



GAIDAR
INSTITUTE
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POLICY

RUSSIAN
ECONOMY
IN 2024
TRENDS
AND OUTLOOKS

GAIDAR INSTITUTE FOR ECONOMIC POLICY

**RUSSIAN ECONOMY
IN 2024**

TRENDS AND OUTLOOKS

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- R95 **Russian economy in 2024. Trends and outlooks. (Issue 46)** / [V.Mau et al; scientific editing by Kudrin A. L., Doctor of sciences (economics), Radygin A. D., Doctor of sciences (economics), Sinelnikov-Murylev S. G., Doctor of sciences (economics)]; Gaidar Institute. — Moscow: Gaidar Institute Publishers, 2025. — 456 pp.: illust. — ISBN 978-5-93255-685-6

The review "Russian economy. Trends and outlooks" has been published by the Gaidar Institute since 1991. This is the 46th issue. This publication provides a detailed analysis of main trends in Russian economy, global trends in social and economic development. The paper contains 5 big sections that highlight different aspects of Russia's economic development, which allow to monitor all angles of ongoing events over a prolonged period: the monetary and budget spheres; financial markets and institutions; the real sector; social sphere; institutional changes. The paper employs a huge mass of statistical data that forms the basis of original computation and numerous charts confirming the conclusions.

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Foreword

From the editors

2024 was an important year for the Russian economy, a year marked by stable economic development, but also by the need to respond to a range of serious new challenges. The challenges arose out of a complex combination of geopolitical, technological and macro-economic trends. Finding a response placed demands upon the country's macroeconomic and structural policies.

Russia's economic growth in 2024 (4.1% of GDP) was higher than had been forecast, and, most importantly, exceeded the world average, which is one of goals laid down in the Programme of the President and the Government. The nominal value of GDP reached an historic high of 200 trillion roubles.

The economy, as during the last two years, continued to be stable in a context of acute geopolitical crisis. The basic mechanisms of the market economy functioned quite effectively, and this contributed significantly to mitigating the impact of external sanctions.

A natural consequence of economic growth was a reduction in unemployment to minimum levels (2.3–2.6%), and an increase in the real wages and real incomes of the population (by 8.2% and 6.1%, respectively).

The main drivers of growth in 2024 were: manufacturing, which grew by 8.5%; a significant growth in investments in fixed assets (7.4%); and a growth of real incomes, and, accordingly, of consumer demand (the increase in household expenditure on goods of final consumption was 5.5%).

In economic literature, the current growth model is described as “Keynesian”, and sometimes as “military Keynesianism”, given the significant role of the state in stimulating demand (the increase in federal budget expenditures amounted to 14.5% in 2023 prices, or 1.8 percentage points of GDP). However, in contrast with the traditional Keynesian model, government-induced demand was accompanied by a strict (and during the past year, an increasingly strict) monetary policy. This is quite normal, since Russia was not faced with a recession, but, on the contrary, by the need to maintain growth and deliver the kind of structural transformation that met the challenges of the time.

Judging by the year's results, one can conclude that economic growth in Russia is frontal in scope, encompassing most of the key branches of the economy, and, in particular, manufacturing. In other words, it involves a diversification of the economy and a reduction in its dependence on traditional sectors, such as mining.

With an overall growth in manufacturing industry of 8.5%, there were significantly higher rates of growth in the production of computers, electronic and optical products (28.8%), automobile manufacturing (35.7%), and finished metal goods (35.2%). Amongst the non-industrial sectors that achieved double-digit growth rates, we can single out finance and insurance (18.8%), information technology and communications (15.3%), trade (wholesale and retail), and motor vehicle servicing (11.4%).

During 2023—2024 it became possible to identify industries that were demonstrating the greatest resilience in coping with sanctions. These include the chemical industry, electrical engineering, mechanical engineering, production of computers and electronics, and the food, textile, light and pharmaceutical industries. This adaptability was largely due to the flexibility of Russian businesses, their ability quickly to reconstruct logistics chains and to develop new markets. In addition, government support, including budgetary incentives and a loosening of regulation (for example, allowing parallel imports), helped enterprises adapt to the new conditions.

As a result, in 2024, the share of domestic software programmes used in the public sector increased to 85%, the production of electronic components increased by 32%, more than 300 new production lines were introduced in critical branches of industry, and investments in R&D reached 1.4% of GDP.

The dynamics of growth in these branches of industry are largely explained by the specificities of the geopolitical and macroeconomic environment. Sanctions stimulated import substitution (computers, electronics, information technology), and contributed to the growth of the hospitality sector (hotels). An anti-inflationary monetary policy galvanized activity (and increased profitability) in the financial sector.

Russia's economic growth in 2024 was therefore driven by a combination of factors that included the diversification of industrial production, investment activity, and stable consumer demand, despite inflationary pressures and external challenges.

Having said that, we should note that economic growth was unbalanced. It was primarily concentrated in the production of means of production, whereas the production of consumer goods grew at a slower pace. This was accompanied by a significant growth of real incomes of the population and of government demand. The result was that supply struggled to meet demand (especially in the consumer goods industries) and this became a circumstance driving inflation. In an open economy this excess demand would be diverted towards imports, but under sanctions, the scope for obtaining imported goods is limited and may entail an increase in transaction costs. This means that excess demand becomes a factor making for increased inflation.

Developments in the labour market had a significant impact upon socio-economic development. In 2024, the rate of unemployment reached an all-time low, ave-

raging 2.5% of the number employed. The labour market was therefore labour-deficient, and short of about 2 million workers, according to various estimates. In these conditions, wages naturally increased at a rate that outpaced the growth of productivity. There was a flow of personnel into import-substituting industries and into the military-industrial complex.

Inflation in 2024 was 9.5% and remained high throughout the year.

During 2024, overheating of the economy was a popular topic of discussion amongst economists (and, accordingly, amongst the makers of economic policy). The country experienced an increased demand for factors of production (labour and material resources). Low unemployment and high inflation were symptoms of overheating, and this moved the discussion around how to curb inflation from the civil to the political sphere. Various interest groups began actively to appeal to the Government and to the Presidential Administration.

In seeking to suppress inflation, the Central Bank naturally had recourse to the only available remedy—that of increasing interest rates. From the point of view of the budget, this was entirely acceptable, since Russian state debt remains exceptionally low. However, persistent increases in the interest rate to 21% created serious problems for many branches of industry and for many enterprises—namely for those that were not in receipt of budget funding or preferential terms of credit. The monetary authorities came under severe political pressure, since an interest rate at this level creates almost prohibitive conditions for investment and growth, as well as increased risks of bankruptcy, especially for companies with a high amount of debt.

From a purely economic point of view, the situation was quite understandable: investments are not money (loans) as such, but create opportunities for purchasing factors of production. In the physical absence of the latter (labour being in short supply and closed external markets restricting imports of factors of production), new demand was bound to give rise, primarily, to inflation. Critics of monetary policy clearly fetishized the importance of finance as against that of the availability of physical resources. Be this as it may, macroeconomic arguments could not be allowed to determine policy when particular business faced problems that included the risk of bankruptcy. The question of interest rates acquired a political dimension. This largely explains the Central Bank's refusal in December 2024 and February 2025 to raise interest rates, despite continuing inflationary pressure and inflationary expectations.

The discussion of inflation and of interest rates in 2024 also raised the question of stagflation. Critics of the Central Bank were the first to talk about this, arguing that high interest rates do not restrain price increases, but, rather, restrain production. The point of view of the monetary authorities was that, on the contrary, allowing a high level of inflation would result in a decline in production and an “inflation loop”. In fact, the debate over stagflation was not relevant to the conditions of 2024. Stagflation implies high inflation accompanied by high unemployment (and not a slowdown in the economy): it is not for nothing that the indicator of stagflation during the 1970s was the “misery index”, calculated as the sum of the rate

of inflation and the rate of unemployment. In contemporary Russia, the problem in the labour market has not been one of unemployment, rather, it has been that of a shortage of labour. So the question of stagflation cannot arise.

In any case, a steady rate of growth higher than the world average was not the only important achievement of economic policy during the period under review. Another achievement (perhaps the most important) was that Russia was able to sustain a functioning a market economy that demonstrated its effectiveness, and its ability to withstand the impact of geopolitical challenges. Throughout almost the entire post-communist period, doubts have repeatedly been raised as to whether the Russian economy was a market economy, or met the “high standards” of a market economy. Developments during the last three years, and during 2024 in particular, have proven the existence and viability of a market economy in Russia. The political tasks of the years ahead will be to strengthen and develop market institutions, ensure macroeconomic (budgetary and monetary) stability, protect property rights, safeguard competition, ensure freedom of pricing, and sustain the kind of public institutions that underpin these principles.

This being so, the key tasks of socio-economic policy for the coming period (not necessarily in order of importance), are:

- Ensuring balanced economic growth.
- Ensuring macroeconomic stability, and above all, reducing inflation, bringing it down to the target level of 4%.
- A structural policy directed towards increasing potential growth (total factor productivity). Achieving this goal requires increasing the efficiency of budget expenditures, which will require a steady increase in the share of the so-called productive sectors (human capital and infrastructure).
- Modernization of the institutions of the welfare state.
- An increase in investments — maintaining a high level of public investment and stimulating the growth of private investments.
- Foreign economic policy initiatives aimed at forming reliable supply chains with reliable counterparts (countries)—“friendshoring”—including the pursuit of further integration within the Eurasian Union (EAEU).

To sum up, Russia's socio-economic policy in 2024 was aimed at adapting to new conditions and ensuring sustainable development, taking into account the need for structural modernization and progress towards technological sovereignty. Russia has once again demonstrated its ability to adapt to external challenges and pursue sustainable development. This review has enabled us to conclude that economic development has been positive, despite the persistence of structural limitations.

Crucial to future success will be the effectiveness of government in implementing programmes for institutional and technological modernization, and in pressing forward with the development of human capital.

Section 1

Monetary and budgetary sphere

1.1. Monetary policy¹

1.1.1. Main trends of monetary policy

In 2024, monetary policy of the Bank of Russia was performed amid rapid increase in aggregate demand compared to the supply expansion opportunities, accompanied by a significant growth in consumer prices and inflation expectations. In such circumstances, the CBR pursued a tight monetary policy aimed at achieving price stability.

Monetary policy tightening started in H2 2023. Following five rounds of key rate hikes in December 2023, the key rate reached 16% p. a. (7.5% p. a. in July 2023), inflation stabilized at 7.4%, and inflation expectations were declining in Q1 2024. Nevertheless, these measures were insufficient to curb further price growth, which started in Q2 2024. As a result, since July 2024, the Central Bank of Russia raised the key rate three times: on July 26 by 2 p. p. to 18% per annum, on September 13 by 1 p. p. to 19% per annum, and on October 25 by 2 p. p. to 21% per annum (*Fig. 1*). Thus, in October 2024, the key rate reached its maximum value since 2013, i. e. for the entire period of using this indicator. On December 20, 2024, the regulator maintained the key rate unchanged despite steady inflationary pressure and growth of inflation expectations. This decision was due to rising interest rates for final borrowers and slowdown in credit activity at the end of the year. The signal regarding further trend of monetary policy remained tight, indicating the probability of rate hikes in 2025. Taking into account that after several stages of rate hikes lending growth rates remained at a high level, mainly at the expense of the corporate sector, the CBR still plans to maintain long term tight monetary policy in the economy. Furthermore, growing budget expenditures and the associated federal budget deficit in 2024 will also put significant pro-inflationary pressure.

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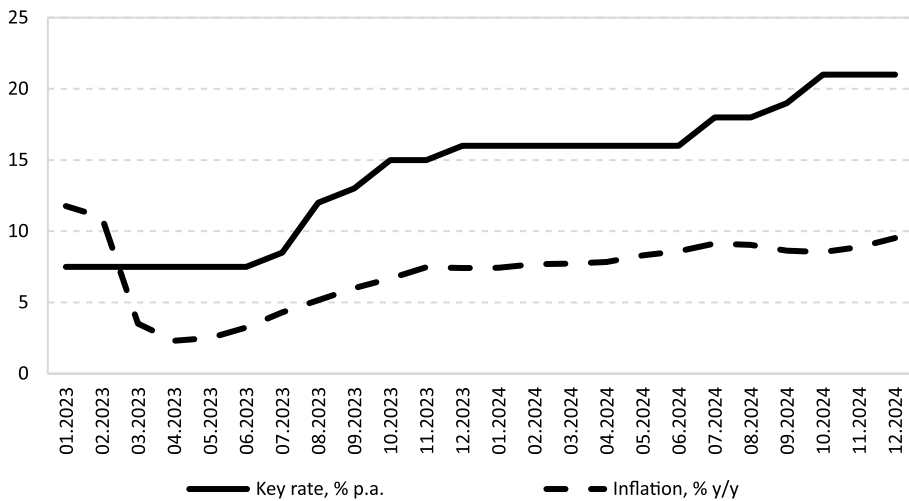


Fig. 1. Dynamics of the CBR key rate (% p.a.) and inflation (%) in 2024

Source: Bank of Russia.

Additional assumptions for maintaining tight monetary policy were developed by a significant weakening of the ruble, beginning in October 2024 and reaching peak values at the end of November (Rb109.6 per US dollar). The exchange rate dynamics became an additional factor in accelerating inflation in late 2024 — early 2025. Despite the ruble support provided by the stable trade surplus and operations of the Russian monetary authorities to net-sell foreign currency on the domestic foreign exchange market, the sharp ruble weakening was due to new difficulties in cross-border settlements caused by new sanctions against Russia. To reduce volatility on financial markets, the regulator suspended purchases of foreign currency on the domestic foreign exchange market until the end of the year. However, the Bank of Russia continued to sell yuan in the equivalent of Rb8.4bn per day from November 29 to December 31, 2024. Risks of ruble weakening amid sanctions pressure will continue to remain a significant pro-inflationary factor.

During 2024, the CBR has repeatedly revised inflation forecast and the expected trend of the key rate, taking into account changing external economic conditions and dynamics of domestic economic activity. In February 2024, inflation rate projected at the end of the year was 4.0–4.5% with the average annual rate of 13.5–15.5% per annum. In April, the Bank of Russia raised its inflation forecast to 4.3–4.8% with the key rate of 15.0–16.0% per annum. However, due to continuing growth of domestic demand exceeding the supply capacity, the ongoing shortage of workers on the labor market and the increase in government spending in October 2024, the Bank of Russia raised its inflation forecast for the end of 2024 to 8.0–8.5% with the average annual rate of 17.5% per annum. The forecast for inflation at the end

of 2025 is increased to 4.5–5.0%, and the forecast for average inflation in 2025 has increased to 6.1–6.8%. Thus, the average real rate of interest next year is projected to be above 10%. The long-term neutral interest rate is currently estimated by the Bank of Russia at 3.5–4.5%.¹ This means that the Bank of Russia will maintain a higher level of nominal interest rates on average in the future.

Table 1

Bank of Russia medium-term forecast

Month of forecast publication	February 2024	April 2024	July 2023	October 2024
Inflation in %, December 2024 vs. December 2023	4.0–4.5	4.34.8	6.5–7.5	8.0–8.5
Average inflation for 2024, in % vs. previous year	6.0–6.5	6.2–6.4	7.8–8.0	8.2–8.4
Average annual key rate in 2024 (% p. a.)	13.5–15.5	15.0–16.0	16.9–17.4	17.5

Source: own estimates based on mid-term forecasts of the Bank of Russia.

Trends in monetary policy for 2024 typical for the Russian economy differed from the global trends. This is due to structural transformation, high uncertainty and external sanctions. In 2024, in most countries trends of inflation slowdown that began in 2023 continued. This is due to the impact of tightening of monetary policy in 2022–2023 and stabilization of world prices for food and energy products. Thus, the rate of consumer price growth in the US fell from 3.4% in December 2023 to 2.9% in December 2024, in the Eurozone from 2.9% in December 2023 to 2.4% in December 2024, in the UK from 4.0% in December 2023 to 2.5% in December 2024.

In 2024, monetary authorities in most developed countries switched to a gradual easing of monetary policy. In the US, the federal funds rate fell to 4.5% in December 2024 (5.5% in December 2023), while in the Eurozone the rate fell to 3.15% (4.5% p. a. in December 2023). Amid slowing inflation, central banks in a number of developing countries,² targeting inflation, have also switched to lowering interest rates. Thus, in Mexico, the key rate fell from 11.25% in December 2023 to 10% in December 2024, in Chile from 7.25% in December 2023 to 5% in December 2024, in South Africa from 8.25% in December 2023 to 7.75% in December 2024. In addition to Russia, the central bank of Turkey (from 42.5% in December 2023 to 47.5%

-
1. Main trends of the unified state monetary policy for 2025 and the period of 2026 and 2027.
 2. The review includes developing countries targeting inflation, exporting commodities and countries comparable to Russia in terms of economic development

in December 2024) and the Central Bank of Brazil (from 10.5% in August 2024 to 12.25% in December 2024) increased the key rate (*Table 2*).

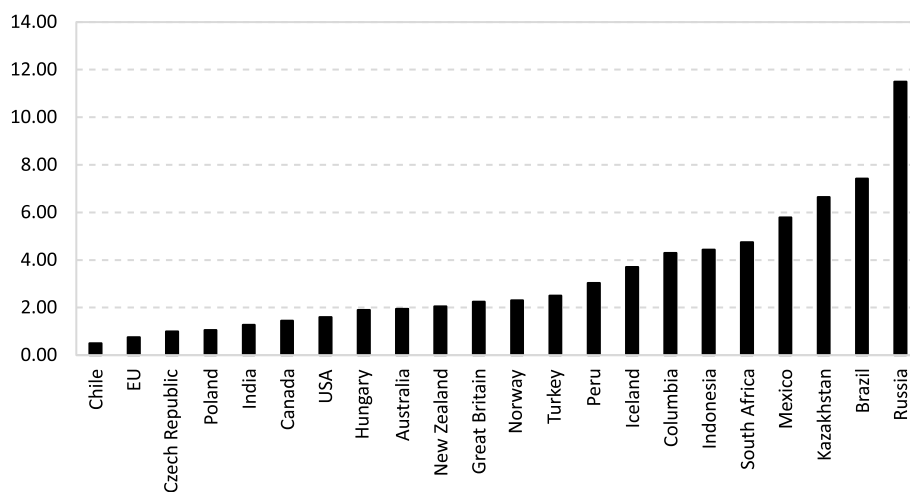
Table 2

Inflation and key rate in a number of developed and developing countries

	Real inflation, December 2024 vs. December 2023, %	Key rate at the end of December 2024, % p. a.
Developing countries		
Poland	4.70	5.75
Indonesia	1.57	6.0
India	5.22	6.5
Peru	1.97	5.0
Chile	4.5	5.0
South Africa	3.0	7.75
Hungary	4.6	6.5
Brazil	4.83	12.25
Mexico	4.21	10.0
Columbia	5.2	9.5
Kazakhstan	8.6	15.25
Russia	9.5	21.0
Turkey	47.5	50.0
Developed countries		
Australia	2.4	4.35
Norway	2.2	4.5
EU	2.4	3.15
Canada	1.8	3.25
Great Britain	2.5	4.75
USA	2.9	4.5
New Zealand	2.2	4.25
Czech Republic	3.0	4.0
Iceland	4.8	8.5

Source: Central banks' websites.

In 2024, in most developed and developing countries real interest rates measured as the difference between the key rate and inflation for the previous 12 months were positive (12.5% p.a in Russia, 5.99% p.a in Brazil, 5.75% p. a. in Kazakhstan, 5.74% p. a. in Mexico, 2.4% p. a. in the USA, 1.1% in the EU). Among reviewed countries, Russia is the leader in terms of real key interest rate by the end of October 2024 (*Fig. 2*).



*Fig. 2. Real key interest rate at the end of October 2024, % p.a.
(measured based on inflation over the previous 12 months)*

Sources: Central banks' websites, own estimates.

On the whole, inflation, both headline and core, in most of the surveyed countries continues to exceed the target benchmarks, indicating an increased price pressure. Persisting risks of disinflation slowdown due to possible protectionist measures of the new U.S. administration, due to rising world food and energy prices determine slow pace of monetary policy relaxation.

1.1.2. Money market

In 2024, the situation in the money market of the Russian Federation evidenced gradual reduction in the liquidity surplus¹ from Rb1.4 trillion in January 2024 to Rb0.5 trillion in September 2024. In October-December 2024, a liquidity deficit in the money market averaged Rb0.6 trillion (*Fig. 3*).

1. According to the Bank of Russia, structural liquidity deficit/surplus defines the difference between the debt on refinancing operations and absorption operations by the Bank of Russia. Structural liquidity deficit of the banking sector means its status marked by a stable need of credit institutions to attract liquidity using operations with the Bank of Russia. The reverse situation is the stable need of credit institutions to deposit funds with the Bank of Russia, thus constituting a structural liquidity surplus. Since November 2023, the Bank of Russia has clarified a methodology for calculating liquidity deficit/surplus of the banking sector. Now, when assessing the indicator, the balance between banks' correspondent account balances and the averaged required reserves ratio (RRR) is taken into account. Accounting the balance between banks' correspondent accounts and RRR in the calculation allows to exclude the impact on the indicator of operations that reflect the banks' strategies to maintain the RR.

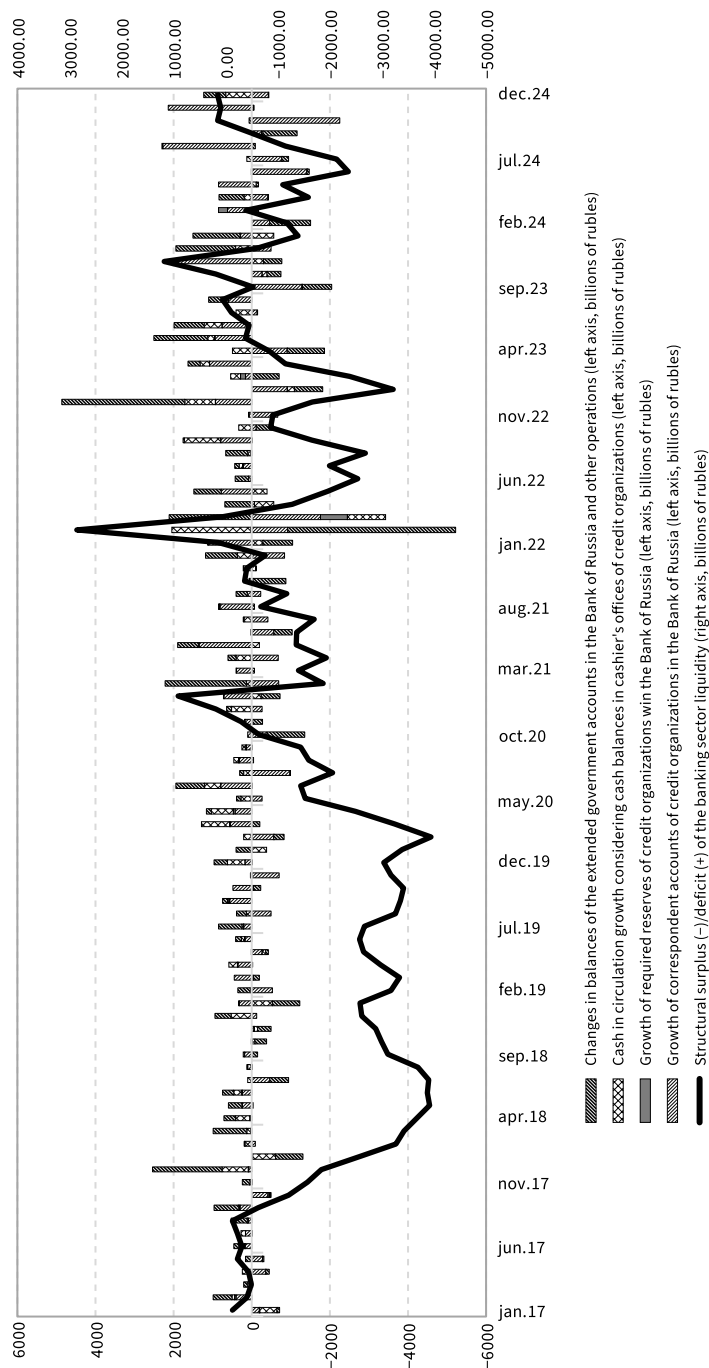


Fig. 3. Structural liquidity surplus of the banking sector and its components, 2017–2024

Source: Bank of Russia.

Gradual decline in the liquidity surplus and its transition to a deficit is mainly due to the Bank of Russia's operations in the domestic foreign currency exchange market related to replenishment and utilization of the National Welfare Fund (NWF), including all operations with the NWF in 2023.

Thus, mirroring¹ of current operations of the RF Ministry of Finance as part of budget rule had a neutral impact on liquidity. Nevertheless, deferred operations resulted in liquidity outflow from banking sector. This effect was partially compensated by the inflow of funds from the National Wealth Fund into banking sector as part of investment operations in authorized financial assets. In 2024, transactions of the Russian monetary authorities on net sale of foreign currency in the domestic foreign exchange market amounted to Rb1.5 trillion. The volume of foreign currency purchases as part of regular operations under the budget rule (in the amount of additional oil and gas revenues) in 2024 amounted to Rb1.1 trillion², whereas the volume of adjustments³ to operations announced by the RF Ministry of Finance under the budget rule, which affected the reduction of liquidity in the banking sector in terms of currency sales from the NWF amounted to about Rb2.6 trillion.

