

Section 4. The social sector

4.1. Labor market dynamics¹

In 2022, the labor market saw an ambiguous situation. On one side, in 2022 it completely recovered after the coronacrisis: the level of unemployment fell below the pre-crisis values and wages kept growing in real terms. On the other side, as far back as the beginning of 2022, the Russian economy encountered various, mostly negative, implications related with the special military operation, including foreign economic sanctions and the exit from the Russian market of a number of foreign companies, while from September it was the partial mobilization and increased outflow of a portion of the workforce abroad. At the same time, the Russian economy demonstrated a high degree of resilience and economic recession turned out to be substantially lower than predicted at the beginning of the year. In the new economic environment, employers have been actively using the main mechanisms of adjustment to economic crises since last spring; these mechanisms have been developed during the past 30 years and helped overcome effectively the most acute phase of adaptation.

Throughout 2022, the main labor market indices demonstrated sustainable positive dynamics. In 2022, the number of workforce and gainfully employed persons remained virtually unchanged², the level of unemployment calculated in accordance with ILO methods was falling and at year-end amounted to the record-low of 3.7% (*Fig. 1*). Further, as in 2021 the level of unemployment did not see seasonal growth which is typical of autumn and winter. The average length

1 Authors: V.Y. Lyashok, Candidate of Economic Sciences, Senior Researcher of IAES RANEPa; U.S. Podverbnykh, Candidate of Economic Sciences of IAES RANEPa.

2 A small spike in the number of the workforce and those gainfully employed in August registered by the survey of the workforce could have been caused by a pickup in the number of those employed under verbal agreements and temporary labor contracts. At the same time the data on mid-sized and large entities do not show growth in the number of filled job vacancies. We can assume that the August growth was related with a short-term hiring of workers for assistance to households in production of goods (primarily agricultural products) for their own consumption and seasonal fluctuations as a whole.

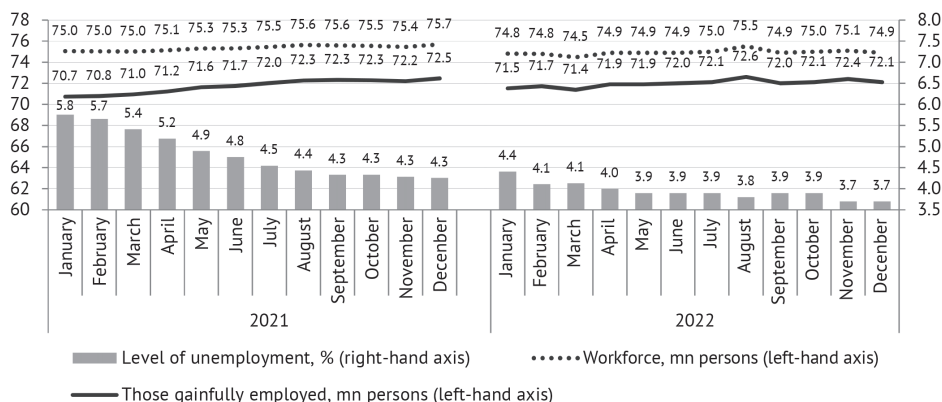


Fig. 1. Dynamics of the number of the workforce, those gainfully employed and the level of unemployment in 2021–2022

Source: Data of ORS; Rosstat.

of job search decreased from 6.8 months in 2021 to 6.2 months in 2022 and the share of those looking for a job for over 12 months among the unemployed fell from 22% to 18%. At year-end 2022, the number of the unemployed registered with employment services amounted to 568,000 or 0.8% of the entire workforce.

However, this unemployment dynamics entails a serious long-term challenge. It shows unambiguously that the Russian labor market faced labor shortages late in 2022, which phenomenon is quite unique for the struggling economy. Normally, in such an environment employers seek to get rid of workers and this leads to the opposite situation: labor surplus and unemployment growth. Actually, in 2022 demand for labor was falling, which fact is illustrated by the dynamics of job vacancies and labor turnover.

According to the data of hh.ru, in 2022 the number of vacancies throughout the year was much lower than a year before. The biggest fall was registered in May (23%); at year-end 2022 it was equal to 9% (*Fig. 2*). According to the data of the state employment services, demand for workers decreased among employers (18% lower on average per year than in 2021).

In 2021–2022, labor turnover accelerated at mid-sized and large enterprises: both the numbers of those laid off and those hired were much higher than in the previous ten years (*Fig. 3*). In 2021, it can be explained by recovery processes after the crisis year 2020. The pandemic caused a decrease in labor turnover on the Russian labor market because workers did not seek to leave their jobs and employers took advantage of loan programs created specifically to stimulate them to retain their workers. In 2021, most programs ceased to work. In 2022, the rate of labor turnover accelerated further (one in three workers changed a job!), thus illustrating active changes on the labor market. It seems, such dynamics could have been caused at least by the restructuring of a large portion of Russian enterprises and renegotiation of labor contracts on new terms.

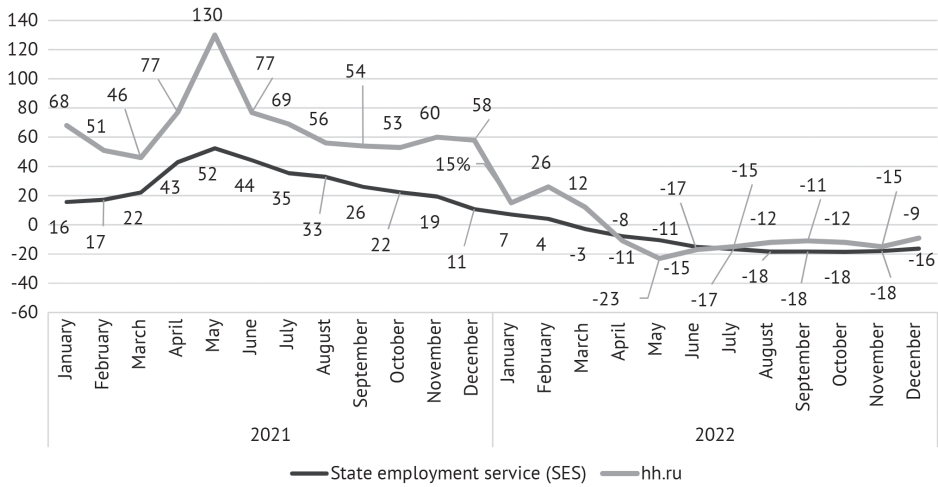


Fig. 2. Dynamics of the number of vacancies relative to the same period of the previous year, %

Source: Data of hh.ru, Rosstat.

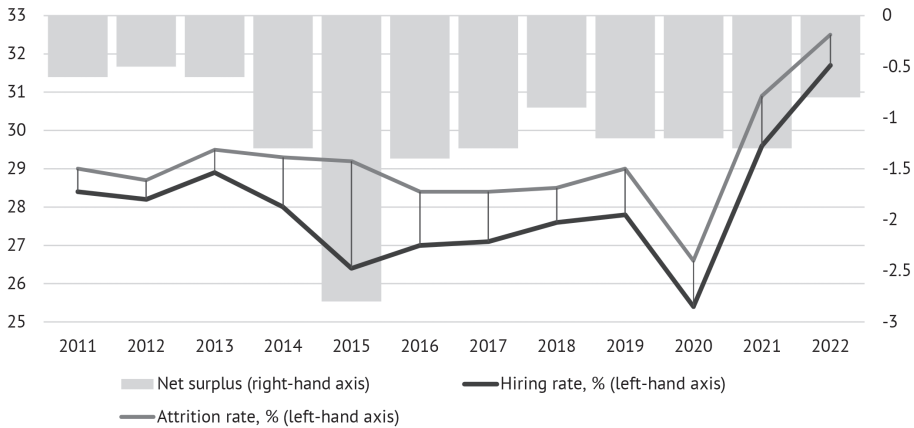


Fig. 3. Hiring, attrition and net surplus of personnel at large and mid-sized enterprises in 2011–2022, % of all workers

Source: Data of ORS; Rosstat.

At the same time, a decrease in demand for labor coincided with a constriction of labor supply, that is, a decline in the number of workforce. A low level of unemployment suggests that labor resources were decreasing at a substantially higher rate than demand for labor. A legitimate question arises: what is the cause of such a fall and why was not it reflected directly in the Russian statistics?

First, it is related with long-term demographic trends and the specifics of the Russian age pyramid (*Fig. 4*). At present, more numerous generations born in 1950s and 1960s are leaving the labor market, while smaller generations born in the 2000s come to it. Demographic trends lead to a pickup in the share of older population, thus reducing the potential of an innovation component for the Russian economy. According to the data of the workforce survey, in 2022 a decrease in the number of workforce was equal to about 0.4 mn people, which situation can be attributed completely to the effect of this factor. However, such a factor existed before, as well, but never brought about dramatic labor shortages of such an extent as happened at the end of last year.

Second, an important factor was the partial mobilization and withdrawal of a portion of workers from the labor market. The extent of a decline in the number of the workforce engaged directly in manufacturing of goods and provision of services in 2022 can be assessed only approximately. According to the official data, 318,000 persons were mobilized for the special military operation. It is infeasible to name the exact number of those who left the country, but we can assume that it may vary from 300,000 to 600,000 persons. As a result, in 2022 the overall number of workforce declined owing to these two factors by 0.6 mn to 0.9 mn persons, a decrease of 1.0%–1.5%. It should be taken into consideration that an important aspect is not only the number of labor resources withdrawn from manufacturing of goods and provision of services in the Russian economy, but also a declining quality of the human capital. A substantial portion of this group of the population is made up of men born in the 1980s and 1990s. These generations make up the bulk of Russian labor resources and have a higher level of efficiency. The decision to emigrate was taken primarily by skilled and well-educated workers who had an opportunity and savings to live abroad.

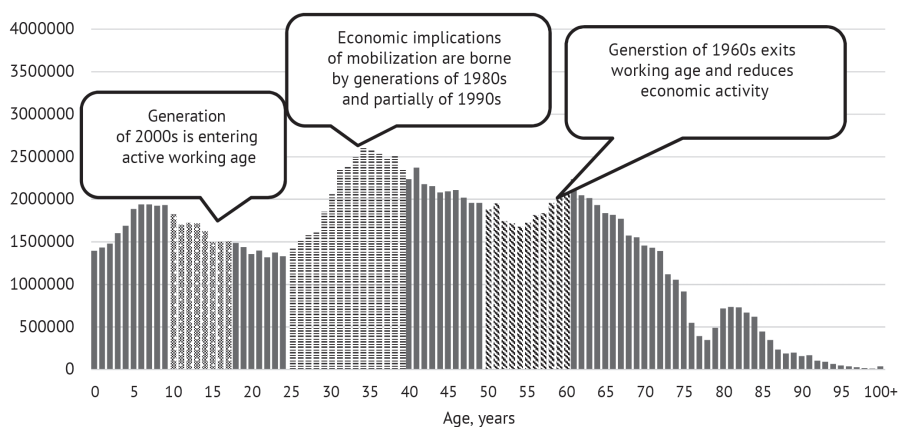


Fig. 4. The number of the population in terms of age in 2022, persons

Source: Data of ORS; Rosstat.

Unfortunately, Rosstat's statistics does not virtually register changes related with the partial mobilization and emigration of a portion of the working population which started as far back as March 2022 and intensified late in September. According to the official statistical methodology, mobilized workers are actually still included in the number of those employed. For similar methodological reasons, Rosstat's statistics did not register a decline in the number of the workforce owing to multiple emigration.

The "effect of mobilization" on the labor market can be traced through regional dynamics of the levels of unemployment. By contrast with a similar period of 2021, Q4 2022 saw the largest fall in unemployment in the Republic of Adygeia (4.2 p.p.), the Republic of Buryatia (2.7 p.p.) and the Republic of Tyva (2.5 p.p.). We can assume that employers in these regions had to replace mobilized workers with the unemployed more than others. No decline in the rate of unemployment was registered in the capital regions of St. Petersburg and Moscow; on the contrary unemployment even picked up there.

Third, a temporary labor migration to Russia from the near abroad has largely decreased, but it is not reflected in the workforce indicator, either.

At the same time, a shortage of labor varied largely in terms of professions and sectors. Based on the hh.index dynamics between January 2023 and January 2022, one can see which sectors and professions showed trends towards labor shortages and which ones saw growth in the number of resumes relative to the number of job vacancies. The largest labor shortages were seen in consulting, extractive industries, the banking sector and top management. Quite the opposite trend prevailed in the IT sector, personnel management and accounting. For example, the IT sector saw a 23% decline in the number of job vacancies during the year, while the number of resumes increased by 9%, which means sooner a surplus of job seekers as compared with the situation in February 2022. Demand for workers in the manufacturing industry remained stable during the entire year. It is noteworthy that the sample of job vacancies on hh.ru is partly shifted, however, at present this problem is not as acute as five years ago. For example, an average pay offered at the website (Rb 58,179 as of the end of January 2023) is close to an average accrued wage in the economy (*Fig. 5*).

Apparently, in 2022 the most important mechanism of adjustment on the Russian labor market was the introduction of part-time work schedules. Though in most sectors, the share of those working part-time or being in idle time remained unchanged during the year or even decreased, in sectors which were hit the most by sanctions the share of such workers increased substantially. It concerns primarily the automaking industry which as far back as April faced the forced shutdown and, subsequently, the statistics registered a pickup in the share of workers being in idle time from 13.5% in Q3 2021 to 29.3% in Q2 2022 and a slight decline to 23.9% by the end of the year. Similar processes were evident in woodworking (growth from 1.2% to 9.6%) and to a lesser extent in most sectors of the manufacturing industry. In the services sector, trade saw growth in the number of workers being in idle time (from 0.1% to 0.8% in Q2–Q3 and 0.5% in Q4), while in other subsectors the number of such workers even decreased.

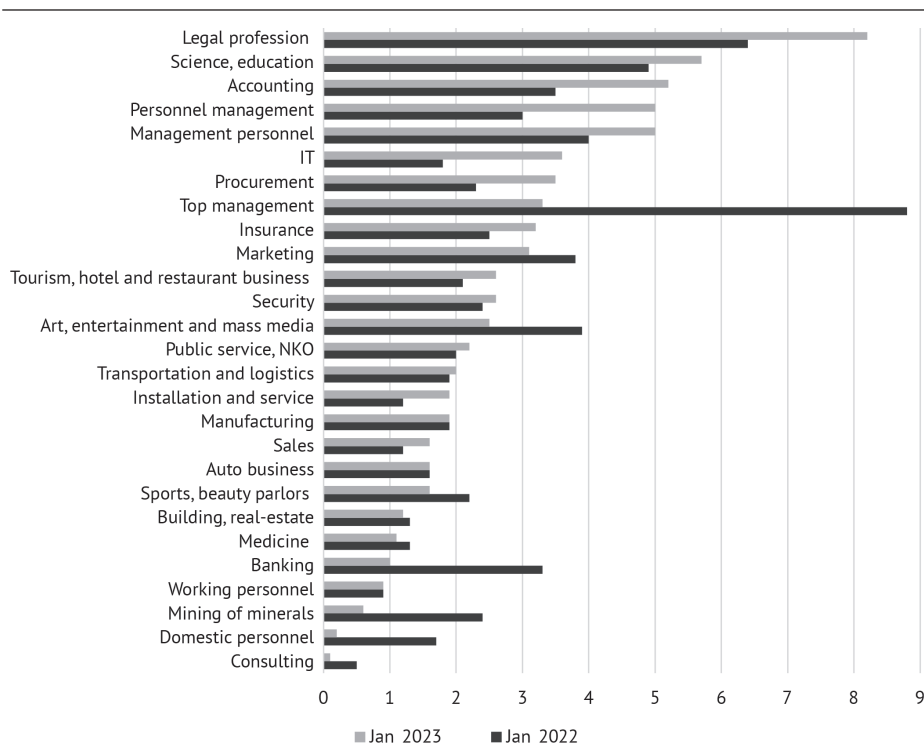


Fig. 5. The hh. Index dynamics in terms of professions

Source: The data of hh.ru.

In its turn, a shortage of workers sped up growth in wages in most sectors. On the back of rapid inflation in March-May, real wages fell by 6.1%-7.2% on the relevant period of 2021, however, they returned to the pre-crisis level by the end of last year (*Fig. 6*). On average, in 2022 the average monthly pay of workers amounted to Rb64,191, a decrease of 1.0% in real terms relative to 2021. In 2022, the highest increase in wages in absolute terms was registered in coal mining (23.4%), railway transportation: intercity and international passenger services (22.7%) and printing and copying of information from media (21.6%). The year 2022 saw the lowest growth in wages in absolute terms and a decrease in real terms in such sectors as provision of other types of services, activities in the sphere of culture and sports, leisure and entertainment, public administration, healthcare, automobile manufacturing and woodworking. Overall, in 2022 wages grew faster in most sectors of the industry and agriculture than in the services sector.

Telephone surveys of households carried out by ISAP RANEPА in 2022 showed that the assessment of labor market processes by workers correlated well with the statistics data. On one side, respondents point to stabilization on the labor market since last summer: if in March-April up to 16% of workers pointed to high

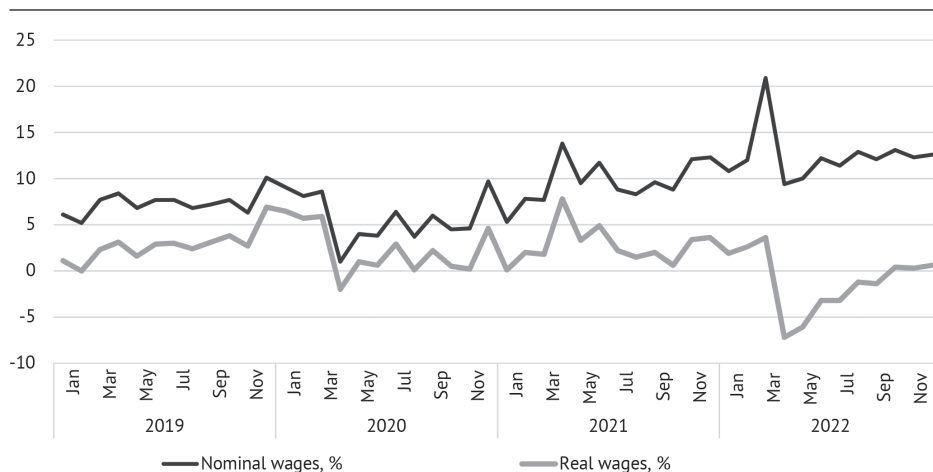


Fig. 6. An increase in real and nominal wages on the relevant indicator of the previous year

Source: The data of ORS; Rosstat.

or very high risks of losing a job next month, starting from June this share of the respondents fell to 9%–10%. At the same time, the share of those who believe that they can find a new job on the same terms and with the same pay fell from 69% to 55%–59%. On the other side, a large portion of the respondents refer to high economic costs related with the partial mobilization: 38% of the respondents from enterprises where a portion of workers were mobilized noted that efficiency declined. If only managers are taken into account, this share increases to 40%. One of the main factors, which respondents referred to, was a decrease in the number of workers at enterprises and the need to hire or transfer unskilled workers. Another common factor reducing labor efficiency was higher anxiety and conflicts in work teams. Finally, some respondents said that the number of their customers and orders for their products and services had decreased.

In short, though the situation on the Russian labor market looked quite favorable on the outside in 2022 if compared with 2014–2015 or 2020, the situation from the inside was not so rosy. Indeed, the rate of unemployment renewed on a monthly basis its record low and a decline in real wages was rather limited as compared with GDP dynamics. At the same time, a complicated business environment affected largely employers of a number of sectors, primarily, car manufacturing and woodworking. In 2022, a large number of workers in these sectors were in idle time or received only a portion of their wages. The emigration of a large number of people and the mobilization of able-bodied manpower made it feasible to preserve a low level of unemployment. However, along with a decrease in the number of the unemployed in 2022, the number of job vacancies declined, as well. By the end of the year, substantial labor shortages were seen in some professions. It depends on the situation in the Russian economy in 2023

whether these shortages prevail or this trend is short-lived. Labor shortages will be an important factor preventing a prompt adaptability of the economy to a new economic environment. However, in case of growing crisis phenomena in some sectors owing to sanctions (mining of minerals, the banking sector, manufacturing industries), a low volume of labor resources is expected to mitigate the extent of the crisis for the population.

4.2. Households' incomes and assessment of their financial situation¹

4.2.1. Forecasts and assessments of households' incomes

Late in 2021, the Russian economy reached the level in many positions to implement strategic economic development objectives. Relative to 2020, various economic indicators demonstrated positive dynamics, which was evidence of the fact that the Russian economy reached the pre-COVID 2019 level and gave us grounds to expect more substantial progress in 2022.

Against this background, early in 2022 expert assessments in respect of economic forecasts showed positive trends. Late in 2021, the RF Central Bank presented several scenarios of Russia's macroeconomic development in 2022–2024.² According to the estimates of the baseline scenario, GDP was expected to grow by 2%–3% by the end of 2022. Apart from that, the regulator presented other three scenarios proceeding from potential risks to Russia: +2.4%–3.4% (the “Financial Crisis” scenario and the “Global Inflation” scenario); (-0.8%)–(-0.2)% (a decrease in GDP in case of the “Growing Pandemic” scenario).

In the consensus-forecast presented by the TASS, it was specified that experts expected Russian GDP to grow on average by 2.5%.³ Think tanks' proposed estimates (at year-end 2021) were as follows: UK Alfa-Kapital (2.7%), the Sovkombank (2.5%), BKS Mir Investitsii (2.6%), Expert RA (2.8%), FG Finam (2.3%) and NRU HSE (2.2%). Some companies presented their estimates of growth in households' real incomes: 1.5%–2% (by estimates of FG Finam) and 4%–5% (UK Alfa-Kapital). The Analytical Credit Rating Agency (ACRA) predicted economic growth of 2.7% by the end of 2022.⁴ According to ACRA's forecast, households' disposable real incomes were expected to increase by 2.4%.

In September 2021, the RF Ministry of Economic Development prepared the forecast of Russia's social and economic development in 2022.⁵ It predicted a 3%

1 Authors: *A.A. Osavolyuk*, Junior Researcher of ISAP RANEPa; *E.A. Tsatsura*, Candidate of Social Sciences, Senior Researcher of the ISAP RANEPa.

2 The main guidelines for the state monetary policy in 2022 and in the 2023–2024 period // The RF Central Bank. URL: https://www.cbr.ru/about_br/publ/ondkp/on_2022_2024/

3 Experts predict that Russian GDP growth will slow down to 2.5% by the end of 2022 // TASS. URL: <https://tass.ru/ekonomika/13311805>

4 Global prices for energy and food and the rate of inflation in Russia // ACRA. URL: <https://www.acra-ratings.ru/research/2666/>

5 The Forecast of the Social and Economic Development of the Russian Federation in 2022 and the 2023–2024 Planned Period. Table 1. “The main indicators of the social and economic development of the Russian Federation.” The Ministry of Economic Development of the Russian Federation. URL: https://www.economy.gov.ru/material/directions/makroec/prognozy_socialno_ekonomicheskogo_razvitiya/prognoz_socialno_ekonomicheskogo_razvitiya_rf_na_2022_god_i_na_planovyy_period_2023_i_2024_godov.html

growth in GDP in case of the baseline scenario and a 2.5% growth in GDP in case of the conservative scenario in 2022 amid a pickup in production of oil within the frameworks of the OPEC+ deal (4.6%), tightening of the monetary policy, as well as the expansion of domestic demand. According to the forecast, retail trade turnover was to grow by 2.3%–2.8% in 2022. At the same time, the forecasted increase in households' real disposable incomes was to amount to 1.9%–2.4%. Further, real wages were to grow by 2.0%–2.4%. This forecast did not present the assessment of poverty for the next year, but previous long-term forecasts predicted a fall in the poverty rate to 9.4% (based on the estimate relative to the minimum subsistence level).¹

In Spring 2022, upside dynamics and expert evaluations started to move in a negative direction on the back of the beginning of the special military operation and, as a consequence, the war of sanctions and the pressure on the part of Western countries. The RF Central Bank, the RF Ministry of Economic Development and experts-economists started to adjust their forecasts with these developments taken into account. So, the RF Central Bank revised several times within a year its forecast of the decline in GDP: 8.0%–10.0% in May², 6.0%–4.0% in July³ and 3.5%–3.0% in October.⁴ In Spring 2022, the Center for Macroeconomic Analysis and Short-Term Forecasting (CMASTF) released an analytical report, including the Russian economic forecast with the “sanctions shock” taken into account. According to the forecast, GDP was expected to decrease by 6.3%–6.6% by the end of the year. Also, real wages and households' real disposable income were predicted to fall by 4.0%–4.2% and 7.0%–7.2%, respectively, and, as a consequence, the rate of unemployment was to pick up (the forecast value of 7.0%–7.3%)⁵. Forecasts of other expert groups were mostly pessimistic, too. So, in March 2022 the JP Morgan presented its findings with a 7% fall in GDP by the end of 2022.⁶ In 2022, the International Monetary Fund revised more than once its outlook for the Russian economy (a fall up to -8.5%). The Ministry of Finance presented its assessment of a fall in real disposable incomes (6.8% year-on-year).

However, as seen from the comparison of the forecast values with the actual ones in 2022, experts' negative expectations did not materialize in full. Indeed, various fluctuations of incomes and the consumption pattern, which are difficult to predict, actually took place, but owing to the measures of state support of the population the fall in incomes was less dramatic than experts forecasted.

1 The Russian economy: under the effect of the credit cycle // The RF Ministry of Economic Development. URL: https://www.economy.gov.ru/material/news/rossiyskaya_ekonomika_pod_vliyaniem_kreditnogo_cikla.html

2 The Report on the Monetary Policy // The RF Central Bank. May 2022. URL: https://www.cbr.ru/collection/collection/file/40972/2022_02_ddcp.pdf

3 The Report on the Monetary Policy // The RF Central Bank. July 2022 r. URL: https://www.cbr.ru/Collection/Collection/File/42214/2022_03_ddcp.pdf.

