medical personnel and other employees working with COVID-19 patients.
	+271	10.29	RF Government Resolution No 2805-r dated October 29, 2020 on the allocation of more than RUB 5 billion from the reserve fund for the provision of pharmaceuticals to patients with the coronavirus.
	+272	10.30 	A number of measures designed to combat the coronavirus in Europe are announced. EUR 220 million is allocated for the transportation of sick citizens of the EU countries between its member states, in order to prevent an overload of the healthcare systems. Vaccines in the EU will have to be distributed simultaneously and on an equitable basis.
	+272	10.30 	A lockdown is introduced in France, travel is limited to essential purposes.
	+272	10.30	The RF Ministry of Health decides to dispatch more than 300 specialists from federal medical centers to the regions for organizational and methodological assistance to regional healthcare systems in their development towards overcoming the pandemic.
	+273	10.31 	In the UK, a lockdown is announced. Restaurants and many shops are to be closed from November 5 to December 2; individual travel is restricted (to daily necessities, work, study).
	+275	11.02	In the Moscow region, a stay-at-home regime is introduced for individuals over 65 years of age from November 2 (previously, it was only recommended).
	+275	11.02 	A lockdown is introduced in Germany; cinemas, theaters and restaurants are shut.
	+276	11.03	Routine medical care is suspended in Novosibirsk due to the healthcare system's preoccupation with combating the coronavirus.
	+276	11.03	The RF Government sets up the Federal Center for Planning and Organizing the Supply of Pharmaceuticals to Citizens; the center will purchase pharmaceuticals, project the demand in, and monitor, this field.
	+276	11.03	A successful trial of the third coronavirus vaccine developed at the Chumakov Federal Scientific Center of the Russian Academy of Sciences is announced, no side effects have been found. The second stage of its clinical trial was launched on October 19.
	+277	11.04 	Portugal introduces a lockdown in most of its regions (where 70% of the population lives).
	+277	11.04 	In Italy, a decree is signed on the introduction of a state of emergency from November 5, including a nationwide lockdown. Three types of zones are identified, each with different containment measures.
	+278	11.05 	In Denmark, the authorities announce their plans to cull up to 17 million minks in response to the risks associated with the coronavirus mutation.

	Day[2]	Date	Event[3]
	+278	11.05	In Moscow, by Mayor Sergey Sobyanin's Decree No 106-UM dated November 5, 2020, online learning for schoolchildren (grades 6-11) is extended until November 22.
	+278	11.05 	Greece announced its plan to introduce a national lockdown from November 7 in response to the worsening epidemiological situation.
	+279	11.06	The list of instructions of the President following the meeting with members of the RF Government: the allocation of funds to subjects of the Russian Federation for purchases of pharmaceuticals to be supplied to patients with the coronavirus infection, for purchase of personal protective equipment, for other expenses in the healthcare sector, for providing patients with free pharmaceuticals.
	+280	11.07	The first batch of the coronavirus vaccine developed by the Gamaleya Research Center is delivered to Moscow and the regions for mass vaccination.
	+280	11.07	In the Tula region, the requirement of compliance with the stay-at-home regime for its residents aged over 65 years is extended until November 23.
	+280	11.07 	From November 9, by the decision of the Interagency Coordination Council for the fight against the coronavirus, the movement of individuals and transport in Tbilisi and the other big cities in Georgia is to be restricted between 10 pm and 5 am.
	+280	11.07 	In Portugal, a state of emergency was introduced from Monday in 121 municipalities, including the country's two largest cities (Lisbon and Porto). An 11 pm to 5 am curfew will be in effect until November 13.
	+281	11.08 	More than 50 million cases of the coronavirus infection are registered around the world.
	+282	11.09 	Portugal's Parliament approves the reintroduction of a state of emergency that, if necessary, will enable the authorities to quickly impose containment measures to combat the spread of the coronavirus. The state of emergency regime is introduced from November 9 to November 23.
	+282	11.09	In Bashkiria, a mandatory stay-at-home regime is introduced for individuals over 65 years of age, as well as those with chronic diseases.
	+282	11.09 	The coronavirus vaccine candidate developed jointly by US company Pfizer and German company BioNTech proves to be more than 90% effective during trials.
	+284	11.11	From November 11, the Moscow Region Government suspends free travel passes of its elderly residents and those with chronic diseases.
	+284	11.11	Russia's coronavirus vaccine developed by the Gamaleya Research Center is delivered to the regions, its commercial production is launched.
	+284	11.11 	The Cabinet of Ministers of Ukraine introduces new containment measures, banning, among other things, mass events with more than 20 participants, planned hospitalizations; shutting entertainment facilities; and imposing a weekend lockdown from November 14 to November 30.
	+285	11.12	Moscow's registry offices restrict the number of wedding ceremony guests to 5 due to the health situation related to the coronavirus.
	+285	11.12 	The South African government lifts the entry restrictions for foreign tourists from all countries.