Reduction in the demand for cash contributed positively to forming liquidity of the banking sector. The share of cash in M2 money supply fell by 2.7 p.p. from 17.4% at the beginning of the year to 14.7% in December 2024. This was due to stabilization of demand for cash, as well as high attractiveness of deposit rates.

In 2025, banking sector is expected to switch from surplus to liquidity deficit and its gradual growth. This will happen due to mirroring by the Bank of Russia of the operations in excess of the budgetary rule performed in 2024, leading to an outflow of funds from banks. Moreover, growth in the volume of cash in circulation and growth of required reserves will result in an increase in the liquidity deficit.

It is worth recalling that the Bank of Russia decided not to purchase foreign currency on the domestic foreign exchange market from November 28, 2024 until the end of 2024 as part of mirroring the regular operations of the RF Ministry of Finance related to implementing the budget rule. Deferred purchases will be made during 2025, thus supporting banking sector liquidity in the amount of Rb0.1trillion.

-
1. Operations performed by the Bank of Russia in the foreign exchange market aimed to ensure neutrality of the impact of operations under the budget rule on the money market. Besides, investment of NWF funds requires their withdrawal from the liquid part of NWF denominated in foreign currency, sale of foreign currency on the foreign exchange market and purchase of ruble assets. Sale of foreign currency from NWF is mirrored by the RF Central Bank in the foreign exchange market.
 2. RF Ministry of Finance. Evidence on forming and using additional oil and gas revenues of the federal budget in 2018–2024.
 3. Regular transactions under the budget rule are adjusted for the balance of the following transactions: the difference between the amount of currency purchases deferred from August 10 to December 31, 2023 under the budget rule and the amount of expenditures of the NWF to finance the budget deficit for 2023 beyond the budget rule, as well as currency sales in the amount of net investment of the NWF.

Russian economy in 2024

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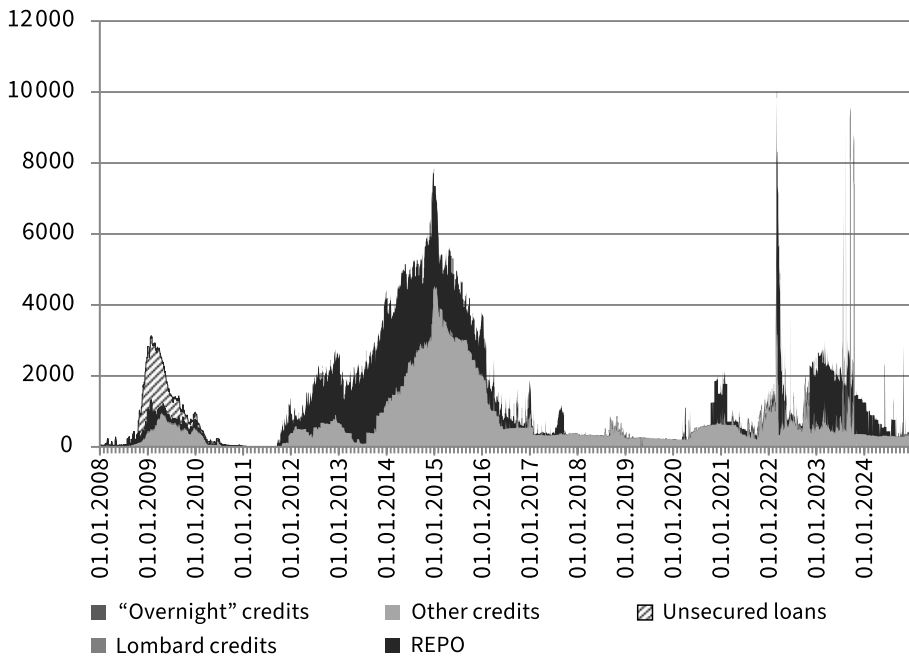


Fig. 4. Debt of commercial banks to the Bank of Russia in rubles, 2008–2024.

Source: Bank of Russia.

With the banking sector's liquidity surplus declining and its transition to a deficit during 2024, by the end of 2024 the value of loans attracted by credit institutions from the Bank of Russia increased 1.2 times to Rb 4.8 trillion (Rb 3.9 trillion as of January 1, 2024) (Fig. 4). The largest amount of the Bank of Russia's claims on credit organizations was for loans secured by non-marketable assets as part of main liquidity provision mechanism. On average, in December 2024, the amount of banks' indebtedness under this type of lending amounted to Rb 3.4 trillion or 2.4 times higher than in December 2023. It has to be noted that a significant increase in demand for liquidity on the part of banking system was observed in March 2024 due to cancellation of short-term liquidity ratio relaxations.¹ Debt on loans against non-marketable assets provided under additional mechanism increased by 24% over 12 months and amounted to Rb 0.1 trillion in December 2024. As a reminder, the task

1. Since 2016, systemically important credit organizations (SICOs) are required to comply with the Basel short-term liquidity ratio, which is defined as ratio of highly liquid assets to net cash outflows over 30 days. Between 2022 and 2023, the regulator allowed the SICOs to reduce the norm below 100% amid sanctions and systemic stress, but from March 1, 2024, the largest banks must again comply with the norm at 100%.

of the core mechanism operations is to achieve operational objective of monetary policy, i.e. to maintain money market rate close to key rate. Additional mechanism is used by the Bank of Russia to provide liquidity to credit organizations that do not have sufficient collateral. From November 6, 2024. The Bank of Russia stopped accepting new loans into the collateral pool under main liquidity provision mechanism to reduce the incentives for credit institutions to use monetary policy operations to comply with the short-term liquidity ratio.

Banks' debt on REPO auctions in 2024 averaged Rb 0.4 trillion, or 3.5 times lower than in 2023, when this indicator averaged Rb 1.4 trillion. The reduction of banks' indebtedness through this channel is probably due to the desire to preserve market collateral in case of prompt replenishment of liquidity. On average, in 2024 the demand for lombard loans did not change compared to 2023, the average debt of banks on this type of lending amounted to Rb 17.9 bn.

In 2024, amid structural liquidity surplus, the banking sector continued to demand deposit auctions of the Bank of Russia. This was also due to the heterogeneous liquidity position among banks: some banks attracted funds, while others, on the contrary, placed them on deposits. Funds placed under weekly deposit auctions averaged Rb 2.6 trillion at a weighted average rate of 17.4% p.a. (Rb 2.2 trillion in 2023 at a weighted average rate of 10% p.a.). To maintain short-term money market rates close to key interest rate in 2024, the Bank of Russia repeatedly conducted "fine-tuning" 1-day deposit auctions. The average amount of funds raised under these transactions amounted to Rb 1.3 trillion at a weighted average rate of 16.8% p.a. (Rd 1.1 trillion in 2023 at a weighted average rate of 10.2% p.a.).

In 2024, amid structural liquidity surplus, the MIACR rate was mainly in the lower part of the interest rate corridor and its spread to key rate averaged -0.2 p.p. (Fig. 5). As monetary policy tightens, on average, the MIACR rate reached 17.3% p.a. in 2024 (averaging 9.79% p.a. in 2023). It should be noted that volatility (standard deviation) of the interbank lending rate spread to key rate in 2024 increased by 1.3 times compared to 2023 (from 0.28 to 0.37 p.p.). High demand of commercial organizations for the Bank of Russia's loans had a restraining effect on the short-term money market rate. This caused a reduction in the demand for borrowing on the money market, even despite expectations of an increase in key rate.¹

In 2024 monetary base in broad definition grew by 5.5% to Rb 27,958bn (in 2023 it rose by 8.5% to Rb 26,507 bn). Among the fastest growing components of the broad monetary base in 2024, it is possible to single out mandatory reserves (+83.8% to Rb 499.3 bn). This was due to growth in the volume of deposits with banks and, therefore, in the volume of reserved liabilities. Banks' deposits with the Bank of Russia increased by 25.3% to Rb 4,239 bn, correspondent accounts of credit organizations by 3.9% to Rb 4,708.8 bn. The amount of cash in circulation remained stable, increasing by only 1% to Rb 18,511 bn in 2024, which is due to the total stabilization

1. Monetary conditions and transmission mechanism of monetary policy No. 10 (28) October 2024.

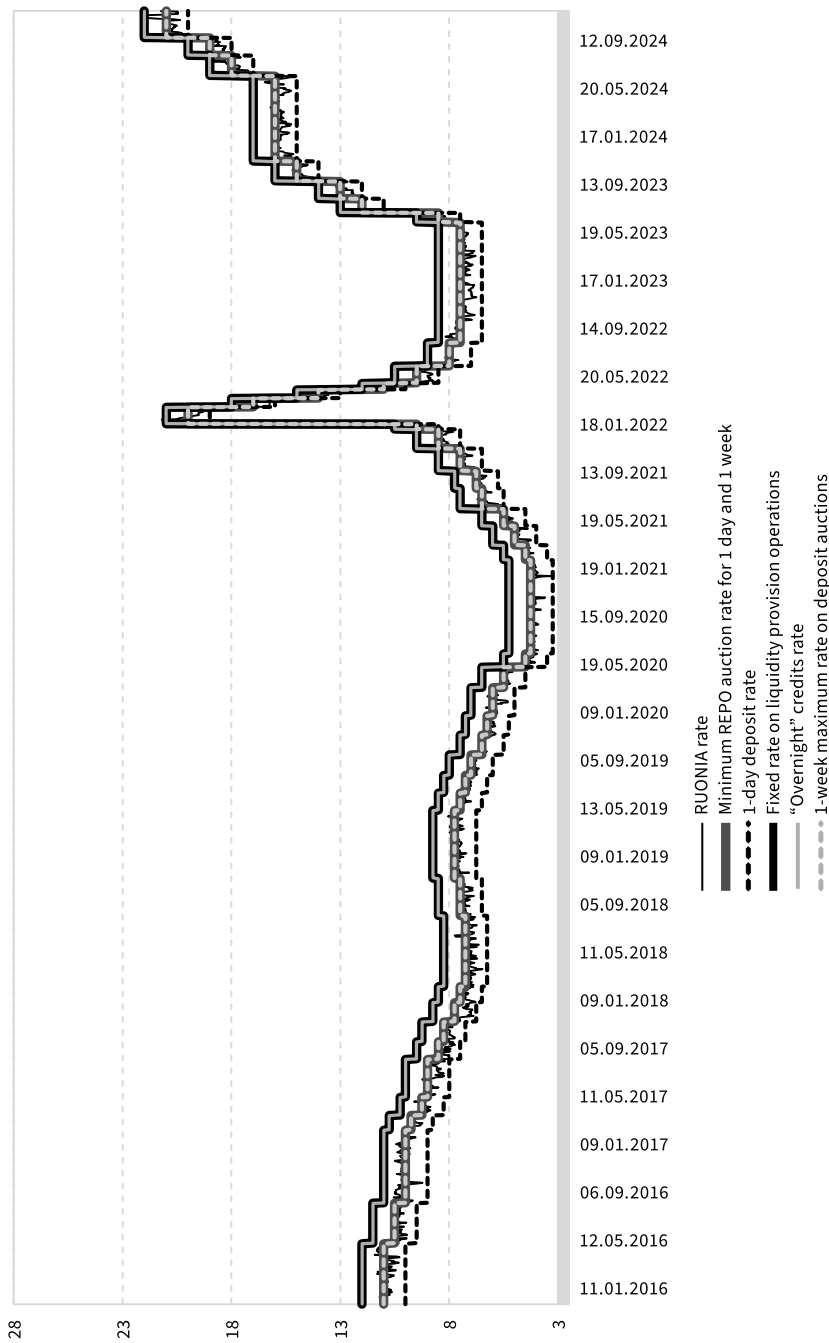


Fig. 5. Bank of Russia interest rate corridor and dynamics of interbank market rates, 2016–2024

Source: Bank of Russia.

of demand for cash, as well as to maintenance of attractive rates on deposits. In total, the volume of excess reserves¹ in 2024 grew by 13% and amounted to Rb 8948 bn (Table 3). Growth of excess reserves is due to increased demand of banks for liquidity in the context of expectations of key rate increase, as well as the need to comply with short-term liquidity requirements.

Table 3
Dynamics of monetary base in broad definition in 2023–2024, billion rubles

	01.01.2023	01.01.2024	01.01.2025
Monetary base (broadly defined)	24 428.6	26 506.8	27 958.4
— cash in circulation taking into account balances in the cash offices of credit organizations	16 347.7	18 320.7	18 511.2
— correspondent accounts of credit organizations with the Bank of Russia	2983.6	4530.5	4708.8
— Required reserves	145.9	271.7	499.3
— deposits of credit organizations with the Bank of Russia	4951.4	3383.9	4239
— the Bank of Russia bonds from credit organizations	0.0	0.0	0.0
<i>Reference: excess reserves</i>	7935	7914	8948

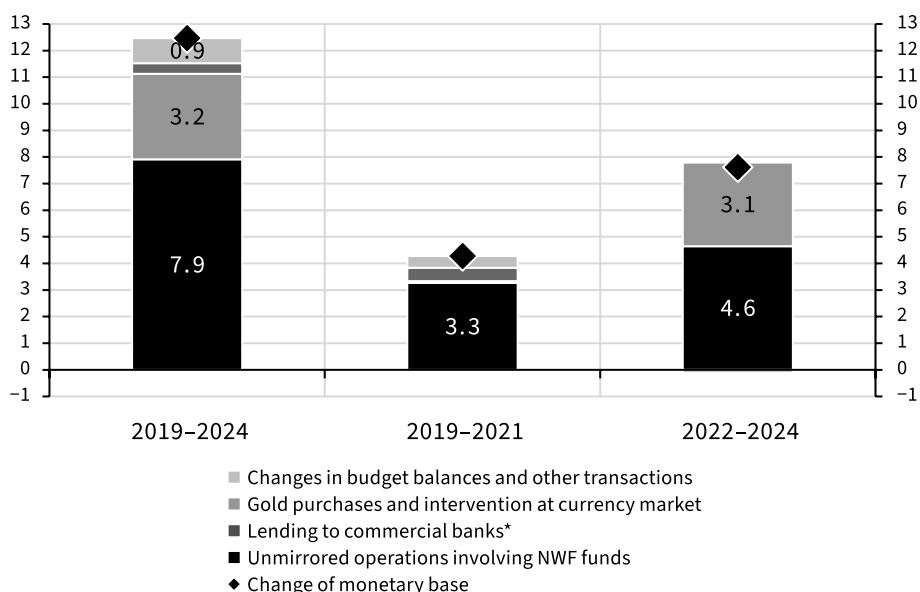
Source: Bank of Russia.

Key factors in shaping monetary base include the CBR's budget, credit organizations ("COs"), other operations, including, first of all, building up international reserves and the CBR's operations with gold² (Fig. 6). It should be noted that most of withdrawals from the NWF to finance the deficit and investment projects were made in 2022–2023 (Rb 8.8 trillion). Thus, during the period of spending of the NWF funds having no possibility of corresponding "mirroring", budget expenditures became one of the reasons for accelerated growth of monetary base. Thus, in the period from 2022 to 2024, major contribution to the increase in the monetary base was made by the Ministry of Finance's operations involving the NWF funds, that were not sterilized (Rb 4.6 trillion or 61% of the total growth of monetary base).

Thus, during the period of spending of the NWF funds having no possibility of corresponding "mirroring", budget expenditures became one of the reasons for accelerated growth of monetary base. Thus, in the period from 2022 to 2024, major contribution to the increase in the monetary base was made by the Ministry of Finance's operations involving the NWF funds, that were not sterilized (Rb 4.6 tril-

1. Excess reserves of the banking system include deposits of credit organizations with the Bank of Russia, correspondent accounts of credit organizations with the Bank of Russia, and bonds of the Bank of Russia held by credit organizations.
2. S. M. Drobyshevsky et al. Causes of increased inflation in the Russian economy // *Voprosy Ekonomiki* — 2025. — No. 1. — p. 5–31.

lion or 61% of the total growth of monetary base). The Bank of Russia's lending to commercial banks made a comparable contribution to monetary base dynamics: in 2022–2024, it amounted to Rb 3.1 trillion or 41.2% of the total growth of monetary base. In the period from 2022 to 2024, growth of monetary base due to purchasing gold by the Bank of Russia and its intervention in the foreign exchange market was negative (Rb –0.1 trillion). The remaining growth of monetary base in the period 2022–2024 (Rb –0.1 trillion) is associated with changes in budget balances on accounts with the Bank of Russia and other operations affecting monetary base (e.g., the Bank of Russia's claims on other financial organizations).



* The Bank of Russia's one-time effect of withdrawal from Sberbank's capital in 2020 amounting to Rb 2.139 trillion was taken into account.

Fig. 6. Factors of broad money base shaping (trillion rubles)

Sources: Bank of Russia, Ministry of Finance, own estimates.

The average monthly growth rate of money supply M2 in 2024 amounted to 19%, while in 2023 it was 23.2%. Given that the average growth rate of monetary base in 2024 amounted to 9.8%¹ (21.4% in 2023), monetary multiplier (the ratio of M2 aggregate to monetary base) was equal to 3.8 (3.6 in 2023). Growth of M2 money supply can be explained by expanding requirements of the banking system to the eco-

1. Average growth rate (month vs. corresponding month of the previous year) calculated based on geometric mean.

mony, while the greater contribution in H2 2024 was made by growing corporate lending, mainly in segments insensitive to tight monetary conditions (housing construction, lending for investment projects started earlier (including those under government orders), etc.). Expectations of further growth in car prices, including due to the increase in the utilization fee, contributed to higher volumes of car loans. Slowdown in consumer lending growth was due to tightening macroprudential regulation and rising interest rates. Mortgage loan growth slowed expectedly due to a significant reduction in government support.

Thus, one of key reasons for accelerating growth in money supply were the RF Government's non-mirrored operations with the NWF funds. Due to increase in the credit multiplier, the contribution of these operations to growth of money supply was somewhat lower. Thus, approximately half of the money supply growth in the period under review can be explained by use of the NWF funds excluding corresponding sale of foreign currency. The most important source of money supply growth is growth in economic lending, ensuring multiplication of money supply, which has significantly accelerated since mid-2022 amid favorable lending programs and reduction of the required reserve ratio. It should be noted that accelerated growth of money supply causes an increase in the growth rate of consumer prices in recent years.

1.1.3. Inflation

In 2024, inflation accelerated as a result of growing aggregate demand compared to the potential for supply expansion, including due to a soft fiscal policy. The steady rise in annual inflation (over the last 12 months) started as early as May 2023, from 2.7% in May 2023 by May 2022 to 7.4% in December 2023 by December 2022, and continued through Q2 2024, peaking at 9.1% in July 2024 (*Fig. 7*). Later on, inflation slowed down to 8.5% in October 2024 vs. October 2023, which corresponds to the level of December 2021. Nevertheless, in November-December 2024, inflation accelerated again to 9.5% vs. December 2023, exceeding the upper limit of the Bank of Russia's forecast (8.0–8.5%). This was facilitated by a significant ruble depreciation in November 2024, growth of inflation expectations, structural constraints on supply with expanding aggregate demand.

Along with rising inflation since May 2023, there has been an increase in core inflation from 1.99% in April 2023 vs. April 2022 to 8.73% in June 2024 vs. June 2023, indicating that inflationary processes are sustainable. While core inflation exceeded overall inflation in H1 2024 (a spread of 0.1 to 0.4 pp in particular months), in contrast, core inflation was below overall inflation in H2 2024 (a spread of –0.4 to –0.6 pp. This means that in H2, in addition to accelerating stable component of inflation (cleared of the influence of administrative and seasonal factors), which makes the largest contribution to overall inflation, rising prices of adjustable and volatile components (which take into account conjunctural factors) also contribute to increase in consumer prices.

As before, the greatest contribution to annual inflation is due to rising prices of food products (consistent with their greater weight in the consumer basket). Food inflation at the end of December 2024 amounted to 11.05% vs. December.¹ (8,16% in December 2023 vs, December 2022). Butter was the leader in price growth (36.23% in December 2024 vs. December 2023), which is explained by growth in production costs and consumption. Prices for fruit and vegetables rose (22.09% in December 2024 vs. December 2023). Prices for milk and dairy products rose by 15.74% in December 2024 vs. December 2023, for bread and bakery by 13.22% in December 2024 vs. December 2023 (*Table 4*).

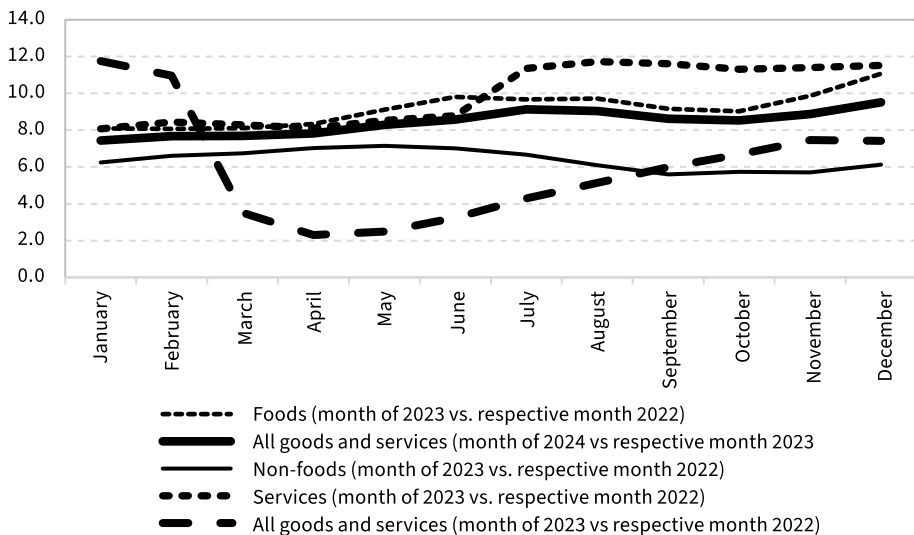


Fig.7. CPI growth rate in 2023–2024, % over the previous 12

Sources: Rosstat, own calculations.

Growth in non-food prices in December reached 6.12% vs. December 2023 (5.96% in December 2023 vs. December 2022). The fastest growing prices were observed for motor gasoline (11.13% in December 2024 vs. December 2023 vs. 7.23% in December 2023 vs. December 2022), medicines (10.61% in December 2024 vs. December 2023 vs. 7.9% in December 2023 vs. December 2022), construction materials (7.91% in December 2024 vs. December 2023 vs. 5.46% in December 2023 vs. December 2022).

Paid services to households in December 2024 increased by 11.52% vs. December 2023 (8.33% in December 2023 vs. December 2022). Thus, prices for foreign tourism services (14,82%), health and recreation (12,05%), passenger transport (10,77%),

1. Inflation for previous 12 months.

Table 4

**Annual growth rate of prices for certain types of consumer goods and services
in 2022–2024, %, December vs. December of the previous year**

	2022	2023	2024	2022- 2024
CPI	11.9	7.4	9.5	31.6
Foods	10.3	7.2	11.1	31.3
Butter	14.7	3.5	36.2	61.7
Sugar	13.5	8.2	3.6	27.3
Eggs	–6.5	61.4	–11.2	34.1
Meat and poultry	4.0	16.2	6.0	28.1
Fruit and vegetables	–2.0	24.2	22.1	48.6
Dish and seafood	14.0	5.8	14.9	38.6
Bread and bakery	13.0	5.2	13.2	34.6
Milk and dairy products	15.2	0.5	15.7	34.0
Pasta	14.6	–3.8	2.9	13.4
Cereals and legumes	9.0	–2.4	3.6	10.2
Alcohol	8.1	2.5	8.3	20.0
Oil	5.2	–1.4	12.7	16.9
Non-foods	12.7	6.0	6.1	26.8
Detergents and cleaners	29.8	2.2	1.6	34.7
Tobacco	10.2	7.0	6.2	25.2
Construction materials	3.6	5.5	7.9	17.9
Medicines	10.8	7.9	10.6	32.2
Knitted garments	9.7	3.6	4.2	18.4
Gasoline	0.9	7.2	11.1	20.2
Clothes and underwear	7.9	3.2	3.6	15.3
TV and radio goods	–4.3	–6.2	2.2	–8.3
Services	13.2	8.3	11.5	36.7
Foreign tourism	70.7	24.8	14.8	144.6
Passenger transportation	10.7	15.7	10.8	41.9
Insurance	28.2	–1.1	3.1	30.7
Consumer services	11.0	8.5	10.6	33.2
Health and recreation	10.8	9.3	12.1	35.7
Medical services	11.7	7.8	10.5	33.0
Housing utilities	11.6	2.3	9.5	25.0
Education	6.1	8.2	10.6	27.0

Source: Rosstat.

hotels and other accommodation (10,94%), education (10,60%), medical services (10,48) grew quite rapidly). The indexation of housing and utilities tariffs to household in July by 9.9% made a significant contribution to rise in prices for paid services.