4 The Report on the Monetary Policy // The RF Central Bank. October 2022. URL: https://www.cbr.ru/Collection/Collection/File/43452/2022_04_ddcp.pdf

5 On some parameters of the short-term forecast: adaptability to sanctions // CMASTF. URL: http://www.forecast.ru/_Archive/analitics/DB/foreparam2022.pdf.

6 The Russia-Ukraine Crisis: What Does It Mean For Markets? URL: <https://www.jpmorgan.com/insights/research/russia-ukraine-crisis-market-impact#:~:text=J.P.%20Morgan%20Research%20forecasts%20that,contraction%20of%20at%20least%207%25>.

4.2.2. The main developments in the sphere of social protection

According to the new methods of calculating the minimum subsistence level (MSL), which have been applied since 2021, it was equal to 44.2% of the median salary. However, owing to a high rate of inflation in 2022, the calculations based on these methods were suspended, including in 2023 and 2024, and the unscheduled MSL indexation based on the forecasted poverty line was carried out. So, in 2022 MSL increased twice: from January 1 it was equal to Rb12,654 (for the whole population) and from June 1 it increased to Rb13,919.¹ By contrast with 2021, the overall increase in the minimum subsistence level amounted to 19.4%. From January 1, 2023, the MSL base amount rose by 3.3% to be equal to Rb14,375. It is noteworthy that growth in the minimum subsistence level has an effect both on the coverage of the population with social support measures and the size of numerous monthly social payments. Further, the measurement of the size of the poor population on the basis of the poverty line, which is calculated with the headline inflation taken into account and not on the basis of changes in the cost of the consumer basket, may produce the effect of moderation of the poverty level because the cost of the consumer basket grows faster than the rate of inflation as whole.

The minimum wage growth in 2023 and 2024 is set 3 p.p. above the growth in the minimum subsistence level of an able-bodied person. In 2022, the minimum wage increased twice: by 8.6% from January 1 (to Rb13,890)² and by 10% from June 1 (to Rb15,279)³. From January 1, 2023, the minimum wage increased again by 6.3% (to Rb16,242)⁴. So, as of January 1, 2023, the minimum wage exceeds the basic subsistence level and the subsistence level of an able-bodied person by 13% and 3.7%, respectively.

The benefits, which indexation is envisaged by the law, have been indexed by 11.9% since February 1, 2023. The high percentage of indexation is related with the high rate of inflation in 2022. From 2023, wages in the public sector will grow at the same rate as average wages of those engaged in economic activities. In 2022, indexation was equal to 6.5%. In 2023, indexation was already planned from January 1, 2023, and not from October 1, 2023, however, implementation of the plans is currently delayed.

From May 1, 2022, full families with average per capita incomes below one minimum subsistence level received an opportunity to apply for benefits for children aged 8-17 years (before that these benefits were granted only to single parents). In 2023, it is planned to continue the transformation of the system of social support of families with children. From January 1, 2023, a single benefit for

1 The value of the minimum subsistence level as a whole in the Russian Federation // Rosstat. URL: https://rosstat.gov.ru/storage/mediabank/vpm-643_doc

2 Federal Law No.406-FZ of December 06, 2021 "On Amendment of Article 1 of the Federal Law "On the Minimum Size of the Labor Remuneration." URL: <http://publication.pravo.gov.ru/Document/View/0001202112060038>

3 RF Government Decree No. 973 of May 28, 2022. URL: <http://publication.pravo.gov.ru/Document/View/0001202205300031?index=2&rangeSize=1>

4 Draft Law No. 201618-8 "On Amendment of Article 1 of the Federal law "On the Minimum Labor Remuneration" and Suspension of its Individual Provisions." URL: <https://sozd.duma.gov.ru/bill/201618-8>

families with children aged 0–17 years and pregnant women was introduced, but for a number of categories the conditions for receiving this support have been changed. A larger volume of support will be directed to the poorest pregnant women (the size of payments may amount to 75% and 100% of MSL, rather than 50%), and families with children below the age of 3 years will be able to receive two payments: one payment from the budget in case of income below 1 MSL and the other from the maternity capital in case of average per capita incomes being less than 2 MSL. At the same time, for some categories the criteria for the entitlement to the state social support have been tightened. For example, mothers with children below the age of 1,5 years who did not work before their pregnancy used to receive Rb7,677.81 per month regardless of any need criteria. Families with children aged 0–3 years with the first baby used to have the right to receive a payment equal to 100% of MSL of a child, if average per capita incomes were less than 2 MSLs. After the unification for them and other families with children was carried out, the income threshold amounts to 1 MSL, while in compliance with the new rules the payment from the budget may be equal to 50%–75%–100% of MSL depending on the family's income. Overall, these changes are mostly of administrative nature, making it feasible to harmonize the conditions of granting support to families with children aged 0–17 years regardless of the birth order with need criteria, property restrictions and the zero-income rule taken into account. In the current environment, the support of low-income families with children by means of target social payments plays an important role in curbing growth in poverty.

However, apart from implementation of the above administrative changes there are no grounds so far to speak about the introduction of the Social Treasury project and expansion of target social support of the population. On the contrary, the year 2022 saw the introduction of a number of social support measures for the mobilized persons and participants in the special military operation (SMO) both at the federal and regional levels without a family's incomes taken into account. In particular, in assigning a single child allowance for families with children aged 0–17 years, incomes of mobilized persons' and SNO participants' family members are not taken into account. However, according to the data of ISAP RANEPА in February 2023 only 2% of the respondents declared that they or their family-members received payments, wages or allowances in connection with the special military operation.

In 2018, a national goal was set to reduce the level of poverty by half compared to 2017 (12.9%) by 2024. Amid the coronavirus pandemic, the period was shifted to 2030. At present, it is difficult to forecast whether the target value can be achieved by that time, however, in 2022 the indicator coincided with the planned one.

In the RF President's Address to the Federal Assembly on February 21, 2023, a few lines were identified in the development of the system of social support of the population and protection of citizens' incomes, including: the establishment of the special government fund for support of families of SMO participants; the launch of a special preferential rental housing program for workers of defense

industry enterprises; the introduction of the system of insurance of voluntary pension savings (up to Rb2.8mn) and protection of citizens' investments in other long-term investment instruments; provision of maternity capital to families with children born from the year 2007 in the Donetsk and Lugansk People's Republics and the Zaporozhye and Kherson regions; a further increase of 10% in the minimum wage (overall, from January 1, 2024 the minimum wage will increase by 18.5%); an increase in the limit for social tax deductions for educational expenses of children from Rb50,000 to Rb100,000 and for expenses on one's own education, medical treatment and purchasing of medicines from Rb120,000 to Rb150,000, as well as the introduction of a proactive regime of granting tax deductions.

4.2.3. The level and dynamics of households' incomes

By Rosstat's preliminary estimates, in 2022 real disposable cash incomes decrease by 1.0% relative to 2021. At the same time, by contrast with the previous year, in Q4 2022 this indicator increased by 0.9%. In Q4 2022, real wages grew by 0.5% on the relevant period of the previous year. The real size of the assigned pensions picked up by 4.2% in Q4 2022 year-on-year (Fig. 7). In 2022, real pensions fell by 0.9% without a lump-sum payment taken into account in 2021 and 5.8% with a lump-sum payment counted in.

In Q4 2022, the volume of cash incomes increased slightly by 0.37% as compared with the relevant period of 2021. During that period, incomes from entrepreneurial activities picked up by 14.2%. The volume of social payments (+0.88%) and other cash receipts (+5.39%) increased slightly. However, a downward trend was

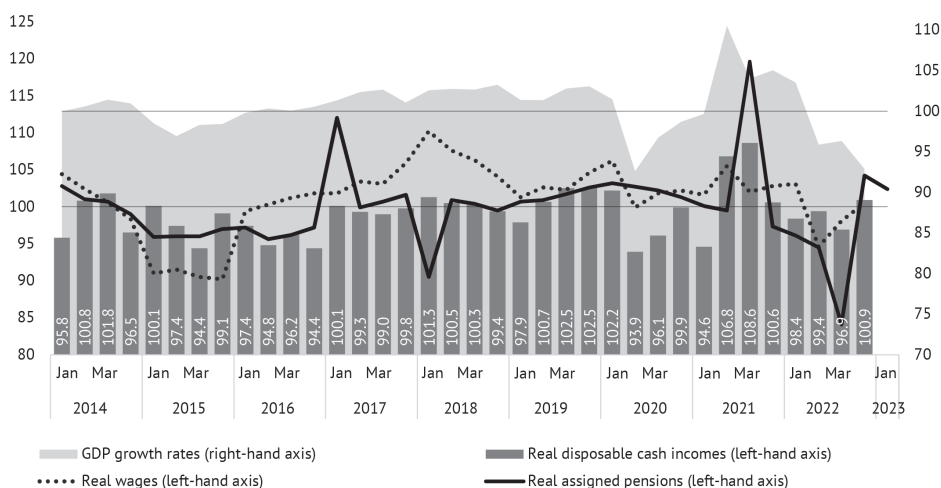


Fig. 7. Dynamics of households' real disposable cash incomes, real accrued wages, real size of assigned pensions and GDP growth rates in 2014–2023, % relative to the corresponding period of the previous year

Source: Rosstat.

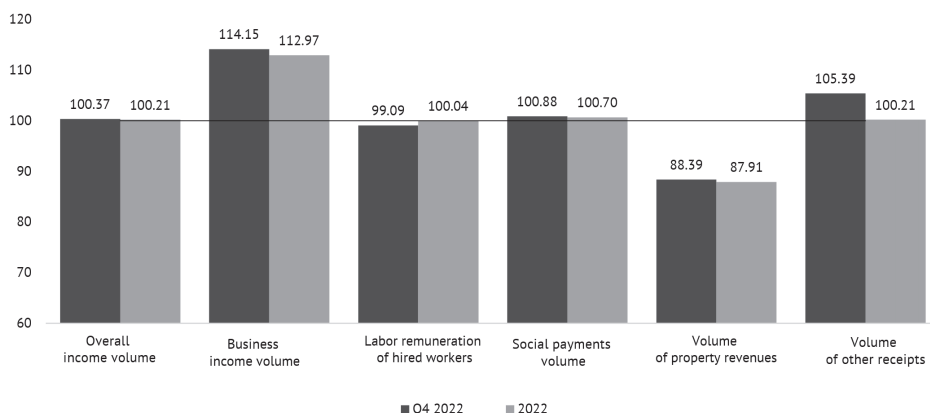


Fig. 8. The dynamics of households' overall cash income volume and its components in real terms in Q4 2022 on Q4 2021, as well as in 2022 on 2021, %

Source: Own calculations based on Rosstat's data.

observed on the part of the labor market: labor remuneration decreased by 0.91%. Incomes from property saw the most negative dynamics; they fell by 11.61% year-on-year in Q4 2022 (*Fig. 8*). In 2022, overall dynamics of incomes are similar. The volume of incomes in 2022 increased by 0.21% relative to 2021. The main growth driver was business income, which grew by 12.97% in 2022. A slight increase was observed in the volume of labor remuneration (+0.04%), social payments (+0.7%) and other cash receipts (+0.21%). A substantial downward trend was evident in revenues from property: they fell by 12%.

In Q4 2022, in the household cash expenditures pattern the share of expenditures on purchasing goods and services declined by 5 p.p., including those on purchasing goods (4.2 p.p.) and services (0.8 p.p.) on the domestic market. The dynamics of expenditures on purchasing goods and services abroad remained at the same level. Expenditures on mandatory payments and contributions decreased slightly by 0.4 p.p. At the same time, as seen from Rosstat's data the Russian population started to save more in Q4 2022 relative to Q4 2021: growth in deposit account balances was equal to +12.8% (compared with +10.6% in Q4 2021) and the volume of cash on hand increased by 3.8% (*Fig. 9*).

It is noteworthy that Q1 2022, the start of the SMO, accounted for the largest increase in demand for cash (+4.7%) and the largest fall in the volume of deposit account balances (-11.2%). In Q2 2022, the situation stabilized: savings in deposits started to grow (+9.5%) and cash volumes declined (-2.7%). In Q3 2022, the situation aggravated: savings and cash continued to grow (+7.0% and +1.5%, respectively).

According to the annual statistics, households' expenditures declined virtually across all the sources (*Fig. 10*). In particular, the volumes of payments for goods and services on the domestic and foreign markets declined. In the pattern of

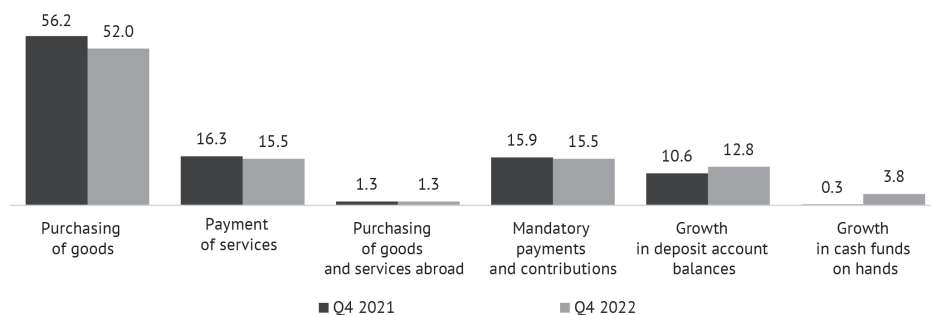


Fig. 9. The pattern of utilization of household cash incomes in Q4 2021 and 2022, %

Source: Rosstat.

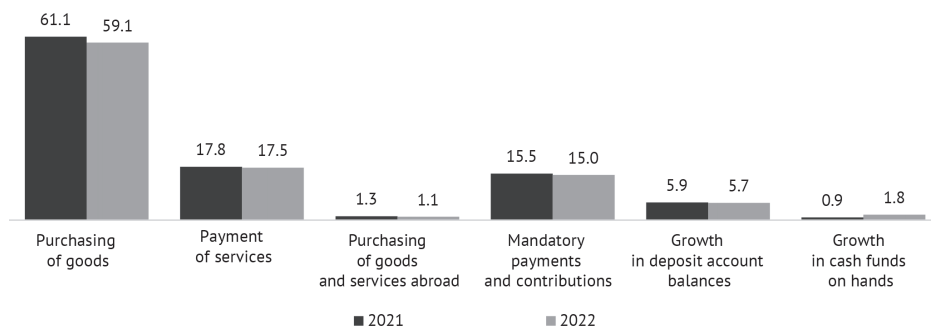


Fig. 10. The pattern of household cash income utilization in 2021–2022, %

Source: Rosstat.

household cash income utilization, the share of expenditures on goods and services of the Russian market declined by 2 p.p. and 0.3 p.p., respectively. On foreign markets, relevant indices decreased by 0.2 p.p. The share of expenditures on mandatory payments fell by 0.5 p.p. At the same time, deposit account balances decreased from 5.9% in 2021 to 5.7% in 2022). Also, the volumes of households' cash funds on hand increased from 0.9% in 2021 to 1.8% in 2022). Similar dynamics points indirectly to a decline in households' confidence in the banking sector and uncertainty in the financial sector's stability.

In Q2 2022, the average incomes of the tenth decile group of the population fell by 2.1% in real terms as compared with Q2 2021, while those of the poorest first decile group and the second decile group, by the mere 0.1% and 0.4%, respectively. In Q3, the average incomes of the tenth decile group declined by 2.4% in real terms relative to Q3 2021, while no decrease was registered in the first two poorest decile groups; by contrast, the first decile group saw growth of 0.7%. The minimal decrease in incomes of the poorest decile groups can be explained by

a high share of pensions and allowances in the pattern of these groups' incomes which were indexed by the government. However, the replacement of incomes from labor and entrepreneurial activities, which trend has been observed in the past few years, with payments from the state cannot be called a positive trend on which basis one can judge about the sustainability of the poorest population's economic situation.¹

In 2022, the level of income inequality decreased slightly as compared with the previous year (the Gini index was equal to 0.402 and 0.409 in 2022 and 2021, respectively). In 2022, the ratio between the average income of 10% of the wealthiest population and 10% of the poorest population decreased and amounted to 14.4 (in 2021 R/P 10% ratio was equal to 15.2%). The incomes of the poorest population group increased by 0.2 p.p. (relative to 2021), as well as those of the second and third income groups (+0.2 p.p. in each group) (*Fig. 11*).

Actually, this trend is the evidence of redistribution of households' incomes in favor of less well-off groups. The government's social support of the most vulnerable groups has created costs, a so-called "penalty" which the higher-income population had to pay.

In Q4 2022, the share of the population with incomes below the poverty line became 0.6 p.p. lower than in Q4 2021 (*Fig. 12*). From Q1 2022, poverty growth (0.1 p.p. relative to Q1 2021) was compensated in subsequent Q2, Q3 and Q4 2022 owing to the government's social support measures and the year-on-year dynamics saw a positive trend as compared with 2021. The number of the population with incomes below the poverty line declined by 0.7 mn people in 2022 (year-on-year) and amounted to 15.3 mn people (without the statistical data on the Donetsk and Lugansk Peoples' Republics and the Zaporozhye and Kherson regions taken into account).

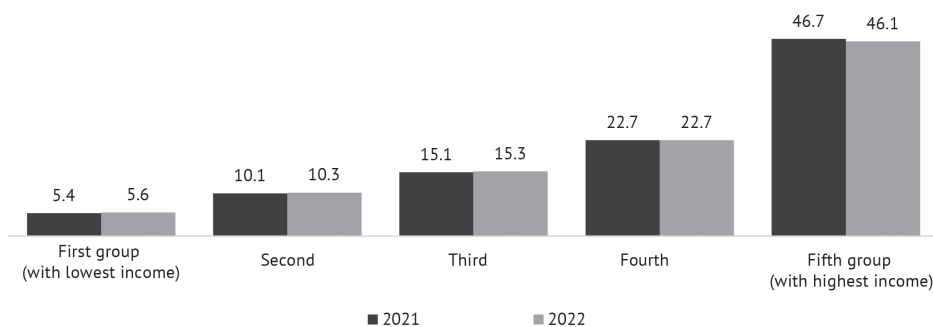


Fig. 11. Distribution of the overall volume of households' cash income across income groups, %

Source: Rosstat.

1 Households' incomes, expenditures and consumption in 2022 (based on the sampling survey of households' budgets) // Rosstat. URL: https://gks.ru/bgd/regl/b22_102/Main.htm

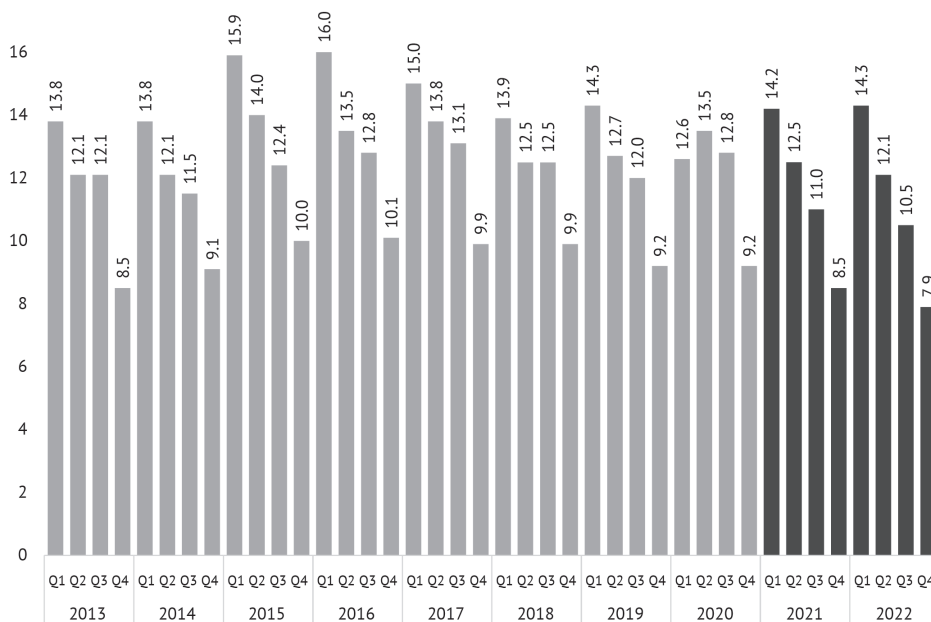


Fig. 12. The dynamics of the share of the population with cash incomes below the poverty line (before 2020: the minimum subsistence level), % of the overall number of the population

Source: Rosstat.

4.3. Demography and migration processes¹

4.3.1. The demographic situation

In 2022, natural population decline was equal to nearly 600,000 persons (599,600) or 4.1‰ (per mille) which is much below the level of a natural decline in the population in 2021 (1,042,700, 7.2‰) (*Fig. 13*). Such a decrease was feasible owing to the return of the mortality rate to the normal (non-pandemic) level.

Experts approached the beginning of 2022 with negative expectations regarding the birth rate dynamics and the demographic situation as a whole. First, Russia is approaching the “bottom” as regards the number of women of the most active reproductive age (*Fig. 14*). With each year, a large generation of the late 1980s makes a smaller and smaller contribution to the current birth rate. All subsequent cohorts of women are substantially smaller in number. Second, as of the beginning of 2022 an upcoming decrease in the intensity of childbirth was mainly driven by the COVID-19 pandemic in 2021 and the accompanying

¹ Authors: *M.O. Makarentseva*, Candidate of Economic Sciences, Leading Researcher of the ISAP RANEPa; *N.V. Mkrtychyan*, Candidate of Geographic Sciences, Leading Researcher of the ISAP RANEPa; *Yu.F. Florinskaya*, Candidate of Geographic Sciences, Leading Researcher of the ISAP RANEPa; *R.R. Khasanova*, Candidate of Economic Sciences, Leading Researcher of the ISAP RANEPa.

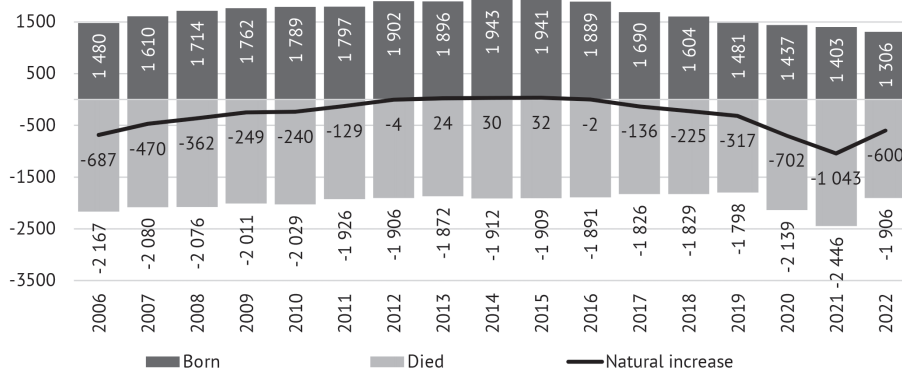


Fig. 13. The numbers of those born and died and natural increase (decline) in the population, 2006–2022, thousand persons

Source: UISIS; Rosstat's real-time data.

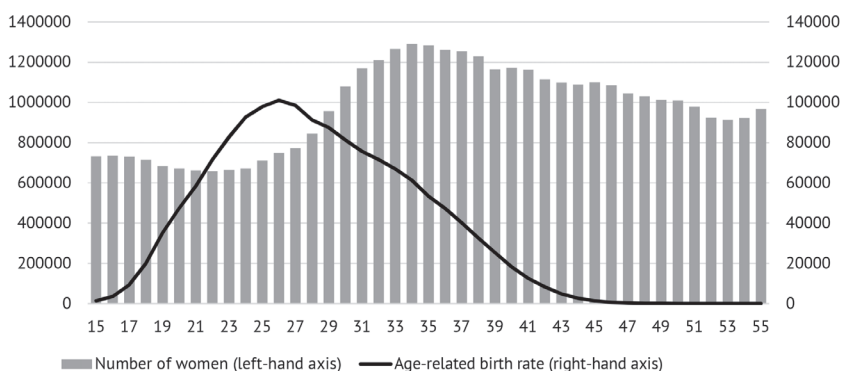


Fig. 14. The number of women and age-related birth rate across one-year age groups, 2021.

Source: The database of the Center for Demographic Studies, NES.

economic stagnation. Now we can say that the effect of the coronavirus pandemic on the birth rate has become inseparable in Russia from the effects of subsequent developments (the beginning of the special military operation, the sanctions regime and the economic crisis) since Autumn 2022.

In 2022, 1,306,200 children were born, a decrease of nearly 100,000 children or 6.2% relative to 2021. The overall fertility rate was equal to 9‰ and the preliminary estimate of the total fertility rate, to 1.45 babies. A decrease in the intensity of births was evident for the first and second order, as well as for most maternal ages.

Proceeding from the monthly dynamics of the number of births, it can be stated that in 2022 the birth rate demonstrated a more all-round negative trend

as compared with 2021 when fluctuations occurred (*Fig. 15*). The most dramatic decline in the number of births was seen in October 2022 (-10.7% as compared with the relevant period of the previous year), March and April 2022 (-9.9% each) and June (-9.6%). So far, judging by the data on December 2022 and the preliminary data on January 2023 (about 103,000 births) there is no evidence of a sharp decrease in births nine months after the beginning of the SMO. Such a decline in births is likely to be evident nine months after the partial mobilization was declared.

By the beginning of 2023, experts' expectations regarding the intensity of births became more negative due to crises phenomena in Russia. A further decline in births is forecasted (up to 1.12 mn).