	Day[2]	Date	Event[3]
	+286	11.13	In Moscow, the students of city universities and colleges were switched to online education from November 13 to mid-January 2021, with their transport cards temporarily suspended. A ban is imposed on cultural, exhibition, and educational events, including shutdown of museums, exhibition halls, libraries, lectures, and trainings, with the exception of official events organized by the executive authorities. Bars and cafes are allowed to remain open only until 23 pm.
	+287	11.14	In St. Petersburg over the period from November 14 to January 15, any event participated by more than 50 people can be held only with a prior approval by the authorities. The operation of circles, sections and clubs is suspended, with the exception of sports and educational programs. Some additional requirements are introduced for the admission of visitors to theaters and other cultural institutions, concert halls and cinemas. Employers are required to switch over to remote work their employees over 65 years of age and those with chronic diseases. A stay-at-home regime is introduced for the elderly.
	+289	11.16 	Moderna's Phase 3 Covid-19 vaccine trial of 30,000 individuals is completed. The statistical data analysis indicates a vaccine efficacy of 94.5% According to statistical criteria, the vaccine is 94.5% effective.
	+290	11.17 	A partial curfew is imposed in Austria. Residents are allowed to leave their homes only to go to work, to shop, to play sports, or to help those in need. This mode is to last until December 6. Only the stores selling essential goods are allowed to continue to operate.
	+291	11.18 	The US Food and Drug Administration (FDA) authorizes the first COVID-19 diagnostic test for self-testing at home.
	+291	11.18 	US company Pfizer announces that the final efficacy analysis of the COVID-19 vaccine candidate that it has been developing jointly with German company BioNTech indicates its efficacy rate of 95%.
	+291	11.18	The RF Government lifts the restrictions on entry to Russia for family members of foreign athletes.
	+296	11.23	In St. Petersburg, sports events are banned from November 23. The operation of all catering establishments and ice rinks situated at shopping centers is suspended. Other ice rinks (both indoor and outdoor ones) are allowed to receive not more than 1 individual per 10 square meters. In this connection, not more than 30 people at once are allowed to use indoor skating rinks.
	+297	11.24	In Russia, an express COVID-19 test device that provides the result in 15-20 minutes is put on the market.
	+299	11.26	Moscow extends the recommended stay-at-home regime for individuals aged over 65 years of age and those with chronic diseases until January 15, 2021; enterprises are required to switch not less than 30% of their employees to remote work.
	+301	11.28 	In France, stores selling non-essential goods are opened by way of easing the containment measures designed to prevent the spread of the coronavirus.
	+303	11.30 	Turkey introduces a 9 pm to 5 am curfew from Monday to Friday throughout its territory. A weekend curfew preventing individuals from leaving their homes from 9 pm on Friday to 5 am on Monday is also imposed.
	+304	12.01	In St. Petersburg from December 1, concert halls, theaters and cinemas are allowed to operate at 25% capacity. An exception is provided for the events for which, as of 18 November, tickets have already been sold in large quantities.

	Day[2]	Date	Event[3]
	+304	12.01 	The Moderna company files for authorization of its COVID-19 vaccine candidate (USA), estimating its efficacy against COVID-19 to be 94.1%, and that against severe COVID-19 to be 100%.
	+304	12.01 	The number of coronavirus cases in the world is 63.1 million, with the highest infection spikes observed in the USA (13.5 million), India (9.4 million), Brazil (6.3 million), and Russia (2.2 million).
	+305	12.02	In Moscow, online learning for grade 6-11 schoolchildren is extended until the end of the 2nd term.
	+305	12.02	In St. Petersburg, restrictions on the operation of restaurants during the New Year's holidays are imposed. The opening hours of restaurants are to be shorter during the periods of December 25-29, 2020 and January 4-10, 2021 (until 19.00), and they should be shut completely from December 30 to January 3. From December 4, water parks are to be shut, and from December 30, the operation of theaters, concert halls, and museums is suspended.
	+307	12.04	Moscow launches an online appointment system for coronavirus vaccination (stage 1) for medical doctors, schoolteachers, and social workers.
	+310	12.07	Rospotrebnadzor extends until January 1, 202 its sanitary requirements for educational establishments in the context of the ongoing COVID-19 pandemic.
	+311	08.12 	Chinese company Sinovac Biotech Ltd.'s coronavirus vaccine demonstrates an efficacy rate of up to 97% in trials in Indonesia.
	+311	12.08	In St. Petersburg, the discussion of the lockdown measures over the New Year holidays is still underway. After the decision to shut restaurants after December 30, more than 100 restaurants and bars announced their intention to continue operating in spite of the ban.
	+312	12.09 	Ukraine announces a lockdown for the period of January 8-24, 2021 (shutdown of restaurants, theaters, cinemas, shopping and entertainment centers, non-food stores, and educational establishments).
	+313	12.10	The list of instructions of the President is made public, including on issues of social obligations and support of the economy, the allocation of additional funds to subjects of the Russian Federation, the monitoring of medical care accessibility in the fight against the coronavirus, the payments to medical doctors, and the availability of medical transport.
	+315	12.12 	The number of coronavirus cases in the world rises to 70 million, with the highest infection spikes observed in the USA (15.76 million), India (9.8 million), Brazil (6.8 million), and Russia (2.57 million).
	+315	12.12 	The Pfizer-BioNTech COVID19 vaccine is authorized for use in the USA; its developers estimate the vaccine to be not less than 95% effective.
	+315	12.12 	Switzerland tightens its containment measures. Restaurants and shops should close after 19.00, no work is allowed on Sundays and holidays, mass events are banned, the participation in private events is limited to 10 people, and in cultural events, to 5 people.
	+317	12.14 	Turkey announces a curfew for the New Year holidays, starting at 21.00 on 31 December.
	+317	12.14	According to the RF Ministry of Health, the coronavirus vaccine has been delivered to all the regions of Russia.
	+319	12.16 	Germany tightens its lockdown, shutting all shopping facilities except those that sell essential goods and educational establishments.