In total, decomposition of inflation by components shows that the largest contribution to inflation amounting to 9.5% in December 2024 was due to growth in prices for foods (4.2 p.p.) (their weight in the consumer basket is 38.1%). Contribution of services, despite their lowest weight in the consumer basket (27.8%), was comparable to the contribution of foods and amounted to 3.2 pp. Group of non-food products contributed 2.1 p.p. to the total inflation (*Fig. 8*).

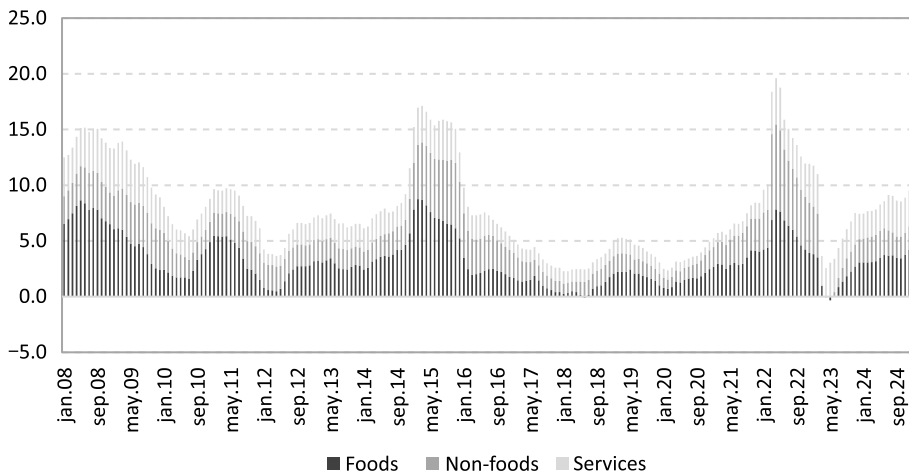


Fig. 8. Structure of inflation in 2008–2024, %, month vs. respective month of the previous year

Sources: Rosstat, own calculations.

As noted above, a significant contribution to the acceleration of money supply and inflation growth rates in recent years was made by the Ministry of Finance's operations on spending the NWF funds having no possibility of appropriate "mirroring." It is important to note that budget policy has been quite balanced over the last seven years. In 2019–2021, the average deficit of budget system amounted to 0.4% of GDP, and in 2022–2024, the average deficit increased to 1.8% of GDP. If 2018 is included, the average deficit over 7 years will amount to only 0.3% of GDP. Planned for 2025 federal budget deficit will amount to 0.5% of GDP (1.7% of GDP preliminary estimate for 2024), which evidences tightening of fiscal policy in 2025 and reducing pro-inflationary risks on the part of the budget.

Growing demand had an upward pressure on inflation in 2024. In 2024, retail trade turnover will increase on average by 7.35% per month vs. the respective month of the previous year (7.5% on average in 2023). Monthly growth of paid

services to households in 2024 averaged 3.4% (6.9% on average in 2023). Real monetary incomes of households in 2024 grew quarterly by an average of 9.2% (5.4% on average in 2023).

According to the survey of LLC “InFOM”, during 2024 inflation expectations of households were persistently high (12.8%). Having reached a local maximum of 14.2% in December 2023, in January-April 2024 inflation expectations of households declined to 11%. In the future, inflation expectations were growing, and in December 2024 they reached 13.9%. Price expectations of enterprises also remained elevated in 2024. They declined at the beginning of the year from 23.3% in December 2023 to 18.6% in March 2024. However, they reached 28.4% by December 2024 amid accelerating cost growth. High inflation expectations will contribute to persistence of elevated inflation in 2025.

A significant factor of inflation acceleration in 2024 was the restrictions of the economy’s production capacity due to deep structural transformation, low unemployment (about 2.5%), high capacity utilization rate (about 80%), reduction of total factor productivity due to limited access to the most advanced technologies.

According to the Bank of Russia’s forecast updated in February 2025, given the persistence of pro-inflationary risks, annual inflation in 2025 is expected to be in the range of 7.0–8.0%. Given the current monetary policy, annual inflation will fall to 4.0% in 2027 and will be at the target level thereafter. According to our model forecast^{1,2} in 2025 there will be a gradual cooling of consumer and investment demand due to stringent monetary terms and tightened fiscal policy, which could result in a slowdown of annual inflation to 6.5% yoy by December 2025.

1.1.4. Balance of payments and exchange rate

According to preliminary assessment of the balance of payments for 2024 published by the Bank of Russia, the current account balance for 2024 amounted to \$53.5bn, or 6.8% higher than in 2023 (\$50.1 bn in 2023). Due to less detail of the balance of payments published by the RF Central Bank compared to previous periods, the structure of the current account can be described in terms of two main balances: trade in goods and services and balance of primary and secondary incomes.

The balance of trade in goods in 2024 was \$122.6 bn, roughly the same as in 2023 (\$121.6 bn). Exports of goods declined from \$424.5 bn in 2023 to \$417.2 bn in 2024 (down –1.7%). 2024 (down –1.7%), while imports of goods decline from \$302.9 bn in 2023 to \$294.5 bn in 2024 (down –2.8%). Such dynamics of exports is

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1. Monitoring of economic situation in Russia. The Bank of Russia announced a prolonged period of tight monetary policy. *Y. N. Perevyshin, P. V. Trunin*. February 2024.
 2. For more details on the model see the Article *Y. N. Perevyshin*. “Short-term inflation forecasting in the Russian economy” // *Economic policy*. 2022. V. 17. No. 5. p. 1–18.

due to declining world prices for basic goods of Russian exports (primarily oil, gas and petroleum products), which was observed along with a reduction in the physical volume of exports under sanctions. The drop in imports was observed in H1 2024 and was caused by a decline in physical volumes of supplies due to difficulties in settlements since the beginning of the year and weakening of the ruble compared to the previous year. According to Bank of Russia, the fall in the index of the real ruble-dollar exchange rate in January-June 2024 amounted to 8%, which is a significant weakening indicating a relative appreciation of import supplies.

Balance of trade in services in 2024 amounted to -\$38.1 bn, which in absolute terms is 7.9% higher than negative value of the balance of trade in services for 2023 (-\$35.3 bn). Growth of negative balance of trade in services is due to increase in imports of services at stable value volumes of exports of services. Thus, imports of services increased by 4.8% from \$76.4bn in 2023 to \$80.1 bn in 2024. Service exports amounted to \$42.0 bn in 2024 (\$41.2 bn in 2023).

Balance of primary and secondary incomes in 2024 fell compared to 2023. Thus, in 2024 it amounted to -\$31.0 bn, which is 14.4% less in absolute terms than the same indicator in 2023 (-\$36.2 bn). However, in 2024, both income receivable (reduction in capital income from abroad from \$44.8 bn in 2023 to \$35.9 bn in 2024) and income payable (reduction in withdrawal of income and repatriation of profits abroad, including due to restrictions on cross-border capital movements from \$81.0 bn in 2023 to \$66.9 bn in 2024) have significantly decreased.

The balance of payments financial account, excluding reserve assets, amounted to \$47.3 bn in 2024, down by 8.3% compared to 2023 (\$51.6 bn). The balance of financial account, excluding reserve assets, in 2024 was shaped under the influence of significant growth of foreign assets of all sectors with a moderate rise in the volume of foreign liabilities.

Growth of foreign assets (excluding reserve assets) in 2024 reached \$53.7 bn, which is 22% higher than in 2023 (\$44.0 bn). In 2024, growth in foreign assets is mainly due to delays in payments as part of international settlements on Russian exports.¹

Liabilities of all sectors of the Russian economy to non-residents in 2024 rose by \$6.4bn, while in 2023 they fell by \$7.5bn. The largest growth of foreign liabilities was observed in Q4 2024 and was mainly due to growth in other investments. This is primarily due to increased timing of export proceeds receipt due to sanctions pressure on the infrastructure of international settlements.

As of January 1, 2025, RF foreign debt amounted to \$290.4 bn, having dropped by 8.7% vs. January 1, 2024. Foreign debt of the public administration authorities fell to the greatest extent (by 43% over four quarters of 2024 to \$18.8 bn). The share of non-residents in the OFZ market continued to decline from 7.4% on January 1, 2024 to 4% on January 1, 2025, which equals February 2012. Other economic sectors reduced their external liabilities by 7% to \$190.4bn, mainly due to a reduction

1. Balance of Payments of the Russian Federation No. 3 (20), Q3 2024.

in their liabilities on attracted credits, including those under direct investment relations. The external debt of banks and the RF Central Bank remained virtually unchanged (\$94.4bn on January 1, 2025).

Russia's reserve assets in 2024 fell by \$3.8 bn (–\$10 bn in 2023). This is mainly due to sales of foreign currency as part of operations with the NWF and “currency swap” operations aimed at smoothing volatility in the foreign exchange market. In 2024, total international reserves¹ of the Central Bank of Russia increased by 1.8% to \$609.1 bn. This means that positive revaluation² of international reserves in 2024 exceeded their fall due to operations presented in the balance of payments. It is worth noting that share of foreign exchange reserves in total international reserves on January 1, 2025, is 67.9% (74.0% on January 1, 2024), share of monetary gold — 32.1% (26.0% on January 1, 2024).

In 2024, ruble depreciated by 13.9% to 101.7 rubles/dollar, which is due to reduction of the current account balance due to a decline in the value of exports with a slight increase in imports in H2 2024, stronger sanctions against financial sector, which affected the infrastructure of international settlements and terms of receipt of export proceeds, reduction in net sales of foreign currency by major exporters in some months of 2024. During the year, the ruble was supported by maintaining tight monetary policy conditions and the Bank of Russia's option to sell foreign currency as part of the RF Ministry of Finance's operations with the NWF funds.

1.2. Fiscal policy³

1.2.1. Characteristics of the budgets of the budget system of the Russian Federation

Basic parameters of the budget system of the Russian Federation

According to the results of the enlarged government budget (EGB) in 2024 relative to 2023, there is an increase in revenues both in nominal (by Rb11.9 trillion) and in shares of GDP — by 2.0 p.p. GDP and by 10.7% in 2023 prices (*Table 5*). As a share of GDP, aggregate revenues returned to the level of 2020–2021, which preceded the start of SMO.

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1. Data on structure of international reserves are not available due to reduction in the volume of statistical information published by the Bank of Russia.
 2. Data on the amount of revaluation of international reserves are not available.
 3. Authors: *Arlashkin I. Yu.*, Researcher, Budget Policy Studies Department, IAES RANEPa; *Barbashova N.E.*, Candidate of Economic Sciences, Senior Researcher, Budget Policy Studies Department, IAES RANEPa; *Sokolov I. A.*, Candidate of Economic Sciences, Head of the Budget Policy Studies Department, IAES RANEPa; *Tishenko T. V.*, Candidate of Economic Sciences, Senior Researcher, Budget Policy Studies Department, IAES RANEPa.

Table 5

**Main parameters of the enlarged government budget
of the Russian Federation in 2023–2024**

	2023		2024		Change, 2024 on 2023		
	Rb bn	% of GDP	Rb bn	% of GDP	Rb bn	p. p. of GDP	%, in 2023 prices (CPI adjusted ¹)
Revenue	59 073	33.5	70 941	35.5	11 868	2.0	10.7
Including:							
Oil and gas	8822	5.0	11131	5.6	2309	0.6	16.3
Non-oil and gas	50 251	28.5	59 810	29.9	9559	1.4	9.7
Expenditure	62 984	35.7	74 166	37.1	11 182	1.4	8.6
Deficit (-) / Surplus (+)	-3911	-2.2	-3235	-1.6	676	0.6	-23.7
<i>For reference only: GDP, Rb bn</i>	176 414		200 040				

Sources: Ministry of Finance of Russia, Rosstat, own calculations.

The growth of the EGB revenues was provided mainly by the dynamics of non-oil and gas revenues, while oil and gas revenues accounted for no more than 20% of the total annual growth. Nevertheless, the ratio of oil and gas and non-oil and gas revenues in the aggregate revenues of the EGB remained structurally virtually unchanged, remaining at the level of 15/85. It is obvious that as the share of raw materials revenues, which are more exposed to changes in terms of global trade and other external shocks, decreases, the sustainability of the country's budget system improves in general.

The share of the federal budget in the total volume of the EGB revenues in 2024 again exceeds the 50% level (51.7% in 2024, 49.3% in 2023), which indicates the strengthening of the centralization of budget revenues due to both the ongoing changes in tax and customs-tariff policies and macroeconomic conditions favorable to filling the federal budget (ruble exchange rate, price dynamic, cost of raw materials, etc.).

EGB spending showing a steady positive trend since the beginning of SMO, rose to 37.1% of GDP, exceeding the 2023 figure by 1.4 p. p. of GDP. The growth of expenditure is also noted in 2023 prices — by 8.6%. Due to the fact that at the end of 2024 revenues grew faster than expenditures, the EGB deficit decreased by 0.6 p. p. of GDP or by 23.7% in 2023 prices. Although in nominal terms the negative budget balance amounted to over Rb3.2 trillion, which in itself is equivalent, for example, to the total debt of the country's regions or slightly less than the annual volume of net borrowing at the federal level, in relative terms this value of the budget deficit is not perceived as significant — it does not exceed 5% of the volume of the EGB revenues.

1. According to Rosstat, the average annual CPI in 2024 amounted to 108.45%.

Receipts of main taxes in the budget system of the Russian Federation

In 2024, the second stage of the tax maneuver in the oil industry was completed, under which, starting from 2019, the export duty was annually reduced by 1/6th while the mineral extraction tax (MET) rate was increased. As a result, as of January 1, 2024, zero export duty became applicable to the export of crude oil as well as petroleum products, including light and dark oils, commercial gasoline, and petroleum coke. However, in order to prevent a situation when the replacement of export duty with MET would lead to a significant increase in the cost of oil for Russian refineries, starting from 2019 the government envisioned a reverse excise duty mechanism with a damping component, which allowed refineries producing high-quality fuel for domestic market supplies to apply an increased tax deduction for excise duty.

For the federal budget, this maneuver can generally be considered financially neutral; the loss of revenues from export customs duties on crude oil and petroleum products, taking into account the amount of reverse excise duty, was offset by the growth of mineral extraction tax, thus shifting the tax burden to the stage of oil production (*Table 6*). At the same time, the maneuver obviously contributed to stimulating the modernization of domestic oil refining through the use of tax levers (before the first stage (2014–2017) of the tax maneuver, the government actively helped refineries by providing budget subsidies).

Table 6

Volume and structure of oil and gas revenues in 2023–2024

	2023		2024		Change, 2024 on 2023		
	Rb bn	% of GDP	Rb bn	% of GDP	Rb bn	p. p. of GDP	%, in 2023 prices (CPI adjusted)
Oil and gas revenues — total including	8822	5.0	11131	5.6	2309	0.6	16.3
MET on oil	7787	4.4	10111	5.1	2324	0.7	19.7
MET on gas and gas condensate	1678	1.0	2123	1.1	445	0.1	16.7
Export customs duties on oil and petroleum products	411	0.2	–3.7	0.0	–415	–0.2	–100.8
Export customs duties on gas	566	0.3	490	0.2	–76	–0.1	–20.2
Excise on oil feedstock	–2915	–1.7	–3638	–1.8	–723	–0.1	15.1
Excess-Profit Tax	1293	0.7	2049	1.0	756	0.3	46.1
Base volume of oil and gas revenues	8000	4.5	9831	4.9	1831	0.4	13.3
Additional oil and gas revenues	822	0.5	1300	0.6	478	0.1	45.8

Sources: Ministry of Finance of Russia, Rosstat, own calculations.

In general, the positive dynamic of oil and gas revenues compared to 2023 was most influenced by an increase in budget revenues from MET on hydrocarbons

on the back of a rise in the average price of Urals oil used to calculate the tax from 62.81 in 2023 to 67.85 USD/bbl in 2024 (according to the Ministry of Economic Development of Russia) and the devaluation of the ruble, for example, the average annual nominal exchange rate of the ruble to the dollar in 2023 to 67.85 USD/barrel in 2024 (according to the Ministry of Economic Development of Russia) and devaluation of the ruble, e.g., the average annual nominal exchange rate of the ruble to the dollar in 2023 amounted to 85.16, and in 2024 — 92.55 rubles/dollar (according to the Bank of Russia).

As a result, oil and gas revenues at the end of 2024 exceeded the established base volume of oil and gas revenues by Rb1.3 trillion, which according to the budget rule should replenish the assets of the National Welfare Fund (NWF).

With the overall growing dynamics of EGB non-oil and gas revenues in 2024 in nominal and real terms, there were multidirectional trends in individual tax revenues (*Table 7*). The only tax with negative dynamic year-on-year was the income tax: at the end of 2024, its total revenues to the country's budget system amounted to 4% of GDP, which is lower by 0.5 p.p. GDP than a year earlier. In real terms, the decline in revenues from this tax amounted to 6.3%. In many respects, this “conduct” of the profit tax was quite expected, as it reflects the steadily increasing cost of production against the background of the contraction of aggregate demand and the beginning of the slowdown of the Russian economy. According to Rosstat data, the share of Russian loss-making organizations¹ over nine months of 2024 totaled 27.4%, which is 0.4 p.p. more than in the same period last year, while the balanced financial result (net profit before taxation) of organizations came to almost Rb 21.4 trillion, which is 19.1% below the level of nine months of 2023.

In contrast to the profit tax, labor taxes — personal income tax (PIT) and insurance contributions (0.5 and 0.4 p.p. of GDP, respectively) showed significant growth. This is largely due to the dynamics of labor income of the population, which due to the unprecedentedly low level of unemployment² grew faster than inflation. In particular, according to Rosstat data, the payroll fund in January-October 2024 grew by 18.5% against the same period of the previous year. Additional factors contributing to the growth of PIT revenues to the budget system were the increase in dividend payments (34.2% growth compared to 2023) up to Rb0.9 trillion, the end of the privilege on exemption from taxation of income in the form of interest received on bank deposits, which brought another Rb110.7 bn to the federal budget in the form of PIT, and progressive taxation (in 2024 the federal budget received Rb224 bn at an increased rate (15%), which is 41% higher than in 2023).

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1. Data are given without taking into account small businesses, credit organizations, government agencies, non-credit financial organizations.
 2. According to Rosstat, the unemployment rate in Russia reached in October 2024 its historical minimum (2.3%) for the period since 1992 and remained constant until the end of the year.

Table 7

Structure of non-oil and gas enlarged government budget revenues in 2023–2024

	2023		2024		Change, 2024 on 2023		
	Rb bn	% of GDP	Rb bn	% of GDP	Rb bn	p. p. of GDP	%, in 2023 prices (CPI adjusted)
Non-oil and gas revenues — total, including	50 251	28,5	59 810	29,9	9 559	1,4	9,7
VAT	11 615	6.6	13 523	6.8	1 908	0.2	7.4
Excises*	2 400	1.4	2 799	1.4	399	0.0	7.5
Profit tax	7 922	4.5	8 052	4.0	130	–0.5	–6.3
PIT	6 539	3.7	8 374	4.2	1 835	0.5	18.1
Import duties	1 110	0.6	1 231	0.6	121	0.0	2.3
Premiums	11 652	6.6	14 033	7.0	2 381	0.4	11.1
Other receipts	9 013	5.1	11 798	5.9	2 785	0.8	20.7

* Excluding reverse excise tax on crude oil (recognized in oil and gas revenues).

Sources: Russian Financed Ministry, Rosstat, own calculations.

In 2024, VAT receipts continued to demonstrate dynamics outstripping GDP growth, increasing by 0.2 p.p. of GDP compared to 2023, which is consistent with the Rosstat data on the growth of final consumption expenditures in the structure of GDP for 2024 by 5.2%. VAT along with labor taxes provide more than half of all the EGB revenues, which, given their low volatility, provides the budget system with the necessary resilience to shocks.

In 2024, the budget system revenues on excise duties (excluding reverse excise duty on oil feedstock) and import customs duties as a share of GDP remained at the level of the previous year (1.4% and 0.6% of GDP, respectively).

The positive dynamics in other EGB revenues, which started as early as 2021, continued in 2024, reaching a local maximum of 5.9% of GDP over the four-year period, which was due to a steady growth of revenues from income from the use of property, tax on total income, payments for the use of natural resources, and property tax.

1.2.2. Characteristics of the federal budget

Federal budget revenues

At the end of 2024, federal budget revenues amounted to Rb36.7 trillion (equivalent to 18.3% of actual GDP) against the approved amount of Rb35.1 trillion (equivalent to 19.5% of forecast GDP). Nominally, revenues grew by more than a quarter

year-on-year; as a share of GDP, the increase amounted to 1.8 p. p. of GDP or 16.2% in prices. GDP or 16.2% in 2023 prices (*Table 8*).

Oil and gas revenues, in addition to the previously mentioned ruble devaluation and the favorable price situation on the energy market due to such factors as the Middle East conflict, sanctions against Russian exports, maintenance of voluntary restrictions on supplies by OPEC+ countries, etc., which supported oil prices, were positively affected by the reorientation of supplies to the Eastern market (Russia increased oil and gas supplies to China and India) and access to the markets of other countries through numerous intermediaries. The share of the oil and gas component in the total volume of federal budget revenues remained at 30%, the same as a year earlier.

The main driver of growth in federal budget revenues was non-oil and gas receipts, which accounted for more than two-thirds of the growth. It should be noted that the Ministry of Finance of Russia took active steps to expand opportunities for increasing budget revenues. In addition to pre-planned increases in certain taxes, excises, customs and state duties, it is worth mentioning a number of non-tax sources, the collections of which noticeably exceeded expectations. In particular, federal budget revenues from the utilization fee on transport in 2024 reached almost Rb1.1 trillion against Rb660 bn a year earlier. Also contributing to the growth of other revenues were receipts from dividends from state-owned companies (Rb308 bn, excluding dividends from Sberbank, credited directly to the National Wealth Fund) and one-off receipts from foreign businesses for leaving the Russian jurisdiction (according to Roskazna, gratuitous receipts from non-governmental organizations amounted to Rb161.8 bn).

Table 8
Main parameters of the federal budget in 2023–2024

	2023		2024		Change, 2024 on 2023		
	Rb bn	% of GDP	Rb bn	% of GDP	Rb bn	p. p. of GDP	%, in 2023 prices (CPI adjusted)
Revenues	29 124	16.5	36 708	18.3	7 584	1.8	16.2
Including:							
<i>Oil and gas:</i>	8822	5.0	11131	5.6	2309	0.6	16.3
Base quantity of oil and gas revenues	8000	4.5	9831	4.9	1831	0.4	13.3
Additional oil and gas revenues	822	0.5	1300	0.7	478	0.2	45.8
<i>Non-oil and gas revenues</i>	<i>20 302</i>	<i>11.5</i>	<i>25 577</i>	<i>12.8</i>	<i>5 275</i>	<i>1.3</i>	<i>16.2</i>
Expenditures	32 354	18.3	40 181	20.1	7 827	1.8	14.5
Deficit (–) / surplus (+)	–3230	–1.8	–3473	–1.7	–243	0.1	–0.9
<i>Non-oil and gas deficit</i>	<i>–12 052</i>	<i>–6.8</i>	<i>–14 604</i>	<i>–7.3</i>	<i>–2552</i>	<i>–0.5</i>	<i>11.7</i>

Sources: Ministry of Finance of Russia, Rosstat, own calculations.

Federal budget expenditures

In 2024, federal budget expenditures hit the maximum value for the entire post-COVID period (20.1% of GDP), growth relative to 2023 amounted to 14.5% in 2023 prices or 1.8 p. p. of GDP, including at the expense of increased funding of activities under the closed part of the budget. Budget expenditures were executed within the framework of the fiscal rule adjusted in terms of setting the base prices for oil and natural gas at the level of average annual prices of \$60/bbl and \$250/thousand cubic meters, respectively.

In 2024, the six-year period of implementation of the national projects was completed, and some results can be summarized (*Table 9*).

Table 9

Dynamic and structure of the federal budget expenditures on the implementation of national projects in 2019–2024, Rb bn

	Approved amount in 2019–2024*	2019	2020	2021	2022	2023	2024	Execution 2019–2024
Expenditure on national projects, including	13 157	1 602	2 149	2 549	3 269	2 984	3 310	15 863
Demography	2 973	497	690	631	744	808	1 046	4 416
Health care	1 367	157	295	243	361	313	280	1 649
Education	723	99	115	132	208	231	248	1 033
Housing and urban environment	891	99	169	263	259	176	121	1 087
Ecology	701	37	63	79	136	122	69	506
Safe and quality roads	441	137	156	364	490	527	745	2 419
Labor productivity	46	6	4	5	5	5	5	30
Science and universities	405	38	41	80	120	144	159	582
Digital economy	1 099	78	86	131	165	132	146	738
Culture	110	14	16	23	48	53	51	205
Small and medium-sized entrepreneurship and support for individual entrepreneurial initiative	416	56	62	63	76	66	68	391
International cooperation and export	957	78	70	124	128	139	147	686
Comprehensive infrastructure modernization plan	3 028	306	383	373	465	213	143	1 883
Tourism and hospitality industry	–	–	–	38	64	54	49	205
Drones	–						33	33
<i>Share of expenditures on national projects in total FB expenditures, %</i>		<i>8,8</i>	<i>9,4</i>	<i>10,3</i>	<i>10,5</i>	<i>9,2</i>	<i>8,2</i>	<i>9,4</i>

* Data are based on the passports of national projects approved by the Presidium of the Presidential Council for Strategic Development and National Projects on December 24, 2018.