A major factor for the decrease in the extent of a natural population decline was a substantial reduction in the number of deaths. Early in 2022, Omicron, a lighter coronavirus variant, which spread around the world, as well as in Russia forced out Delta, a more deadly coronavirus strain. Along with the vaccination of the population, this led to a decrease in the fatality rate associated with coronavirus infection. Based on the data on 2022, in January-March, the period of an active spread of Omicron and explosive growth in the incidence of the disease, the number of deaths surpassed the average values seen in 2015–2019 (*Fig. 16*) and from April the absolute indicators of the year 2022 became lower.

In January-December 2022, 1,905,800 people died in Russia, 22% and 10% less than in 2021 and 2020, respectively, and 6% more than in the pre-pandemic 2019. In 2022, the overall death rate of the population was equal to 13.1‰.

By preliminary estimates, life expectancy increased to 72.6 years¹ (*Fig. 17*), but failed so far to reach the pre-pandemic level (73.3 years). At the same time, the indicator is much lower than that forecasted by Rosstat in 2020 (74.7 years

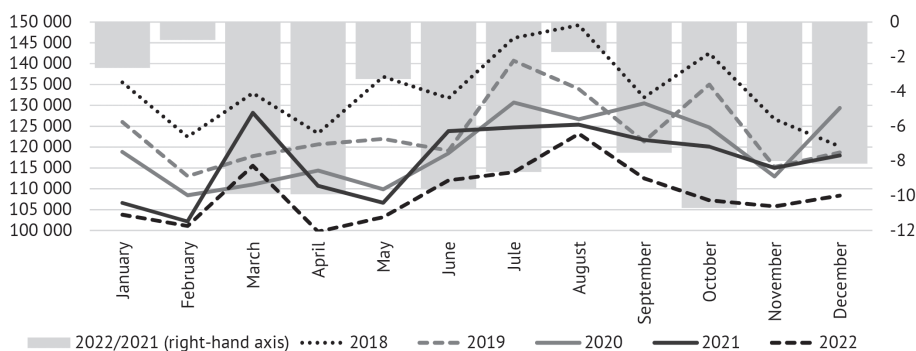


Fig. 15. The number of births in 2018–2022 (persons) and changes in 2022 relative to 2021 (%)

Source: UISIS: Rosstat's real-time data.

1 In 2022, life expectancy increased in Russia // The Kommersant daily. The News – Society (kommersant.ru).

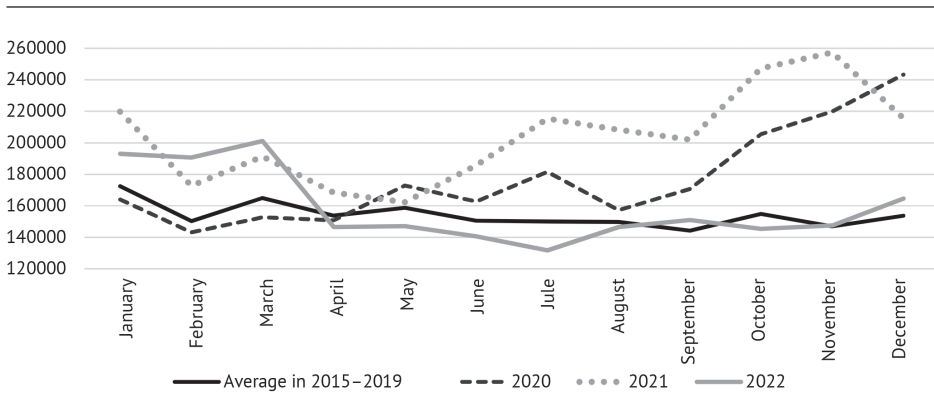


Fig. 16. The number of deaths by months in 2020–2022 and on average in 2015–2019, persons

Source: UISIS; Rosstat.

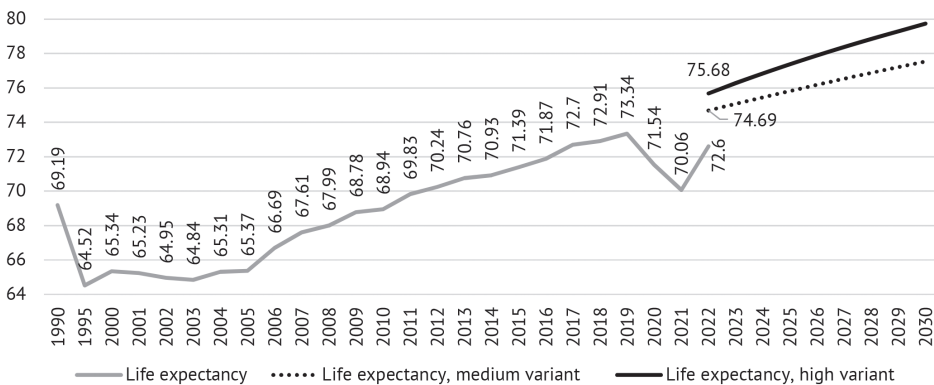


Fig. 17. Life expectancy at birth, 1990–2021 (actual), 2022 (estimate) and 2022–2030 (forecast), years

Source: Rosstat.

in 2022 and 75.7 years according to the medium and high projection variants, respectively).

According to the data of UISIS, along with growth in life expectancy of the population, 2022 saw negative trends which characterized health of the population. The share of the population leading a healthy life style largely decreased since 2019 (from 12% in 2019 to 7.2 % in 2022). This integrated index of the population's commitment to a healthy lifestyle is a conditional characteristic of a healthy lifestyle and includes the following components: no smoking, daily consumption of at least 400 gr of vegetables and fruits, adequate physical activity (minimum 150 min of moderate physical activity or 75 min of intense physical activity per

week), normal consumption of salt and alcohol consumption of no more than 168 gr and 84 gr of pure ethanol per week for men and women, respectively.¹

Within a year, healthy life expectancy increased by the mere 0.4 years and failed to attain the pre-pandemic level (59.8 years in 2022, 59.4 years in 2021 and 60.3 years in 2019). Probably, the low level of healthy life expectancy can be explained by a considerable deterioration of the population's health after the coronavirus infection, high risks of noncommunicable diseases caused by tobacco smoking, alcohol consumption and weak physical activity and nutrition. According to the data of UISIS, in the past four years retail sales of alcohol increased from 6l per capita in 2019 to 6.5l in 2022).

4.3.2. Long-term migration

In 2022, migration growth in the Russian population was equal to 34,900 persons. Formally, it is an unprecedentedly low indicator, but it is formed on the back of a transfer of a larger portion of departures (about 200,000) from H2 2021 to H1 2022. From July 2021, the validity period of documents of migrants, foreign nationals registered at the place of their stay, was extended till December 31, 2021. As a result, Rosstat stopped recording departures related with the end of the registration period at the place of stay and in 2021 the indicator of migration growth of the population amounted to the record value of 430,000 people. The registration of these departures was carried forward to H1 2022, so in January-June Rosstat recorded a record migration loss of 97,600 persons (*Fig. 18*). In H2, indicators started to return to normal, but a fall in H1 was covered by the end of the year. In 2021, migration growth of the population was overstated by approximately 200,000 persons; in 2022 it was understated by the same value.

As a result, in 2022 migration growth made up for natural loss of the population by the mere 5.8%, despite its decline relative to the previous year.

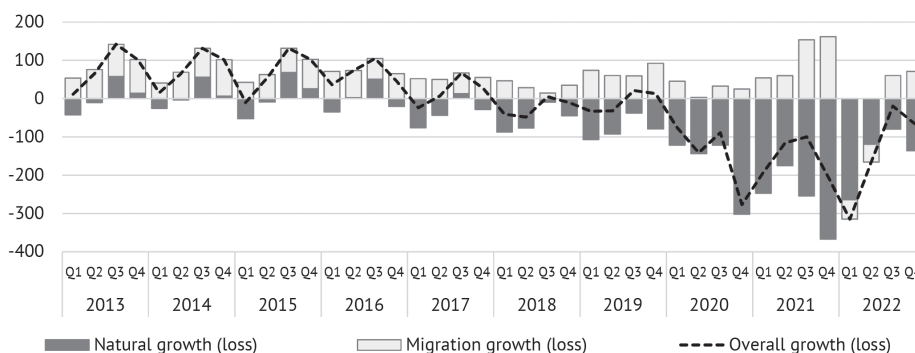


Fig. 18. Components of change in the RF population, 2013–2022, quarterly data

Source: Rosstat.

1 Rosstat's Order No.181 of March 29, 2019 "On Approval of the Methodology of Calculation of the "Share of Citizens Leading a Healthy Lifestyle" Indicator, %." URL: docs.cntd.ru

In 2022, Russia has migration growth with a very limited number of countries (*Table 1*). The contrast is particularly explicit as compared with 2021, but, as stated above, the indicators for these years are too distorted. In our opinion, it is correct to operate with the data for 2021–2022 on the average. In 2017–2022, there was no substantial distortion of the statistics, except for 2017 and 2019; in other years there were either problems related with interdepartmental networking between Rosstat and the RF Ministry of Internal Affairs (2018) or limitations related with the COVID-19 pandemic and its implications (from 2020).

Table 1

Migration growth (loss) of the RF population in 2017–2022, thousand persons

	2017	2018	2019	2020	2021	2022
Overall international migration	211.9	124.9	285.8	106.5	429.9	34.9
With CIS member-states	203.4	129.1	256.4	118.9	395.8	51.4
Including:						
Azerbaijan	8.6	8.7	16.8	10.9	23.7	-3,7
Armenia	14	14.4	35.5	-1.8	45.2	-10,7
Belarus	11.8	7.2	6.3	-1.4	15.4	-0,2
Kazakhstan	32.7	26.5	39.1	8.4	48.3	-4,9
Kirgizia	19.4	8.8	14.9	1.4	42.5	-6,8
Moldova	9.6	7.7	5.5	3.5	16.1	2,4
Tajikistan	34.6	31	47.8	39.4	96.6	87,3
Turkmenia	2.9	3	6.2	0.8	7.2	-3,7
Uzbekistan	22.2	6.8	19.1	4.9	36	-8,5
Ukraine	47.7	14.8	65.1	52.8	64.7	0,2
With other countries	8.4	-4.2	29.4	-12.4	34.1	-16,5

Source: Rosstat

In this regard, the remaining high level of Russia’s migration growth with Tajikistan seems surprising. Despite the fact that there was “double counting” of departures with Tajikistan, arrivals, which number of was so high, made up for the number of departures. The number of arrivals from Tajikistan was equal to 186,600 persons, an increase of 47% relative to 2021. No growth in arrivals was seen with any other country; on the contrary, arrivals declined.

Internal migration has been falling since 2018 (*Fig. 19*); in 2022 it decreased by 144,400 persons or 4%. In 2019–2022, the number of those migrating internally increased only by 100% on the relevant period. The first time it happened in Q2 2021 and it did not facilitate the recovery of the number of internal migrants after tight COVID-19 restrictions which were in effect in 2020. The second increase was registered in Q4 2022; it was equal only to 6.3% as compared with the relevant quarter of 2021 when the indicator fell by 12.4%. Overall, in 2022 the number of in-country resettlements was equal to the mere 79.7% of the level seen in 2018. The loss of more than 20% of migration in four years is a very high rate of decline; notably, the internal migration accounting methodology (as far as we know) has not changed.

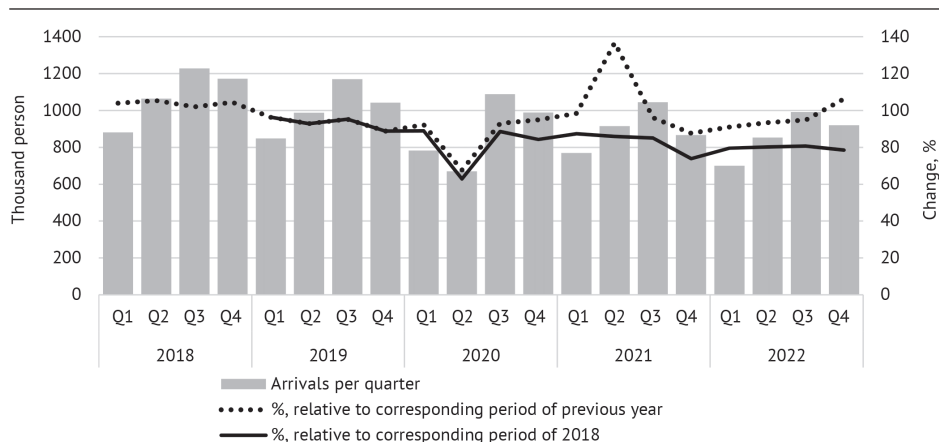


Fig. 19. Internal migration in Russia in 2018–2022, quarterly data

Source: Rosstat.

In 2022, over three-quarters Russia's regions experienced a migration loss of the population and that is not surprising amid a reduced rate of increase in the international migration. Migration growth of the population in large centers of gravity for migrants ceased to be sustainable. So, growth declined in St. Petersburg, the Leningrad region, the Moscow region and the Krasnodar Krai. According to Rosstat's data, as far back as January-November 2022 Moscow experienced a substantial migration loss (-18,900 persons), but at the year-end migration growth of 88,700 persons was registered. It turns out that in December 2022 alone Moscow's migration growth was equal to 107,600 persons, while the number of arrivals to Moscow in December, to 128,500 persons. This cannot possibly be in reality; probably, a portion of arrivals was underreported within a year and Rosstat did not take them into account. It is noteworthy that in 2022 the number of arrivals to Moscow grew, an increase of 91,000 persons or 40.6% as compared with the previous year. It is unclear what caused such an increase in arrivals amid the continuing contraction of internal migration volumes and the normal level of international migrants. Recovery of the usual volumes of migration growth of the Moscow population is logical, however, monthly dynamics of migration indicators in the region raises questions.

In 2022, with a migration loss seen in all regions of the Far Eastern federal okrug and nearly all regions of the Privolzhsky federal okrug and the North-Caucasian federal okrug, the normal migration processes pattern, enhanced by a virtual lack of growth on the back of international migration, recovered.

4.3.3. Temporary migration

In 2022, as in 2021, the number of foreign citizens staying in the territory of the Russian Federation was the lowest in the past decade (*Fig. 20*). At the beginning of 2022, there were hopes for a gradual recovery of international migration volumes

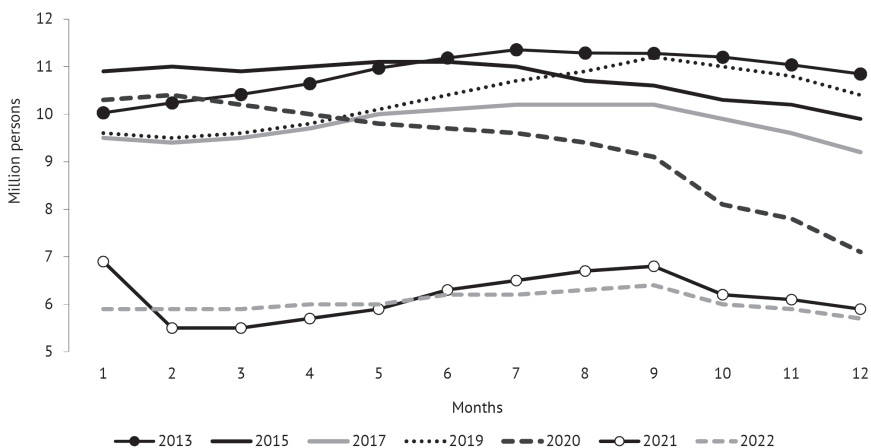


Fig. 20. Foreign citizens in the RF territory at month end, million persons

to Russia after the pandemic and late in February 2022 this index even surpassed by 7% the relevant one of 2021. However, after February 24, 2022 this trend was broken and by the beginning of summer the data on the number of foreigners in Russia turned out to be even lower than in 2021 when the pandemic-related restrictions on travelling to Russia were in effect. Consequently, during 2022 the index fluctuated from 5.7 mn foreigners to 6.4 mn foreigners staying in Russia as of the end of each month (from 5.5 mn to 6.8 mn in 2021). By the end of 2022, 5.66 mn foreign citizens were staying in the RF territory, a decrease of more than 40% and 5% as compared with the pre-pandemic 2019 and the end of 2021, respectively. By contrast with the data on the relatively favorable 2019, the most dramatic decline was seen in the number of tourists (over 80%), as well as transit, business and private travelers to Russia (a decrease from 78% to 54%), while the number of those arriving in Russia for the purpose of work declined the least (30%); educational migration remained unchanged.

Among all foreign citizens staying in Russia, citizens of CIS countries accounted for the majority with their share remaining at the level of the previous year, that is, 89% (79% in 2019 and 84% in 2020). Early in 2022, 5.2 mn people from CIS countries were staying in Russia (Table 2); at year-end 2022 their number was equal to 5.0 mn (8.2 mn at year-end 2019). The leaders as regards the number of foreign migrants were two countries of Central Asia (Uzbekistan and Tajikistan) and Ukraine (in 2021 citizens of Kirgizia were rated the third in this regard).

By contrast with 2019, the number of citizens of Moldova, Azerbaijan and Ukraine staying in the Russian Federation decreased the most (by 77%, 75% and 58%, respectively), while that of citizens of Tajikistan, the least (by 6%). Even compared with the previous year, the number of foreign citizens from nearly all CIS states declined (from 5% in case of citizens of Uzbekistan to 29% in case of

Table 2

**Arrivals of foreign citizens from the CIS to Russia
as of the date specified, persons**

	01.12.2015	01.12.2017	01.12.2019	01.12.2020	01.12.2021	01.12.2022
Azerbaijan	531080	601704	758377	548389	253961	186970
Armenia	490156	494848	483250	339985	301035	260032
Belarus	644598	689534	690854	628134	515694	502155
Kazakhstan	671751	531865	547398	365632	270887	230728
Kirgizia	541855	624756	746477	599294	663683	591135
Moldova	512637	425269	310679	205747	98510	70247
Tajikistan	898849	988771	1243080	1012186	1143290	1168233
Uzbekistan	1884110	1719492	2007895	1460120	1514596	1442419
Ukraine	2598303	2129446	1708652	1037016	577225	713339*
CIS, overall	8773339	8205685	8496662	6196503	5338881	5165258

* As of the beginning of winter, apart from Ukrainian citizens in Russia there were 78,500 citizens of the Donetsk People's Republic (DPR) and 65,000 citizens of Lugansk people's Republic (LPR) (from Spring 2022, the Ministry of Internal Affairs publishes separately the statistical data on citizens from DPR and LPR, as well as Ukrainian citizens).

Source: The RF FMS; Main Directorate for Migration Affairs of the RF Ministry of Internal Affairs; CBD UIG database.

citizens of Moldova), except for Tajikistan and Ukraine (growth of 2% and 24%, respectively).

The number of citizens from developed western countries in Russia decreased even further as compared with 2021 (Table 3). Early in 2022 their number fell on average 7.6 times as compared with 2019: Spain (a decrease of 31 times), France (21 times), Germany and the UK (18 times each), the US (17 times), Italy (15 times) and Finland (4 times). This reduction in numbers concerned primarily those individuals who were in Russia on tourist, commercial and business trips (90%–96%). The number of labor migrants from developed countries and student migrants fell by 74% and 80%, respectively.

Table 3

**Foreign citizens from some EU countries and the US in Russia
as of the date specified, persons**

	01.12.2015	01.12.2017	01.12.2019	01.12.2020	01.12.2021	01.12.2022
EU, overall	484981	437189	700325	551964	190157	92340
Germany	112053	105524	150914	122565	34616	8469
Spain	14960	14109	31239	22139	4421	1001
Italy	29004	24092	43989	34787	7373	2900
UK	29225	23616	30297	31853	8175	1655
Finland	76220	73500	87635	66983	36852	24530
France	34161	26071	54997	47510	8363	2640
US	47355	43875	59509	63296	20400	3545

Source: The RF FMS; Main Directorate for Migration Affairs of the RF Ministry of Internal Affairs.

Late in 2022, 2.61 mn labor migrants (those who stated the “work for hire” in the immigration card as the purpose of their visit) were staying in the Russian Federation (3.07 mn migrants late in 2021; 3.9 mn migrants in 2019). This is the lowest index value in the past few years. The number of labor migrants fell by 15% and a third as compared with the end of 2021 and the pre-pandemic 2019, respectively. Labor migration is driven almost completely by CIS citizens (98%); the number of labor migrants from the far abroad declined to 59,500 persons.

As compared with the pre-pandemic indicators (2019), there was a decrease in the number of labor migrants from Ukraine and Moldova (82% and 78%, respectively); Azerbaijan, Armenia and Kazakhstan (50% or more); Tajikistan (20%), Uzbekistan (25%) and Kirgizia (30%). At present, the labor migration is driven for 82% by migrants from three countries of Central Asia.

It is noteworthy that out of 2.61 mn labor migrants staying in Russia 1.9 mn migrants had valid work permits or patents and another 700,000 migrants were from the EAEU, that is, they had the right to work without any permit documents. So, almost virtually 100% of foreigners staying in Russia as labor migrants had an official permit to work. Probably, those labor migrants who are staying in Russia amid uncertainty prefer to avoid risks and have legitimate grounds for their residence and work in the Russian Federation.

The level of securing by foreigners of new documents for work in Russia remains high (*Table 4*), though the peak was passed in 2021 when the government took measures to simplify legalization of labor migrants who were staying in Russia.¹ In 2022, 2.07 mn work permits and patents were executed, a decrease as compared with the previous year and an increase relative to the 2015–2020 level.

Table 4

**Execution for migrants of permit documents for work
in the Russian Federation, persons**

	2014	2015	2017	2019	2020	2021	2022
Work permit (WP) for foreign citizens (FC)*	1334899	177175	139595	117452	58475	87331	89771
Including:							
WP for qualified specialists (QS)*	158644	22099	17333	16877	7286	6557	8673
WP for high qualified specialists (HQS)	34225	41829	21363	31754	18937	44295	31579
Patents**	2379374	1779796	1658119	1686418	1101832	2156125	1980225
Overall	3714273	1956971	1797714	1803870	1160307	2243456	2069996

* From January 1, 2015, work permits are issued only to FC from visa countries.

** From January 1, 2015 work permits are issued to FC from visa-free countries for work for individuals and legal entities.

Source: The RF FMS; Main Directorate for Migration Affairs of the RF Ministry of Internal Affairs.

1 Executive Order No. 364 of June 15, 2021 of the RF President “On Temporary Measures on Regulation of the Legal Status of Foreign Citizens and Stateless Persons in the Russian Federation in the Period of Overcoming the Implications of the Spread of the New Coronavirus Infection (COVID-19).”

Labor migrants' payments to regional budgets for patents kept growing: in 2022 the sum was equal to Rb97.2 bn (Rb67.9 bn in 2021; Rb47.5 bn in 2020; Rb60.4bn in 2019). The main payers remained the same: labor migrants from Uzbekistan and Tajikistan (97% of all patents in 2022 against 94% in 2021), Azerbaijan (2.5%) and Moldova and Ukraine (0.5%).¹

4.4. Health care and public health²

The main challenge of the year for domestic health care was the need to maintain the achieved level of quality and accessibility of medical care in unfavorable macroeconomic atmosphere. Despite medical products were not formally the core of Western sanctions, provision of the industry was dramatically complicated due to restrictions on transportation, uncertainty of the exchange rate and departure of a number of suppliers from the Russian market.

For most of the year, health care system also continued to struggle with the pandemic of a new coronavirus infection. While the severity of the disease declined sharply, the spread of COVID-19 remained widescale enough to place a high burden on health care organizations.

External and internal constraints were bound to have a negative impact on the implementation of the national project "Health Care" and sectoral projects of smaller scale. Overall consequences of the crisis for the sector development can be assessed only after the restructuring of previously approved programs and projects is completed. Nevertheless, implementation of the majority of planned activities continues, while cancellations or significant temporary shifts of projects are isolated.

4.4.1. Adaptation to new macroeconomic conditions

The most dangerous impact of sanctions imposed by foreign countries against the Russian Federation for the health care system was the threat of losing access to modern medical technologies. According to the Ministry of Health of Russia, the share of domestic medical devices in total consumption is 31%.³ Of the 31.500 medical products registered in Russia, the share of manufacturers from unfriendly countries in March 2022 amounted to more than 4.500, of which 254 items were recognized as critical to the health care system.⁴ According to a later assessment conducted for the most demanded medical products in the health care, out of 5.900 product codes more than 1.500 items are not produced in Russia or its

1 From Autumn 2022, citizens of Ukraine can work in the Russian Federation without work permit documents (Executive Order No.585 of August 27, 2022 of the RF President).

2 Authors: *N.A. Avksentiev*, Researcher, Department of Health Care Economy, IAES, RANEPa; *V.S. Nazarov*, Candidate of economic sciences, Head of Department of Health Care Economy, IAES, RANEPa; *N.N. Sisigina*, Researcher, Department of Health Care Economy, IAES, RANEPa.

3 Ministry of Health: over 30% of medical items in RF are domestically-produced // Interfax, 07.07.2022. URL: <https://www.interfax-russia.ru/index.php/main/minzdrav-bolee-30-medicinskih-izdeliy-v-rf-otechestvennogo-proizvodstva>

4 *T. Beskaravajjnaya*. Ministry of Health disclosed data on non-reproducible types of medical products in Russia // Medvestnik // 29.03.2022. URL: <https://medvestnik.ru/content/news/Minzdrav-raskryl-dannye-o-nevosproizvodimyh-v-Rossii-vidah-medizdelii.html>

friendly countries, of which more than 800 items are not among the promising areas to organize their own production in the near future.¹

A similar situation is observed in the sphere of drug supply. In 2021, the share of domestic drugs in total sales was 61.2% in packages and 35.1% in rubles. The cumulative share of imported substances is estimated at 80% of the total amount of raw materials needed. The technological capabilities to organize production of the full cycle of drugs included in the list of vital and essential drugs (hereinafter - VED) in the territory of Russia exist only for half of the drugs (all estimates according to the Ministry of Industry and Trade).²

In February-March 2022, most international pharmaceutical companies announced that they suspended recruitment of new patients for participation in clinical trials conducted in Russia, as well as postponed the start of new research projects. This measure may seem illogical and inconsistent with sanctions imposed by Western countries, which do not affect the supply of medicines. The reason for such actions was the impossibility of ensuring uninterrupted logistics of medicines for clinical trials, which turned out to be disrupted amid restrictions on international passenger and cargo flights. Taking into account the fact that majority of clinical trials conducted by pharmaceutical companies in Russia are international multicenter (i.e., they take place in several medical organizations in different countries), manufacturers began to minimize the risks of lower quality trials, which could affect their activities in other countries.