	Day[2]	Date	Event[3]
	+321	12.18	A second vaccine (Moderna) is authorized for use in the USA.
	+322	12.19	A new coronavirus variant that may be 70% more contagious is discovered in the UK. In this context, containment measures in London are tightened from December 20: people are required to stay home at night, and cannot see anyone indoors who is not from their household. Stores and other institutions are shut.
	+323	12.20	More than 20 countries impose restrictions in response to the news of the coronavirus mutation: some countries suspended all flights from the UK (Germany, Canada), others tighten their control measures (Greece, Spain).
	+324	12.21	Moscow expands the list of those who can be vaccinated against the coronavirus (transport, industry, media workers).
	+324	12.21	Serbia imposes restrictions on entry into the country: a PCR test is required, or self-isolation for a period of 10 days.
	+324	12.21	Russia's first coronavirus express test is registered, which enables its detection within 25 minutes (Xema Corporate Group).
	+326	12.23	In Transbaikal Krai, a lockdown is imposed over the New Year's holidays; corporate parties, shows, and entertainment events in hotels are canceled, and karaoke outlets are shut.
	+327	12.24	In Italy, a strict lockdown is imposed over the Christmas and New Year holidays; travel between regions is prohibited, restaurants are shut, and only stores selling essential goods are allowed to operate.
	+328	12.25	The Gamaleya Research Center reports that no severe allergic reactions to Sputnik V coronavirus vaccine have been detected. More than 700,000 people have been vaccinated in Russia.
	+328	12.25	The list of instructions of the President is made public, concerning support of the cultural sector in the context of the pandemic, government subsidies, tax incentives, support measures for cinemas, theater activities, and libraries.
	+329	12.26	The RF Ministry of Health authorizes the use of Sputnik V vaccine in individuals over 60 years of age.
	+330	12.27	The EU launches a coronavirus vaccination campaign (Pfizer and BioNTech vaccines), its member states having negotiated the purchase of 200 million doses, with the possibility of additionally purchasing 100 million doses. Vaccinations began in Germany, France, Spain, Austria, Bulgaria, Czech Republic, and Italy.
	+330	12.27	The USA approves a USD 900 billion Covid aid package that includes assistance for households and businesses during the coronavirus pandemic. Households would receive USD 600 for each adult and USD 600 for each dependent.
	+331	12.28	Moscow expands the list of those who can be vaccinated against the coronavirus (those employed in the catering and housing-and-amenities sectors, sports institutions, law enforcement agencies, non-profit and religious organizations, and volunteers).
	+331	12.28	Japan imposes restrictions on entry from other countries in response to the worsening epidemiological situation.
	+332	12.29	Argentina launches a mass vaccination campaign with a Russian vaccine.
	+332	12.29	The list of instructions of the President is made public, it is suggested that the insurance payments should also be allocated to the non-medical staff of those medical institutions where coronavirus patients have been treated, to employees of educational establishments, and that online retail trade in pharmaceuticals should be simplified.
	+332	12.29	Winter holidays for Moscow schoolchildren are extended until January 17 in order to reduce social contacts.

	Day[2]	Date	Event[3]
	+332	12.29	Plans are announced to launch, from January, Covid-19 passports for vaccinated Russians. The passports will be available online on the public services portal. Within three weeks, the regions received more than 500,000 vaccine doses.
	+334	12.31	Instructions of the President of the Russian Federation are published, including those concerning the issues of pension indexation for working pensioners, monitoring of social benefits, and vaccination certificates.

Sources: own compilation based on data taken from official websites of the President of Russia, the Government of the Russian Federation, the Bank of Russia, WHO, the Moscow City Health Department, the Eurasian Economic Commission, the RF Ministry of Health, the RF Ministry of Education, the RF Ministry of Finance, the Moscow Mayor and Moscow City, the Moscow Government, Rospotrebnadzor (Federal Service for the Oversight of Consumer Protection and Welfare), Official Portal of Legal Information; and the following news and media websites: Vedomosti.ru, Izvestia (iz.ru), Interfax, Kommersant.ru, RBC, RIA Novosti (ria.ru), Rossiyskaya gazeta (rg.ru), and TASS Russian News Agency (tass.com).

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For Notes

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