Sources: Ministry of Finance of Russia, own calculations.

Thus, in particular:

- The share of expenditures on the implementation of national projects in 2019–2024 amounted, on average, to 9.4% of the total expenditure part of the FB, with a maximum value of 10.5% in 2022 and a minimum value of 8.3% in 2024.

- More than 27% of the total expenditures on national projects were allocated to finance the NP “Demography”, and the actual expenditures exceeded the originally planned 1.5-fold.

- The total amount of expenditures on the implementation of the social NPs “Health Care”, “Education”, “Housing and Urban Environment” exceeded the planned amount by an average of one third, and their share in the total financing of the national projects amounted to 23.7%. The excess of expenditures is generally associated with indexation for price growth, especially for construction materials, which led to an increase in the estimated cost of capital construction projects in the social sphere.

- The share of expenditures on the NP “Safe and Quality Highways” in the total funding of national projects amounted to 15.2%, and the actual expenditures of Rb 2.4 trillion exceeded the initial target by 5.5-fold.

- For some national projects there is a significant underfunding of the actual volume of funding over the planned volume. The largest underfunding was for NP “Comprehensive Plan for Modernization and Expansion of Backbone Infrastructure” (60.5%) and NP “International Cooperation and Export” (71.7%), which is due to both revision of the composition of activities and suspension of their implementation during the period of covid restrictions or after the start of the SMO.

Many of the described national projects were partially modified, supplemented and updated under the input Presidential Executive Order of May 7, 2024 “On the National Development Goals of the Russian Federation for the period up to 2030 and in the perspective up to 2036” in preparation for the launch of the next cycle of their implementation (2025–2030). In total, the list of new national projects covers 4 areas (social support, economic development, technological sovereignty and infrastructure) and consists of 19 projects.

Federal budget deficit

At the end of 2024, the federal budget was executed with a deficit of Rb 3.5 trillion or 1.7% of GDP. The value of the budget balance in real terms remained virtually unchanged compared to 2023.

Government borrowings remained the main source of repayment of the budget deficit, as a result of which the volume of the federal government’s domestic debt grew by Rb 2.9 trillion at year-end and amounted to Rb 23.7 trillion as of January 1, 2025, including government guarantees in the amount of Rb 0.6 trillion.

The situation regarding placement of federal loan bonds (OFZ) was ambiguous throughout the year. In the first months of the year several announced auctions on OFZ placement were recognized as failing due to the lack of bids for purchase. In April, the Mi-

nistry of Finance noted that “the execution of the borrowing program has been lagging lately”,¹ even though yields have been rising even despite the growing yield rates. Thus, if before the beginning of March, the average value of the yield on the weighted average price of OFZ was 12.4%, in March-April it was already 13.5%, and at the end of November it reached the value of 17.4%. The OFZ market became more active towards the end of the year due to several 1-month REPO auctions conducted by the Bank of Russia² in late November and early December at a weighted average rate of 21.1%. In other words, the Central Bank of Russia lends banks funds secured by new OFZ issues, which allowed the RF Ministry of Finance to place floaters (OFZ with floating coupon) for almost Rb 2 trillion during two auctions in December 2024, of which about 97% were purchased by banks.³ At the same time, demand for these issues significantly exceeded supply, which is due to their higher yields compared to the previously used approach.⁴

The volume of the Russian Government’s external debt decreased by \$1.2 bn to \$53.3 bn, including state guarantees of \$18.7 bn.

According to the Russian Ministry of Finance, the volume of the National Wealth Fund remained virtually unchanged in nominal terms in the 12 months of 2024, decreasing by Rb 0.1 trillion to Rb 11.9 trillion (6.2% of GDP). During the year, as a result of revaluation of assets in foreign currency and gold, Rb 1.1 trillion was received, and Rb 1.3 trillion was used to finance the federal budget deficit. At the same time, the liquid part of the NWF decreased by 24% y-o-y (to Rb 3.8 trillion), which increases the risks of depletion of sovereign reserves used to finance budget expenditures in case of a fall in hydrocarbon prices against the backdrop of a stronger ruble.

1.2.3. Interbudgetary relations and subnational finances

Revenues of the consolidated budgets of the RF budgets

The Dynamics of the main indicators of revenues of the consolidated budgets of the subjects of the Russian Federation for 2024 is presented in *Table 10*.

According to the Federal Treasury’s data on the execution of regional budgets, the total revenues of the consolidated budgets of the subjects of the Russian Federation in 2024 as compared with 2023 increased in nominal terms by 10.3%, amounting to Rb 24.6 trillion. Taking into account the CPI, this value increased by 1.7%. Total revenues of Russian regions expressed as a share of GDP decreased by 0.4 p. p., which can be explained by the outstripping growth of GDP.

1. Finmarket. April 28, 2023. URL: <https://www.finmarket.ru/news/5943565>

2. URL: https://www.cbr.ru/hd_base/dirrepoauctionparam/

3. At the year-end 2024, the Russian banking sector has Rb 15.6 trillion of Russian bonds on its balance sheet, compared to Rb 12.9 trillion in late 2023.

4. Traditionally, the yield of OFZ-PK was determined by the average RUONIA rate for the coupon period, but for these “exclusive” issues a term RUONIA was used, taking into account the effect of daily reinvestment.

Table 10

Revenues of the consolidated budgets of the Russian Federation in 2023–2024

	In nominal terms, Rb bn		In % of GDP ¹		Nominal change, %	Change CPI adjusted, %	Change in shares of GDP, p. p.
	2024	2023	2024	2023	2024/2023	2024/2023	2024/2023
Revenues, total	24 616.1	22 320.9	12.3	12.7	10.3	1.7	–0.4
<i>For reference: excluding the attached regions</i>	<i>24 048.3</i>	<i>21 667.6</i>	<i>–</i>	<i>–</i>	<i>11.0</i>	<i>2.3</i>	<i>–</i>
Tax-generated and non-tax revenues	20 568.3	17 915.1	10.3	10.2	14.8	5.9	0.1
<i>Including tax generated revenues:</i>	<i>18 654.9</i>	<i>16 542.0</i>	<i>9.3</i>	<i>9.4</i>	<i>12.8</i>	<i>4.0</i>	<i>–0.1</i>
Corporate profits tax	5765.9	6003.8	2.9	3.4	–4.0	–11.4	–0.5
PIT	8033.7	6378.3	4.0	3.6	26.0	16.1	0.4
Excises	1301.3	1189.5	0.7	0.7	9.4	0.9	0.0
Total income tax	1457.8	1033.7	0.7	0.6	41.0	30.0	0.1
Property taxes	1843.0	1683.1	0.9	1.0	9.5	1.0	0.0
<i>Non-tax revenues</i>	<i>1913.5</i>	<i>1373.0</i>	<i>1.0</i>	<i>0.8</i>	<i>39.4</i>	<i>28.5</i>	<i>0.2</i>
Fiscal transfers from budgets of other levels	3750.7	4026.7	1.9	2.3	–6.9	–14.1	–0.4
Other revenues	297.1	379.1	0.1	0.2	–21.6	–27.7	–0.1

Sources: Federal Treasury, Rosstat, own calculations.

If we consider the regional revenues dynamic excluding the attached regions (Donetsk People’s Republic, Lugansk People’s Republic, Zaporizhzhya and Kherson oblasts), the growth of total revenues of the consolidated budgets of the regions in 2024 amounted to 11.0% in nominal terms and 2.3% taking into account the CPI. Revenues of the attached regions in 2024 in nominal terms decreased in comparison with 2023 by Rb 85.5 bn (–13.1%) due to the reduction in the volume of financial aid.

Tax-generated and non-tax revenues of the regions demonstrated growth both in nominal terms (+14.8%) and adjusted for the CPI (+5.9%). The greatest contribution to the growth of tax-generated revenues of regional budgets was made by personal income tax (the increase in revenues amounted to Rb 1,655.4bn, or 26.0%) and taxes on total income (an increase of Rb 424.0 bn, or 41.0%). At the same time, income tax receipts decreased by Rb 237.8bn, or by 4.0%. The amounts of revenues from other important types of taxes increased both in nominal terms and ta-

1. Rosstat’s GDP data for 2023 and 2024 do not include information on the attached regions.

king into account the CPI. Non-tax revenues of the regions increased by 39.4%. Tax-generated and non-tax revenues of the regions as a share of GRP grew by 0.1 p. p., with the growth of the personal income tax amounting to 0.4 p. p. and the decrease in profit tax — 0.5 p. p. Gratuitous receipts from budgets of other levels decreased (–6.9% in nominal terms, –14.1% considering the CPI and — 0.4 p. p. of EGB).

The dynamics of regional revenues in 2024 in relation to 2023 was uneven. Revenue growth is observed in 74 subjects of the Russian Federation. The maximum growth of consolidated budget revenues was shown by the following regions: Kursk Oblast (+42.8% due to inter-budget transfers), Magadan Oblast (+29.6% due to the growth of revenues from corporate profit tax, mineral extraction tax and inter-budget subsidies), Orenburg Oblast (+24.7% due to inter-budget transfers), Nenets Autonomous Okrug (+24.7%, mainly due to corporate profit tax, as well as due to revenues in the form of a share of profitable products of the state in the implementation of the production sharing agreement on the project “Kharyaginskoye field”). At the same time, 15 subjects of the Russian Federation experienced a decrease in revenues: Donetsk People’s Republic — by 14.4%, Zaporizhzhya Oblast — by 14.3%, Lugansk People’s Republic — by 14.1%, Kemerovo Oblast-Kuzbass — by 11.4%, Sevastopol — by 8.6%. The negative dynamics of revenues in the attached regions and the city of Sevastopol is due to the reduction in the volume of financial aid, primarily subsidies. Contraction of revenues of the Kemerovo oblast-Kuzbass is explained by the fall in income tax revenues due to the decline in the price of coal and the reduction in demand for this resource due to sanctions. It should be separately noted that, despite the decline in total revenues, tax-generated and non-tax revenues of the attached regions in 2024 increased by 77.7% compared to 2023, and the share of tax-generated and non-tax revenues in the structure of the consolidated budgets revenues of attached regions went up from 16.8% to 34.4%.

Thus, the dynamic of regional budget revenues in 2024 is generally positive, but in some regions, there is a drop in revenues. The main driver of revenue growth is traditionally PIT, which is supported by inflation and indexation of labor remuneration of public sector employees in accordance with federal initiatives.

Expenditures of consolidated budgets of RF subjects

The dynamic of the main indicators of the volume and structure of expenditures of the consolidated budgets of RF subjects for 2024 is given in *Table 11*.

Expenditures of the consolidated budgets of the RF Subjects in 2024 amounted to Rb 24.9 trillion. Expenditure grew against the 2023 level in nominal terms by 10.6%, which exceeds the growth rate of revenues by 0.3 p. p. Expenditures expressed as a share of GDP decreased from 12.8% to 12.5%. Excluding data on the annexed regions, the growth of expenditures amounted to 11.6% in nominal terms and 2.9% CPI adjusted. Expenditures of the annexed regions decreased by Rb 147.1 bn (by 21.6%), which was due to the reduction in their revenues.

Table 11

**Expenditures of the consolidated budgets of RF subjects
in 2023–2024**

	In nominal terms, Rb bn		In % of GDP		Change			Structure of expenditures, % to total
					Nominal, %	CPI adjusted, %	In shares of GDP, p. p.	
	2024	2023	2024	2023	2024/2023	2024/2023	2024/2023	2024
Expenditures, total	24 913.6	22 521.1	12.5	12.8	10.6	2.0	−0.4	100.0
<i>Fore reference: without attached regions</i>	24 378.8	21 839.2			11.6	2.9		
Nationwide issues	1564.7	1354.2	0.8	0.8	15.5	6.5	0.0	6.3
National security and law enforcement activity	416.2	322.8	0.2	0.2	29.0	18.9	0.0	1.7
National economy	5428.1	5121.3	2.7	2.9	6.0	−2.3	−0.2	21.8
Including:								
<i>Agriculture and fisheries</i>	309.0	338.1	0.2	0.2	−8.6	−15.7	0.0	1.2
<i>Transportation</i>	1399.2	1331.7	0.7	0.8	5.1	−3.1	−0.1	5.6
<i>Motor road system (road funds)</i>	2184.3	2230.2	1.1	1.3	−2.1	−9.7	−0.2	8.8
<i>other national economy issues</i>	1535.6	1221.4	0.8	0.7	25.7	15.9	0.1	6.2
Housing and community amenities	3132.4	2680.8	1.6	1.5	16.8	7.7	0.0	12.6
Environmental protection	121.1	156.8	0.1	0.1	−22.8	−28.8	0.0	0.5
Education	5763.6	5164.5	2.9	2.9	11.6	2.9	0.0	23.1
Including:								
<i>Preschool education</i>	1351.9	1243.2	0.7	0.7	8.7	0.3	0.0	5.4
<i>General education</i>	3095.8	2758.7	1.5	1.6	12.2	3.5	0.0	12.4
<i>Additional education for children</i>	377.0	327.6	0.2	0.2	15.1	6.1	0.0	1.5
<i>Secondary vocational education</i>	397.2	350.5	0.2	0.2	13.3	4.5	0.0	1.6
<i>Other issues in education</i>	541.6	484.5	0.3	0.3	11.8	3.1	0.0	2.2
Culture, cinematography	915.9	728.2	0.5	0.4	25.8	16.0	0.0	3.7
Healthcare	2241.7	1965.3	1.1	1.1	14.1	5.2	0.0	9.0
Social policies	4518.6	4237.1	2.3	2.4	6.6	−1.7	−0.1	18.1
Physical culture and sports	586.3	544.2	0.3	0.3	7.7	−0.7	0.0	2.4
Mass media	73.3	68.6	0.0	0.0	6.7	−1.6	0.0	0.3
Government and municipal debt servicing	85.9	73.3	0.0	0.0	17.2	8.0	0.0	0.3

Sources: Federal Treasury, own calculations.

In nominal terms, there was an increase in expenditures in all areas except agriculture (–8.6%), road maintenance (–2.1%) and environmental protection (–22.8%). Expenditures in the areas of national security and law enforcement (+29.0%), national economy minus expenditures on agriculture, road maintenance and transportation (+25.7%), culture and cinematography (+25.8%), state and municipal debt servicing (+17.2%), housing and public utilities (+16.8%), general state issues (+15.5%), additional education of children (+15.1%), health care (+14.1%) grew to the greatest extent. The dynamics of expenditures taking into account the CPI was mixed: in addition to the above-mentioned spheres, there was a decrease in expenditures on the national economy as a whole (–2.3%), transportation (–3.1%), social policy (–1.7%), physical culture and sports (–0.7%), and mass media (–1.6%).

The structure of expenditures did not change significantly in comparison with the previous period. The largest structural shifts are associated with a decrease in the share of expenditures on the national economy as a whole (from 22.7% to 21.8%), road maintenance (from 9.9% to 8.8%), social policy (from 18.8% to 18.1%), as well as an increase in the share of expenditures on housing and public utilities (from 11.9% to 12.6%). The structure of expenditures of the annexed regions approached the average Russian parameters, which indicates the deepening integration of the annexed subjects into the general budgetary system of the Russian Federation.

The analysis of budget expenditures dynamic in the regional context shows that in 2024 the growth of consolidated budget expenditures was observed in 73 regions, while in 16 subjects of the Federation their reduction was observed. The Kursk Oblast (+30.1%), the Orenburg Oblast (+29.8%), the Vologda Oblast (+24.3%), the Chelyabinsk Oblast (+22.9%) and the Murmansk Oblast (+20.6%) demonstrated the greatest growth in the volume of expenditures. The largest decrease in expenditures happened in the Donetsk People's Republic (–27.0%), the Lugansk People's Republic (–20.3%), the Zaporizhzhya Oblast (–13.0%), the city of Sevastopol (–12.8%) and the Jewish Autonomous Oblast (–12.1%). Thus, the dynamics of regional budget expenditures in 2024 generally followed the dynamics of revenues.

Financial assistance to regions

At the end of 2024, the volume of fiscal transfers to the regions as compared with 2023 decreased both in nominal terms (–6.9%) and in real terms (–14.1%) (*Table 12*). Both in nominal and real terms, grants for fiscal capacity equalization (+25.9% and +16.1%, respectively) and subsidies (+11.3% and +2.6%, respectively) increased. The growth in equalization grants was due to the inclusion of the incorporated regions in the equalization system, which also partially explains the reduction in grants for balance (–64.2% in nominal and –67.0% in real terms). However, the volume of all subsidies decreased significantly (–13.5% in nominal and –20.3% in real terms). The share of non-targeted financial aid (grants) declined by 2.8 p. p. as compared with 2023 and amounted to 35.7%. The volume of subventions increased in nominal

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terms by 7.8% but shrank in real terms (−0.6%). The largest reduction is characteristic of other inter-budget transfers (−42.7% in nominal terms and −47.2% in real terms).

Table 12

Fiscal transfers to the consolidated budgets of the subjects of the Russian Federation

	2023		2024		Change in 2024 on 2023	
	Rb bn	% to total	Rb bn	% to total	nominal, %	Real, CPI adjusted, %
Transfers to regions, total	4026.7	100.0	3750.7	100.0	−6.9	−14.1
Grants	1549.5	38.5	1339.8	35.7	−13.5	−20.3
<i>Including:</i>						
Equalization transfers	822.9	20.4	1035.8	27.6	25.9	16.1
To support measures designed to ensure fiscal balance	201.0	5.0	71.9	1.9	−64.2	−67.0
Subsidies	1575.8	39.1	1753.3	46.7	11.3	2.6
Subventions	279.2	6.9	301.0	8.0	7.8	−0.6
Other intergovernmental fiscal transfers	622.3	15.5	356.6	9.5	−42.7	−47.2

Sources: Federal Treasury, Rosstat, own calculations.

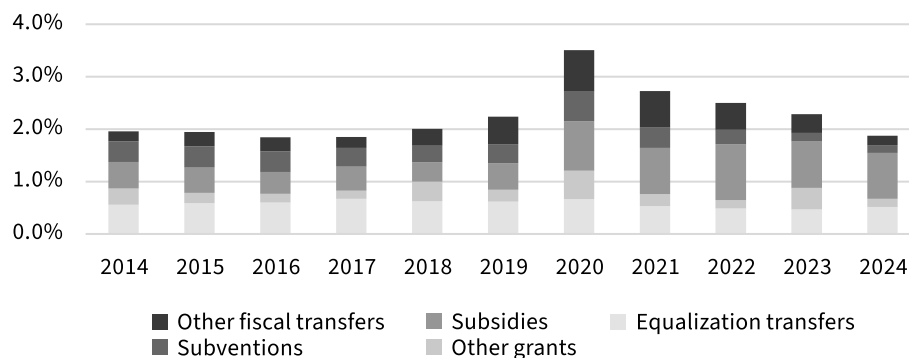


Fig. 9. Fiscal transfers to the regions, % of GDP

Sources: Federal Treasury, Rosstat, own calculations.

As a share of GDP, the total volume of transfers provided to the regions in 2024 decreased compared to 2023 from 2.28% to 1.87% and turned out to be minimal over the period 2018–2024¹ (Fig. 9). At the same time, the volumes of certain types of fiscal transfers changed significantly over the period 2014–2024. Thus, according

1. However, the base effect should be taken into account because real GDP declined in 2015, 2020, and 2022, giving overestimates of transfers as a share of GDP.

to the results of 2024, the real level of other subsidies (0.15% of GDP), subventions (0.15% of GDP) and other fiscal transfers (0.18% of GDP) hit the minimum. The volume of subsidies, despite the reduction, remained significant (0.88% of GDP), the volume of equalizing grants, although increased compared to 2023, in real terms remained low (0.52% of GDP).

Interregional differentiation of average per capita tax revenues, assessed through the variation coefficient, at the end of 2024 has significantly decreased compared to 2023 (*Table 13*). The differentiation of average per capita tax and non-tax revenues has also decreased. Equalization of fiscal capacity in 2024 was slightly more effective than in 2023: if in 2023, after equalization, the differentiation of tax-generated and non-tax revenues decreased by 7.9%, in 2024 — by 9.6%. Provision of other types of transfers also had an equalizing effect, however, excluding the federal territory “Sirius” after the provision of other fiscal transfers, the interregional differentiation slightly increased.

Table 13

**The variation coefficient of consolidated regional budget revenues
(per capita, taking into account the index of budget expenditures)**

Year	Tax-generated revenues	Tax-generated and non-tax revenues	Tax and non-tax revenues, fiscal equalization transfers	Tax and non-tax revenues, grants	Tax and non-tax revenues, subsidies	Tax and non-tax revenues, grants, subsidies, other intergovernmental transfers
2016	0.549	0.568	0.442	0.423	0.391	0.391
2017	0.548	0.572	0.437	0.422	0.394	0.401
2018	0.572	0.590	0.458	0.429	0.398	0.405
2019	0.593	0.620	0.489	0.459	0.415	0.405
2020	0.552	0.570	0.437	0.391	0.322	0.318
2021	0.549	0.562	0.448	0.415	0.339	0.325
2022	1.470	1.384	1.253	1.214	1.039	0.984
2023	1.930	1.909	1.758	1.723	1.526	1.476
2024	1.283	1.576	1.425	1.382	1.218	1.200
2022*	0.591	0.614	0.505	0.479	0.382	0.373
2023*	0.537	0.553	0.446	0.429	0.345	0.343
2024*	0.522	0.548	0.432	0.409	0.339	0.345

* Minus federal territory “Sirius”.

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

Deficit and debt at the regional level

At the end of 2024, the consolidated regional budgets were executed with a deficit of Rb297.5 bn, which is slightly more than in 2023 (a deficit of Rb200.1 bn). At the same time, the number of regions with budget surplus increased from 35

to 41 (*Table 14*). The aggregate deficit amounted to 1.4% of tax-generated and non-tax revenues of consolidated regional budgets against 1.1% in 2023. Ten regions had a consolidated budget deficit exceeding 10% of tax and non-tax revenues (there were 15 such regions in 2023).

Table 14

**Execution (deficit/surplus) of the consolidated budgets
of the Russian Federation**

Year	Number of RF subjects that have executed the budget	
	With deficit	With surplus
2016	56	29
2017	47	38
2018	15	70
2019	35	50
2020	57	28
2021	19	66
2022	50	36
2023	55	35
2024	49	41

Sources: Federal Treasury, own calculations.

As of January 1, 2025, the amount of public debt of the subjects of the Russian Federation amounted to Rb3,147.8 bn, having decreased by Rb44.1 bn over the year. The ratio of debt to the volume of tax and non-tax revenues of the budgets of the subjects of the Russian Federation also decreased over the year: from 20.5% to 17.8%. The debt burden on the budgets of individual regions also changed: the ratio of debt to tax and non-tax revenues (excluding the annexed regions) decreased in 65 regions and increased in 20. In 4 regions (excluding the annexed regions) the growth of the debt burden exceeded 10 p.p. The debt burden exceeded 10 p.p. The high level of the debt burden (over 50%) is the result of a high level of debt (over 50%). A high level of debt burden (over 50%) was observed in 21 regions (24 regions in 2023).

As of January 1, 2025, although in nominal terms the volume of debt was quite significant, in real terms it came close to the minimum level of 2019 for the last decade (*Fig. 10*). In 2024, the debt structure changed somewhat: the share of budget loans increased by 1.0 p.p. and amounted to 78.4% (the maximum value for the period 2008–2024), while in nominal terms budget loans decreased by Rb 2 bn, or by 0.1%. The share of credits of credit organizations grew by 3.3 p.p. and amounted to 7.2%, with the volume of credits of credit organizations growing for the first time since 2015, with the nominal growth amounting to Rb101 bn. The debt in the form of se-

curities of the RF subjects decreased by Rb 152 bn (–28.3%). The volume of state guarantees grew by Rb 10 bn (+19.0%).