In addition to significant reduction of research programs, many international pharmaceutical manufacturers also announced the suspension of new investments in Russia. However, the spirit of this wording for a long time made it impossible to assess the companies' real plans, which eventually ranged from withdrawal from the Russian market and transfer of rights to their medicinal products to partner companies to suspension of planning new capital investments (while maintaining the existing production and supply chains).

Certain challenges related to supply of equipment from abroad and rising costs caused by the complexity of international transportation during the pandemic were already observed in 2020–2021.³ Introduction of Western sanctions dramatically worsened the situation. In spite of the fact that medical and pharmaceutical products were excluded from the USA and EU sanctions, the ban on direct air and road freight traffic, limitations of currency transactions and bank mutual settlements, departure of some foreign producers and importers from the Russian market resulted in mass delays of supplies and increase of logistics costs (by 300–500%⁴) by estimates of profile companies). In early March 2022 import of

1 Ministry of Health informed that over 1.500 items of medical products are not produced in Russia // TASS. 28.06.2022. URL: <https://tass.ru/obschestvo/15052789>

2 V. Kulakova. Our share: the Russian Federation can fully produce 50% of essential and vital drugs // Izvestia. 21.03.2022. URL: <https://iz.ru/1307280/veronika-kulakova/nasha-dolia-v-rf-polnostiu-mogut-proizvodit-50-zhiznenno-vazhnykh-lekarstv>

3 Explanatory note to the draft Resolution of the Government of the Russian Federation "On Suspension of Individual Provisions of Certain Acts of the Government of the Russian Federation." URL: <https://regulation.gov.ru/projects#npa=125843>

4 O. Ageeva, M. Kotova. Medical equipment will be sent abroad for repairs. However, foreign manufacturers will be required to guarantee their return. // RTVI. 10.08.2022. URL: <https://rtvi>.

medical devices to Russia has almost completely stopped and by the end of April it was half of the usual level.¹

To ensure uninterrupted supply of health care, a package of counter-sanctions measures was adopted already in March, which can be roughly divided into four areas.

1. Ban for exports of potentially deficit items from Russia.

Already on March 6, a temporary ban was imposed on the export from Russia of medical products manufactured in countries that had announced introduction of sanctions against Russia.² Later, the ban on the export of devices and appliances used in medicine was extended until the end of the year³ and further until the end of 2024.⁴ Exceptions are allowed for exporting the equipment for repairs, but each case of such export requires an individual permit and guarantees for return of the equipment.⁵

Similar restrictive measures were not applied in the sphere of drug provision. At the end of the year, the regions of the Russian Federation received a recommendation to maintain a four-month supply of drugs to mitigate logistics risks.⁶

2. Advance provision of funding to medical organizations for purchasing fixed assets and consumables.

In order to prepare reserves of medicines and other material supplies, as well as for the early purchase of fixed assets amid high uncertainty, medical organizations were granted the right to receive advance financing for the next month in the amount of more than 1/12 of the annual amount, but not more than the amount of costs for the purchase of fixed assets and material supplies at the expense of MHI funds in 2021.

At the request of a RF region, the advance funds were transferred from the annual subvention for implementation of the territorial MHI program.⁷ Moreover, the maximum cost of medical devices used for medical interventions, laboratory and instrumental examinations permitted to be purchased at the expense of MHI

com/stories/medtehniku-otpustyat-na-remont-za-rubezh-no-ot-inostrannyh-proizvoditelej-potrebuyut-garantii-ee-vozvrata/

- 1 Guarascio F. Risk of medical gear shortage in Russia falls as West restores exports // Reuters. 20.04.2022. URL: <https://www.reuters.com/world/europe/risk-medical-gear-shortage-russia-falls-west-restores-exports-2022-04-20/>
- 2 RF Government Decree of 06.03.2022 No. 302 "On the introduction of a temporary ban on the export outside the Russian Federation of medical devices previously imported into the RF from foreign countries that have decided to introduce restrictive economic measures against the Russian Federation."
- 3 RF Government Decree of 09.03.2022 No. 311 "On measures for implementing the Executive Order of the President of 08.03.2022 No.100."
- 4 RF Government Decree of 02.11.2022 No. 1959 "On amendments to particular acts of the Russian Federation."
- 5 O. Ageeva, M. Kotova. Medical equipment will be sent abroad for repairs. However, foreign manufacturers will be required to guarantee their return. // RTVI. 10.08.2022. URL: <https://rtvi.com/stories/medtehniku-otpustyat-na-remont-za-rubezh-no-ot-inostrannyh-proizvoditelej-potrebuyut-garantii-ee-vozvrata/>
- 6 Ministry of Health requested regions to ensure supply of drugs at least for four months // TASS. 12.11.2022. URL: <https://tass.ru/obschestvo/16306269?ysclid=lebg9k5paq968604414>
- 7 RF Government Decree of 16.03.2022 No. 373 "On Amendments to the RF Government Decree of 28.12.2021 № 2505"

funds (if the medical organization has no outstanding payables within 3 months) was increased from Rb100,000 to Rb1mn per unit.¹ According to Ministry of Health of Russia, regions had received Rb240 bn by April for purchasing drugs, which allowed to offset up to 80% of the costs for drug supply.² The effect of the special order of advance payment to medical organizations and the increased limit of expenditures for purchasing fixed assets was extended for 2023.³

The deferral to pay insurance fees to state non-budgetary funds became an additional measure of support for medical organizations and organizations producing medicines and medical products. It was assumed that the released funds could be used to cover price growth and logistics costs, which would reduce the need for borrowed funds. The funds' revenues were compensated at the expense of budgetary funds.⁴

The measures taken to support procurement mitigated the impact of sanctions on domestic health care, making it possible to avoid massive shortages of drugs and medical equipment. People could not access single high technologies (for example, cell therapy for oncohematological patients and bone marrow transplantation).⁵ At the same time, the approved set of measures was not intended to fully compensate for the negative impact of sanctions on the industry. The provided financial assistance, in fact, represented a redistribution of funds from future periods, which is clearly seen in the level of budget execution of the Federal Medical Insurance Fund.

If in Q1 subventions to the territorial MHI funds amounted to 35.7% of the planned expenses instead of 25%⁶, the excess reduced to 7.1%⁷ in Q2, and at the end of three quarters to 3.5%⁸. Proposal on indexation of MHI tariffs taking into account growth of prices for consumables was not supported.⁹

Similarly, no systemic decisions were made to increase financing of major investment programs. Instead, regions of the Russian Federation are released from liability for failure to comply with obligations on use of inter-budgetary transfers till January 2024. It is allowed to retain the unused balance of funds

1 RF Government Decree of 12.03.2022 No. 346.

2 A. Ryabova. Murashko: regions received Rb240 bn of advance money to purchase drugs at the MHI expense // Vademecum. 18.04.2022. URL: <https://vademec.ru/news/2022/04/18/murashko-regiony-poluchili-240-mlrd-rublej-avansov-na-zakupku-lekarstv-za-schet-oms/>

3 RF Government Decree of 29.12.2022 No. 2497 "On the program of state guarantees of free medical care for people for 2023 and for the planning period of 2024 and 2025."

4 RF Government Decree of 29.04.2022 No. 776 "On changes in deadline for paying insurance premiums in 2022".

5 T. Beskaravajjnaya. The Rogachev Center transferred patients who received CAR-T therapy to other types of treatment // Medvestnik. 23.05.2022. URL: <https://medvestnik.ru/content/news/Centr-Rogacheva-perevel-poluchavshih-CAR-T-terapiu-pacientov-na-drugie-vidy-lecheniya.html>

6 Operative report on the execution of the MHIF budget for January-June 2022 // Accounts Chamber. 29.08.2022. URL: <https://ach.gov.ru/audit/35102>

7 Operative report on the execution of the MHIF budget for January-March 2022 // Accounts Chamber. 07.06.2022. URL: <https://ach.gov.ru/audit/31790>

8 Operational report on the execution of the MHIF budget for January-September 2022. // Accounts Chamber. 02.12.2022. URL: <https://ach.gov.ru/audit/36086>

9 Governor of Chelyabinsk region announced that MHI tariffs should be indexed in Russia// TASS. 11.03.2022. URL: <https://tass.ru/ekonomika/14041863>

under the programs suggested for return to the federal budget.¹ Since April, RF regions were authorized to incur changes to the earlier approved programs in a simplified way², and since October the Ministry of Health of Russia could redistribute funds under federal project “Modernization of primary care setting” between RF regions depending on the current funding need.³

3. Simplification of government procurement.

To further accelerate reserves of medical products, a number of requirements of the legislation on public procurement were relaxed. The maximum contract price, which gives the right to conduct procurement by electronic request for quotations for medical equipment and consumables, was raised from Rb3 mn to Rb50 mn for a single purchase and from Rb100 mn to Rb750 mn for a cumulative volume during the year.⁴

The limit volume of purchase from a single supplier was increased to Rb50 mn for medicines and Rb250 mn for medical products (knowing that the sole supplier represents Russia or a country that has not sanctioned Russia).

For only suppliers of drugs and medical products without Russian counterparts, the maximum amount of purchase for one patient was increased from Rb1 mn to Rb1.5 mn.⁵ Requirements for the division of purchases into separate lots for each type of medical products were suspended until September 1, 2022.⁶

4. Special rules regulating turnover of medical devices and medicines with high risk of shortages.

The latest set of measures applied to critical medicines, equipment and consumables that could not be purchased on general terms because suppliers left or exceeded the established ceiling price due to reasons beyond control.

The first package of anti-crisis measures for the procurement of such drugs introduced mandatory consideration of the exchange rate of national currencies in setting the ceiling price for drugs from the list of VEDs, as well as the possibility to change the contract essential conditions for the supply of such drugs by agreement of the parties in the event of circumstances beyond their control.⁷ Later, this measure was supplemented by a simplified mechanism aimed at re-registration of maximum selling prices in case of the medicines’ shortage⁸ or if risk occurs.

1 RF Government Decree of 09.06.2022 №. 1056 “On suspension of certain provisions of certain acts of the Government of the Russian Federation.”

2 *Tatiana Golikova*: Vital and essential drugs are sufficient for the activities of medical institutions and the provision of our people // Government of Russia. 04.04.2022. URL: <http://government.ru/news/45042/>

3 RF Government Decree of 10.10.2022 No. 1805 “On amendments to Appendix No. 10 to the State Program of the Russian Federation “Development of Healthcare.”

4 RF Government Decree of 06.03.2022 No. 297 “On establishing the size of initial (maximum) contract price and annual volume of purchases aimed to buy certain types of medical devices using electronic request for quotations.”

5 Federal law of 08.03.2022 No. 46-FZ “On amendments to certain legal acts of the Russian Federation.”

6 RF Government Decree of 16.03.2022 No. 374 “On suspension of RF Government Decree of 19.04.2021 No. 620.”

7 Federal Law of 08.03.2022 No. 46-FZ “On amendments to particular legal acts of the Russian Federation”

8 In pharmaceuticals, the term “inventory shortages” is used to refer to shortages of drugs (i.e., inability to meet demand due to lack of necessary quantities of drugs on the market).

The risk threshold for shortages was lowered from 30 to 10% deviation of supply volumes.¹ For other drugs, where risk of deficit exists, a simplified procedure of state registration was introduced² and amendments to the registration dossiers.³ Until January 1, 2024, it is allowed to import and circulate scarce medicines in non-Russified packaging.⁴

According to year-end, it should be noted that coordinated actions of the Ministry of Health of Russia, the Ministry of Industry and Trade, FAS and pharmaceutical companies prevented the deficit of most vital drugs, and the deficit of medicines observed at the beginning of the year was overcome for most positions.

However, changes in the actions and plans of pharmaceutical manufacturers may be more significant in the medium and long term. In particular, registration of most medicines in Russia is possible only if clinical trials have been conducted on the territory of this country with their plans significantly reduced.

Moreover, experience shows that priority is given in Russia to drugs with localized production and the deeper the localization, the better their market penetration (especially in the state segment). At the same time, termination of capital investments by international pharmaceutical manufacturers jeopardizes the possibility of localizing new drugs. Thus, in the future, the availability of modern drugs for patients in this country may decrease.

A simplified registration procedure was also introduced for medical devices with a risk of shortage. The list of medical devices subject to accelerated registration is formed by an interdepartmental commission, which includes the Ministry of Health, Roszdravnadzor, the Ministry of Industry and Trade, the Ministry of Finance, and the Ministry of Economic Development, and is published by Roszdravnadzor. As of December 2022, the list included almost 1900 product codes.⁵

At the end of the year the Russian government allowed non-original spare parts and components in the absence of corresponding supplies from foreign

1 RF Government Decree of 23.03.2022 No. 444 "On amendments to nature of state regulation of maximum selling prices of the medicines' manufacturers included in the list of vital and most important medicines."

2 RF Government Decree of 05.04.2022 No. 593 "On characteristics of medicines' circulation for medical use in case of inventory shortages or risk of inventory shortages of medicines due to introduction of restrictive economic measures in respect of the Russian Federation."

3 RF Government Decree of 23.03.2022 No. 440 "On approval of the nature of amending documents contained in the registration dossier for a registered medicinal product for medical use in case of inventory shortages or risk of drug inventory shortages due to introduction of restrictive economic measures in respect of the Russian Federation."

4 Federal Law of 26.03.2022 No. 64-FZ "On amendments to particular legal acts of the Russian Federation"; Federal Law of 19.12.2022 No. 519-FZ "On amendments to particular legal acts of the Russian Federation and termination of particular provisions of legal acts of the Russian Federation."

5 List of type codes of 01.12.2022 according to results of the interdisciplinary commission meeting on establishing list of medical products subjected for circulation in compliance with "Characteristics of circulation, including specifics of state registration of medical items in case of their inventory shortages or risk of inventory shortages due to introduction of restrictive economic measures in respect of the Russian Federation approved by RF Government Decree of 01.04.2022 No. 552 // Roszdravnadzor. 2022. URL: <https://www.rozdravnadzor.gov.ru/documents/79223>

manufacturers and obtaining a confirmation of compatibility from Roszdravnadzor to maintain servicing of medical equipment.¹

As the most radical measure, the Government of the Russian Federation was empowered to choose goods, where exclusive rights to results of intellectual activity are suspended, but in practice this power has not been used.²

4.4.2. Pandemic of a new coronavirus infection

The most important feature of the third year of the pandemic was the reduction in the severity of the new coronavirus infection. According to Ministry of Health of Russia, during incidence of “Omicron” strain hospitalization was required for only 8% of patients, which resulted in a visible reduction in peak inpatient load: from almost 250,000 patients at one time in the fall of 2021 to less than 150,000 at the peak of the disease in January-February 2022.³ Reduction in lethality of new strains became even more noticeable. By July 2022, mortality from COVID-19 has reduced in annual terms more than by 90% compared to the same period of 2021, resulting in removing this cause beyond the top 5 causes of mortality. Since August 2022, the Rosstat stopped publishing operative data on mortality from a new coronavirus infection.⁴

Nevertheless, pandemic continued to negatively impact on the health care activities and public health. At a lower risk, the new strains demonstrated an increased infection rate, resulting in a further growth in the burden on primary health care and a partial suspension of routine health care. In January-February 2022, formal restrictions on provision of individual outpatient polyclinic services (most often preventive examinations and medical examinations of adults) were in force in 54 of 85 regions of the Russian Federation.⁵ In February, special procedure for implementing MHI program was introduced amid the threat of new coronavirus infection, authorizing RF regions to limit provision of planned medical care for outpatients and to extend the waiting period for planned medical care in hospitals until the end of 2023.⁶ In the medium term, these limitations may become an additional factor of mortality growth from chronic non-infectious diseases along with the results of a new coronavirus infection. According to 2021 data, an increase in maternal mortality was recorded, and in the next 2–3 years

1 RF Government Decree of 01.04.2022 No. 552 “On approval of nature of circulation, including specifics of state registration, of medical devices in case of their inventory shortages or risk of inventory shortages due to introduction of restrictive economic measures in respect of the Russian Federation.”

2 Federal Law of 08.03.2022 No. 46-FZ “On amendments to particular legal acts of the Russian Federation”.

3 Almost two thirds of Russian regions limited planned medical care due to “Omicron” // TASS. 03.02.2022. URL: <https://tass.ru/obschestvo/13609369>

4 Rosstat stopped publishing mortality data resulted from COVID-19 //RIA “Novosti”. 07.10.2022. URL: <https://ria.ru/20221007/covid-19-1822353601.html?ysclid=lefh30zslt809736226>

5 Almost two thirds of Russian regions limited planned medical care due to “Omicron” // TASS. 03.02.2022. URL: <https://tass.ru/obschestvo/13609369>

6 RF Government Decree of 04.02.2022 No. 107 “On specifics of the MHI basic program implementation amid threat of spreading diseases caused by a new coronavirus infection (COVID-19)”.

experts predict an increase in mortality from circulatory system diseases and malignant neoplasms.¹

Another negative result of the pandemic was the continued deficit in financing of the MHI program. Despite refinement of mechanisms to provide for emergency expenses (in particular, permission to send funds of the rationed insurance reserve of MHI for these purposes and remove restrictions on its size², allocation as part of the rationed insurance reserve of the Federal Fund of MHI a special reserve of funds for these purposes³), MHI own reserves again were not enough to fully cover the excess costs associated with COVID-19. Nevertheless, refinement of mechanisms to ensure provision of extraordinary expenses and reduced requirements of COVID-19 patients in a more expensive outpatient treatment allowed to significantly decrease the demand in the external funding compared to the most severe 2021 (Table 5).

Table 5

**Main parameters of financial provision for treating COVID-19 patients
in 2021 and 2022¹**

	H1 2022	H2 2021
Total amount of financial provision for treating COVID-19 patients, billions of rubles	150.2	218.1
Including in-patient, billions of rubles	124.2	208.8
Additional financial provision according to decisions of the RF Government, billions of rubles	47.1	28.92
Number of hospitalized COVID-19 patients, millions of people	1.1	1.5
Share of COVID-19 hospitalizations in the total number of hospitalizations for the period, %	9.9	15.6

Note.

1. Data on financial provision of medical care to COVID-19 patients in H2 2022 has not been published.
2. A relatively low share of co-financing from Reserve fund can be explained by allocation of a major part of funds in H2 2021. In total, in 2021 51.8% of expenses aimed at payment of medical care to COVID-19 patients was provided from Reserve fund (Rb288,700 bn from Rb 557,100 bn). Refer: Operational report on the execution of the budget of the MHIF. January-December 2021. // Accounts Chamber. 22.02.2022. URL: <https://ach.gov.ru/audit/19869>

Sources: Operational report on the MHIF budget execution. January-June 2022. // Accounts Chamber. 29.08.2022. URL: <https://ach.gov.ru/audit/35102>; Operational report on the execution of federal budget and budgets of state extrabudgetary funds. January-June 2021 // Accounts Chamber, 25.08.2021. URL: <https://ach.gov.ru/audit/13372>; Government Edict of 13.02.2021 No. 348-p; Government Edict of 23.03.2021 No. 728-r.

In 2022, funds from the RF Government Reserve Fund were allocated three times: in January Rb7.3 bn to support primary health care (in particular, for purchase of medicines for patients treated for COVID-19 outpatiently; in April

1 V. Kogalovsky. Experts forecast five years of high mortality in Russia after COVID-19 pandemic // Medvestnik. 18.02.2022. URL: <https://medvestnik.ru/content/news/Eksperty-prognoziruyut-pyat-let-vysokoi-smertnosti-v-Rossii-posle-pandemii-COVID-19.html?ysclid=lefgz571pa113653402>

2 Order of MHI Federal Fund No. 149n of 29.12.2021 "On approving procedure for using the rationed insurance reserve of the mandatory health insurance territorial fund"

3 Explanatory note to Federal Law draft "On the budget of MHI Federal Fund for 2022 and for the planned period of 2023 and 2024" // System of legislative support "Law making." 30.09.2021. URL: <https://sozd.duma.gov.ru/bill/1258297-7>

Rb35.1 bn to pay for outpatient and inpatient care provided to COVID-19 patients in 2021–2022¹, in October Rb58.6 bn to pay for medical care provided in 2021–2022 by the MHI.² Funds of the latter transfer were officially intended to support the target indicators of remuneration of certain categories of medical employees in the organizations established by the “May” Executive Order of the President of the Russian Federation, but the reference to 2021 indicates that there are more general goals to reduce arrears in payment for medical care. Particular RF regions (ref. for instance, Sverdlovsk region³, Yaroslavl region⁴) reported that they still owed money to medical institutions even after receiving this transfer, but noted a significant decrease compared to the beginning of the year. With further reduction of the virus severity one can expect that next year medical organizations will receive funding as usual.

4.4.3. National project “Health care” and public health

Results of the implementation of the national project “Health Care” in 2022 were not summarized publicly. In the absence of official information, main data sources of achieved results are represented by public announcements made by representatives of the RF Ministry of Health and operative data of Rosstat on the natural movement of the population.

The RF Ministry of Health reported a reduction in mortality below the pre-pandemic 2019 and a projected over-fulfillment of the life expectancy target (71.0 years). The increase relative to last year was expected to be 1.8 years, which corresponds to a life expectancy of 71.9 years. It was assumed that growth relative to the previous year would be 1.8 years, which corresponds to a life expectancy of 71.9 years.⁵ In this case, the indicator will surpass the level of 2020 (71.5 years), but remain below the maximum reached in 2019 (73.34 years).⁶ Operational data from Rosstat on the natural movement of the population also show an improvement over 2020–2021, but a higher mortality rate relative to the period before the spread of the new coronavirus infection (*Fig. 21*).

Until detailed statistics on the causes of death are published, it remains unclear to what extent the observed reduction in the number of deaths is due to the reduced risk of new coronavirus infection, and what contribution development projects have made to the improvement of indicators.

The results of individual federal projects have repeatedly voiced the success of the federal project “Combating Cancer”. In particular, it was reported that the plan

1 Operational report on MHIF execution for January-June 2022. // Accounts Chamber. 29.08.2022. – URL: <https://ach.gov.ru/audit/35102>

2 RF Government Edict of 24.09.2022 No. 3147-r.

3 MHIF did not pay Rb300 mn to Yaroslavl hospitals // YarNews. 14.11.2022. URL: <https://yarsmi.ru/2022/11/14/fond-mediczinskogo-strahovaniya-ne-oplatil-yaroslavskim-bolniczam-300-millionov-rublej/>

4 Sverdlovsk TMHIF owed hospitals over Rb1bn // New day. 06.12.2022. URL: <https://newdaynews.ru/ekaterinburg/780239.html>

5 *Murashko*: plan to increase life expectancy in Russia will be exceeded by the end of the year // TASS. 22.11.2022. URL: <https://tass.ru/obschestvo/16392551>

6 Life expectancy at birth // EMISS. 2022. URL: <https://www.fedstat.ru/indicator/31293>

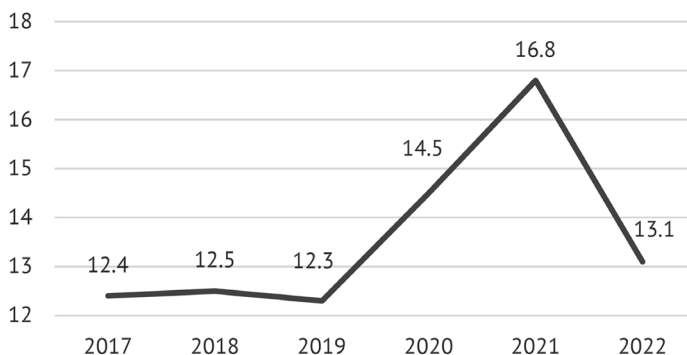


Fig. 21. Number of deaths per 1000 people, operative data for January-December of the respective year

Source: Federal Service of State Statistics. Natural movement of the population across RF regions for December 2022 // Rosstat, 2023. URL: https://rosstat.gov.ru/storage/mediabank/Edn_11-2022.htm

to build centers for outpatient cancer care is 90% complete (original plan – 86%)¹, the reduction in mortality from cancer diseases since 2019 reached 4.4% (original plan – 5.2%), one-year mortality reduced by 13.5% (original plan – 9.5%), five-year survival rate increased by 6.6% (original plan – 3.0%), the proportion of diseases detected at an early stage evidenced 5.1% (original plan – 2.9%).²

Cash execution of the budget of the national project “Health care” in 2022 was slightly higher than in the previous year (Table 6).

Table 6

Cash execution of the national project “Health care” budget on expenditures, %

	2022	2021
National project “Health care”	96.3	95.2
Federal project “Primary health care”	97.7	96.2
Federal project “Combatting cardio-vascular diseases”	94.7	91.5
Federal project “Combatting cancer”	98.2	97.4
Federal project “Development of health care for children, including creation of a modern infrastructure of medical care for children”	94.8	75.5
Federal project “Providing health care organizations with qualified personnel”	100.0	100.0
Federal project “Development of network of national medical research centers and introduction of innovative medical technologies”	100.0	100.0

1 About 90% of outpatient cancer care centers built in Russia. // TASS. 12.12.2022. URL: <https://tass.ru/obschestvo/16567505>; Passport of national project “Health care” (approved by the presidium of the Council for strategic development and national projects under the President of the Russian Federation by protocol of 24.12.2018 No.16).

2 L. Shamardina. Ministry of health records 600.000 new cancer cases annually // Medvestnik. 03.02.2023. URL: <https://medvestnik.ru/content/news/Minzdrav-registriruet-600-tys-novyh-sluhaev-raka-ejagodno.html>; passport of the federal project “Combatting cancer” (approved by protocol of the meeting of the project committee on national project “Health care” of 14.12.2018 № 3).

	2022	2021
Federal project “Creating a unique digital circuit in health care based on uniform state health information system (USHIS)”	90.8	85.3
Federal project “Development of medical services export”	100.0	100.0
Federal project “Modernization of primary health chain in the Russian Federation”	93.6	88.0

Sources: RF Ministry of Finance. Execution of federal budget aimed at implementation of national projects. URL: https://minfin.gov.ru/ru/press-center/?id_4=38341-ispolnenie_raskhodov_federalnogo_byudzheta_na_realizatsiyu_natsionalnykh_proektov; M. Mylnikov. Cash execution of primary chain modernization program reached 69% in 2022 // Vademecum. 08.12.2022. URL: <https://vademec.ru/news/2022/12/08/kassovoe-ispolnenie-programmy-modernizatsii-pervichnogo-zvena-v-2022-godu-dostiglo-69/?ysclid=ldwyw2efcm880133696>

Thus, the deterioration of the foreign economic situation did not result in a complete stop of investments in the industry, but with a high probability entailed their redistribution between activities and in time. The information about the scale and content of the changes made to the regional projects has not been published.

4.4.4. Human resources

A difficult situation persisting in the staffing of the industry has once again placed this topic among the priorities of state policy in the field of health care. According to the RF Ministry of Health, the shortage of doctors in 2020–2022 increased from more than 21.000 to 26.500. The deficit of nursing staff has reduced more than half over the same period: from 122.000 to 58.200.

Increased outflow of doctors from state medicine is associated with the overload of workers during the pandemic and lower size of salaries in the public sector of health care compared to the offers of private medical organizations.¹ At the end of 2022, a new reason for the reduction in the supply of doctors in civic medical organizations was partial mobilization. Some regions faced shortages of surgeons and intensive care anesthesiologists.²

The main instruments for solving staffing issues remain the expansion of targeted training of doctors for state health care organizations and improvement of labor remuneration. In 2022 new features were added, such as accelerated training of mid-level medical personnel and doctors of the most deficient specialties under professional retraining and admission to work in medical organizations of students who continue their studies under specialty or residency programs.

As part of the regulation of targeted training, the list of specialties for which residency training is conducted exclusively on a targeted basis has again been expanded from 33 to 49 specialties.³ A new control measure for graduates was to be a ban on the admission to residency of those who have not fulfilled their

1 RF Government Decree of 26.12.2017 No. 1640 “On approval of state program of the Russian Federation “Development of health care”

2 RF Ministry of Health supported proposal of the People’s front to allow employment of interns as trainee doctors // All-Russia People’s front. 09.11.2022. URL: <https://onf.ru/2022/11/09/minzdrav-rossii-podderzhal-predlozhenie-narodnogo-fronta-razreshit-trudoustroystvo/>

3 RF Government Edict of 17.11.2022 No. 3502-r; RF Government Edict of 23.11.2021 No. 3303-r.

obligations under the contracts on targeted training¹, but respective edict was contested by the Prosecutor-General's Office². To solve the issue of poor quality of training, the customers of targeted training will have the right starting from next year to establish requirements for student performance and early termination of the contract in case of failure to comply.³ In order to further support graduates going to work in small towns and rural areas, programs "Country doctor" and "Country paramedic" were expanded. Graduates of medical professions returning to their home communities were authorized to receive a lump sum payment under these programs.⁴

It was suggested to solve the issues of low salaries in the budget sector of health care and flows of medical employees to the wealthiest regions by launching a unified sectoral remuneration system designed to regulate the marginal scale of differences in the level of wages of workers occupying the same position in the system of medical care. According to initial plan, testing of a new labor remuneration system should have started in November 2021, then, the pilot project was postponed to July 2022 and finally to 2025.⁵ The most likely reason for the postponement seems to be the refusal to allocate the additional funding needed to equalize the differences in wages.⁶

In the middle of the year, salaries of a large part of primary care workers were further reduced due to early cancellation of so-called "coronavirus" payments to workers in direct contact with patients with a diagnosed new coronavirus infection. As of July 15, 2022, the differential shift payment system was replaced by a single compensation payment of 25% of the salary.⁷ To mitigate the negative effect, starting next year, primary care workers will receive additional social payments with their size to be approved at a fixed rate depending on the position they hold.⁸

At the end of the year, a set of measures was adopted to enable the rapid training of the most needed specialists, if necessary. Starting next year, it is planned to introduce in medical organizations positions of doctor-trainees allowing to work in the specific specialty, starting from the second year of residency.⁹ Moreover, students receiving the first higher education in the

1 RF Ministry of Health letter of 12.08.2022 No. 16-2/2358; RF Ministry of health letter of 11.08.2022 No. 16-2/1/2-13202.

2 Letter of the RF Prosecutor-General's Office of 31.10.2022 No. 74/2-452-2022.

3 RF Government Decree of 23.11.2022 No. 2115 "On amendments to the RF Government Decree of October 13, 2020 No. 1681".

4 RF Government Decree of 22.04.2022 No. 739 "On amendments to Annex No.5 to the state program of the Russian Federation "Development of Health care".

5 RF Government Decree of 05.07.2022 No. 1205 "On suspension of RF Government Decree of 01.06.2021 No. 847".

6 From announcement to paycheck: The launch of the new system of payment for medical workers has been postponed until 2025. Mnenia//Vademecum. 2022. No. 2.

7 RF Government Decree of 15.07.2022 No. 1268 "On the procedure for providing compensation to certain individual categories at risk of contracting a new coronavirus infection"; Executive order of the RF President of 15.07.2022 No. 464 "On the invalidation of certain Executive orders of the President of the Russian Federation".

8 Meeting of the Council on development of civic society and human rights" // President of Russia. 07.12.2022. URL: <http://www.kremlin.ru/events/president/transcripts/>

9 List of instructions following the meeting of the Council on strategic development and national projects. Instruction of 26.01.2023 No. Pr-144, p. 8v) // President of Russia. 26.01.2023. URL: <http://kremlin.ru/acts/assignments/orders/70412>

specialties “General medicine”, “Pediatrics” and “Dentistry”, will be authorized to work as nurses¹ after 3 years of education, emergency paramedics after 4 years of education and short re-training, while graduates of a specialist program will be able to work as emergency physicians guided by a mentor.² The list of specialties allowing employment of other after professional re-training included surgeons, anesthesiologists-rheumatologists and orthopedic traumatologists.³

4.4.5. Drugs supply

At the end of the year the Russian Government approved lists of VEDs and high-cost nosologies programs (hereinafter HCN) for 2023. In previous years, the RF Government Edict corresponded to the draft submitted by the Ministry of Health of Russia based on decisions of the Commission on approval of drug lists.

However, this year only 5 drugs of the 21 approved drugs were included in the VED list, while none of the 3 drugs recommended for HCN program was included in the final list.

The decisions of the Commission on approval of drug lists are taken based on clinical and economic data on use of the drugs compared to available alternatives. Thus, drugs recommended for inclusion have proven their clinical and economic advantages over existing analogues. Failure to include these drugs in the lists would not allow to use these advantages. A possible reason for such action was the lack of guarantee of supplies from foreign countries for most of the drugs recommended for inclusion in the list. However, consequently, the availability of these drugs for patients will remain at the same – relatively low – level, and their prices will not be reduced taking into account the current pricing methodology. It should also be noted that changes in the “rules of the game” in the process of forming the lists may in the future demotivate manufacturers to submit new applications and co-agree with their global offices on more favorable prices for Russia.

At the end of 2022 it was also decided to transfer financing of drug therapy for children from the HCN program to the Fund “Krug Dobra.” According to expert estimates, this measure will reduce the costs of the HCN program by about R20 bn a year, which is comparable with the estimated need for additional financing of the HCN program, taking into account the commitments made earlier.

At the same time budget of the Fund “Krug Dobra” shows a considerable surplus: while the income of the Fund in 2022 amounted to Rb78 bn, the expenditures for 2022 were Rb63.2 bn (the similar values for 2021 were Rb60 bn and Rb30.8 bn).

1 Order of RF Ministry of Health of 01.11.2022 No. 715n “On approval of the procedure for authorizing those who have not completed educational programs of higher medical or higher pharmaceutical education in Russian or foreign organizations engaged in educational activities, as well as those with higher medical or higher pharmaceutical education received in Russian or foreign organizations engaged in educational activities to the implementation of medical practice or pharmaceutical practice as specialists with a secondary medical or secondary pharmaceutical education”.

2 RF Government Decree of 19.08.2022 No. 1448 “On identification of cases and conditions of admission of those who have not completed educational programs of higher medical education to perform medical activity as specialists with secondary medical education, as well as those with higher medical education to perform medical activity as specialists with secondary medical education and higher medical education in the emergency team.”

3 RF Government Decree of 20.12.2022 No. 2351.

Thus, the measures taken made it possible to effectively redistribute the available funds between the various channels of drug provision and to guarantee its accessibility to people. In the future it seems reasonable to extend this experience to other drug supply programs.

Finally, an important innovation for the Krug Dobra Fund in late 2022 was an increase in the age limit for those assisted by the Fund from 18 to 19 years old. This will allow to solve during next year the challenges in financing the purchase of drugs for children who come of age, and continue providing them with uninterrupted medicines supply. At the same time, temporary nature of this measure is obvious, and in the near future it will be necessary to develop fundamentally new approaches to solving the issue of drug provision for adults with orphan diseases.

4.5. Education system¹

In 2022, all pandemic restrictions were lifted from the Russian education system as it switched to full-time mode. At the same time, the outcomes that emerged during the periods of prolonged lockdowns remained, especially distance learning. In the new environment, they are used partially but allow to work remotely, for example, university lecturers (to give lectures remotely, being on business trip, etc.) or researchers can remotely participate in scientific conferences and seminars. As a result, the audiences outreach for various seminars and webinars has increased dramatically.

Simultaneously, in 2022, the Russian education system faced new challenges associated with the special military operation (SMO) in Ukraine and the sanctions pressure on Russia caused by the SMO. This led to substantive, structural, organizational and economic changes in the functioning of different levels of the education system.

4.5.1. Preschool education

In pre-school education, the main organizational and economic task has been to reach children between the ages of 1.5 and 3 by pre-school institutions (nurseries). This is due to the need to ensure that mothers return to work quickly after the birth of their children. There is a growing shortage of staff on Russian labor market due to demographic reasons – a decrease in the number of young people and an aging population. Raising retirement age is not a solution to the growing shortage of workers and so there is a need to get mothers back to work more quickly. SMO can both strengthen this trend (replacement by women of men mobilized in RF Armed Forces) and weaken it on the back of the decline of economic activity in many sectors and growth of unemployment.

Executive Order of the RF President No. 809 dated November 9, 2022 “On Approval of the Basic State Policy to Preserve and Strengthen Traditional Russian Spiritual and Moral Values” sets new educational tasks for the system of pre-school

1 Authors: *T.L. Klyachko*, Doctor of Economic Sciences, Director of the Center for Economics of Continuous Education (CECE), IAES RANEPa; *G.S. Tokareva*, Researcher, CECE IAES RANEPa.

education. Accordingly, in 2023, content of educational work with children aged 3–6 (7) will change in the first instance, which will require mass advanced training for teachers in pre-school educational institutions.

4.5.2. General (school) education

In 2022, the exclusion of Russian students from international comparative study of the quality of education PISA (the ability to apply acquired knowledge) regularly conducted by the OECD can be highlighted as a rather serious issue for school education. Russia is also excluded from other studies of the quality of education, which are conducted by the OECD: TIMSS (quality of mathematics and science education in elementary and secondary schools), PIRLS (quality of reading and reading comprehension in elementary schools), ICILS (quality of computer and information literacy, including information security).

In 2022, Russia's participation in the PISA Process was crucial in revealing the effects of COVID-19 pandemic on Russian general education system. However, this did not happen. Meanwhile, from October 10 to 28, 2022, Rosobrnadzor conducted a study of the quality of education without participation of the OECD. It used entirely Russian assessment materials and research technology was also local although it was noted that assessment was conducted according to the PISA Process. It is quite clear that the findings of this study will not be recognized by the international educational community, and any positive progression of Russian students will be called in question. Meanwhile, Russian results of PISA, TIMSS and PIRLS are the basis of our country getting into the leaders (top 10) by quality of general education. This is one of the main indicators of the national project "Education". In 2018, the World Bank in its Human Capital Development Project ranked Russia 9th among the top countries regarding general education.¹ However, pandemic could have seriously affected PISA scores of students in all countries with PISA results also revealing shortages in knowledge and ability to apply it by students due to lockdowns and the emergency transition to distance learning.

In 2021, the only study of above mentioned deficits was conducted in Krasnoyarsk Krai,² It showed that the most affected by the transition to distance learning were natural science knowledge of the 8th grade students in Krasnoyarsk Krai schools, however, when reading literacy tests were conducted in the 4th grade the students' knowledge was unaffected at all and the 6th grade students' knowledge suffered insignificantly. Meanwhile, this study cannot provide an ideal picture of what happened in other Russian regions because they vary greatly in their socio-economic status. It should also be noted that so far little attention has been paid to the causes of above-mentioned deficits, methods and techniques

1 HumanCapitalDevelopmentProject. 2018. International Bank for Reconstruction and Development. World Bank. URL: <https://documents1.worldbank.org/curated/en/772591566979744762/pdf/The-Human-Capital-Project.pdf>

2 Chaban, Tatyana, Roza Rameeva, Ilya Denisov, Yuliya Kersha, and Roman Zvyagintsev. 2022. "Russian schools during the COVID-19 pandemic: Impact of the first two waves on the quality of education". *Voprosy Obrazovaniya / Educational Studies*, No. 1 (March), 160-88. <https://doi.org/10.17323/1814-9545-2022-1-160-188>.

that are needed to overcome them. In particular, in the Krasnoyarsk study it was recorded that children from families where at least one parent has higher education generally passed the pandemic better in terms of educational results and what influenced this was the help by parents; higher family income and, accordingly, the possibility to hire tutors; higher family income and availability of a good computer or tablet, high-speed internet and necessary software; a combination of all the above factors; a child attending a better school and teachers' higher skill of distance teaching methods, etc., – unfortunately, not specified or not identified.

Based on the 2021-2022 BSE and USE results, the Federal Service for Supervision of Education and Science (Rosobrnadzor) noted no decrease in passing exams, but the average score of those entering higher educational institutions in 2022, nevertheless, declined noticeably.¹

In the meantime, the survey conducted by the CECE IAES RANEPa in the fall of 2022² showed that, according to teachers, changes in teaching formats that took place during the pandemic had a serious impact on the quality of education in schools. Rural schools were hit the hardest (*Fig. 22*).

In terms of parents' opinion, more than one-third of them felt that their children had some gaps in their knowledge, with 2.6% noting significant gaps (*Fig. 23*).

In addition, 5.6% of parents of ninth-graders indicated that distance learning during the pandemic led to academic problems for their children and determined family's choice to continue education in secondary vocational education system.

Thus, we can conclude that the pandemic and 2020 urgent transition to distance learning led to emergence of gaps in knowledge in a rather significant number of students and this factor determined, including in 2022, these students' choice of their future educational trajectory.

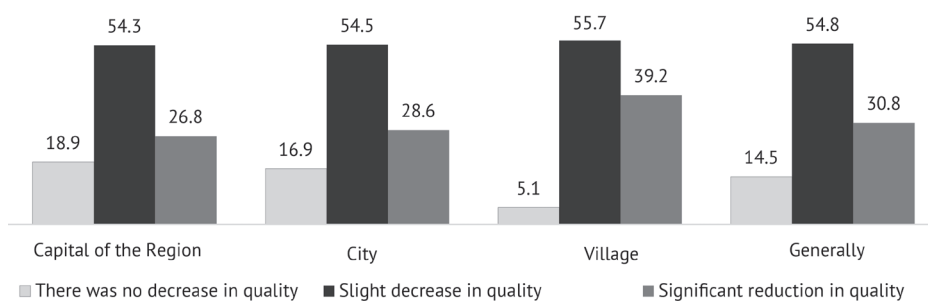


Fig. 22. Distribution of answers of teachers to the question: “In your opinion, has there been a decrease in the quality of education during the last two years (during the pandemic, since spring 2020)?”, %

Source: Monitoring of CECE IAES RANEPa 2022.

1 URL: <https://4ege.ru/ege-gia/65396-srednie-bally-ege-2022.html> and <https://4ege.ru/ege-gia/62402-srednie-bally-ege-2021.html>

2 The study was conducted in October 2022, 2,057 teachers and 2008 parents were interviewed in 3 regions with different levels of socio-economic development.

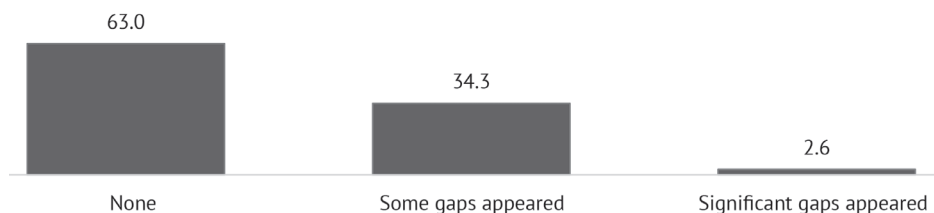


Fig. 23. Distribution of parents' answers to the question: "Have any gaps in knowledge appeared since the beginning of the pandemic?", %

Source: Monitoring of CECE IAES RANEPА 2022.

Non-participation of Russian students in the TIMSS study, i.e. the assessment of mathematical and natural science literacy of 4th and 8th graders will also negatively affect objective representation of Russian society concerning the mastering of mathematics and natural science subjects in Russian schools. Also, decrease in the number of school leavers choosing physics and profile mathematics for Unified State Exam indicates that there are certain issues with teaching of these subjects at school. This leads to difficulties in recruiting students to universities for engineering and technical training and specialties and even for state-funded places.

In addition to substantive issues, schools in 2022 faced the need to switch to domestic software and equipment due to sanctions, which, in principle, may complicate digitalization of this level of education. Again, this will affect the solution of the task set in the national project "Education" to create a developed digital educational environment in general education organizations. In addition, decrease in the supply and the rise in price of corresponding equipment will lead to the reduction of opportunities to connect rural schools, as well as schools in small and medium-sized cities to broadband internet, which will inevitably affect digitalization of their activities. Moreover, situation for small and medium-sized cities is even worse than for the countryside, as the CECE IAES RANEPА survey shows (*Fig. 24*).

If we take into account availability of internet in schools of not only poor (low), but also average quality, issues with digitalization of school education affect to a greater or lesser extent and significantly 49.6% of rural general educational institutions, 57.0% of urban schools and 41.5% of schools of regional capitals. And, apparently, resolution of this issue will become more complicated in the near future. It means that access to modern methods (techniques) of teaching and ultimately to quality education will be limited for almost 7 million children. It should be noted, however, that households are better equipped with broadband internet access than schools, which alleviates the issues to a certain extent (*Fig. 25*). Meanwhile in the near future, there may appear differences between software used by students' families and software that will be used in schools.

In 2022, another challenge for schools was education of children displaced from territories where SMO was underway, primarily from Donbass (refugees and

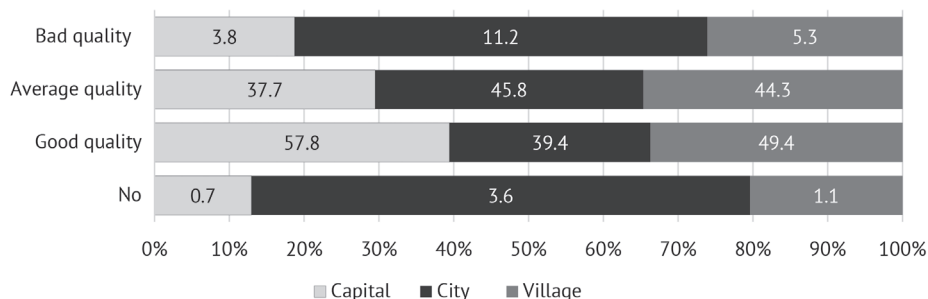


Fig. 24. Distribution of respondents' answers to the question: "Is there an internet connection available in your school, and if so, what is the quality of connection?" by type of settlement, %

Source: Monitoring of CECE IAES RANEPА 2022.

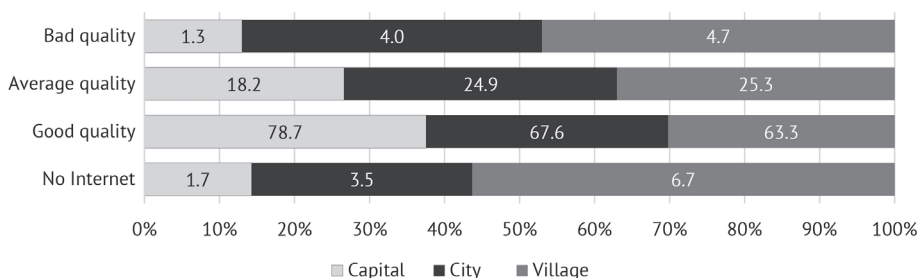


Fig. 25. Distribution of parents' answers to the question: "Do you have internet connection at home, and if so, what is the quality of the connection?" taking into account the type of settlement, %

Source: Monitoring of CECE IAES RANEPА 2022.

displaced persons). Number of this contingent is more than 330,000 school-age children. As a rule, such students need certain rehabilitation, since they have been torn out of their familiar environment including school environment and have found themselves in completely new conditions. In addition, most of them have witnessed combat operations. School psychologists work with these children in Russian general educational institutions and teachers must pay them more attention, which often causes dissatisfaction among those students who study in schools where the newcomers arrive. Overall, however, situation remains calm, and schools are coping with their new activities.

On the whole, Russian schools passed 2022 without any major disruptions, and no new financial issues were identified but a climate of heightened anxiety persisted.

4.5.3. Additional education for children

In 2022, additional education for children saw a recovery from the pandemic (2020–2021) in the volume of provided services (Fig. 26).

The share of children who attended extracurricular activities in pre-pandemic year of 2019 was about the same (68.9%), but in 2021 it dropped to 54%. Simultaneously, recovery in 2022 of the coverage of children with supplementary education was accompanied by an increase in the share of paid services relative to 2019, despite introduction of the system of personalized budget certificates issued to families for their children to attend additional education institutions. However, it should be noted that the largest share of paid services in additional education of children was observed in 2021, i.e. during the pandemic (Fig. 27).

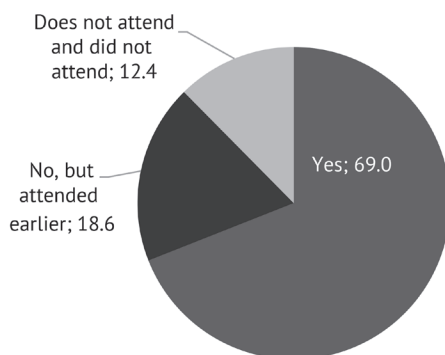


Fig. 26. Distribution of answers to the question: “Does your child attend additional classes?”, %

Source: Monitoring of CECE IAES RANEPА 2022.

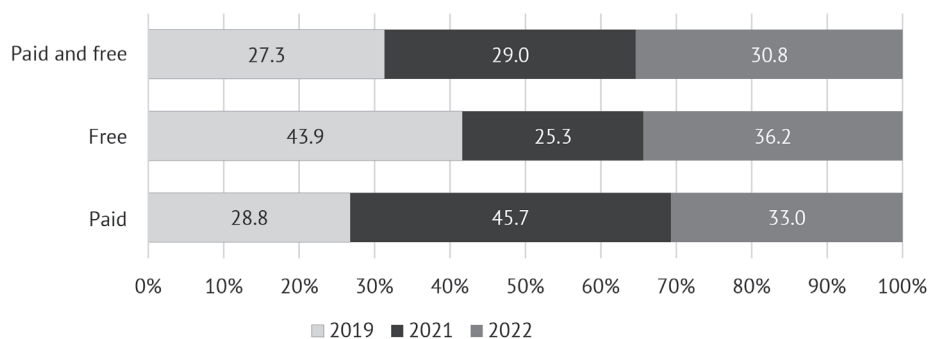


Fig. 27. Distribution of answers to the question: “What additional activities does your child attend?”, %

Source: Monitoring of CECE IAES RANEPА 2019, 2021 and 2022. In 2020, Monitoring was conducted in early March, which did not cover the impact of pandemic on children’s additional education.

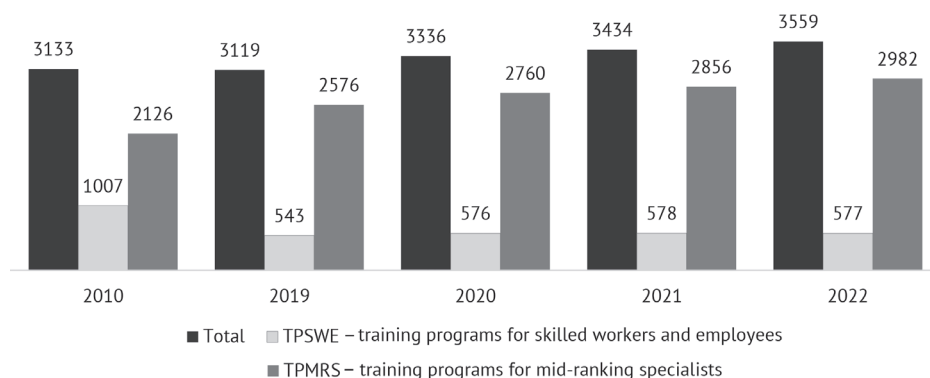
Generally, children’s additional education serves as a platform for tuning the national project “Education” target model, which assumes involvement of a significant number of private institutions in this sphere, but so far, no serious breakthroughs have been achieved (the Russian average participation of private institutions in the additional education is below 5%). Moreover, complicated financial situation in the regions can lead to an even greater reduction in additional education in the private sector and “simplification” of additional classes in state institutions.