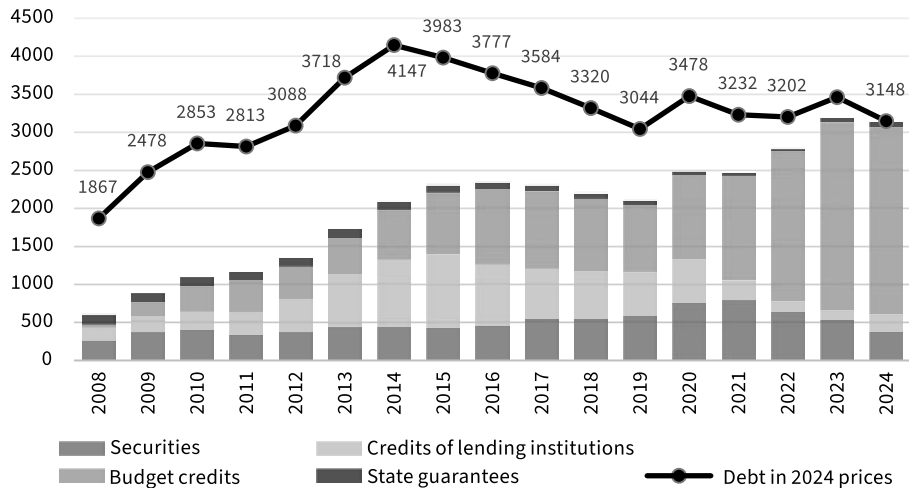


Fig. 10. Nominal volume (Rb bn) and structure (%) of public debt of RF subjects in 2008–2024

Sources: Ministry of Finance of Russia, Rosstat, own calculations.

Thus, although at the end of 2024 the consolidated regional budgets were executed with a deficit, the volume of regional public debt decreased, while tax and non-tax revenues rose, which indicates the strengthening of fiscal sustainability of the regions. At the same time, the growth of loans of credit organizations and reduction of federal fiscal transfers are the factors that may negatively affect the regional fiscal sustainability in 2025.

Section 2

Financial markets and financial institutions

2.1. Global and Russian financial markets¹

2.1.1. Trends in global financial market

Between 2023 and 2024, global financial markets recovered from the 2022 downturn amid expectations of declining central bank interest rates, slowing inflation, and market actors' confidence that major economies escaped recession. Completion of the US presidential election, removing uncertainties in expectations of the country's future economic course, had an important stabilizing effect on financial markets in 2024. After the FRS top discount rate rose from 0.25% in March 2021 to 5.0% in March 2023, causing a shock in the markets of almost all investment assets in the USA, it fell to 4.5% in December 2024. The ECB refinancing rate, after rising from 0% to 4.5% from June 2022 to October 2023, has fallen to 3.15% in December 2024 and 2.65% in March 2025. In 2024, China adopted a series of measures to ease monetary policy and support financial market, its economy maintained steady growth at 5%.

According to the World Federation of Exchanges, global capitalization rose from \$111.9 trillion in 2023 to \$122.5 trillion in 2024. After falling by 16.1% in 2022, capitalization rose by 10.3% in 2023 and 9.5% in 2024. Meanwhile, the share of capitalization of US companies in the world rose from 39.7% in 2022 to 50.8% in 2024.

According to the Securities Industry and Financial Markets Association (SIFMA), the worldwide bond issue, was \$132.8 trillion in 2022, \$140.7 trillion in 2023 and \$142.1 trillion in 2024. It grew by 0.7% in 2022, by 5.9% in 2023 and by 1.0% in 2024. The US share in the above market segment was stable at 39% in 2022–2024.

The end of 2024 and Q1 2025 manifested a number of alarming signals for stability in the US financial market. According to statistics from the Federal Reserve Bank of St. Louis, in September 2024, the yield curve of US public bonds exited

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the inversion state, i.e. the yield to maturity of 10-year bonds once again exceeded the 2-year bond yields.¹ For the four most recent US recessions that started in July 1990, April 1991, December 2007, and March 2020, the indicated signal preceded the recession by an average of 6 months from its onset.

CAPE indicator of Robert Shiller, winner of the Nobel Prize in economics, evidencing the ratio of capitalization to 10-year average earnings of US companies, reached an all-time high of 38.2 in February 2025, yielding only to its peak of 44.2 in December 1999 on the eve of the dot-com stock crash. According to Robert Shiller, the Excess CAPE indicator is more accurate, showing the excess return on equities vs. average annualized 10-year government bond yields, and in February 2025, by contrast, reached a historic low of 1.78% with its average from January 1940 through February 2025 of 4.62%. As a rule, a low value of this indicator predicts a low yield premium for equities over the yield on 10-year government bonds in the coming decade.²

Finally, the average dividend yield of S&P500 index stocks reached an all-time low of 1.32% as of March 20, 2025, with its median value from 1957 through March 2025 of 2.86%. According to hypothesis of Robert Shiller and John Campbell,³ predicting the stock crisis in 2000, this signal in combination with a high CAPE may suggest that stock indices are about to fall.

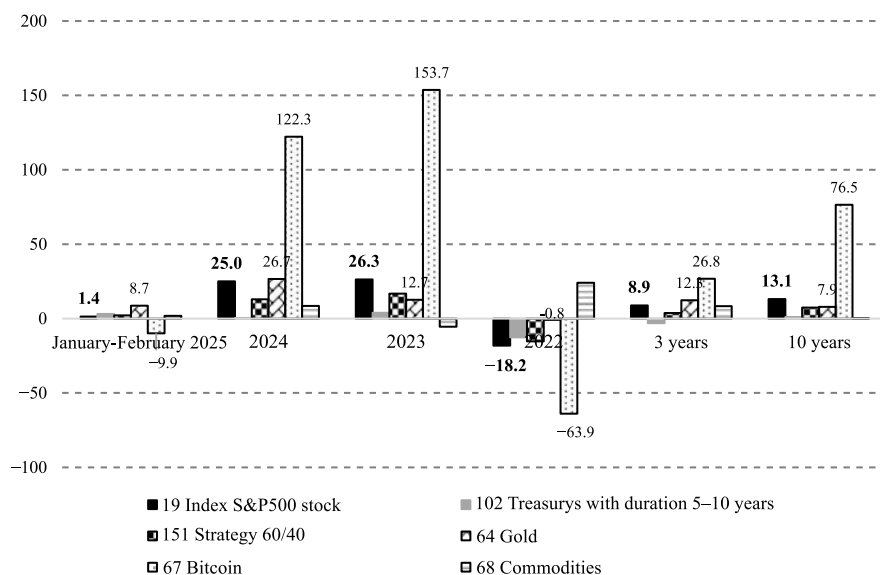
Analysis of return-risk features of 209 randomly selected popular investment strategies in the global financial market according to Morningstar information resource allows us to identify the following trends in portfolio investments in global markets on short-term and long-term time horizons.

At time horizons of 3 and 10 years, investments in US equities remained among the most attractive investments, second only to bitcoin and gold with returns of 26.8% and 12.3% at the 3-year horizon, and only to bitcoin with a return of 76.5% at the 10-year horizon (*Fig. 1*). During financial market crash in 2022, neither gold nor bitcoin played the role of protective assets. However, gold investment attractiveness has grown significantly, with gold exchange-traded fund investments outperforming equities on both 3-year time horizon, in 2024 and in January-February 2025. At time horizons of 3 and 10 years, bitcoin was the highest-returning asset considered, but its high volatility limits its accessibility to large crowds of private investors and conservative institutional investors. Total return on investments in US government bonds with a duration of 5 to 10 years over 2022–2024 horizon remained negative at –3.0% p.a., which also limited the investment attractiveness of the 60% stocks/40% bonds strategy. Moreover, probable reduction of the FRS rates in 2025–2026 may significantly raise the investment attractiveness of investments in bonds, and, first of all, in long-term bonds.

1. URL: <https://fred.stlouisfed.org/series/T10Y2Y>.

2. URL: <https://shillerdata.com/>

3. *Campbell John Y. & Shiller Robert J. (2001). Valuation Ratios and the Long-run Stock Market Outlook: An Update, Cowles Foundation Discussion Papers 1295, Cowles Foundation for Research in Economics, Yale University. RePEc:cwl:cwldpp:1295*



Note. A more complete description of investment strategies and their sequential numbers can be found in Tables A1–A4 in the Annex to this section.

Fig. 1. Geometric mean total return on investment assets in the US financial market over different time horizons from 2015 to February 2025, %

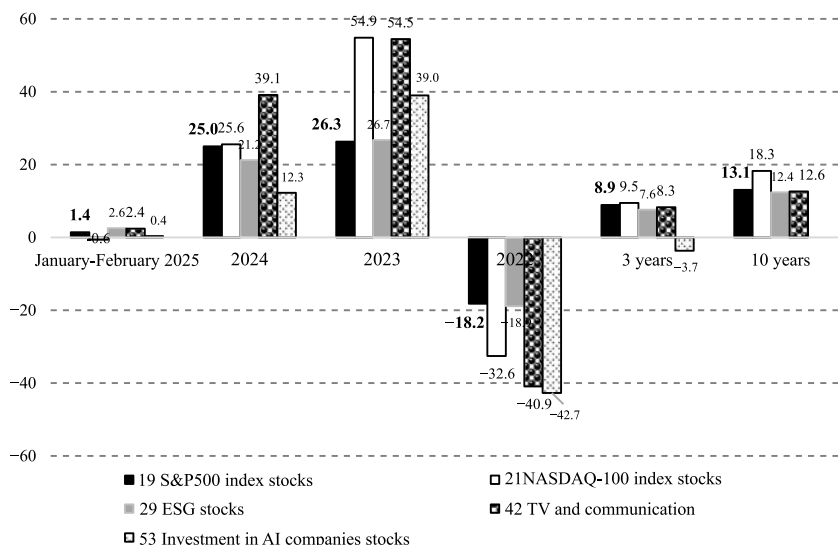
Source: own estimates based on statistics of the Morningstar information resource: URL: <https://www.morningstar.com/>

At 3- and 10-year horizons, technology stocks in the NASDAQ-100 index with annualized returns of 9.5 and 18.3% outperformed the S&P500 index portfolio with returns of 8.9 and 13.1%, respectively (*Fig. 2*). However, during the 2022 crisis, technology stocks with a –32.6% annualized return fell more than the S&P500 Index with a –18.2% return. In January–February 2025, technology stocks rose more slowly than the S&P500 index and were more exposed to downside risk in case the US economy starts to slow down. The portfolio of ESG stocks did not show higher returns compared to S&P index in 2022–2024 and in 2015–2024, but its drawdown in 2022 was lower. ESG stocks have returned 2% investing in a portfolio of AI stocks over a 3-year horizon, ESG stocks have returned negative 3.7%, underperforming the S&P500 index in January–February 2025.

Majority of the most popular thematic equity investment strategies in the sample at 3- and 10-year horizons did not outperform the S&P500 index in terms of returns, and with the stock price declines that occurred in 2022 and looming in 2025, exhibited deeper drawdowns than the broad equity index (*Fig. 3*). An extremely risky strategy involving a leveraged play on the upside of the NASDAQ-100 Index shares of ProShares UltraPro QQQ ETF (TQQQ) was an exception, with an average

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Note. A more complete description of investment strategies and their sequential numbers are provided in Tables A1–A4 in the Annex to this section.

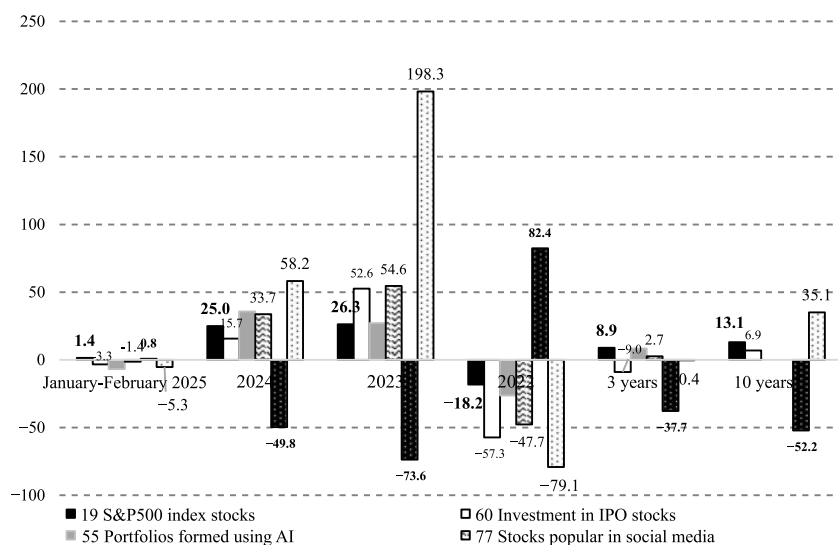
Fig. 2. Geometric mean total return of equity portfolios at different time horizons over the period from 2015 to February 2025, %

Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

return of 35.1% over 2015–2024 compared to S&P500 Index return of 13.1%. This strategy of the fund with \$21.6 bn in assets has been successful in the US equity market gains observed in the previous 10-year period, but it has a high risk of a sharp drop in returns in the event of a market drawdown, which may intensify in 2025.

Portfolio of shares placed in the process of IPO in the exchange-traded fund Renaissance IPO ETF (ticker—IPO) showed low efficiency for investors. Its return over 2022–2024 was negative 9.0%, and over 10 years it was only 6.9% per annum, i.e. almost twice lower than the similar return of the S&P500 portfolio. Although the VanEck Social Sentiment ETF (BUZZ) exchange-traded fund's portfolio of stocks popular on social media, including meme shares, with returns of 54.6% in 2023 and 33.7% in 2024 significantly outperformed the S&P500 index portfolio in those years, and its 2.7% return in 2022 was below S&P500 portfolio's 8.9% return over 3 years due to high drawdowns.

Over 2015–2024 horizon, the US equity market has significantly outperformed emerging and other developed markets in terms of returns (Fig. 4). Over a 10-year time horizon, returns for developed market equities, excluding the US, were 5.8% and broad emerging market equities 4.7%, compared to S&P500 portfolio returns



Note. A more complete description of investment strategies and their sequential numbers are provided in Tables A1–A4 in the Annex to this section.

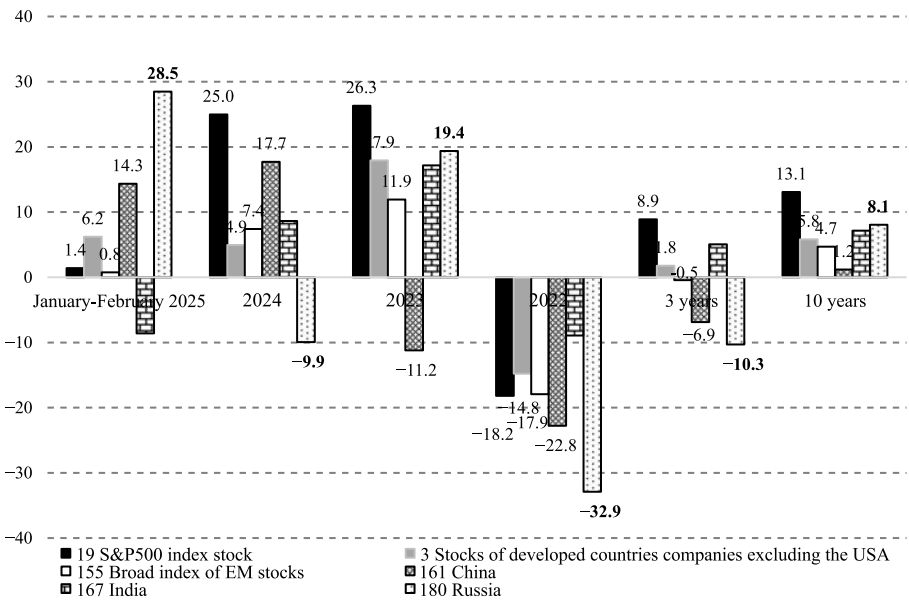
Fig.3. Geometric mean total return of equity portfolios at different time horizons over the period from 2015 to February 2025, %

Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

of 13.1%. With a strong dollar, heightened financial market volatility, high geopolitical risks and outperformance of technology companies' net income growth in the US, American equities have been in high demand from global investors. The advantages of US equities intensified in 2023–2024.

The Chinese equity market experienced a deep recession during these 10 years under review. The return of the Chinese equity portfolio during 2015–2024 was only 1.2% p.a., which was lower than returns of not only US equity portfolios but also other developed markets and emerging market portfolios. However, this trend began to reverse in 2024 with the Chinese equity portfolio's return of 17.7% compared to other portfolios in the sample, second only to returns of the S&P500 portfolio. In January-February 2025, with a return of 14.3%, China's stock portfolio was much higher than S&P500 index with its return of 1.4%. All this may indicate the beginning of a new trend from 2025, when investments in the shares of developing countries and other developed markets will outperform the US equity market, currently at the beginning of the recession in terms of returns.¹

1. According to Wall Street Journal experts, in January-February 2025, the US market experienced inflows into ETFs investing in European equities for the first time in a long period, and on the con-



Note. A more complete description of investment strategies and their sequential numbers are provided in Tables A1–A4 in the Annex to this section.

Fig. 4. Geometric mean total returns of certain equity portfolios in developed and emerging markets over different time horizons for the period from 2015 through February 2025, %

Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

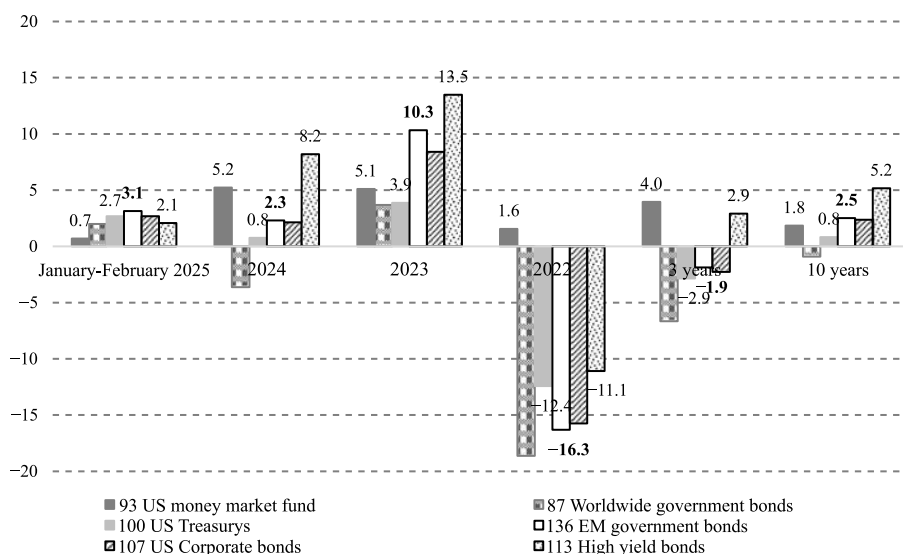
Returns on Russian equities measured by the RTS Total Return (RTS-TR) index were negative 10.2% p.a. over the 2022–2024 horizon, but the 10-year geometric average return on the RTS-TR index of 8.1% p.a. outperformed similar indicators in developed and emerging markets, including China and India. In 2024, returns of the RTS-TR index were –9.9%, but in January-February 2025, amid expectations of a step-by-step settlement of a conflict between Russia and Ukraine and due to ruble exchange rate appreciation, returns of the index jumped to 28.5%, which almost doubled high returns of the Chinese companies’ equity portfolio compared to other benchmarks.

trary, inflows into ETFs with portfolios of US equities slowed. (Tucker-Smith O. (2025). Investors Who Were All In on U. S. Stocks Are Starting to Look Elsewhere American exceptionalism was this year’s big trade. Now some are hedging their bets// The Wall Street Journal online, March 22. URL: https://www.wsj.com/finance/stocks/investors-who-were-all-in-on-u-s-stocks-are-starting-to-look-elsewhere-ddacd1e8?mod=hp_lead_post1)

After a crisis year for the global bond market in 2022, the total return performance of popular bond portfolios began to move into the positive area (Fig. 5). While over 2022–2024, only the US money market fund and the US high yield bond (HYB) portfolio of US issuers in our sample showed positive returns of 4.0% p.a. and 2.9% p.a., the 10-year results showed a negative geometric mean return of –0.9% for only global government bond portfolios dominated by developed market debt instruments.

In early 2025, expecting interest rate cuts by central banks around the world, most notably the US FRS and ECB in Europe, more traditional fixed-income and long duration instruments began to generate higher market returns. In February–March 2025, the highest yields in the portfolios of emerging market government bonds, US government bonds and US corporate bonds were 3.1%, 2.7% and 2.7%, respectively. Continuing this trend can also be considered as a significant reversal of global bond markets

Over a 10-year time horizon, the yield on emerging market government bonds of 2.5% per annum significantly outperformed the US government bond portfolio yield of 0.8% and the global government bond yield, which was negative at –0.9%. This pattern was repeated in 2023, 2024 and the first two months of 2025. Despite various risks, the attractiveness of this category of bonds among global investors is steadily growing.



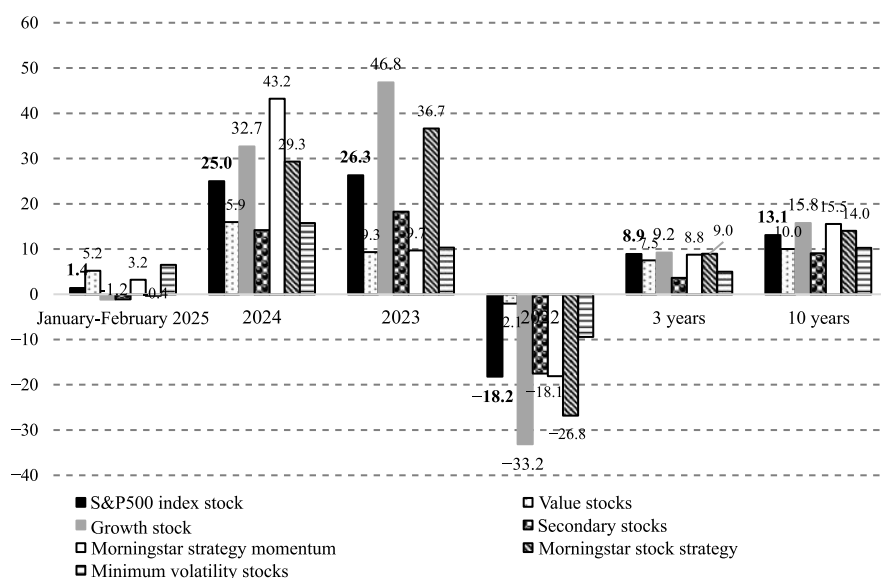
Note. A more complete description of investment strategies and their sequential numbers are provided in Tables A1–A4 in the Annex to this section.

Fig. 5. Geometric mean total return of certain bonds portfolios at different time horizons over the period from 2015 to February 2025, %

Source: own estimates based on statistics of Morningstar information resource: <https://www.morningstar.com/>

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Note. A more complete description of investment strategies and their sequential numbers are provided in Tables A1–A4 in the Annex to this section.

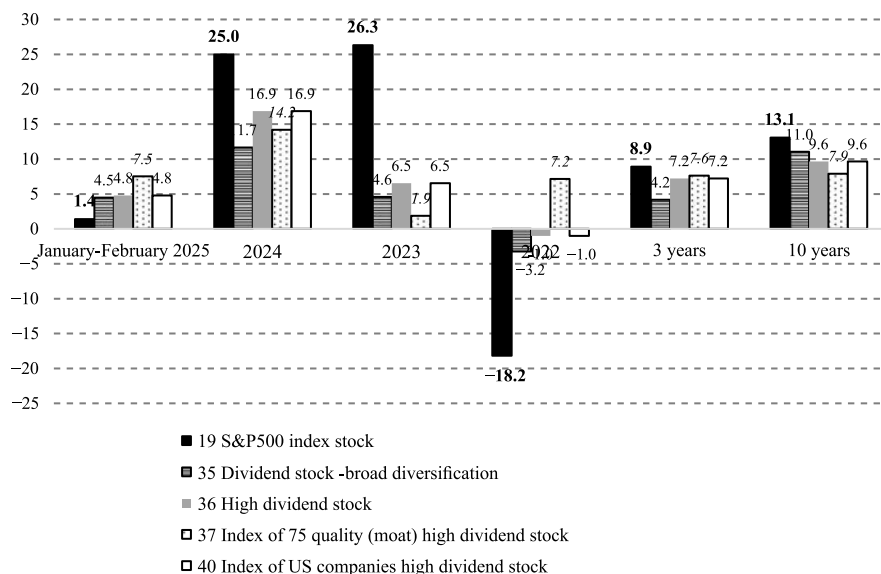
Fig. 6. Geometric mean total returns of selected factor stocks of US companies at different time horizons from 2015 through February 2025, %

Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

A number of factor investing strategies performed well in the US equity market between 2015 and 2024 (Fig. 6). Over 10 years, the growth stock, inertia (momentum) strategy, and quality stock portfolios with returns of 15.8%, 15.5%, and 14.0%, respectively, outperformed the S&P500 Index portfolio with a return of 13.1%. A number of factor strategies such as value and low volatility equity investments have proven to be protective, allowing for significant reductions in equity investment losses during the 2022 crisis.

Fig. 7 shows features of the most popular dividend portfolios in the US market, allowing investors to apply equity hedging strategies during downturns, but inferior to market equity portfolios during rising markets.

Despite sanctions, domestic Russian stock market in 2015–2022 allowed for high foreign exchange returns (Fig. 8). The geometric mean return of RTS-TR index for this period amounted to 8.1%, exceeding the returns of most other emerging market portfolios in the sample and second only to returns of the Argentine equity portfolio and the Morningstar Global Markets broad index. The returns on equity investments in Indian, Chinese and Brazilian companies were 7.2%, 1.2% and 0.1% respectively over the same time period.