4.5.4. Secondary vocational education

The secondary vocational education shows an increase in enrolment growth over recent years (*Fig. 28*).

In 2022, the number of SVE students in general went up by 3.9%, while the number of students enrolled in blue-collar training programs remained virtually unchanged for the last 3 years, and growth is provided by an increase in the number of students in mid-level specialist training programs where the number of students grew by 4.4% in 2022. Moreover, enrolment in professional training programs is also stable with a slight upward trend in 2022, while in the TPMRS programs it dropped in 2021 (by 3.2%), and then surged in 2022 (by 8.2%) (*Fig. 29*).

It should be noted that admission to programs of mid-ranking specialists exceeds admission to universities for bachelor’s and specialist’s programs



Note. Total TPSWE – training programs for skilled workers and employees; TPMRS – training programs for mid-ranking specialists.

Fig. 28. The number of students of SVE institutions in 2010 and 2019–2022, thousand persons

Source: FSM SVE-1 form for 2019–2022.

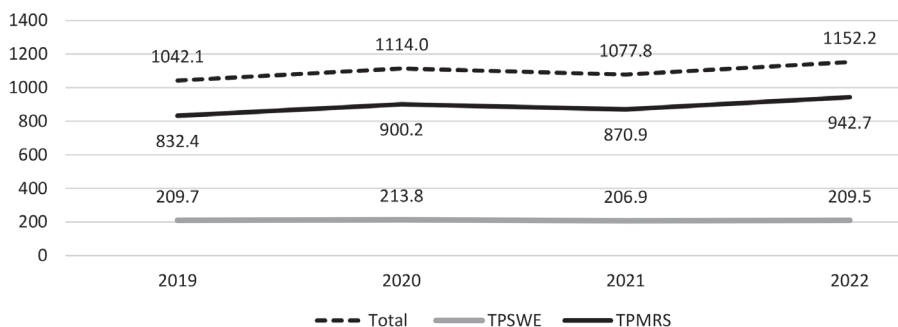


Fig. 29. Enrolment of students in SVE institutions in 2019–2022, thousand persons

Source: Calculations based on SVE-1 data (2019–2022).

since 2019. Increase in demand of young people for training in SVE system is due to several reasons:

- children from low-income families strive to enter labor market more quickly (almost two-thirds of students in secondary vocational education institutions are children from low-income families¹);
- schools’ tendency to “get rid” of ninth-grade graduates who poorly master the school curriculum;
- lack of money for tutors for families of 11th graders to pass the USE with high grades, and inability to pay tuition if they do not fall into budgetary places.

It should be noted that in recent years Russian society has formed a fairly stable belief that without tutors or, at most, without training at university courses, it is impossible to qualify for free tuition. Moreover, the choice in favor of SVE from 2020 is connected, as it was mentioned above, with gaps in acquiring of knowledge due to transition of schools to distance learning during the pandemic. A significant part of student fail to eliminate these gaps without the assistance of tutors, so they decide to terminate their education in in the 10th grade and enter SVE institutions. Furthermore, transition to SVE institutions attached to universities allows them to enter “their” institution of higher education without taking the Unified State Exam if the profiles of training in SVE and the university are the same.

Sanctions imposed on Russia led to curtailment of Worldkills Russia activities. Meanwhile, it was the development of this movement in Russia that boosted the prestige of modern trades among young people. Withdrawal of Worldkills from our country may have a negative impact on young people’s attitudes toward training in vocational education.

In 2022, an experiment was launched to introduce a new level of professional education, which was called “Professionalism. National project “Education”

¹ Data from the Monitoring of Youth Employment CECE IAES RANEPА.

includes the federal project “Professionalism”. This level of education is designed to cut time required to acquire a profession by approximately two-fold and to ensure greater training capacity, first of all, of skilled workers and office workers. Moreover, it is supposed to actively involve employers in training of these personnel who should supply equipment to the organizations of SVE institutions while receiving an investment deduction. As Ministry of Education points out, “among the key initiatives of the project is creation of educational and production centers (clusters). They represent integration of colleges and institutions of real sector of the economy. In a cluster a college is singled out, which is being modernized on a turn-key basis. In this college a new management structure, new teaching staff, new content and structure of educational programs, training and production complexes are formed with the direct participation of the supporting employer. At the same time, the cluster can include colleges that have workshops in the cluster profile and employers who have chosen the appropriate level of participation”.¹ Furthermore, it seems that this program cannot be fully implemented since modern production with complex equipment requires socially mature and responsible employees. As it seems, first of all, “Professionalism” will work for training personnel for the service sector and to a much lesser extent for industrial and agricultural production enterprises.

The announced change of conscription age into Armed Forces of the Russian Federation and possible increase of term of conscription up to two years may cause changes in the employers’ positions: two years of army service, as a rule, leads to loss of some professional skills by young workers, as well as to their moving to other regions of Russia. Accordingly, employers stop investing in training of this personnel. In addition, sanction pressure on Russian economy may lead to liquidation of some businesses or reluctance of employers to financially support SVE institutions. This being said, regional budgets will also reduce funding for this sphere if their deficits grow. Therefore, it is fair to assume that implementation of the “Professionalism” program will either be sharply slowed down or will be of a “cellular” nature. Furthermore, delaying of the special military operation and doubling of the terms of conscription can lead to a decrease of families’ interest in secondary vocational education and increase in aiming to enroll their children in universities for full-time education.

4.5.5. Higher education

Sanctions imposed on Russia could not help but affect higher education creating new challenges for this sphere different from those posed by coronavirus pandemic in 2020–2021. Overall, it can be stated that it is the higher education system that is most likely to be affected by sanctions regime, although it was not directly targeted.

First of all, Russia was excluded from the Bologna System (Russia itself also announced its withdrawal from it). Due to rejection of Bologna System, Russia began developing a national system of higher education in 2022. Basically, it was a question of increasing the share of specialist training in higher education. Rector

1 URL: https://edu.gov.ru/activity/main_activities/additional_vocational_education/

of Moscow State University Viktor Sadovnichy insists that admission to specialist training program should make up 70–80% of admissions to Russian universities.¹ However, he does not specify: will it be admission on a state-subsidized education or is it a share of the total (state-subsidized and fee-based) admission? Currently, admission on a state-subsidized education to the specialty is up to 15% and is conducted primarily in “heavy”, i.e. stock-intensive specialties that require complex teaching and laboratory equipment. Transfer of a significant number of areas of training that do not involve large amounts of class time for laboratory work (psychologists, economists, managers, sociologists, culturologists, political scientists, etc.) is hardly justified and, more significantly, unlikely to be possible. The main limitation for admission to specialty will be financial: in the coming years the federal budget expenditures on higher education, most likely, will not grow in real terms (their reduction is also possible), so admission to engineering and technical (expensive) specialties will increasingly move to regional universities, where the standard costs per student are much lower than in Moscow, Saint Petersburg and other major cities of the country. Furthermore, of course, leading technical universities in Moscow and St. Petersburg will get admission quotas they need. Currently the share of budget financing of such universities as the Bauman Moscow State Technical University is 4.2% of the total budget financing of the state universities in Moscow, MAI National Research University – 2.7%, the MIPT – 2.7%, the MISIS University of Science and Technology – 2.2%, the MEPHI National Research Nuclear University – 2,0%. Share of other state technical universities in Moscow in the budget financing of their activities is much lower.²

Rejection of the Bologna system is also not beneficial for Russia in terms of attracting foreign students to the Russian universities. In Russia, foreign nationals from unfriendly states – United States, United Kingdom, European Union, Australia and Canada – are less than 1% of total number of foreign students. Most foreign nationals come from CIS countries (51.6%), Asian countries (23.7%, especially from China and India), and Africa (8.6%). Most foreign students go to Russia to study at the undergraduate level. In addition, in recent years there has been a growing flow of foreigners enrolling in Russian master’s programs. CIS countries, China, India have long ago adjusted their higher education systems to the principles of the Bologna system, which allows them to effectively interact with universities of Western countries. Therefore, Russia’s transition to a 70–80% specialization instead of a balanced tiered system of the higher education would lead to the loss of most foreign students. This means that wishes of Rector of Moscow State University are likely to remain wishes. It seems that admission to specialty can at best be raised to 20–25%. And the main constraints here will be not only financial, but also a reduction in the number of high school graduates taking physics and other science subjects at the Unified State Exam.

Political and economic issues arising from sanctions may reduce the flow of students from abroad for other reasons. This may have a particularly strong impact

1 URL: https://vopazeta.ru/articles/2023/1/24/quality_of_education/21894-viktor_sadovnichy_traektoriyu_priema_v_vuzy_stoit_izmenit_chtoby_spetsialistov_bylo_7080

2 Monitoring the activities of universities. 2022.

on education of foreign students in medical, engineering, and IT specialties, since many graduates of Russian universities went either to continue their studies (for example, to residency at medical institutions) or to find employment in the EU, USA or Canada (especially IT specialists) with Russian diplomas. In the new environment, Russian diplomas may not be recognized by many countries, which will reduce foreigners' interest to study in Russian universities. Another obstacle will be the lack of opportunities to receive money from abroad in connection with withdrawal from Russia of Visa and MasterCard payment systems, which makes it difficult for foreign students' financial support from their families to pay for education and subsistence in Russia (86–90% of foreign students receive this help). Another factor reducing the interest of foreign students in Russian universities may be the difficulties with employment in the Russian Federation after graduation, which was a powerful incentive for students from CIS countries.

Retention of master's programs and possibility of exchanging master's students with CIS countries, primarily Kazakhstan as well as China and India, is important for Russia for another reason: Western countries have closed access to scientific databases to Russian universities (researchers). Consequently, the flow of undergraduates to universities in friendly countries can be used to obtain information from these databases and to exchange scientific information. Interaction at level of undergraduate and graduate (doctoral) programs with universities of friendly countries, in addition, will allow Russian researchers to publish (in co-authorship) in leading international journals indexed by Web of Science and Scopus which will contribute to maintaining current level of research and presence in world science.

Sanctions pressure on higher education also manifested itself in refusal of the world's leading university rankings to rank Russian institutions of higher education which largely devalued their work within the framework of the "Project 5-100". Thus, at the beginning of March 2022 QS agency refused Russian universities to participate in its rating. Due to the fact that academic staff of Russian universities can no longer publish except through cooperation with universities of friendly countries in leading foreign journals indexed in the international Web of Science and Scopus databases; it has also become problematic for universities to be included in other international ratings including subject-specific ones. Thus, Russian universities have actually ceased to be part of the pool of global universities since 2022. Moreover, there has been an outflow of foreign teachers and international laboratory staff from Russian universities which is also taken into account in these ratings.

Until the end of 2022, the made public Russia's national system of higher education had not been worked out. As for the publication activity of university professors and researchers, VAK began to rank Russian scientific journals approved by it, dividing them into quartiles. The publication in the 1st and 2nd quartiles of VAK journals will be considered necessary for the defense of candidate and doctoral dissertations and will be equated to publications in the 1st and 2nd quartiles of journals indexed in international bases Web of Science and Scopus. It is obvious that this process will quickly succumb to corruption risks as the

achievements of universities included in Priority 2030 Program, especially in its academic track, will be evaluated on the basis of these publications. In general, Russian universities lose an objective assessment of their position in the world higher education space, which can lead to a decrease in the quality of higher education.

4.6. The development of domestic tourism: the example of the Republic of Dagestan¹

The year 2022 saw continued growth in the domestic tourism volume in Russia. Though coronavirus restrictions were lifted in most countries last year, with many international borders closed and Russian banks cut off from international payment systems, holidays abroad became rather complicated for the Russians. At the same time, according to Maya Lomidze,² Executive Director of the Association of Russian Tour Operators the growth rates of the domestic tour flow became lower than expected owing to the closure of some airports in the Southern Federal Okrug (the Rostov region, the Krasnodar Krai and the Crimea) and restrictions on the transit to the Kaliningrad Region. The regional authorities' data on the number of tourist arrivals – the highest growth is observed where no transport restrictions were introduced – prove it (*Table 7*).

Table 7

The statistics on tourist flows inside Russia

Region	Tourist flow volume in 2022, million persons	Tourist flow per 1000 residents of region, persons	Increase relative to 2021, %
Republic of Dagestan	2.0	627.6	100
Moscow region	22.0	2575.4	57
St. Petersburg	8.1	1444.4	32
Irkutsk region	1.5	634.7	30
Stavropol Krai	1.5	516.8	20
Tula region	1.52	1015.6	16
Tyumen region	3.3	862.1	13
Sverdlovsk region	1.8	422.2	12
Republic of Tatarstan	3.3	825.0	11
Moscow	18	1383.0	7
Maritime Krai	3	1628.7	7
Republic of Altai	2.1	9961.7	7
Krasnodar Krai	17	2914.9	3
Kaliningrad region	1.8	1745.9	-5
Republic of Crimea	6.5	3366.0	-32

Source: The Association of Russian Tour Operators based on regional authorities' data. URL: <https://www.atorus.ru/node/50839>

1 Author: *D.A. Sitkevich*, Candidate of Economic Sciences, Researcher of the Center for Regional Studies and Urbanism, IAES RANEPА.
2 URL: <https://tass.ru/ekonomika/16415131>

Despite the fact that one should assess critically the tourist flow data in absolute terms presented in *Table 7* owing to inadequacies of the data collection procedures (business trip travelers and summer residents are often taken for tourists and there is also a problem related with a repetition of the same data), the growth rates, with the methodology remaining the same, allow us to judge about the processes that take place in regions. Further, the data on tourist flow dynamics are partially proved by other estimates, as well. So, the representatives of Dagestan's tourist industry gave comparable figures of the increase in tourist flow.

The example of Dagestan in terms of the development of domestic tourism in Russia is interesting for several reasons. First, unlike most regions attracting over a million holiday-makers, tourism is a relatively new phenomenon for Dagestan. Most sightseeing tour organizers currently operating in the region, with sightseeing being the main tourist product there, were founded in 2020–2021; according to the opinion of tourist industry participants, tours to Dagestan attracted the mass audience only in 2022. Second, Dagestan carried out a costly government policy (though not quite effective in terms of creation of new resorts) on the development of tourism, primarily ski and beach resorts. However, the main tourist boom in the region is based on sightseeing tourism which received virtually no assistance from the government.

It is noteworthy that sightseeing tour operators are currently the key players in the development of a tourist product in Dagestan. They are mainly micro-enterprises and individual entrepreneurs which hire other market participants (transportation companies, hotels, guest houses, cafes and restaurants and agrotourism complexes) as contractors. Dagestan's tourist sector is characterized by a high competition and a low market concentration. Most companies render services maximum to 200 customers a year; 3 relatively large companies on the market receive annually several thousand tourists each (about 0.5% of the overall tourist flow). Barriers for entering the market are not high: to start the business one needs only a certain level of human capital (experience in working with tourists or a good knowledge of the region) or social capital (ties in the business community) or the customer base. The comparison of companies which entered this market in 2020 and 2022 leads us to the conclusion that as the tourist industry develops it becomes more complicated to enter the market.

Despite the economic crisis, lack of entrepreneurs' experience in the tourist business and insignificant government support of the sightseeing business, Dagestan's tourist sector succeeded in receiving not only millions of tourists, but also coped singlehandedly with multiple challenges. So, Dagestan saw growth in competition and diversification of the tourist product. Over 2.5 years, a distinctly segmented market of tourist services for various groups of tourists emerged in the region: it varies from "economy class" tours meant for the least wealthy tourists to an author's tours with a unique program and VIP-tours for wealthy holiday-makers. In 2022, this diversification deepened: specialized products were created for specific audiences (for example, for representatives of certain professions) and unique tourist products were developed by numerous tourist firms. However, it

is noteworthy that with increased diversity of the tourist product the territorial multiplier in Dagestan does not work well enough: lots of Dagestan's districts (for example in its the southern part) famous for their sights failed to become popular with tourists because of an insufficient tourist infrastructure.

Another challenge, which used to be at the beginning a serious risk for the development of Dagestan's tourist industry, but now is more likely to be overcome, is opportunism of counterparties which may take advantage of the prevalence of informal contracts to cheat tour operators. The business coped successfully with this challenge owing to business networks formed around chats in messengers where entrepreneurs could exchange not only resources (customers, hotel bookings), but also disseminate information on unscrupulous partners. As seen from the practice, if such information emerged other companies stopped working with unreliable counterparties. At the same time, in 2022 as the tourist flow increased some companies switched over to hierarchic mechanisms of cooperation and started to integrate partners into firms, which situation also solved the problem related with opportunism.

Also, Dagestan's tourist industry encountered some problems with the exit from the Russian market of foreign IT giants which used to be convenient sites for selling tourist products. According to businessmen, as the experience of using the Russian social media and aggregators turned out to be not quite successful, most companies rely on word-of-mouth marketing (that is, marketing through their former customers). Though on the growing market this sales instrument is quite effective for selling tours, in future, in case of a fall in demand, it may become less effective. Further, lack of other effective methods of attracting customers leads to growth in barriers for entering the market because a start-up business needs its own customer base from the very beginning.

Another risk which has not materialized so far, but may create certain problems for the development of Dagestan's tourist industry in future is Dagestanis' relations with tourists. At present, the tourist boom did not lead to serious conflicts between holiday-makers and local residents, while those conflicts related with alcohol consumption and violation of the informal "dress code" were resolved mostly peacefully. It can be largely explained by the fact that the business looks after the behavior of holiday-makers to avoid such conflicts. However, growth in the number of independent tourists who are not familiar enough with local informal norms may create potentially additional risks.

Also, there are problems which hinder the development of the tourist sector and the business cannot cope with them singlehandedly. At present, a major barrier is a lack of skilled personnel, particularly beyond large cities. Though entrepreneurs try to solve this problem by means of a constant staff rotation, introduction of retraining programs and engagement of professionals from other regions, the issue of quality of the workforce remains unsolved for most companies. A huge shortage of personnel is observed in Dagestan's rural areas where local residents regard some professions in the hospitality sector as "shameful." This results in low quality of services offered by the local hospitality industry (particularly in the mountain areas) and tour operators make no secret of it. Further, entrepreneurs

note that there is a clear lack of the sanitary and transport infrastructure which situation makes it difficult to take a full advantage of Dagestan's tourism market potential.

Dagestan's current government policy aimed at developing the republic's tourist sector is still more focused on implementing large-scale investment projects, rather than meeting challenges and reducing barriers which prevent to implement to a full extent the potential of small and mid-sized tourist businesses and solve the problems facing the tourist industry as a whole. For example, the existing personnel training system does not meet the market requirements. As there is no regulation of the anthropogenic impact on local attractions, some of them began to collapse. A substantial risk for Dagestan's tourist industry in future is a delay in building treatment facilities in cities situated on the Caspian coast. This leads to the pollution of sea water and makes the coast unsuitable for the development of beach resorts.

4.7. The housing market in Russian cities and housing construction¹

Last year, the Russian real estate market was fully affected by the shocks that hit the domestic economy, passing through several phases.

The first months were marked by the continued growth of real estate prices with a shortage of supply. The mechanism of government mortgage support worked out in the previous years stimulated the demand ensuring the prevalence of mortgage transactions in the total volume of deals in Russian cities.

The changes in socio-economic situation that took place at the turn of winter and spring amid the aggravation of geopolitical tensions caused panic among buyers and sellers on the real estate market and a significant drop in the volume of transactions. A sharp increase of the key rate by the central bank to 20% led to a collapse of mortgage lending by the banks. The rapid buying up of "cheap" supply was carried out by means of withdrawal of cash from bank accounts by the population.

Having passed several stages, the level of the key rate in September 2022 returned to its pre-crisis value. Demand by reducing mortgage rates, following the dynamics of the key rate, was recovering at a slower pace and did not reach indicators of the winter of 2022. Households began to lean toward the savings model of consumer behavior, refraining from investing in real estate or financial assets, which, however, did not apply to the construction of individual houses. Investment deals, which had been an important catalyst for the primary residential real estate market in 2020–2021, declined.

With a slight decline in GDP and real disposable incomes of the population, the volume of housing construction, including the commissioning of apartment buildings, increased. The industry began to face the problem of selling finished

¹ Authors: *Malginov G.N.*, Candidate of Economic Sciences, Head of Ownership and Corporate Governance of the Gaidar Institute, Leading Researcher of the Department of Institutions and Financial Markets Analysis, IAES RANEP; *Sternik S.G.*, Doctor of Economic Sciences, Professor of the Financial University under the Government of the Russian Federation, Senior Researcher, Ownership and Corporate Governance Department of the Gaidar Institute.

housing. In parallel, the volume of supply on the secondary market went up, so that by autumn there was no shortage of proposals in this segment in most cities. The growth of supply prices slowed down and in some places even stopped. However, in most towns there was no decline. Overall, at year-end 2022 the volume of sales on the housing market fell by about a third, and, unlike in previous years, the traditional growth in demand in the pre-New Year period was very curtailed, which may indicate the onset of stagnation.

4.7.1. Housing market prices

Before analyzing the price situation, we should note that there are various sources of information on the movement of prices for residential real estate. On the one hand, these are the official reports of the Federal State Statistics Service, and on the other hand, data from real estate agencies.

To begin with, let us turn to the Rosstat data. As stated on the departmental portal,¹ price indices on the primary and secondary housing markets are calculated by Rosstat experts on the basis of registered prices for newly built apartments and for apartments of the functioning housing stock in ownership, if they are the objects of market transactions. Observations are made on a sample of organizations engaged in real estate transactions in territorial centers and individual cities of the subjects of the Russian Federation. When registering prices for apartments their quantitative and qualitative characteristics are taken into account. Average prices in Russia are calculated on the basis of average prices prevailing in the regions. Data on the size of the total area of apartments sold separately on the primary and secondary housing markets accumulated over the previous year are used as scales.

Let us consider the Rosstat data for the past year in more detail starting with the quarterly dynamics of prices in the country as a whole (*Table 8*).

Table 8

Price indexes on the housing market in 2022 r. (at quarter-end in % to the end of the previous quarter, across all types of apartments)

Period	Secondary market	Primary market
Q1	106.5	108.0
Q2	102.0	106.5
Q3	101.4	104.3
Q4	101.6	100.9

Sources: Price indices on the housing market by subjects of the Russian Federation in 2022, data on the primary market: URL: https://rosstat.gov.ru/storage/mediabank/ind_perv_4kv-2022.xlsx; data on the secondary market: URL: https://rosstat.gov.ru/storage/mediabank/ind_vtor_4kv-2022.xlsx

Prices grew most strongly in Q1 2022, when the market was affected by the shock associated with changes in the economic and political environment. Later there was a quarterly fading of growth rates, which, in principle, was typical of

1 URL: https://rosstat.gov.ru/storage/mediabank/pr_572_12082022.pdf.

both segments of the market, not counting Q4 on the secondary market, according to the results of which prices rose slightly more than in Q3.

Throughout most of the year, the primary market outpaced the secondary market in terms of price growth rate, most noticeably in Q2. The only exception was Q4, when the growth of prices on the primary market was less than 1%. However, this could not cardinaly affect the results of the year as a whole (*Table 9*).

Table 9

**Price indexes on the market and average prices of living quarters
in 2022 across categories of facilities (Q4-end)**

Category of facility	Secondary market		Primary market	
	in % to Q4 2021	Rb thousand per 1 sq. m of floor arear	in % to Q4 2021	Rb thousand per 1 sq. m of floor arear
All types of apartments	111.8	94.4	121.0	122.3
Low quality	107.4	72.3	–	–
Average quality (standard)	110.4	86.8	120.0	122.9
Better quality	113.3	102.9	122.1	112.4
Elite apartment	118.3	162.8	119.4	262.7

Source: Socio-economic situation of Russia – 2022. P. 132. URL: <http://rosstat.gov.ru/>.

The rise in prices on the primary segment (21%) was approximately 1.8 times higher than on the secondary segment (less than 12%). Such a picture was observed for all categories of apartments, to the greatest extent for standard apartments, while for elite housing the rates of price growth were comparable. For the secondary market the main regularity was a higher rate of price growth while the primary market showed moderate variations by the housing categories with some leadership in apartments of better quality. That said, it should be noted that the data on the primary market raise questions about their reliability, as, unlike on the secondary segment, when differentiating the dwelling by the three main categories, the standard apartments appear to be more expensive than the improved ones. However, this fact probably reflects the increased demand for housing of average quality on the part of the population.

An overview of the dynamics of prices in the territorial context confirms that the primary market is everywhere ahead of the secondary market in terms of the price growth rate (*Table 10*). It is most clearly manifested in the North-Western and Far Eastern Federal Districts, where the growth of prices on the primary segment exceeded the same value on the secondary segment by more than 6 and 2 times, respectively.

Housing prices in the Volga, Urals and Siberian federal districts grew at a higher pace than the national average. The Volga region became a leader in the price movement on the primary (27.6%) and secondary (18%) segments. The North-Western (3.4% on the secondary market) and Southern (14.1% on the primary market) districts are at the other end of the spectrum, while the Far East (14.7%) is close to them.

Table 10

**Price indexes on the housing market in 2022 across federal districts
(at Q4-end relative to Q4 2021, across all types of apartments), %**

	Secondary market	Primary market
Russia	111.8	121.0
Federal district (FD)		
Central	111.1	120.8
North-Western	103.4	120.9
Southern	111.5	114.1
North-Caucasus	107.0	116.6
Volga	118.0	127.6
Urals	112.7	118.7
Siberian	118.0	124.0
Far Eastern	106.3	114.7

Sources: Price indices on the housing market by subjects of the Russian Federation in 2022, data on the primary market: URL: https://rosstat.gov.ru/storage/mediabank/ind_perv_4kv-2022.xlsx; data on the secondary market: URL: https://rosstat.gov.ru/storage/mediabank/ind_vtor_4kv-2022.xlsx.

If we examine the price movement in more detail at the level of regions of the Federation,¹ we will see a picture presented in *Table 11*.

Table 11

**Price indexes on the housing market in 2022 across regions
(at Q4-end relative to Q4 2021, across all types of apartment), %**

	Secondary market	Primary market
Russia	111.8	121.0
Federal district / region		
Central FD	111.1	120.8
Moscow	107.1	115.9
Moscow region	117.4	119.6
Voronezh region	127.6	125.8
North-Western FD	103.4	120.9
St Petersburg	95.7	120.6
Leningrad region	106.9	157.8
Southern FD	111.5	114.1
Krasnodar krai	106.2	107.7
Volgograd region	114.6	126.2
Rostov region	116.1	129.9
North-Caucasus FD	107.0	116.6
Dagestan	112.7	125.8
Stavropol krai	121.1	116.2
Volga FD	118.0	127.6
Bashkortostan	115.9	134.3

1 The sample was drawn from regions with the largest populations in their respective federal districts, including all regions that have cities with populations of more than 1 million.

	Secondary market	Primary market
Tatarstan	120.0	128.0
Perm krai	111.4	124.8
Nizhniy Novgorod region	114.3	129.6
Samara region	110.1	126.6
Urals FD	112.7	118.7
Sverdlovsk region	113.4	119.8
Tyumen region*	105.8	114.2
Chelyabinsk region	138.6	131.5
Siberian FD	118.0	124.0
Krasnoyarsk krai	113.5	115.7
Novosibirsk region	113.2	121.2
Omsk region	123.2	131.5
Far-Eastern FD	106.3	114.7
Primorsky krai	106.5	113.2
Khabarovsk krai	102.1	107.1

* Including autonomous okrugs.

Sources: Price indices on the housing market by subjects of the Russian Federation in 2022, data on the primary market: URL: https://rosstat.gov.ru/storage/mediabank/ind_perv_4kv-2022.xlsx; data on the secondary market: URL: https://rosstat.gov.ru/storage/mediabank/ind_vtor_4kv-2022.xlsx

On the primary housing market, the group of regions with the highest price growth (over 30%) included the Leningrad region (57.8%), Bashkortostan (34.3%), Chelyabinsk region (31.5%), and Omsk region (31.5%). The outsiders by this indicator (less than 15%) were the Tyumen region (including autonomous okrugs) (14.2%), Primorsky krai (13.2%), Krasnodar (7.7%), and Khabarovsk (7.1%). In St. Petersburg (20.6%), Moscow region (19.6%) and Moscow (15.9%) price growth rates were also lower than the national average.

On the secondary market, the group of regions with the highest price growth (over 20%) includes Chelyabinsk (38.6%), Voronezh (27.6%), Omsk (23.2%), Stavropol krai (21.1%), Tatarstan (20%). At the opposite pole were Moscow (7.1%), the Leningrad region (6.9%), Primorsky krai (6.5%), Krasnodar (6.2%) and Khabarovsk (2.1%), Tyumen region (including autonomous okrugs) (5.8%), as well as St. Petersburg, where a 4.3% drop in prices was registered. Apart from the northern capital, such a rare phenomenon was observed only in Adygea and Tyumen region (without autonomous okrugs), as well as in Chechnya (on the primary market).¹

Price growth on the primary market in most regions exceeded the same value in the secondary market. Leningrad region, Dagestan, Bashkortostan, Perm krai, Nizhny Novgorod, Samara, Tyumen regions (including autonomous okrugs) and Primorsky krai stand out in this respect, where price growth on the primary market exceeded the same value in the secondary market by more than 2 times. In the Leningrad region the difference was 7-fold. The Stavropol krai, Voronezh and Chelyabinsk regions are an exception to the general rule that the primary market is leading over the secondary one in terms of price growth rates.

1 Of the regions missing from the sample.

To characterize the price level in absolute terms, let us consider the data of professional market analysts from a number of well-known companies, united by the Russian Guild of Realtors (RGR) (*Table 12*).

Table 12

Prices on apartment buildings in Russian cities at year-end 2022

Federal district/city	Secondary market	Primary market	Price difference, %
	thousand Rb/m ²	thousand Rb/m ²	
Central FD			
Moscow	266.6*	305.3	14.5 in favor of new buildings
Ramenskoe (Moscow region)	136.0	No data	
Zhukovsky (Moscow region)	130.0	120.0	8.3 in favor of secondary market
Istra (Moscow region)	125.0	No data	
Sergiev Posad (Moscow region)	117.0	Absent	
Voronezh**	100.0**	90.0**	11.1 in favor of secondary market
Staryi Oskol (Belgorod region)	86.0	No data	
Ryazan	80.0	94.0	17.5 in favor of new buildings
Tambov	80.0	80.0	Close case
Kostroma	72.0	81.0	12.5 in favor of new buildings
North-Western FD			
Saint Petersburg	172.0	214.0	24.4 in favor of new buildings
Kaliningrad	95.0	106.0	11.6 in favor of new buildings
Sothern FD			
Novorossiysk	107.0	115.0	7.5 in favor of new buildings
Yalta (Crimea)	100.0	150.0	50.0 in favor of new buildings
Krasnodar	87.0	110.0	26.4 in favor of new buildings
Volgograd	80.0	80.0	Close case
Privolzhsky FD			
Samara	140.0	120.0	16.7 in favor of secondary market
Nizhniy Novgorod	103.0	130.0	26.2 in favor of new buildings
Perm	84.4	105.5	25.0 in favor of new buildings
Tolyatti (Samara region)	65.0	80.0	23.1 in favor of new buildings

Federal district/city	Secondary market	Primary market	Price difference, %
	thousand Rb/m ²	thousand Rb/m ²	
Orsk (Orenburg region)	28.0	No data	
Urals FD			
Tyumen***	110.0***	120.0***	9.1 in favor of new buildings
Ekaterinburg	102.0	120.0	17.6 in favor of new buildings
Chelyabinsk	75.0	90.0	20.0 in favor of new buildings
Magnitogorsk (Chelyabinsk region)	55.3	60.5	9.1 in favor of new buildings
Chebarkul (Chelyabinsk region)	46.0	56.0	21.7 in favor of new buildings
Siberian FD			
Novosibirsk	100.0	110.0	10.0 in favor of new buildings
Krasnoyarsk	95.0	109.0	14.7 in favor of new buildings
Tomsk	85.0	98.0	15.3 in favor of new buildings
Abakan	80.0	90.0	12.5 in favor of new buildings
Far-Eastern FD			
Yuzhno-Sakhalinsk	160.0	170.0	6.25 in favor of new buildings
Khabarovsk****	112.3	130.9	16.6 in favor of new buildings

* According to data of the statistics and analytics committee of Moscow Guild of Realtors (GRM), the average offer price on the secondary market on December, 30 2022 amounted to 264,800 Rb/sq. m.

** According to AKG "InvestOtsenka", the weighted average price of housing (apartments) in the city at the end of December was Rb82,300 per square meter on the secondary market and Rb89,900 per square meter on the primary market.

*** According to certified analyst and real estate market consultant A.A. Ryaposova, in December the average bid price was Rb106,100 per sq. m on the secondary market and Rb108,100 per sq. m on the primary one.

**** According to the Property Law Center LLC at the end of December.

Sources: Analytical report. Preliminary results of 2022 on the residential real estate market from the experts of the Russian Guild of Realtors (RGR). 2022. P. 11-13; other above-mentioned organizations and experts; own calculations.

In terms of absolute price level in both segments Moscow was followed by St. Petersburg and Yuzhno-Sakhalinsk (over 150,000 Rb/sq. m). Beyond the first three segments (in the price range between Rb100,000 and Rb150,000 per sq. m.) one could observe differences. In the secondary segment Samara, cities near Moscow (Ramenskoe, Zhukovsky, Istra, Sergiev Posad), Tyumen, Novorossiysk, Nizhny Novgorod, and Yekaterinburg followed the first three. In the primary segment – Yalta, Nizhny Novgorod, Zhukovsky (Moscow region), Samara, Tyumen, Yekaterinburg, Novorossiysk, Krasnodar, Novosibirsk, Krasnoyarsk, Perm.

In the overwhelming majority of cities, the prices of new buildings were higher than on the secondary market. The opposite ratio was observed only in

Samara, Voronezh¹ and Zhukovsky. Approximate equality of prices was observed in Volgograd and Tambov.

The prices of new buildings were more than 20% higher than those on the secondary market in Yalta, Krasnodar, Nizhny Novgorod, Perm, St. Petersburg, Togliatti, Chebarkul (Chelyabinsk oblast), and Chelyabinsk. In Yuzhno-Sakhalinsk, Novorossiysk, Tyumen, and Magnitogorsk, the advance was less than 10%.

4.7.2. Construction and commissioning of new housing

According to Rosstat preliminary data, 102.7 mn sq. m. of housing was commissioned in Russia in 2022, 11% more than in 2021, when the previous maximum was recorded (*Table 13*). This value was a record in the entire national history.

Table 13

Commissioning of residential buildings in 1999–2022

Year	Million sq. m of total area	Growth rates, %	
		to the previous year	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	82.2/77.1*	100.2/95.2*	271.3/254.5*

1 According to AKG "InvestOtsenka", weighted average offer price of housing (apartments) in the city at the end of December was 82,300 rubles per sq. m on the secondary market, and 89,900 rubles per sq. m on the primary market. Calculation of average prices per 1 sq. m of total floor area was carried out without taking into account elite objects in accordance with the methodology of the chief analyst of RGR (before 2014) G. M. Sternik (Voronezh. Residential Property Review for December 2022, p. 1). Thus, with this data in Voronezh, as in most cities, prices for new buildings are 9.2% higher than prices on the secondary market.

Year	Million sq. m of total area	Growth rates, %	
		to the previous year	to 2000
2021	92.6	112.7	305.6
2022	102.7	111.0	338.9

* Excluding the commissioning of houses on garden plots, the volume of which is given according to the original Rosstat data (2019 – 1.0 mn sq. m., 2020 – 5.1 mn sq. m., there is no such data for 2021–2022).

Sources: Rosstat; own calculations.

Positive dynamics of commissioning was observed in the vast majority of territories, including almost all the regions with a total volume of housing more than 1 mn sq. m. (Table 14).

Table 14

Dynamics of housing commissioning in Russian regions in 2022 (graded along commissioning rates)

Region	Housing commissioning rates, in % to 2021
Chechnya*	196.8
Moscow region*	153.9
Perm krai*	150.9
Vladimir region	142.8
Udmurtia	139.8
Krasnodar krai*	120.8
Tyumen region (with autonomous okrugs)*	119.3
Primorsky krai	117.9
Leningrad region*	117.2
Novosibirsk region	111.9
Stavropol krai*	110.9
Chelyabinsk region*	108.3
Nizhny Novgorod region*	107.0
Bashkortostan*	105.4
Samara region*	104.4
Irkutsk region	104.0
Krasnoyarsk krai	103.8
Kaliningrad region	103.7
Voronezh region	103.1
Tatarstan*	102.7
Sverdlovsk region*	101.9
Rostov region*	100.7
Saint Petersburg	100.3
Dagestan	97.5
Moscow	87.1
Saratov region	85.6

* Regions with housing commissioning over 1 mn sq. m

Source: Rosstat.

The increase in housing commissioning was noted in Chechnya, the Moscow and Vladimir regions, the Perm and Krasnodar krai, and Udmurtia. In the Tyumen region, Primorsky krai, Leningrad and Novosibirsk regions and Stavropol krai, the value of this indicator was in the range from 11 to 20%, i.e., it exceeded the average Russian figure or approximately matched it (Stavropol krai). Twelve other regions displayed positive dynamics of housing commissioning, but less than the aforesaid value. Three regions, including Moscow, saw a slump in housing commissioning.

Compared to the previous year, there were noticeable changes within the traditional group of leading regions caused by the reduction of housing construction in Moscow and its actual stagnation in St. Petersburg. The Moscow region with the second highest growth rate in the country (around 54%) enhanced its leadership in the absolute volume of commissioned living space (14.1 mn sq. m). Due to a drop by 13% Moscow is the third leading region (6.8 mn sq. m), leaving behind Krasnodar krai (around 7.6 mn sq. m). The five leading regions also include the Leningrad region (around 4.0 mn sq. m) and Saint Petersburg (around 3.5 mn sq. m), and for the first time the northern capital was behind the neighboring region. The share of the metropolitan region in the total volume of housing construction in the country amounted to 20.3% (including Moscow region – 13.7% and Moscow – 6.6%) going up by 2 p.p. in comparison with 2021 due to the Moscow region (in 2021 – around 10%).

Total housing commissioning data include both apartment block construction by professional developers and the results of individual housing construction (residential housing, i.e. built by private individuals themselves on their own plots of land).

For the second year in a row, the share of housing built by households at their own expense or with the help of borrowed funds exceeded half of the total amount (55.7%). Accordingly, the share of apartment blocks, which steadily decreased after 2016, amounted to 44.3% (*Table 15*).

Table 15

**Structure of housing commissioning in the Russian Federation
in 2010–2022**

Year	Total, Mn sq. m	Apartment block construction		Individual housing construction from own and borrowed funds	
		Mn sq. m.	Share in total commissioning, %	Mn 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

Year	Total, Mn sq. m	Apartment block construction		Individual housing construction from own and borrowed funds	
		Mn sq. m.	Share in total commissioning, %	Mn sq. m	Share in total commissioning, %
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	82.2	42.4	51.6	39.8	48.4
2021	92.6	43.5	47.0	49.1	53.0
2022	102.7	45.5	44.3	57.2	55.7

Source: Rosstat; own calculations.

According to Rosstat, the area of individual housing construction projects commissioned in Russia at the end of 2022 was 57.2 mn sq. m, which is 16.5% more than in the previous year. The five leading regions by the absolute value of commissioned housing were the Moscow region (around 9.5 mn sq. m), the Krasnodar krai (around 4.5 mn sq. m), the Leningrad region (around 2.6 mn sq. m), Tatarstan (2.2 mn sq. m), and Bashkortostan (1.9 mn sq. m).

If we take a closer look at all the regions with a total volume of commissioned housing more than 1 mn sq. m, a rather mixed picture emerges (*Table 16*).

Table 16

**Share of housing commissioned by the population in Russian regions
with a total volume of housing commissioned
over 1 mn sq. m in 2022**

Region	%
Chechnya	93.8
Tatarstan	71.3
Moscow region	67.1
Irkutsk region	67.0
Leningrad region	65.3
Udmurtia	66.0
Nizhniy Novgorod region	65.2
Stavropol Krai	64.9
Samara region	64.4
Vladimir region	63.8
Bashkortostan	62.7
Perm krai	61.0
Krasnodar krai	58.8
Chelyabinsk region	57.6
Saratov region	55.4
Rostov regions	52.9
Dagestan	51.7
Voronezh region	48.6
Kaliningrad region	46.6
Primorsky krai	44.9

Region	%
Sverdlovsk region	44.0
Krasnoyarsk krai	38.8
Tyumen region (with autonomous okrugs)	37.3
Novosibirsk region	37.2
Moscow	11.7
Saint Petersburg	7.5

Sources: Rosstat; own calculations

The individual housing construction sector accounted for over 90% of the volume of commissioned housing in Chechnya, over 70% in Tatarstan, 60–70% in Moscow, Irkutsk, Leningrad regions, Udmurtia, Nizhny Novgorod region, Stavropol krai, Samara and Vladimir regions, Bashkortostan and Perm krai, and from 50 to 60% in Krasnodar krai, Chelyabinsk, Saratov, Rostov regions and Dagestan.

As expected, Moscow and Saint Petersburg found themselves at the other pole where the contribution of housing and communal services amounted to 11.7% and 7.5%, respectively. The intermediate positions were taken by the Voronezh and Kaliningrad regions, Primorsky krai, Sverdlovsk region, where the residential housing construction accounted for 40 to 50% of the input, as well as Krasnoyarsk krai, Tyumen region (with autonomous okrugs) and Novosibirsk region, where the contribution of residential housing construction amounted to 37–39%.

Against this background, successes in the construction of apartment blocks looked more modest.

The volume of commissioned apartment blocks in 2022 moved up by 4.6% compared to 2021, surpassing the pre-pandemic level of 2018–2019, however, conceding to the indicators of the previous 4 years (2014–2017). More than half (57%) of the volume of commissioned housing (excluding housing built by the households)¹ was commissioned in 10 regions (with a commissioning volume of at least 1 mn sq. m in each of them), and the share of the top five (Moscow and the Moscow region, St Petersburg, Krasnodar krai and the Tyumen region with autonomous okrugs) was about 42% of the total volume of commissioned apartment blocks.²

Although for the first time in the national history, the total volume of commissioned housing exceeded 100 mn sq. m and approached the value envisaged in the passport of the national project (NP) “Housing and Urban Environment”, one can state that this result was achieved with obvious deviations from the planned indicators in the structure due to the outrunning dynamics of the housing construction. There is an ongoing losing momentum of the NP in the construction of apartment blocks. Despite an increase in commissioning of about 2 mn sq. m and the maximum in 5 years (2018–2022), it was about 2/3 of the envisaged level.

1 There is no such indicator in the official reports of the Federal State Statistics Service. However, it can be calculated as the difference between the total volume of housing commissioned and housing commissioned by households at the expense of their own and borrowed funds.

2 Socio-economic situation in Russia – 2022. Pp. 283–286. URL: <http://rosstat.gov.ru/>; own calculation.

4.7.3. The situation in the construction sector

According to the survey “Main trends in development in 2022”, conducted by portal EP3.PФ¹ with participation of School of Developers,² GMK³ and RBG,⁴ the key trend of the last year developers named the beginning of developers’ exit from the local markets (45%). The five main trends in the development also included: the emergence of developers of apartment blocks on the residential housing segment (38%); increase in the share of online sales (34%); growth of importance of developer’s reputation (30%); reduction in the living space of apartments (27%).⁵

According to experts of the Russian Guild of Realtors, an active revision of residential projects in terms of their quality class has started. The volume of “standard” class projects has increased, including the subclass of small-scale housing, along with the share of small-scale housing in projects of higher quality class has increased.⁶

Speaking about the mechanism of housing sector financing, we can state that the transition to the new system with the use of project financing instruments is generally completed. At the beginning of 2023, almost 89% of the apartment blocks under construction were being built using escrow accounts, versus 51.5% and 76.8% at the end of 2020 and 2021, respectively. The latter is confirmed by a steady rise in the volume of loans with the use of the relevant instruments. The amount of approved credit lines rose by 84% to Rb12.1 trillion. The negative factor is the lag between the amount of escrow accounts (a 1/3 increase to Rb4.1 trillion by the beginning of 2023) and the dynamics of bank crediting of developers.⁷ The financing system made it possible to maintain and increase the volume of construction in the context of real stress both during the COVID-19 pandemic and the subsequent shock associated with significant sanction restrictions. Subsequent development and sustainability of the housing finance system will depend not only on short-term factors of appropriate liquidity availability, but also on long-term parameters related to a stable balance of supply and demand on the market.

The real construction activity in the housing sector and the prospects of the industry are characterized by the following indicators.

1 URL: <https://profi.erzrf.ru/poll/trands-2022-development/>

2 URL: <https://www.development-school.com/about>; Specialized competence center and educational platform for developers and builders of Russia and CIS.

3 URL: <https://gmk.ru/>. GMK Consulting Agency is one of the top 100 largest consulting groups and companies in Russia, in the marketing and PR segment it ranks first (RAEX rating). The agency specializes in complex consulting in development since 2005, helping developers to create the best micro districts and residential complexes.

4 URL: <https://rrg.ru/>. RRG is a professional player on the commercial real estate market since 2005. It is a center of professional expertise in real estate with a knowledge base professional connections and expert partners, which allows to customize products and services to the client’s needs and project features.

5 URL: https://erzrf.ru/news/eksperty-reputatsiya-zastroyshchika--osnovnoy-trend-ukhodyashchegogoda-kotoryy-sokhranitsya-i-v-novom-godu?utm_tg=true

6 ITS Analytical report. Preliminary results of 2022 on the residential real estate market from the experts of the Russian Guild of Realtors. 2022. Pp. 15.

7 Review of apartment block construction in the Russian Federation. DOM.RF. March 2023. Pp. 2–3, 6.

On the whole, with the positive results of 2022 a negative factor is a waning quarter-by-quarter dynamics of the volume of housing commissioned. While in Q1 and Q2, the volumes of housing commissioned exceeded the figure of the corresponding period in 2021 by nearly 65% and 25%, respectively, in Q3 – only by 1.5%, and in Q4 the volume was down by more than 21%.

According to the Unified Information System for Housing Construction, the total area of housing built taking into account all funding mechanisms, amounted to December 22, 2022, 100.8 mn sq. m. The bulk of the total area (89.3 mn sq. m) fell on the housing built in accordance with Federal Law No. 214-FZ of December 30, 2004, which envisages signing by individuals of co-investment agreements (CIA). The specified value is more than 1/5 higher than the value of this indicator a year earlier.¹

At the beginning of 2023, there were 98.7 mn sq. m of apartment blocks under construction, the volume of which was about 92% of the value by the beginning of 2020, increased for the year by 2.4%. At the same time, the volume of housing that was not sold out was growing. By the beginning of 2023, the entire country had 67.9 mn sq. m (or more than 2/3 of the total housing stock under construction), including 40.6 mn sq. m of apartments available for sale. This is the highest figure in recent years, exceeding the minimum at the end of 2020 (28.7 mn sq. m) by 41.5%. The growth of unsold housing in new buildings for the year exceeded 16% (in 2021 – 21.6%). More than 27 mn sq. m of housing under construction are accounted for by projects in which sales are not yet open (there are no co-investment agreements).²

According to the WCIOM study “Administrative barriers in construction: a survey of Moscow developers,” the most important factors limiting the growth of current construction were the following:

- High cost of materials, structures, products (84%);
- Difficulties in obtaining permits (78%);
- Constantly changing rules and legislation (71%);
- Shortage of skilled workers (62%);
- Pandemic-induced crises (58%);
- Cost increase (51%).³

Amid the shortage of about 1/4 of the workers needed by the industry at the end of the year, the output of a number of main kinds of products for construction decreased.

Excavators (more than twice as much), glass (sheet cast, rolled, drawn or blown, but not otherwise processed, around 43%) and elevators (more than 30%) were among the leaders of the drop. There was a 10-15% reduction in the production of ceramic tiles for interior wall cladding and facade, sanitary ware products made of ceramics, silicate wall blocks, roll roofing and waterproofing materials, chipboard

1 Analytical report. 2022 preliminary results on the housing market of Russian Guild of Realtors experts. 2022. P. 5.

2 Review of apartment blocks construction in the Russian Federation. 2022. DOM.RF. March 2023. Pp. 3–4.

3 URL: <https://wciom.ru/analytical-reviews/analiticheskii-obzor/moskovskaja-stroika-ehkonomicheskaja-konjunktura-i-administrativnye-barery>

and fiberboard. The output of a number of items, including cement, bricks and concrete increased. With all the ambiguity of the situation with the production of products for the construction industry, the price growth for their purchase by construction companies was observed for the vast majority of materials. A rare exception was reinforcing steel, although the output of finished steel (all types) in the country decreased by a total of 8.1%¹ The situation when the simultaneous reduction in output and price growth has a negative impact on the margins of development of various housing classes. The decline in prices on the background of falling output of other types of construction products also introduces excessive uncertainty in the need to increase the volume of construction.

Sanction restrictions also affect the construction industry. According to Sberbank's² customer survey, up to 70% of respondents believe that changes in the supply chain of imported materials and equipment can increase the realization time of existing projects up to six months and raise their cost. It is noted that the greatest risks are associated not so much with building materials for standard housing, but with more high-tech equipment (for example, elevator equipment, spare parts for certain types of equipment, electrical equipment, switchboards, ventilation systems). Therefore, to a greater extent, this feature affects elite housing, where the share of such costs can amount to 50% of the cost price or even more. Since the import substitution of the most technologically complex solutions can be a fairly lengthy process, requiring not only additional investment, but also long-term formed competencies, we should expect a negative impact of this factor on both the construction period and on its costs, especially in the elite segment.

Another trend that developed last year was the exit of a number of foreign players from the market of apartment blocks construction. The impact of this factor had an uneven effect on local markets due to the varying degree of foreign developers' presence. To the greatest extent, it affected the regions of the North-Western Federal District, where the presence of Scandinavian companies was traditionally observed. The redistribution of the vacated market share was mainly in favor of Russian developers. For instance, YIT, a Finnish company, which was active in industrial enterprises³ during the Soviet times, sold its assets to Etalon Group, one of the leaders of the North-Western region. At the same time, due to the exit of Western companies, more active expansion of Chinese developers is possible in the future.

The sale by Bank Trust of the developer Inteko to Sminex for Rb38 bn was also a notable event on the merger-acquisition market in 2022. This fact may be regarded as rather positive for the market in general, as it confirms a rather high valuation of the asset and therefore certain prospects for the market. Trust Bank, being a non-core player in the segment of apartment blocks development, cedes the asset to the participant with considerable experience on the real estate

1 Socio-economic situation in Russia – 2022. Pp. 43, 56–59, 66, 142–143.

2 URL: <https://realty.rbc.ru/news/627ca82a9a7947e7150513b6>

3 URL: <https://www.yitgroup.com/en/news-repository/stock-exchange-releases/yit-sells-its-businesses-in-russia>

market. The purchaser is Sminex, a company specializing in construction of high price housing in Moscow, which has completed 25 projects in 15 years.