Note. A more complete description of investment strategies and their sequential numbers are provided in Tables A1–A4 in the Annex to this section.

Fig. 7. Geometric mean total return of certain dividend portfolios of US equities over different time horizons from 2015 through February 2025, %

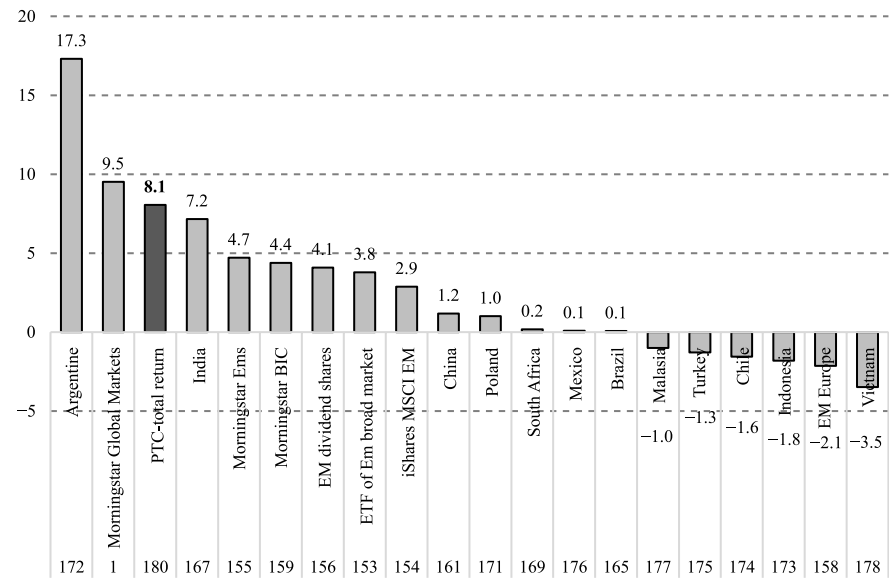
Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

However, returns on investments in shares and depositary receipts of Russian issuers by foreign investors under the conditions of mutual sanctions were significantly worse than returns on investing in the domestic market. Most of the largest exchange-traded funds specializing in shares of Russian companies have closed or are in the process of liquidation. According to Morningstar, over 10 years from 2015 to 2024, parameters for geometric mean return and standard deviation (risk) were: for the iShares MSCI Russia ETF –2.7% and 2361.0%, respectively; for the VanEck Russia ETF –5.3% and 87.3%; and for the VanEck Russia Small-Cap ETF –2.9% and 116.4%. Losses incurred by foreign institutional investors on their equity investments in Russian companies pose a serious risk to the prospects for developing the Russian financial market in terms of foreign investors' confidence. Russian market will have to solve these issues in the medium term to attract foreign investments.

In early 2024, the US Securities and Exchange Commission (SEC) registered the first exchange-traded funds investing in bitcoin on the spot market. One of the world's largest management companies, Fidelity Investments made investments in cryptocurrency available to participants in the corporate 401-k pension

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Note. A more complete description of investment strategies and their sequential numbers are provided in the Annex to this section.

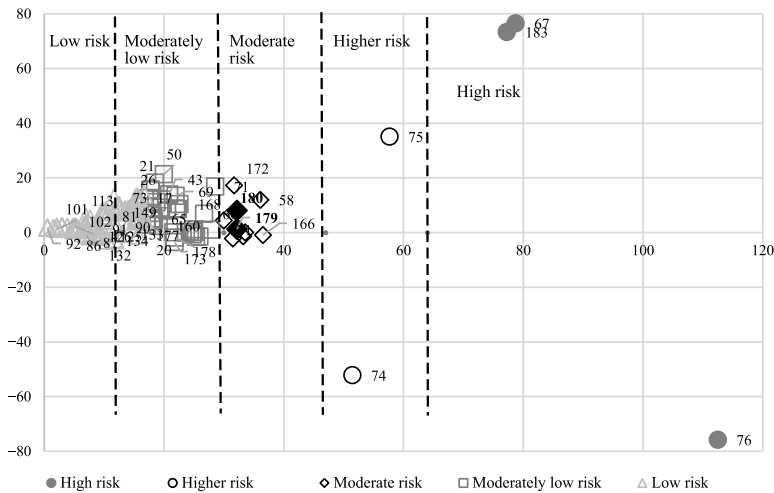
Fig. 8. Geometric mean total return of certain equity portfolios at 10-years time horizon over the period from 2015 to February 2025, %, at developed and emerging markets

Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

plans it administers, provided that such investments are authorized by their employers. Many independent investment advisors started offering cryptocurrency investments to clients to diversify their individual portfolios.

Even over a 10-year time horizon, bitcoin investments have yielded higher returns than any other investment asset. However, over 2015–2024 time horizon, with a geometric mean annualized return of 76.5%, the S&P Bitcoin Index portfolio’s standard deviation (risk) of 78.7% was among the highest of the 141 strategies in our sample (see Table P5 in the annex). In this environment, in our opinion, the prospects for including cryptocurrency in portfolios of different types of investors will largely depend on the ability to reduce risks of these investments, primarily due to requirements of financial regulation.

Over the 2015–2024 time horizon, 140 of the 141 strategies in our sample had annualized standard deviations ranging from 0 to 80% (Fig. 9). If the above risk values are divided into approximately 5 equal parts, we will get 5 groups of portfolios with different risk profiles. High-risk portfolios had standard deviations of 65% and higher, increased risk from 49% to 64%, moderate risk from 30% to 48%, moderate-low risk from 17% to 29%, and low risk from 0% to 16%.



Note. A more complete description of investment strategies and their sequential numbers are provided in the Annex to this section.

Fig. 9. Geometric mean and risks of 141 investment strategies at global markets at 10-years time horizon in 2015–2024, %

Source: own estimates based on statistics of Morningstar information resource: URL: <https://www.morningstar.com/>

In our sample consisting of 141 strategies, the predominant number of exchange-traded fund and index portfolios were low- to moderately-low-risk portfolios. A total of 93 strategies or 66.0% of the sample belonged to low-risk portfolios, 34 strategies or 24.1% to moderate-low risk portfolios, 9 strategies or 6.4% to moderate risk portfolios, only 2 strategies or 1.4% to high-risk portfolios, and 3 strategies or 2.1% to high-risk portfolios.

The lowest-risk strategies were the Vanguard Cash Rsrv Federal MnyMktAdmiral (VMRXX) money market fund with a standard deviation of 0.53%, and the highest-risk strategy was the ProShares Ultra VIX exchange-traded fund (UVXY) with bets on the performance of the VIX volatility index at 112.52%. The above money market fund VMRXX was marked by the highest value of the return/risk indicator from the sample at 3.47. The lowest return/risk ratio was the ProShares UltraPro Short QQQ ETF (SQQQ) with a strategy of betting on the downside in NASDAQ-100 index with a leverage of -1.01. The ProShares Ultra VIX (UVXY) fund mentioned above was only slightly behind with a -0.67 return/risk ratio.

In the sample under study, the RTS-TR index number 180 belonged to the group of portfolios with moderate returns, marked by a return of 8.06% per annum, a standard deviation of 32.20% and a return/risk ratio of 0.25. Comparatively, the Vanguard S&P 500 ETF (VOO) for S&P 500 Index had a return of 13.07%, a standard deviation of 15.36% and a return/risk ratio of 0.85%.

A distinctive feature of global financial asset market is a wide range of strategies for investors with different risk profiles and strategies allowing to hedge risks of losing the value of investments during financial crises. Intense competition between financial products from different vendors is a powerful driver for reducing costs and improving their accessibility for different categories of investors. This made it much easier for investors to survive the 2022 crisis with a sharp drop in the market value of many popular financial assets. For Russian investors, including private investors, despite existing restrictions, the strategy of global portfolio diversification remains relevant in the future. Therefore, one of the priorities of financial regulation for the future remains the restoration of access to the benefits of international asset diversification for these investors.

2.1.2. Internal context for Russian financial market

In 2022–2024, Russian stock market functioned under extremely difficult conditions caused by mutual sanctions, record growth of the key rate of the Bank of Russia in 2023–2024 and outflow of private investors' funds from equities in 2024.

Anti-sanctions policies

No significant changes happened in 2024 regarding unblocking of assets of Russian and foreign investors. Sanctions against Russian banks restricting payments and investments in currencies of unfriendly countries remained in place and even strengthened.

According to the EU Council for 2024, €260 bn worth of assets of the Bank of Russia have been blocked in G-7 countries.¹

Meanwhile, according to our estimates, assets of non-residents, primarily foreign institutional investors, have been blocked in Russia for about Rb 20 trillion, with 70–80% of this amount being invested in equities. If sanctions are mutually relaxed, withdrawal of Rb 15–16 trillion by non-residents with total capitalization of the stock market in 2024 in the amount of Rb 53 trillion poses the risk of a serious fall in the value of these shares. However, if this problem is not solved, it will be difficult to count on return of foreign institutional investors to the Russian equities market.

Our assumptions in the previous survey about a gray market for buying up blocked assets of non-residents² were confirmed in 2024. According to Vladimir Chi-

1. Council of the EU. Imobilised Russian assets: Council decides to set aside extraordinary revenues//Press release, 12 February 2024. URL: <https://www.consilium.europa.eu/en/press/press-releases/2024/02/12/immobilised-russian-assets-council-decides-to-set-aside-extraordinary-revenues/>

2. Russian economy in 2023. Trends and prospects. (Edition 45); The Gaidar Institute. — Moscow: The Gaidar Institute Publishing house, 2024.

styukhin, First Vice President of the Bank of Russia, there has been a significant spread of practices when some friendly non-residents bought Russian securities from unfriendly investors bypassing legal requirements for subsequent resale on the Russian stock market.¹ Following the regulator's intervention, this practice was limited only at the end of 2024.

Total value of private investors' assets blocked in foreign depositories is estimated at Rb5.7 trillion.² Blocking of these funds seriously restricts the demand for financial assets in the domestic market.

To partially solve this problem, the Executive Order of the President of the Russian Federation No. 844 of 08.11.2023 "On additional temporary economic measures related to circulation of foreign securities" provided for voluntary exchange mechanism of blocked assets of Russian and foreign investors, which enables to exchange blocked foreign assets of Russian private investors up to Rb100.000 for foreign investors' funds blocked on "C" type money accounts. The above exchange was performed as part of voluntary auctions organized by the Voronezh broker Investment Chamber, who initiated this procedure. The responsibility for unblocking of received foreign assets in foreign depositories was assigned to buyers of securities.

The Ministry of Finance estimates that implementation of these measures could reduce the value of unblocked assets by Rb100 bn, however, the number of private investors affected by the asset freeze would fall by 2.5mn out of 3.6mn of the total number of investors affected by these sanctions.³ Actual results of the exchange proved to be more modest. According to broker Investment Chamber, foreigners bought only Rb8.1 bn assets of Rb35.3 bn according to the submitted bids, i.e. they managed to sell about 23% of securities declared for redemption.⁴

The problem of outflow of foreign direct investment by global companies deciding to stop doing business in Russia remains a major risk, including for stability of the ruble exchange rate. According to acting legislation⁵ in this case, transactions to sell Russian assets have to be approved by foreign investment commission and should be concluded at a discount of at least 50% of the market value of the companies. Furthermore, the company must pay to the budget a "voluntary" contribution of 5 to 10% of the market value of the assets. According to estima-

1. M. Mordovina, A. Pustyakova. War of sanctions. Central Bank saw "bypass schemes" of friendly investors with C-accounts//RBC online. November 27, 2024. URL: <https://www.rbc.ru/finances/27/11/2024/6745bb2a9a79474a1d36435b>

2. Frank Media. Thousands of Russian investors with frozen assets are not involved in their exchange// Frank Media, 22.06.2024. URL: <https://frankmedia.ru/168331>

3. URL: <https://quote.rbc.ru/news/article/654babc89a7947761d40573f>

4. E. Ruzleva. A quarter "drop in the sea": how the redemption of blocked assets of Russians was held// August 14, 2024. URL: <https://www.forbes.ru/investicii/519000-cetvert-kapli-v-more-kak-prosel-vyкуп-zablokirovannyh-aktivov-rossian>

5. Executive Order of the President of the Russian Federation of 8.09.2022 No. 618 "On special procedure for performance (fulfillment) of certain types of transactions (operations) between some parties" and other legal acts.

tes by The New York Times, in December 2023 losses of Western companies after their decision to leave Russia amounted to more than \$103 bn. At least \$1.25 bn was paid by non-residents to the budget from selling their businesses over the past year. Many companies continue to stay in Russia because they do not want to lose money they have invested in the development of Russian business.¹

In 2024, the SDN list (specially designated people), which is a list of people and organizations with whom US citizens and permanent residents are prohibited from doing business, was significantly expanded to include banks and other stock market participants. As of January 2025, this list included more than 100 Russian banks. In June 2024, the Moscow exchange, National clearing center (NCC) and National settlement depository (NSD) were included in this list. Consequently, starting June 13, the Moscow exchange was forced to stop exchange trading in the dollar and euro. The Bank of Russia introduced a new procedure for determining dollar and euro exchange rates based on data it collects on banks' OTC transactions. In 2024, SDN-list also included 29 registrars and 11 depositories, making it impossible to re-register rights to securities through these structures involving foreign brokers and investors.

On June 24, 2024, the EU imposed sanctions against Financial Messaging System (FMS). The list of banks restricted from using SWIFT, the international financial messaging system, was also expanded. There were over 20 major banks disconnected from the said settlement system as of January 2025.

Unprecedented sanctions of unfriendly countries, adopted in 2022–2024 have not resulted in a crisis of domestic financial system due to effective measures taken by the government, but significant risks and restrictions for domestic market still remain. They resulted in blocking of significant assets and restricted access of Russian issuers, investors and financial organizations to global financial markets. Sanctions have negatively affected both foreign investors' credibility in investing in Russian assets and domestic investors' trust in investing abroad. The recovery of Russian market will require further implementation of a complex long-term program of measures to restore the credibility of large foreign institutional investors.

Terms of monetary policy

Growth of inflation, which started in July 2023, caused the Bank of Russia to increase the key rate from 7.5% in June 2023 to 21.0% in October 2024 (*Fig. 10*). Thereafter, until the end of 2024, the key rate remained at this level, which is a record high since its introduction on September 17, 2013.

Growth of key rate resulted in the outflow of investors' funds from shares, and eventually the yield of the Moscow exchange index in 2024 amounted to –7.0%. According to the Moscow exchange, private investors withdrew Rb 109.8bn from

1. URL: <https://www.forbes.ru/biznes/502683-nyt-ocenila-ubytki-zapadnyh-kompanij-posle-uhoda-iz-rossii-v-103-mlrd>

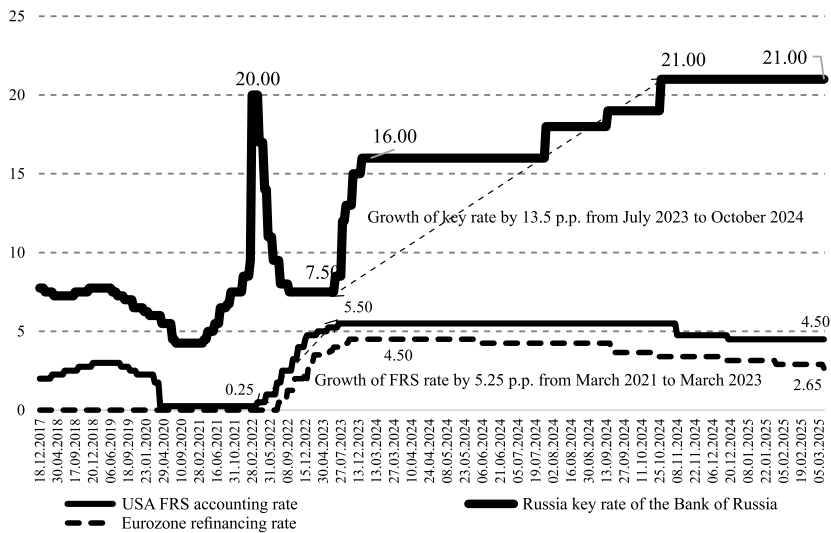


Fig. 10. FRS accounting interest rate, ECB refinancing rate and key rate of the Bank of Russia, % p. a. since December 2017

Source: own estimates according to Cbonds.

the stock market in 2024.¹ In these circumstances, in 2023–2024, domestic equity finance market failed to fulfill one of its key tasks, i. e. to contribute to structural transformation of the Russian economy.

In the bond market, growth of the key rate caused an increase in debt financing costs for companies, the national budget and negative market yields on bonds, especially those with long duration. During rate hikes, investors' funds were redistributed in favor of money market instruments and short-term bonds.

Meanwhile, the prospect of a gradual decline in inflation and, accordingly, in the key rate from H2 2025 may provide favorable opportunities for growth in the stock market due to coping with their undervaluation, while at the same time increasing the market value of bonds. This situation can be compared to 1982 in the US equity market, when long-term FRS rate cuts and accelerated growth in the P/E ratio of public companies triggered a long-term rise in equity and bond markets, as well as increased investment attractiveness of the 60% stock/40% bond strategy widely used by institutional investors.

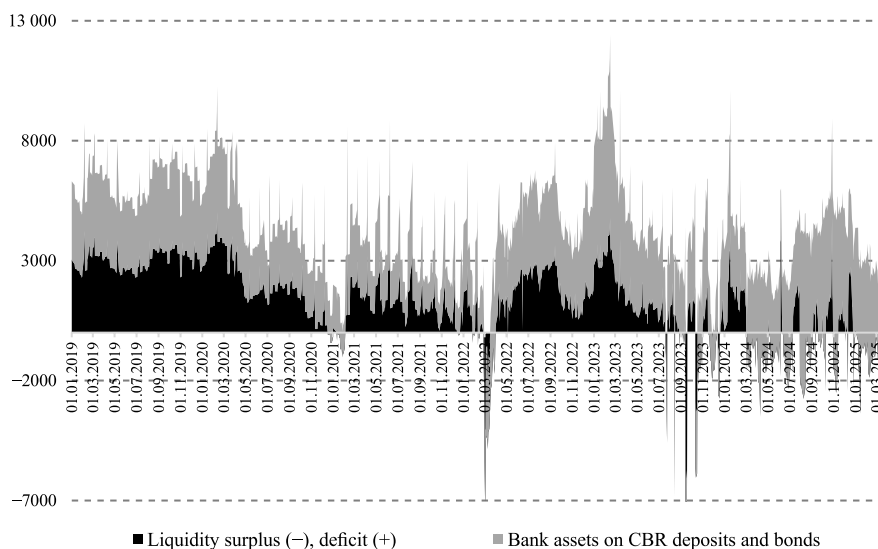
Stability of domestic bond market largely depends on the liquidity needs of the banking system², which can be estimated as the sum of surplus (–) or deficit (+) of banks' liquidity "plus" the cost of funds deposited by banks with the Bank

1. URL: <https://www.moex.com/n76900?nt=106>

2. Since banks are the main investors in public and corporate bond market.

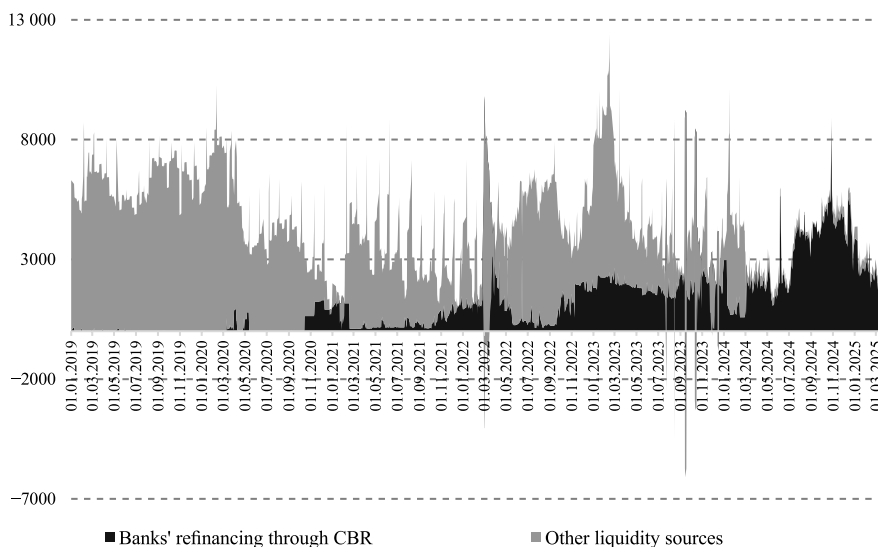
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*Fig. 11. Total bank liquidity, Rb bn
from January 2019 to March 14, 2025, Rb bn*

Source: own estimates according to Bank of Russia: http://www.cbr.ru/hd_base/bliquidity/



*Fig. 12. Sources of banking liquidity
from January 2019 to March 14, 2025, Rb bn*

Sources: own estimates according to Bank of Russia.

of Russia and issued bonds (*Fig. 11*). This figure shows the banks' need for cash to maintain the necessary reserve on correspondent accounts with the Bank of Russia and to finance their current operations.

In 2023–2024, liquidity surplus in the banking system was shrinking compared with 2022, while the volume of funds on deposits with the Bank of Russia tended to grow (*Fig. 11*). The average daily liquidity surplus in the banking system fell from Rb1.2 trillion in 2022 to Rb0.8 trillion in 2023 and in 2024 there was a liquidity surplus of Rb 63 bn. However, the average daily balances of banks on the Bank of Russia's deposits in the above years amounted to Rb .1 trillion, Rb 3.4 trillion, and Rb4.0 trillion, respectively.

On the whole, this indicates higher stability of the banking system.

In terms of sources of financing bank liquidity in 2022–2024, there was an alarming trend towards reduction of own sources of its inflow with the outstripping growth of the banks' refinancing by the Bank of Russia (*Fig. 12*). In 2022, average daily liquidity inflows from banks' operations amounted to Rb2.8 trillion, Rb1.9 trillion in 2023, and Rb0.8 trillion in 2024. However, average daily volumes of funds raised through refinancing reached Rb1.5 trillion, Rb2.3 trillion, and Rb3.1 trillion, respectively, in the same years. This indicates growing dependence of the banking system on the central bank's refinancing, which, other things being equal, can be a source of higher inflation in the economy.

Restoring financial market liquidity

In terms of liquidity, different segments of the financial market recovered differently in 2022–2024 and in the first two months of 2025 (*Table 1*). Recovery was most successful in the equity, non-government bond and money markets, where exchange transactions in 2024 grew by 8.4%, 105.6% and 101.4%, respectively, compared to 2021, including 62.6% for REPO transactions with the central counterparty. The outstripping growth of liquidity in these segments was also observed in January–February 2025 compared to the same period of 2021. In the stock market, non-residents were successfully replaced by private investors. The non-government bond market and the money market traditionally depended less on the trading activity of foreign investors, and banks had sufficient liquidity, including due to refinancing by the Bank of Russia.

Volumes of transactions in the OFZ market due to non-residents' exit in 2024 were 39.2% below the level of 2021. However, in January–February 2025, amid greater activity of banks and private investors, liquidity of this market segment increased by 43.5% vs. the same period in 2021.

In 2022–2024, in terms of liquidity, the futures market failed to reset. In 2024, trading volumes in the futures market were 36.3% lower than in 2021, in the options market by 51.7%, respectively. This is largely due not only to lack of non-residents, but also to reduction in investors' interest in futures contracts on currency and cer-

tain stock instruments. The foreign exchange market in 2024 fell by 21.2% to the level of 2021 mainly due to the above-mentioned cessation of exchange trading in dollars and euros in June 2024 due to sanctions imposed on companies of the Moscow Exchange Group. Market for shares of foreign companies on the St. Petersburg Exchange has stopped functioning; client assets in the exchange's depository were blocked abroad due to sanctions imposed on the SPCEX and its settlement depository in 2023.

Table 1

Trading volumes at the Moscow Exchange (ME) and the St. Petersburg Exchange (SPCEX), trillion rubles

	2021	2022	2023	2024	Mean value for 2015–2024	Change of 2024 vs. 2021, %
1. Secondary trading volume:						
Shares, receipts, units	30.0	17.6	22.9	32.5	17.7	8.4
OFZ	7.2	4.2	6.5	4.4	5.9	–39.2
Non-government bonds	2.9	2.3	4.9	5.9	4.0	105.6
2. REPO operations	420.8	541.9	659.9	847.5	444.9	101.4
Including with central counterparty (CC)	271.0	301.8	364.0	440.7	250.4	62.6
3. Currency**	322.0	267.8	328.0	253.9	314.8	–21.2
4. Futures	151.8	75.6	77.9	96.6	96.4	–36.3
5. Options	6.8	2.3	2.9	3.3	4.9	–51.7
6. SPCEX, foreign shares, billion dollars	388.5	122.2	34.2*	1.6		–99.6

* January–October 2023;

** data for 2015–2023 in this line show volume of the currency market according to the Exchange's previous reporting. Summary data on currency and commodity market are shown in 2024. At that, the average share of commodity market to currency market liquidity in 2015–2023 amounted to only 0.06%

Source: own estimates according to Moscow Exchange and SPCEX.