For a better understanding of the processes taking place on the housing market last year, let us consider the situation in the capital city whose housing market is a benchmark for regional markets, i.e. this situation may be typical for other major cities (possibly with a certain time lag).

4.7.4. Moscow's housing market

Primary market

In Q1 2022, the number of transactions exceeded indicators of the record year 2021. 38,500 transactions were registered in the capital that exceeded results of Q1 2021 by 21,8% and almost by 1.6-fold indicators of the same period of 2020. The rush of demand at the market of new buildings was caused by fluctuations of the ruble exchange rate, general uncertainty on the market after changes in the geopolitical situation and growth of the key rate of the Central Bank of Russia. However, sales then began to decline.

Overall, the year-end dynamics of the housing and mortgage market were the worst since 2015. In December 2022, a record volume of apartments and suites was offered for sale on the market of new buildings. According to “Metrium”, more than 70,300 lots were exposed, including about 18,100 (about 1/4) in New Moscow. Projects that were postponed due to the pandemic of 2020–2021 actively entered the market. Developers were counting on the realization of high deferred demand, but faced a noticeable decline in buying activity. Since spring, the growth rate of supply has been exceeding demand indicators on a monthly basis.

This became especially evident in H1 2022. In response, developers in October without waiting for the traditional pre-New Year's period began launching various promotions, offering customers housing with record discounts. Discounts hit unprecedented levels (up to 1/3), whereas previously the maximum discount amounted to 15% (in some projects – 20%). The share of apartments offered at discounts also increased. According to CIAN, at the end of 2022 on Moscow's primary market around 28% of all lots were offered at discount, while at the end of 2021 they accounted for only 6%. The share of such proposals in Old Moscow was about 39%, in New Moscow – 24%, in the Moscow region – 15%. In addition to discounts, developers also used loans with near-zero interest rates, tranche mortgages¹ and interest-free installment programs to stimulate demand.²

Some of these instruments (primarily loans with near-zero interest rates) were criticized by the Bank of Russia due to the fact that, according to the central bank, the sale of apartments was carried out at inflated prices. However, the

1 Tranche mortgage is a new form of housing loan, which involves its division into several parts (tranches). As a rule, there are two (before the housing commissioning and after its delivery), and formally tranches are often different loans. The first is usually 15–30% of the total amount needed so the financial burden on the borrower at this stage is small. These loans are mortgages, while the object of pledge is different: at the early stage - the rights to the future object, after commissioning – ready-made housing.

2 URL: <https://realty.rbc.ru/news/63c6ec7b9a79476978f73129>

development of additional financing instruments in the current environment may be a way not only to raise sales, but also to maintain housing affordability and sufficient flexibility in a rapidly changing environment. In this regard, the development of tranche mortgages, which are gradually replacing loans with near-zero interest rates, is a promising trend, as it involves the division of the credit load depending on the stage of construction.

In December the activity of buyers in the primary segment has increased markedly, because there were fears of the end of preferential mortgages. The number of transactions compared to November surged by 32% at once, and in New Moscow – by 68%. Nevertheless, at the end of the year, apartment sales in the capital's new buildings slumped by 15.2%.¹

The most acute imbalance manifested itself in the segment of elite housing, where the least number of transactions was concluded in 5 years (around 860 units). At the same time, the number of offers soared by 42% compared to 2021, amounting to 4,700 lots. The feature of the year is a situation when the average price of a meter grows while the average budget of a transaction decreases. The most popular were small-sized apartments. In some locations, there is a direct correlation between the purchase budget growth and the growth of the price per square meter, but this is rather an exception.

In addition to the drop in demand for luxury housing, it is also worth noting the reduction of investment demand on the capital market. In December 2022, the share of buyers of apartments in new buildings with a view to possible further sale was around 10%, which was the lowest indicator since 2017 (in 2015–2017 – 5%), especially against the background of the peak values of Q2 2021 (30–35%). Prior to 2020, the share of investment sales did not rise above 20%, increasing to 21-25% after the launch of the preferential mortgage program. The decline in the share of sales to this group of buyers is explained by: 1) a general decline in demand for housing in the capital; 2) a reduction in the potential yield from the potential resale of newly acquired housing in new buildings due to sharp rise in prices.

Secondary market

In 2022, a rush of demand commenced on the secondary housing market in Mosco. In Q1, there were registered 40,950 transactions. This was a record high for the entire history of Rosreestr's statistics. As in the market of new buildings, demand sharply decreased in Q2. As a result, Moscow secondary housing market for 2022 fell by 22,4% and 11% compared to 2021 and 2020, respectively. Moreover, at the end of the year, in contrast to the primary market, the decline was deeper than for the year as a whole. Last December, there were 14,030 transactions on the secondary market, down 31.1% from December 2021.²

At the end of 2022, there were 45,400 apartments and suites on the secondary housing market of the Old Moscow, which is 47.8% more than at the beginning

1 URL: <https://realty.ria.ru/20230216/rosreestr-1852320104.html>

2 URL: <https://rosreestr.gov.ru/press/archive/reg/rosreestr-v-dekambre-chislo-zaregistrovannykh-prav-na-vtorichnom-rynke-zhilya-v-moskve-vyroslo-na-t/>

of the year and is a record high in the history. The number of apartments for sale increased at the expense of low realized demand. The growth in the volume of supply was based on the psychology of sellers seeking to have time to sell at a profit before the fall of the markets, while buyers are focused on buying more modern and spacious housing, especially for families with children. Additional growth in supply was provided by investment properties in newly commissioned new buildings, which are usually put up for sale shortly after the facility is commissioned.

The demand for elite apartments suffered particularly badly. At the end of 2022, a total of 324 contracts were concluded in the high-end segment, which is 55.4% lower than the year before. At the same time, buyers of high-budget real estate are less likely to attract mortgage funds: the share of contracts with mortgage encumbrance was 13%, while in 2021 at least a quarter of contracts on the primary market were concluded with the use of mortgage.

In 2022, the number of urgent sales of apartments on the secondary market hit maximum. According to the results of the last year, the share of such transactions reached 3% of the total volume, while usually it is less than 2%. Last year, there were two waves of urgent sales against the backdrop of migration and decreased demand. However, despite the record share of such listings, sellers were not ready to make big discounts.

The events of 2022 led to an adjustment in the cost of secondary housing in Moscow, contrary to the specific approach to pricing inherent in the sellers of housing in the capital. As a rule, apartment owners are extremely reluctant to reduce prices when demand drops, but respond quickly to its growth. After a spike in demand in March, the average cost of 1 sq. m in the offer, according to CIAN data, went up from Rb307,100 to Rb312,700, and in April, when the maximum nominal offer prices were fixed on the secondary market, the value of this indicator was Rb320,200.

However, the price of 1 sq. m no longer corresponded to the real demand and starting from May prices went down, demonstrating a constant fall (if we count month on month) during eight 30-day intervals until the end of the year. However, in none of the months did it exceed 1%. According to CIAN, the depth of the fall from April to December 2022 was less than 5% – from 3Rb19,000 to Rb305,000 per 1 sq. m (excluding luxury real estate). Prices of real transactions with high probability sagged even more: by 10–12% relative to spring of the previous year (according to RBC expert estimate).

Prices for apartments fell for eight months in a row and became a distinctive feature of the capital market in 2022. However, so far this statistical series cannot be called an absolute record, CIAN analysts note. In 1998–1999 and in 2008–2009, the cost of apartments on the secondary market declined longer (about 15 months after the default and 10 months against the backdrop of the global financial crisis) and more noticeable to the buyer (in both cases – by 35–40%).

So far, the market dynamic is most similar to the 2015 indicators. Back then, the length of the price decline cycle was about 15 months (from January 2015 to March 2016), and the average price of 1 sq. m in supply fell by about 15% (from

Rb225,000 to Rb188,000). It is true that there were months when the price of apartments fell by 3% with occasional periods of recovery, while now the average prices are going down all the time.¹

4.7.5. Mortgage lending dynamic and state support measures

In order to overcome the difficulties arising from the new socio-economic situation, the state implemented programs to support the construction sector.

The main role in this was played by the extension of various programs of preferential mortgages, which constitute an increasing share of financing for the purchase of housing. The events associated with the sanction shocks and the geopolitical situation acted as a catalyst for growth of the share of concessional mortgages in the structure of financing and, consequently, the role of state support in the development of the housing market financing system.

The past year commenced with active growth in the mortgage portfolio. Thus, according to DOM.RF,² in Q1 2022, there were 393,000 mortgage loans for a total amount of Rb1.325 trillion against 418,000 loans for Rb1.164 trillion in Q1 2021, which meant a growth of almost 14% (in terms of the amount of loans).

However, already in Q2 the active growth gave way to a considerable decline due to the general uncertainty and sharp increase in the key interest rate, which naturally resulted in a rapid increase in the average weighted rates for different categories of mortgage loans (Fig. 30).

The volume of originated loans was approximately three times less than a year earlier: only 151,000 loans worth Rb555 bn (in Q2 2021 there were 519,000 loans,

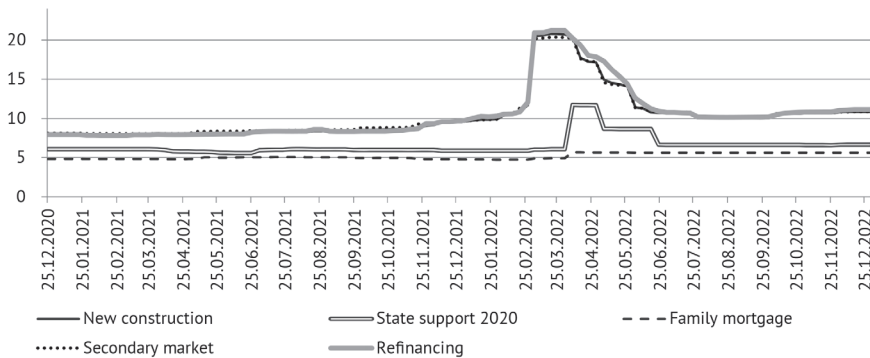


Fig. 30. Dynamics of the average weighted rate of main types of mortgage loans in top-20 banks in 2020–2022

Source: DOM.RF. URL: <https://www.xn--d1aqf.xn--p1ai/analytics/mortgage/>

1 URL: <https://realty.rbc.ru/news/63c6ec7b9a79476978f73129>

2 URL: <https://www.xn--d1aqf.xn--p1ai/upload/iblock/3ec/khhrccf6wzzbu157urm5vkw5b8oj1jo1.pdf>

or approximately Rb1.53 trillion). This situation was logical taking into account the almost two-fold growth of interest rates on loans during the quarter alone.

However, gradually, due to the normalization of the key rate and the extension of the concessional lending program, its volume also stabilized and at the end of Q3 2022, there was no sharp decline. The amount (Rb1.317 trillion) was almost equal to the amount for the same period of 2021 (Rb1.349 trillion), although the number was almost by 1/4 of a quarter lower. There were issued 350,000 loans as compared to 460,000 loans in Q3 of the previous year.

In general, there was an evident decline following the record performance in the housing mortgage lending (HML) in 2021.

According to the statements of DOM.RF and the Central Bank of Russia, the total number of mortgage loans extended in 2022 was estimated at 1,327,000 for the amount of Rb4.8 trillion. Thus, the origination of mortgages decreased by more than 30% by the number of loans and by more than 15% by value (*Table 17*).

Table 17
Mortgage lending in 2021–2022 (minus rural mortgage)

Credit category	Number of loans				Total amount			
	thousand		%		Rb bn		%	
	2021	2022	2021	2022	2021	2022	2021	2022
Mortgage loans, total	1909	1327	100	100	5700	4813	100	100
Secondary market (new loans)	1075	730	56.3	55.0	2904	2126	50.95	44.2
Primary market (collateral CSC)	476	410	24.9	30.9	1881	2063	33.0	42.85
Secondary market (refinancing)	211	28	11.1	2.1	506	85	8.9	1.75
IHC and new buildings*	147	160	7.7	12.05	408	539	7.15	11.2

* Data across top-30 banks.

Source: Review of the mortgage lending market in 2022. DOM.RF. February 2023. P. 3; own calculations.

In fact, individual housing construction (IHC) was set back by 2–3 years, as the number of loans issued was comparable to the pre-pandemic year of 2019 (1,312,000) and their volume was only 8% higher than in 2020 (Rb4.45 trillion). However, the cardinal difference from 2019 is that back then, the role of concessional programs was little noticeable (3–4% by the number of loans and their volume). In 2020, they already had a significant impact on the housing market, but not to the same extent as 2 years later.

The main shift in the structure of IHC was an increase in the share of primary market (collateral by co-investment agreements (CIA)). In terms of the amount, which increased by almost 10% compared to 2021, this category of loans came close to the new loans on the secondary market (about 43–44%). However, this category, despite the reduction of its share by the amount of loans by almost 7 p.p., has kept close to the previous position by the share in their number (55%). According to its absolute values, the new secondary market was below the figures of 2021 (by the number of loans – by 32%, by the amount – 27%), i.e. the decline was deeper than that of IHC in general (especially by the amount).

The record-breaker in this regard was refinancing on the secondary market, the scale of which decreased by 7.5-fold in number and almost 6-fold in value. As a result, the share of such loans dropped to symbolic 2.1% (in 2021 – more than 11%) and 1.8% (in 2021 – about 9%), respectively, and their place was taken by loans for IHC and ready-made houses. They were the only category, which at the end of 2022 showed an increase both in the number of loans (almost 9%), and their amount (32%). The share of loans for individual housing construction and ready-made buildings hit 11–12%, compared to just over 7% in 2021.

In general, mortgage debt for the year surged by Rb2 trillion (or more than 17%). As of the beginning of 2023, its value exceeded Rb14 trillion (taking into account the acquired by credit institutions claims, excluding securitization). Moreover, mortgages accounted for 86% of the growth in all retail loans, and their share for the first time exceeded a half of the total debt of individuals. The share of overdue debt in the mortgage portfolio on banks' balance sheets at the beginning of 2023 decreased to 0.4% vs. 0.5% a year earlier (vs. 1% at the beginning of 2020).

The level of mortgage interest rates fluctuated throughout the year under the influence of macroeconomic dynamics and the prevalence of subsidized programs. Thanks to these programs and mortgages with developer subsidies, weighted average rates on the primary market fell to 4.3% per annum compared to 5.9% in 2021, while on the secondary market, on the contrary, they rose by 1 p.p. to 9.3%. As a result, the weighted average rate on mortgages in 2022 (7.2%) was still lower than in 2021 (7.5%).¹

The growth of the difference between the rates at the primary and secondary markets by 2-fold to 5.0 p.p. made the primary segment attractive and shifted the demand towards new buildings. While in 2021 mortgage bonds registered by individuals accounted for 1/4 of all mortgage loans issued, in 2022 they accounted for almost 31%. The total number of signed CIA dropped by 19.5%, but the importance of mortgages in the structure of sales in new buildings went up (*Table 18*).

Table 18

Dynamics and structure of sales in new buildings in 2020–2022 (by the number of registered by the population CIA for housing)

Category of transaction	2020		2021		2022	
	thousand	%	thousand	%	thousand	%
CIA, total	609	100.0	676	100.0	544	100.0
Mortgage transactions, total	484	79.5	476	70.4	410	75.4
– concession mortgage programs	355	58.3	383	56.65	360	66.2
– market mortgage programs	129	21.2	93	13.75	50	9.2
Mortgage free	125	20.5	200	29.6	134	24.6

Source: Review of apartment blocks construction in the Russian Federation. 2022 r. DOM.RF. March 2023. P. 4; own calculations.

1 Review of the mortgage lending market in 2022. DOM.RF. February 2023. Pp. 2–4.

Such transactions accounted for over 3/4 of all the CIAs concluded in 2022 (in 2021 – 70,4%, in 2020 – 79,5%). Their absolute number decreased by almost 14% as compared to 2021, including more than 46% on the market terms. The share of market mortgages was at its lowest (9.2%), being 1.5 times lower than in 2021 and more than twice as low as in 2020. The year-on-year decline in the number of market term mortgages was less than 40% of the level recorded back then. The share of mortgage-free apartments (24.6%) was lower than in 2021 (29.6%), but higher than in 2020 (20.5%). The absolute number of such transactions is also close (134,000 and 125,000, respectively).

However, the issuance of mortgages under concessional programs slumped by only 6% (approximately to the level of 2020). As a result, the share of concessional mortgages was the highest in 3 years (2/3). Concessional mortgage programs, which were used by households to buy housing through a home mortgage deed, form the core of all concessional mortgage lending. In 2022, they accounted for more than 74% of the total number of concessional loans, compared to 78% the year before (excluding rural mortgages).

The total volume of mortgage loans with state support remained high: around 485,000 loans worth more than Rb2.2 trillion (*Table 19*).

Table 19

Concessional mortgage lending in 2021–2022 (minus rural mortgage)

Category of loans and programs	Number of loans				Total amount			
	thousand		%		Rb bn		%	
	2021	2022	2021	2022	2021	2022	2021	2022
Mortgage loans, total	1909	1327	100	100	5700	4813	100	100
Concessional mortgage for new building	340	285	17.8	21.5	1054	1276	18.5	26.5
Family mortgage	134	169	7.0	12.7	460	792	8.1	16.5
Far Eastern mortgage	17	24.4	0.9	1.8	70.0	110.0	1.2	2.3
IT-mortgage	–	6.0	–	0.5	–	52.0	–	1.1
Preferential loans (total on 4 programs)	491	484.4	25.7/ 24*	36.5	1584.0	2230	27.8/ 27*	46.3

* According to review data of DOM.RF 2023 without supplement agreements to existing loans within family mortgage.

Source: Review of the mortgage lending market in 2022 DOM.RF. February 2023. Pp. 2, 5; own calculations.

The share of concessional mortgages hit its maximum values: over 36% of the total number of loans (in 2021 – less than 26%) and over 46% by volume (in 2021 – less than 28%).

Among them, the program of issuing loans for new buildings with the rates ranging from 7 to 12% (57.3% of the total volume of concessional lending against 66.5% a year earlier) dominated. The Family Mortgage program accounted for 35.5% against 29% a year earlier. The Far Eastern Mortgage program was complementary (around 5% and 4.4%, respectively). The volume of lending increased for all programs: to the greatest extent – for the Family Mortgage (by

72%), to the least extent – for Privileged Mortgage (by 21%). The growth under the Far Eastern Mortgage program amounted to more than 57%. Overall, the volume of concessional lending soared by almost 41%.

In contrast to lending volumes, the total number of loans slumped slightly (by less than 1.5%). This was due to the Preferential Mortgage program, the issuance of which declined by more than 16%, while the Family Mortgage program surged by more than 26% and the Far Eastern Mortgage program – by 43.5%.

A significant increase in the issuance of family mortgages can be regarded as the result of the extension of the program from the middle of 2021 to families with one child born after 2018, while the rate remained stable throughout the year (6%).

As far as other programs with state support are concerned, in addition to fluctuations in the interest rate, it should be noted that the concessional loan amount was increased to Rb12 mn in the capital regions and to Rb6 mn in other regions with the program extending to the independent construction of private houses (by self-support). The Far Eastern mortgage program was extended to teachers and medical workers, as well as to rural settlements with extension until the end of 2030.

RF Government Decree of December 28, 2022 No. 2485 extended the Preferential mortgage program till July 1, 2024 at an interest rate of 8% with the possibility of obtaining a loan for the purchase of apartment in a new building, house building or purchase of land. The Family Mortgage program, which has the same time horizon, was extended to families with two children under the age of 18. Previously, only families where at least one child was born after January 1, 2018 could participate in the program.

For both programs the maximum size of state-subsidized loan will be Rb12 mn in Moscow, St. Petersburg, Moscow and Leningrad regions and Rb6 mn in other regions. The total maximum value of such loans may not exceed Rb30 mn and Rb15 mn, respectively, while the remaining amount exceeding the threshold subsidized by the state, can be granted at market or other subsidized rate.¹

The Rural Mortgage program with a 3% interest rate on a soft loan has been extended indefinitely. It applies to all settlements with a population of no more than 30,000 people, except for urban districts and municipalities of Moscow, St. Petersburg and the Moscow region. By the time the relevant Government Decree No. 1437 of August 18, 2022 was published, over 97,000 loans worth Rb187.1 bn were originated under the program since 2020. Thanks to that, citizens were able to buy or build 5.2 mn sq. m of housing.² The main role in this process was played by Rosselkhozbank, which within two years (from the spring of 2020) extended Rb123.1 bn in rural mortgages that helped improve living conditions of over 63,000 families.³

1 URL: <https://www.banki.ru/news/lenta/?id=10978065>

2 URL: <http://government.ru/news/46282/>

3 The program resumed at the end of April 2022 after the allocation of subsidies by the Ministry of Agriculture. Rural mortgage is implemented as part of the program Comprehensive development of rural areas.

An important innovation in the package of concessional programs that appeared last year was the mortgage program for IT specialists introduced by the RF Government Decree No. 805 of April 30, 2022. This program with the validity term till the end of 2024 is aimed at mitigating the consequences of their exit from the country and facilitate the solution of the industry's staffing problems.

Its basic condition is the rate of 5% with a possibility to obtain a loan for the purchase of housing in new buildings and facilities for individual housing construction with the maximum amount of the state-subsidized loan of Rb18 mn for RF subjects with the population of over 1 mn people, and Rb9 mn for the rest.

So far this program has not become a significant segment in terms of the total size of the mortgage portfolio, however, is promising for its further growth, especially after the softening of requirements in the new edition of the RF Government Decree No. 72 of January 23, 2023. The main changes of the new edition are the following:

- Expanding the age range of potential borrowers to 50 years instead of 22 to 44 years;
- Expanding the list of organizations, places of work of IT-specialists: previously it concerned only the recipients of relevant benefits for the payment of insurance premiums, in the new version – all accredited IT-companies;
- Reducing the salary threshold for potential borrowers. It was reduced from Rb150,000 to Rb120,000 in cities with populations over 1 mn people, and from Rb100,000 to Rb70,000 in other cities. The only exception is Moscow, where in order to participate in the state program, one should get at least Rb150,000 a month.

The development institute – the company DOM.RF promoted the mortgage market in 2022:

- A record-breaking number of mortgage bonds were issued (15 placements), the volume of which (almost Rb400 bn) remained approximately at the level of the previous two years (Rb403 bn in 2021 and Rb371 bn in 2020);
- Russia's first issue of "green" mortgage loan stock secured by mortgage loans for the purchase of apartments in buildings with high energy efficiency classes from A to A++;
- A unique repo market of over Rb4 trillion¹ was created thanks to the inclusion of mortgage bonds of DOM.RF in the Lombard list of the Bank of Russia, the launch of repo transactions with the Federal Treasury on the Moscow Exchange and the reduction of stock exchange risk rates on mortgage bonds of DOM.RF.²

1 The amount of transactions with mortgage-backed securities of DOM.RF on the Moscow Stock Exchange in 2021 amounted to slightly more than Rb1 trillion.

2 URL: <https://DOM.RF>

4.7.6. Prospects for the housing market in 2023

In the current economic environment has significantly expanded *the range of risks to the construction and sale of housing*, which can be classified as follows:

- *Sanctioned* (under their impact, transparency is greatly reduced, as the disclosure of information helps in the introduction of the sanctions themselves, which in turn makes it difficult to third-party and conditionally independent evaluation and examination of business, such as IPOs and bond offerings of major developers);
- *Technological* (especially for critical technologies/goods if the company is highly dependent on their continuous supply, e.g., the need to replace OTIS elevators that have become unavailable in high-class residential complexes with domestically produced elevators);
- *Risks of Russian jurisdiction* (stemming from the very fact of doing business in a country “toxic” to the Western world, which makes it likely that access to settlement services, insurance, etc. will be denied, regardless of the existence of sanctions as such and the sources of origin of funds, this complicates market financial turnover);
- *Security risks* (cyberattacks, data leaks, the associated additional regulatory burden, etc., such as the ban by Rosreestr to obtain extracts indicating the owner by third parties, the main interested parties are realtors and banks);
- *Market risks* (the consequence of exit from Russia of a large part of foreign business was a decrease in demand for rental and purchase of housing, i.e. in 2023 the subjects of this market will have to work in significantly deteriorated environment).

The presence of the above risks and uncertainty does not allow market participants to adequately assess their prospects and count on market growth without government support. Therefore, today the forecasting of any industry comes down to the assessment of the possibilities and scale of such measures on its part.

In the absence of new geopolitical shocks in 2023, we should expect the industry to be sufficiently supported to ensure a proper supply of housing. The exit of developers outside “their” regions will take on a mass scale. After the regulatory introduction of mandatory use of building information modeling and construction monitoring technologies in the very process of development, a leap in digitalization is real. Therefore, we cannot rule out another record in the annual volume of commissioned housing due to the extensive development of the industry (taking into account the results in new regions) and the growing contribution of individual housing.

At the same time, solvent demand is more likely to stagnate even if mortgage loans remain at the 2022 level and the share of concessional programs is high (over 35% by number and 45% by volume). The strongest countercyclical support to the market will be provided by the extension of concessional mortgage lending and especially by the expansion of family mortgages through their extension to families with two children up to 18 years of age. Thus, a sharp recovery in demand for apartments is not expected, the consequence of which will be a decline in

sales rates with stagnating prices followed by a decline in the average price level of the market in all segments of apartment housing, including elite.

Furthermore, the general background in the field of housing will be the formation of a trend towards the development of various economic models and financial mechanisms of public-private partnerships at all levels of public authority in the implementation of programs for the integrated development of territories. The multiple expansion of their application will mean the weakening of the market mechanisms functioning in all regions, markets and clusters.