In 2023 and early 2024, risks of nationalization of stakes in companies violating privatization legislation in previous years became apparent. As of 2024, according to RBC's calculations, over 84 companies in Russia have been ruled on or are in the process of being nationalized by the courts.¹ Legal risks reduce investor trust in the stock market.

1. *Elena Ruzleva*. Creeping nationalization: how to protect private investors // *Forb*%, February 21, 2025. URL: <https://www.forbes.ru/investicii/531108-polzucanacionalizacia-kak-ot-nee-uberec-sa-cast-nym-investoram>

2.1.3. Investor strategies in the Russian market

2024 was a difficult year for Russian stock market. In addition to the effects of sanctions, it faced the issue of the key rate of the Bank of Russia rising to record high. In this environment, investors preferred bank deposits and money market instruments to investments in stocks and long-term bonds. To some extent, the situation in the Russian market in 2024 can be compared to crisis situation in the US market in 2022, when market value of investments in many financial assets dropped at once due to a sharp increase in the FRS rate.

Over 3-year time horizon 2022–2024, the leading strategies in terms of profitability in the Russian market were investment strategies in gold through exchange-traded mutual funds, money market funds and investments in the IFX-Cbonds corporate bond index portfolio (*Fig. 13*). In 2022–2023, geometric average returns of the exchange-traded mutual fund Gold. Exchange-traded VIM Investments MC (strategy 72), money market fund VIM Investments BPIF Liquidity MC (67) and IFX-Cbonds index amounted to 25.0%, 12.4; and 9.8% per annum, respectively compared to –0.6% return of the Moscow Exchange Index — total return (2) and inflation of 9.6%. Return of the broad government bond index RGBITR (32) was only 0.8% over this time period. The above 3 highest-yielding strategies over a 3-year horizon were also the highest-yielding in 2024.

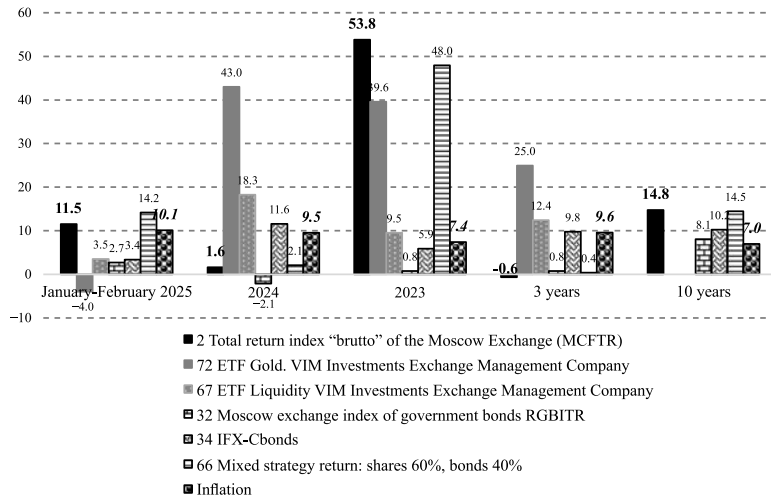
Over 10-year time horizon 2015–2024, gold exchange-traded funds and money market funds have failed to show their benefits due to lack of relevant historical data. The most profitable strategy for the above timeframe was the strategy of investing in the Moscow Exchange Index, with a total return of 14.8%. Returns for the RGBITR Government Bond Index, IFX-Cbonds corporate bond index and the 60% equities/40% bonds blended investment strategy (66) portfolios of 8.1%, 10.2% and 14.5%, respectively, were above the average inflation rate of 7.0%. Strong performance of the 60/40 strategy shown over a 10-year time horizon indicates its high potential, primarily for portfolios of NPFs and mutual funds.

Fig. 14 shows that in the bond market in 2024 amid a high key rate, in addition to money market funds with a yield of 18.3%, investments in floaters—OFZ-PK with variable coupon income (55) showed a high yield of 16.3%. The broad index OFZ portfolio (32) and investments in government bonds with duration over 5 years (54) yielded negative nominal returns of –2.1% and –5.2%. Even investments in high yield corporate bonds (HYCBs) with a nominal yield of 1.6% were significantly below inflation at 9.5%.

On 3-year horizon, only money market funds brought yields above the inflation rate. The OFZ-PK index (55) does not have sufficient historical data yet. The combined yields of the broad OFZ index and the long-term government bond index were also negative. On the contrary, on 10-year time horizon, the above two indices evidencing yields of 8.1% and 8.6% were above inflation of 7.0%. Thus, in 2022–2024, investments in government bonds and HYB did not ensure safety of investors' money, although on the long horizon their yields were generally above inflation.

Russian economy in 2024

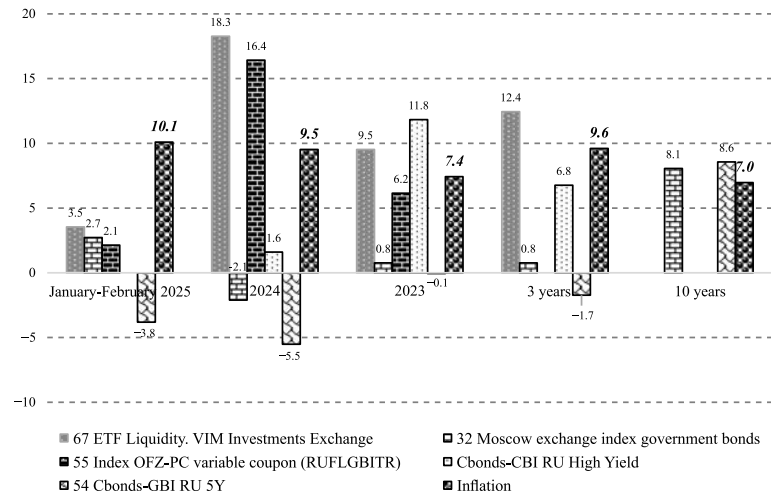
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Note. A more complete description of investment strategies and their sequential numbers is provided in the Annex to this section.

Fig. 13. Mean geometric total nominal yield of various investment assets in the Russian financial market, %

Source: own estimates based on Moscow Exchange statistics and information resources Cbonds and Investfunds.ru. URL: <https://investfunds.ru/>.



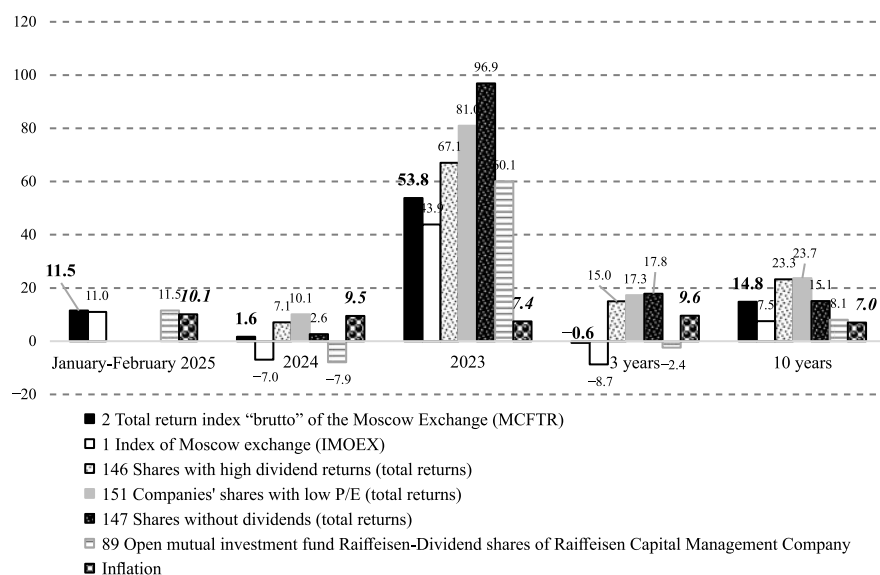
Note. A more complete description of investment strategies and their sequential numbers is provided in the Annex to this section.

Fig. 14. Mean geometric total nominal yields of various bond strategies in the Russian financial market at different time horizons from 2015 to February 2025, %

Source: own estimates based on Moscow Exchange statistics and information resources Cbonds and Investfunds.ru. URL: <https://investfunds.ru/>

At different time horizons in 2015–2024, portfolios of high dividend yielding stocks (146) helped investors hedge against declines in the Moscow exchange indices (1 and 2) and even consistently outperformed the Moscow Exchange index, with full returns in 2024, in 2022–2024, and over a 10-year time horizon (Fig. 15). However, a strategy of investing in stocks of companies with a high E/P multiple (151) was even more effective. Its returns in 2024, at 3-year and 10-year horizons of 10.1%, 17.3% and 23.7% were higher than returns of 7.1%, 15.0% and 23.3% for high dividend yield stock portfolios, respectively. This confirms the Modigliani-Miller¹ scientific hypothesis that in terms of total shareholder return, it is the size of companies' net income that matters, rather than proportions of its distribution for dividends and other purposes.

Portfolio of shares without dividends (147) also showed good results by profitability. Its returns in 2023 and in 2022–2024 exceeded returns of portfolios with high dividend yield and high E/P multiplier. However, returns for this strategy are not sustainable, being lower in 2024 and over 10 years compared to other strategies mentioned above.



Note. A more complete description of investment strategies and their sequential numbers is provided in the Annex to this section.

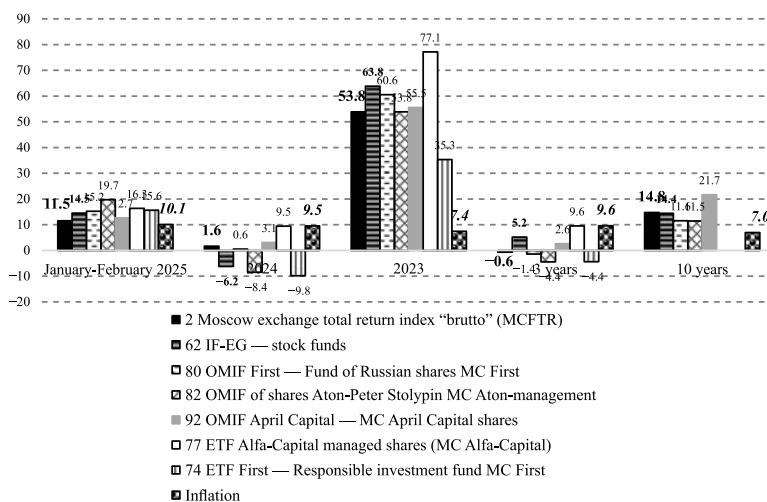
Fig. 15. Mean geometric total nominal yield of different dividend strategies in the Russian stock market at different time horizons, %

Source: own estimates based on Moscow Exchange statistics and information resources Cbonds and Investfunds.ru. URL: <https://investfunds.ru/>

1. Miller M., Modigliani F. (1961). Dividend policy, growth and the valuation of shares. *Journal of Business*, Vol. 34, No. 4, pp. 411–433. <https://doi.org/10.1086/294442>

At 3-year and 10-year horizons, returns on factor investment strategies¹, such as investing in small-cap stocks (138), large-cap companies (142), high-dividend yielding companies (146), growth stocks (139), private-company stocks (149) and broad equity indexes (136) exceeded not only inflation but also returns of the Moscow exchange index (MCFTR). In 2024, all of these factor strategies, excluding portfolios of large-capitalization stocks, showed returns below inflation but above the MCFTR index.

In 2024, almost all 5 actively managed equity mutual funds reviewed, excluding Alfa Capital Managed Equity mutual funds managed by Alfa Capital Management (77), generated returns below inflation. Thus, the composite portfolio of IF-EG equity mutual funds, equity funds (62) received a negative return of 6.2%, while the return of the Moscow exchange index (MCFTR) was 1.6%. However, over a 10-year time horizon, returns of the composite portfolio of equity mutual funds (62) at 14.4% almost matched the returns of the specified Moscow exchange index (2) at 14.8%. Return of one of the first equity funds based on ESG strategy ETF First — Fund Responsible Investments MC First (74) at the horizon of 3 years and in 2024 was negative and inferior to returns of the Moscow exchange index (*Fig. 16*).



Note. A more complete description of investment strategies and their sequential numbers is provided in the Annex to this section.

Fig. 16. Mean geometric total nominal yield of a number of exchange-traded and open-end mutual funds in the Russian financial market at different time horizons for the period from 2015 to February 2025, %

Source: own estimates based on statistics of Moscow exchange, information resources Cbonds and Invest-funds.ru: URL: <https://investfunds.ru/>.

1. Passive investment strategies that involve selection of shares by a particular indicator (share of state ownership, liquidity, profitability for the previous period, etc.) or financial multiplier (dividend yield, P/BV, P/E ratios, etc.) are factor-based.

The yields of two actively managed funds — OMIF April Capital — Shares of MC April Capital (92) and ETF Alfa Capital Managed Shares of MC Alfa Capital (77) were highlighted. The first of the above funds steadily outperformed the Moscow exchange index, total return, over all time horizons from 2015 to February 2024. The second fund having a shorter-term history also outperformed the MCFTR index over all time horizons from 2022 through February 2025. This suggests that there is room in the domestic collective investment market for individual active-managed funds to consistently outperform popular index strategies.

Fig. 16 reviews the returns and risks of 105 strategies having data over a 10-year time horizon from 2015 to 2024. More details on the strategies are provided in the appendix to this section. These strategies are grouped into six categories: broad equity indices, sectoral equity indices, mutual funds, direct equity investments, factor strategies, and bond and mixed investment indices. Large dots highlight the most popular stock market benchmarks: 2 — Moscow exchange index — total return (MCFTR), 32 — Moscow exchange government bond index (RGBITR), 34 — IFX-Cbonds broad corporate bond index and 65 — mixed strategy portfolio: stocks 50%/bonds 50%.

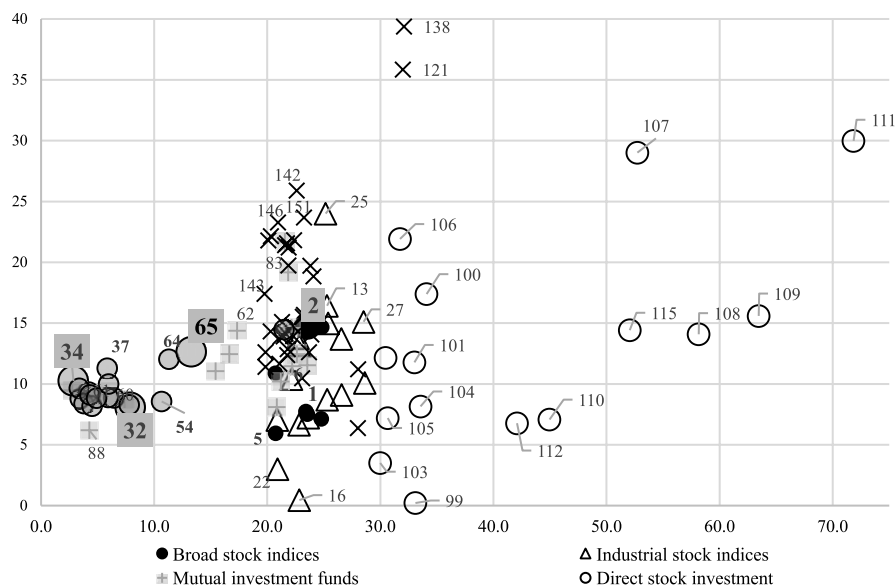
High risks of direct investments in shares of companies (circles on the right side of the chart), which are not always compensated by higher returns, are a typical feature of the given chart at visual perception level. Direct investments in shares are marked by the highest risk indicators ranging from 30.0% for shares of MMC Norilsk Nickel (103) to 63.5% for shares of JSC Belon (109).

Many investments related to equity indices, collective investments and factor strategies still poorly used in practice due to diversification effect allow not only to reduce investors' risks, but also get yields higher than direct investments in particular issues of shares. In terms of risk criterion, all the mentioned strategies ranged from 17.3% for the IF-EG Mutual Funds — Equity Funds Index (62) to 28.6% for the Transportation Index (MOEXTN, 26). In terms of returns, most of the strategies under review did not outperform the Moscow exchange index total return with an average annualized return of 14.8%. In terms of sectoral strategies, the Moscow exchange index significantly outperformed the chemicals and petrochemicals index (MECHTR, 25) with a return of 24.0%. as for mutual funds under consideration, the yields of Aton Equity OMIF — Echelon 2.0 MC Aton Management (83) and April Capital OMIF — Shares MC April Capital (92) were 19.2% and 21.7% above the Moscow exchange index.

Fig. 17 shows 34 factor strategies for exchange rate and total return (marked with crosses) the Moscow exchange index — total return (2) was outperformed by 18 portfolios, or 52.9% from the sample of indicated portfolios. Given moderate risk at the Moscow exchange index and mutual fund portfolios, the geometric mean returns of 18 factor portfolios that outperformed the MCFTR index ranged from 15.1% of non-dividend stock portfolio, total return (147) to 39.4% of small company stock portfolio, total return (138).

Conservative portfolios, including bond indices, mixed investment portfolios, money market mutual funds and bond mutual funds, were marked by risks ran-

ging from 2.7% for IF-MM index — money market funds (61) to % 16.6% of the money market fund of the OMIF Alfa Capital Balance MC Alfa Capital (94). The most profitable of the group of strategies under consideration were the IFX-Cbonds index (34), Cbonds-CBI RU B/ruB- low credit rating corporate bond index (37), mixed strategy portfolio: stocks 40%, bonds 60% (64) and mixed strategy portfolio: stocks 50%, bonds 50% (65).



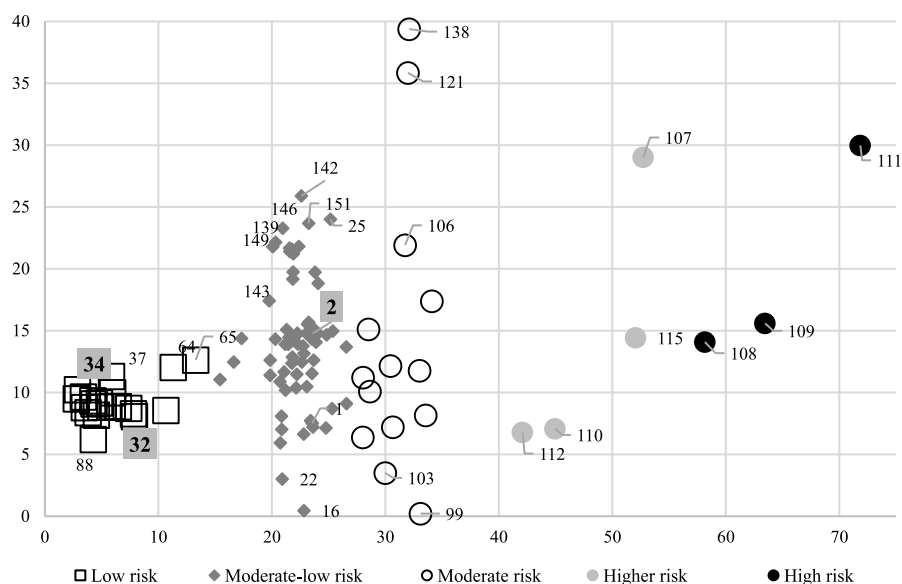
Note. A more detailed description of investment strategies and their sequential numbers is provided in the Annex to this section.

Fig. 17. Average annual nominal yield and risk of ruble-denominated investments in financial instruments of Russian issuers over time horizon 2015–2024, % p.a.

Source: own estimates based on statistics of Moscow exchange, information resources Cbonds, Invest-funds.ru: URL: <https://investfunds.ru/> and information resource of the Laboratory for analysis of institutions and financial markets IAES RANEPA. Constructor CAPM-ru Shares URL: <https://aea.ru/CAPM-RU.html>.

Fig. 18 shows the return and risk map of 105 investment strategies categorized into five risk levels: high, higher, moderate, moderate-low, and low. Over 2015–2024 time horizon, the above strategies, excluding one, had annualized standard deviations ranging from 0 to 70%. Dividing this risk range into five equal parts, the portfolios will be high risk with a standard deviation of 56% and above, higher risk with a standard deviation of 42% to 55%, moderate risk from 28% to 41%, moderate-low risk from 14% to 27%, and low risk from 0% to 13%.

The sample showed a predominant number of portfolios and indices placed in the low or moderately-low risk strategy groups. From the entire sample, 21 stra-



Note. A more complete description of the investment strategies and their sequence numbers is provided in Table A7 of the Annex to this section.

Fig. 18. Mean annual values of nominal yield and risk of ruble-denominated investments in financial instruments of Russian issuers over time horizon 2015–2024, % p.a.

Source: own estimates based on statistics of Moscow exchange, information resources Cbonds, Investfunds.ru: URL: <https://investfunds.ru/> and information resource of the Laboratory for analysis of institutions and financial markets IAES RANEPa. Constructor CAPM–ru Shares URL: <https://aea.ru/CAPM-RU.html>.

ategies or 20.0% of their total number belonged to low-risk portfolios, 63 strategies or 60.0% to moderate-low risk portfolios, 14 strategies or 13.3% to moderate-risk portfolios, only 4 strategies or 3.8% to higher-risk portfolios and 3 strategies or 2.9% to high-risk portfolios.

Strategies with higher and high risk included 7 issues of shares of the third echelon. These strategies can hardly be used by a wide range of unqualified investors. Direct investments in blue chips, certain industrial and factor strategies prevailed in moderate-risk portfolios. In terms of return/risk, the most favorable investments in this group of portfolios over a 10-year time horizon were small company stock portfolio, total return (138), Sberbank privileged shares (106), and transportation index (METNTR) showing 1.23, 0.69, and 0.53, respectively.

The group of strategies with moderately low risk is the largest. It is represented by various equity portfolios: broad market indices and industrial indices of Moscow exchange, open-end mutual funds of shares and factor strategies. This group also included three mixed investment strategies: a mixed strategy portfolio: equities 60%, bonds 40% (66), the Alfa Capital Balance MC Alfa Capital OMIF (94) and the SI First—

Balanced MC First OMIF (71). In terms of return/risk, the most profitable investments in this group over a 10-year time horizon were the following factor portfolios evaluated by total return: large-cap stocks (142), high-dividend yielding stocks (146), and private company stocks (149) with indexes of 1.15, 1.11, and 1.09, respectively.

The group of conservative strategies included mixed investment portfolios, as well as bond indices and mutual funds. In terms of yield/risk, the most profitable investments in this group over a 10-year time horizon were IFX-Cbonds corporate bond index (34), IF-MM—money market mutual funds index (62) and the Cbonds-CBI RU 1–3Y short-term corporate bond index (48) with indexes of 3.57, 3.44 and 2.85, respectively.

2.1.4. Institutional characteristics of Russian equity market

Like many emerging capital markets, the Russian market is very volatile and often faces financial crises when the stock price drops by 20–25%. This instability of emerging markets is a serious barrier to implementing long-term savings strategies.

Challenges related to long-term equity market stability

In 2024, Russian market experienced another financial crisis, when the RTS stock index in terms of exchange rate returns fell by 24.0% from May to December. This time the main reason was the increase in the key rate by the Bank of Russia to 21%.

Over the previous 30 years since 1995, the RTS currency index has experienced six financial crises, when it declined by 25% or more, and three of them, which happened in June 2008, November 2021 and May 2024 have not ended until now (*Fig. 19*). From June 2008 to February 2025, in 201 months (16.7 years), the value of the RTS index in terms of exchange rate return reached only 46.6% of its pre-crisis peak in May 2008. The decline of the index since November 2021 continues for 41 months (3.4 years), when the value of the index in February 2025 was only 62.0% compared to October 2021. The index decline from May 2024 continues for 10 months, when it has recovered to 94.2% in February 2025.

The length of RTS index recovery after May 2008 is not a record for similar worldwide events. The most famous in the list of the longest financial crises is the recovery of the Dow Jones Industrial Average (DJIA) in the USA after the Great Depression of 1929 during 25.3 years. However, it is currently behind, for example, Japan's MSCI¹ index in terms of duration, which recovered to 94.1% in February 2025 after falling since February 1989 for 432 months (36 years), the MSCI China index, which reached in 374 months (31.2 years) only 54.3% of its peak in December 1993, and the MSCI Thailand index, which reached in the same 374 months (31.2 years) only 47.9% of its peak in December 1993 (*Fig. 20*).

1. All MSCI indices mentioned in this section are calculated based on dollar value of shares.

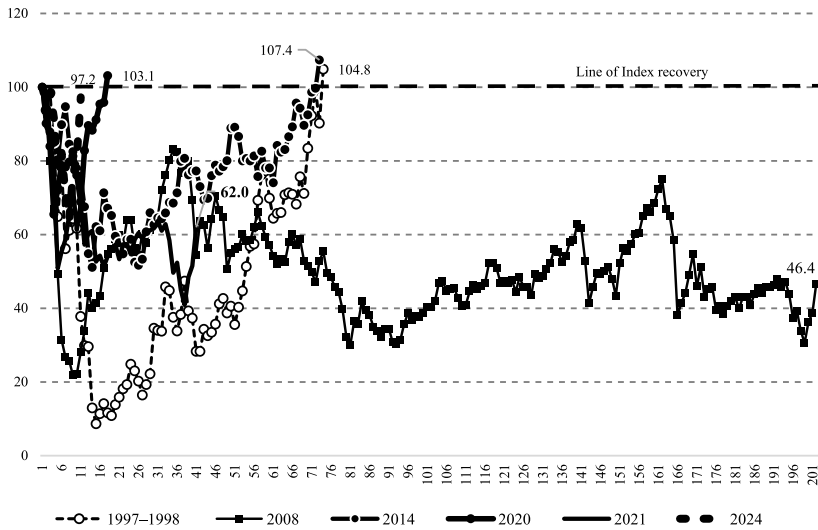


Fig. 19. Changes in the RTS index relative to its peak values in July 1997, May 2008, February 2014, December 2019, October 2021, and April 2024 on a time horizon measured in months, as of February 28, 2025, in % (peak=100%)

Source: own estimates according to Moscow exchange.

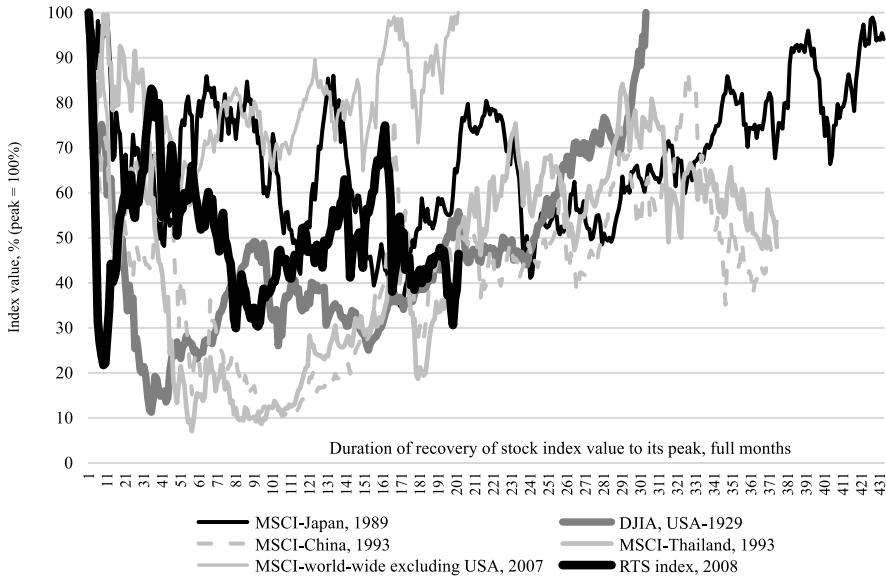


Fig. 20. Dynamics of RTS index recovery since May 2008 amid of the longest global financial crises (duration of recovery in months, index value in % (peak=100%))

Source: own estimates according to MSCI.

The duration of the RTS index recovery has already surpassed classic medium-term crises, such as the crisis of the NASDAQ index in 2000 and the South Korean Kосpi index with recovery within 14.8 and 15.3 years, respectively. The RTS index has so far followed the path of DJIA's recovery from the Great Depression of 1929 in terms of its current slow recovery trajectory.

Slow recovery of equity indices after the 2008 crisis is typical for all BRICS countries except India (*Fig. 21*). Like the Russian RTS index, the MSCI-Brazil index has been unable to recover for 16.7 years since May 2008, and its current value from pre-crisis of 26.8% is even lower than that of the Russian index. The MSCI indices of Chinese and South African companies reached a recovery point at different times after 2008, i.e. they formally overcame the 2008 crisis. However, these markets have since experienced new recessions, so that on February 28, 2025, the values of MSCI-China and MSCI-South Africa were only 70.52% and 79.4 %, respectively, of their peak values in October 2007 for both indices. More dynamic growth of the MSCI-India index is associated with high rates of economic growth in this country and stable inflow of foreign portfolio investments in securities of Indian issuers. Currently, the MSCI index of large Indian companies is 135.6% vs. December 2008

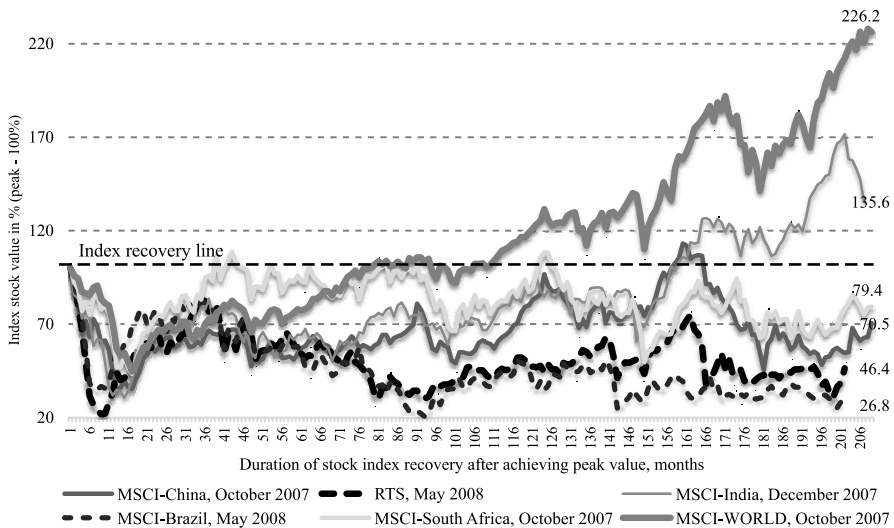


Fig. 21. Dynamics of BRICS and MSCI-World indices recovery in dollar terms after peaks reached in 2007–2008 (peak=100%) as of February 28, 2025

Source: own estimates according to MSCI.

Compared to peak value on December 29, 2021, after the start of the SMO, the Moscow exchange ruble index recovered only by 83.6% by March 7, 2025 (*Fig. 22*). Factors hampering recovery of blue chip stocks, constituting the index core, demon-

strate their dependence on blocked foreign fund investments and limited demand from domestic investors compared to market value of outstanding shares of major issuers.

In the period under review, the recovery rate of Gazprom shares amounted to 50.5%, MMC Norilsk Nickel — 59.6%, Novatek — 73.8%, Rosneft 88.4%. Meanwhile, Sberbank common shares recovered in value to 107.4% and Lukoil to 109.2%, while preferred shares of Sberbank and Surgutneftegaz recovered to 112.0% and 140.9%.

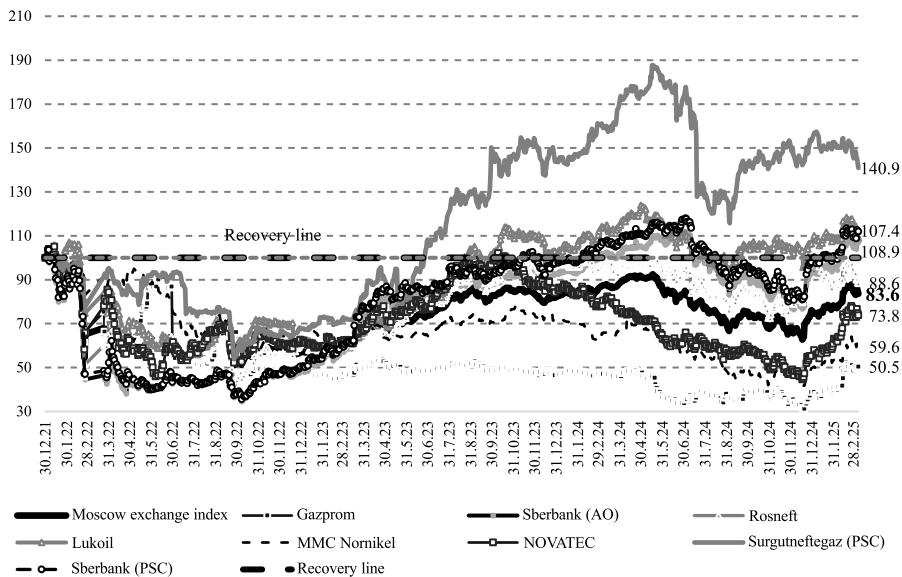


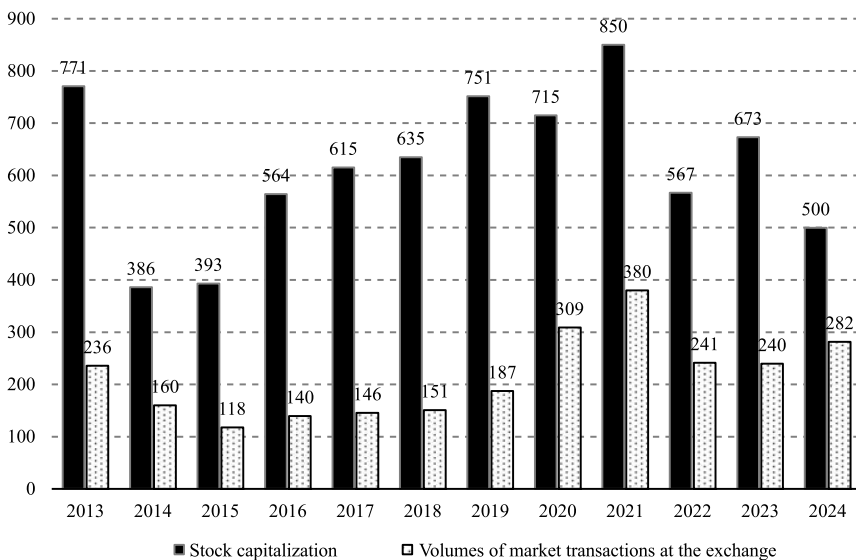
Fig. 22. Value change of the Moscow exchange index and share prices of Gazprom, MMC Norilsk Nickel, Novatek, Lukoil, Rosneft and Sber as of March 7, 2025, % (values of the Moscow exchange index and share prices of issuers as of 30.12.2021=100%)
Source: own estimates according to Moscow exchange.

The phenomenon of 2023 was the multiple growth in the value of many second- and third-tier stocks due to trading activity of predominantly wealthy private investors. However, in 2024, prices for these shares fell significantly due to a reduction in the interest of private investors. Nevertheless, on March 7, 2025, prices of most of the shares under review remained at a higher level than those of blue chips and the Moscow exchange index in relation to prices on December 29, 2021. Thus, they were 156.7% for JSC Belon shares, 159.8% for GAZ, 339.2% for RSC Energia, 351.4% for TGK-14, 364.0% for Sollers, 385.2% for Ashinskiy Metallurgical plant, 449.9% for Krasny Oktyabr, 530.7% for TNS Energo Rostov-on-Don

and 1087.9% for Globaltrax (GTM). The outstripping growth of profitability of the second and third tier shares and a number of new companies is an important phenomenon of the domestic capital market and one of the promising directions of its influence on the structural transformation of the Russian economy.

Capital market depth and capitalization growth plans

In 2024, capitalization of Russian companies dropped from \$673bn in 2023 to \$500bn, or by 25.7% (Fig. 23). The liquidity of the stock exchange market increased to \$282 bn in 2024 compared to \$240 bn in 2023, or by 17.5% (Fig. 23).



Note. Data on volume of secondary share trading in 2022–2024 are based on Moscow Exchange converted into dollars at the year-end exchange rate.

Fig. 23. Capitalization and volume of market transactions in shares in the Moscow exchange from 2013 to 2024, billion dollars

Source: own estimates according to Moscow exchange and World Federation of Exchanges.

In accordance with the Executive Order of the President of the Russian Federation No. 309 of 07.05.2024 “On the national development goals of the Russian Federation until 2030 and prospectively until 2036” it is envisaged to increase the capitalization rate from 33% of GDP in 2023 to 66% in 2030 and 75% of GDP in 2036. However, how a capitalization/GDP ratio of 66% by 2030 can be achieved in an environment of a high key rate and limited demand for equities from domestic investors remains an open question.

According to our most conservative calculations, to achieve capitalization of 66% in 2030, the size of capitalization should grow from Rb 53 trillion in 2024 to Rb 173 trillion in 2030, or by Rb 120.0 trillion. This task can be achieved through IPO of new companies and growth in capitalization of operating public companies.

According to Federal Project “Development of financial market”¹ in 2025–2030 it is planned to hold IPOs of the companies in the amount of \$4.5 trillion. Assuming that such IPOs will place an average of 10% of issuers’ shares, this will increase capitalization of the stock market due to new companies by about Rb 45 trillion. These estimates imply that within 6 years Russian market IPOs worth Rb 750 bn will take place annually, while, according to our data, over the period 1996–2024 IPO volumes averaged about Rb 490 bn per year, i.e. 1.5 times less than assumed in the federal project. However, major demand for shares of IPO companies used to be provided by foreign institutional investors. In current environment, the stock market can count, as a rule, only on domestic demand.

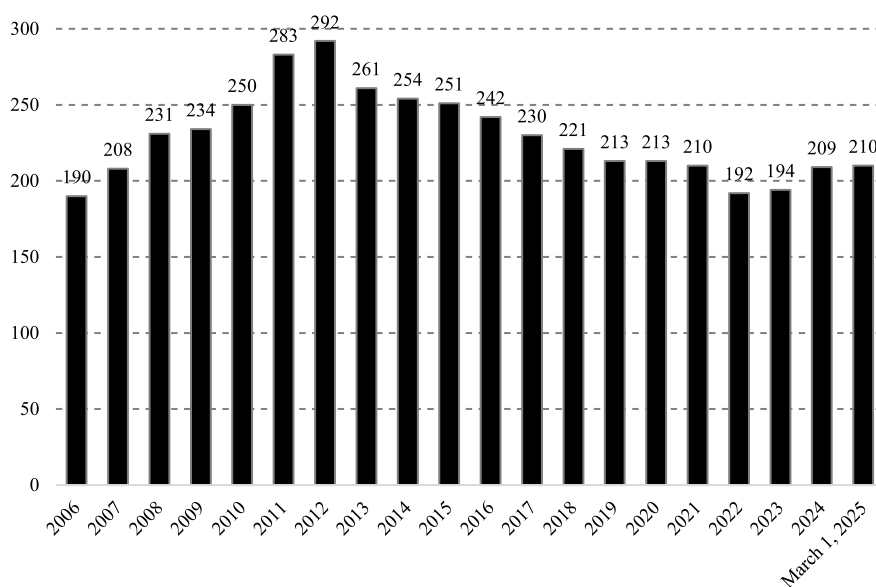


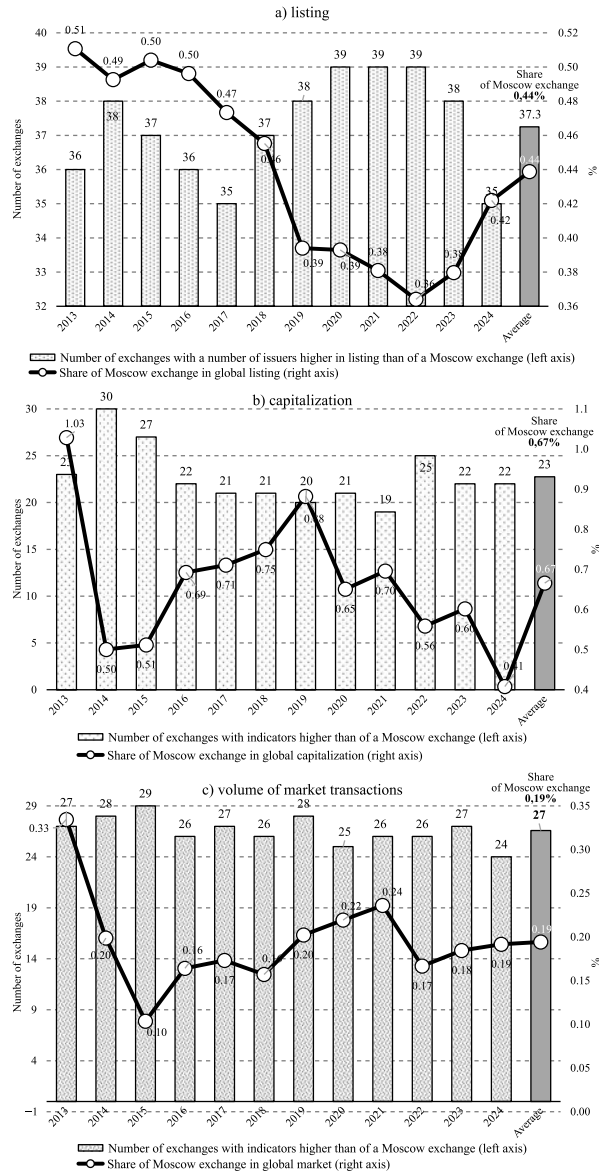
Fig. 24. Number of Russian companies listed on the Moscow exchange from 2006 to March 1, 2025²

Source: own estimates based on NAUFOR report “Russian stock market in 2015. Events and facts”, for 2006–2008, as well as data of the World Federation of Exchanges and Moscow exchange for 2009–2025.

1. URL: https://www.economy.gov.ru/material/directions/np_effektivnaya_i_konkurentnaya_ekonomika/fp_razvitie_finansovogo_rynka/
2. Data on MICEX exchange listing for 2006–2011 and on JSC Moscow exchange for 2012–2025.

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Note. a) number of foreign exchanges with a higher number of listed issuers than the Moscow Exchange (ME) and share in % of the ME in the sample of listed companies on the global stock market; b) number of exchanges with a larger capitalization of listed issuers than the Moscow Exchange and share in % of MB in global capitalization; c) number of exchanges surpassing the Moscow exchange in terms of volume of market transactions and share in % of ME in terms of total value of market share transactions worldwide.

Fig. 25. Indicators of competitiveness of the Russian equity market in 2013–2024

Source: own estimates according to World Federation of exchanges and Moscow exchange.

The remaining Rb 75 trillion of capitalization growth should probably be attributed to growth in capitalization of operating companies. According to our estimates, the annual capitalization growth rate will have to be 16.9%. It is not yet clear how achievable this is. Mean geometric growth rate of capitalization over the period 2015–2024, when non-residents primarily withdrew from the Russian equity market, was 10.4%. The average annual growth rate of capitalization in 1999–2024 amounted to 17.5%, but this indicator ensured mainly rapid growth of the Russian stock market in the first half of the 2000s due to entry of large foreign investors.

Thus, despite all the significance of the problem of capitalization growth of Russian companies, there remains a question of how to achieve this indicator up to 66% of GDP. In our opinion, the issue of taking coordinated measures by regulators, issuers and financial intermediaries aimed at the growth of this indicator is relevant, while certain long-term benchmarks in the sphere of unpredictable financial markets can hardly be prescriptive.

Since 2023, due to revival of IPO transactions, the Moscow exchange has shown signs of overcoming the long-standing trend of a constant reduction in the number of listed companies (*Fig. 24*), which continued in 2024. The number of issuers in the exchange listing increased from 192 in 2022 to 194 in 2023 and 210 as of March 1, 2025. However, shares of non-resident-owned companies, which under sanctions were transferred to Russian owners, or shares of nationalized companies, which the Ministry of Finance would have put up for re-privatization, never appeared on the exchange.

In terms of key indicators describing the depth of the stock market, the Moscow exchange is noticeably inferior to many foreign competitors. However, introduction of sanctions against Russian financial market did not practically affect the deterioration of key indicators of its competitiveness.

Fig. 25 shows that in terms of the number of national companies listed in 2024, the Moscow exchange was behind 35 other global exchanges, i.e. fewer exchanges than it was in 2023 and even in 2021. Its share of the total number of publicly traded global companies even rose to 0.42% compared to 0.38% in 2021. In terms of capitalization, Moscow exchange was behind 22 global exchanges in 2024 compared to 19 in 2021, and its share in global corporate capitalization fell from 0.70% to 0.41%. In contrast to listing in terms of capitalization, the gap with global markets intensified. In terms of market share transactions in 2024, Moscow exchange was second to 24 exchanges compared to 26 in 2021, but its share in total volume of stock exchange transactions declined from 0.24% in 2021 to 0.19% in 2024.

Shares IPO-SPO

One of the most important developments in the domestic capital market was the revival of the Russian IPO and SPO market from December 2022 due to efforts of usually small companies from the financial sector, IT, food industry and some other industries to attract market equity financing amid high debt market rates

and demand for shares of new public companies from private investors. According to experts of the Bank of Russia, people's interest in the stock market grew amid rising household incomes, development of retail financing mechanisms and high dividend payments on Russian companies' shares.¹

According to our estimates based on an extensive sample of public offering transactions of Russian companies² (Fig. 26 and Table 2) for the period from 1996 to 2024, the total volume of transactions with shares of the above companies amounted to \$135.8bn, of which 98.7% accounted for transactions in 1996–2021 and only 1.3% for the period 2022–2024. However, in terms of the number of IPO-SPO transactions, the 2022–2024 accounted for 11.9% of all transactions over 28 years. The average IPO-SPO deal size in 2022–2024 was \$53 mn compared to \$549 mn in 1996–2021, or 10.4 times less.

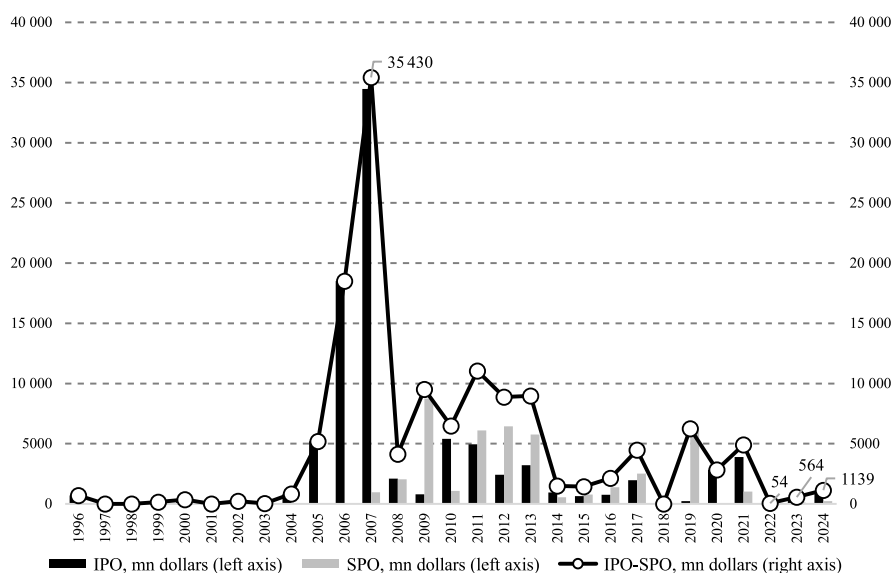


Fig. 26. Stock transactions IPO-SPO³ of Russian companies from 1996 to 2024, mn dollars

Source: Estimates of the Laboratory for analysis of institutions and financial markets IAES RANEPA according to official information of issuers and Moscow exchange.

1. Bank of Russia. Review of financial instruments. 2023. Analytic material. P. 24. https://www.cbr.ru/Collection/Collection/File/48944/fi_review_2023.pdf
2. Hereinafter, in the section on IPO-SPO transactions, Russian companies are legal entities registered in the Russian Federation (onshore companies), as well as foreign (offshore) companies whose main activities are performed in the territory of the Russian Federation.
3. Hereinafter, the concept of IPO-SPO transaction includes 8 categories of exchange transactions with shares of Russian offshore and onshore companies, classified according to three criteria: place of transaction (Russian or foreign exchange), type of transaction (IPO or SPO), as well as the content of transaction (attraction of new capital into company or resale of a block of shares by their former owner).

Table 2

Parameters of IPO-SPO transactions of Russian companies for 1996–2024

	1996–2021	2022	2023	2024	2022–2024	1996–2024
1. Volume of transactions, mn dollars						
1.1. IPO	90 631	37	451	904	1392	92 022
1.2. SPO	43 406	17	112	235	364	43 771
1.3. Total	134 037	54	564	1139	1756	135 793
2. Number of transactions, pieces						
2.1. IPO	164	1	8	15	24	188
2.2. SPO	80	1	4	4	9	89
2.3. Total	244	2	12	19	33	277
3. Average volume of transaction, mn dollars						
3.1. IPO	553	37	56	60	58	489
3.2. SPO	543	17	28	59	40	492
3.3. Total	549	27	47	60	53	490
4. 4. Average underpricing, %						
4.1. IPO	5.9	0.2	10.1	3.4	4.6	5.7
4.2. SPO	3.9	19.9	0.3	4.3	8.2	4.7
5. Type of transaction IPO-SPO, share in %						
5.1. IPO	67.6	68.4	80.0	79.4	79.3	67.8
5.2. SPO	32.4	31.6	20.0	20.6	20.7	32.2
6. IPO-SPO transactions by criterion of raising capital to the company, share in %						
6.1. Attracting capital (cash-in)	53.4	62.5	79.0	52.7	61.4	53.5
6.2. Without involving capital (cash-out)	46.6	37.5	21.0	47.3	38.6	46.5
7. IPO-SPO transactions by location, share in %						
7.1. Russian exchanges	43.2	100.0	100.0	100.0	100.0	44.0
7.2. Foreign exchanges	56.8	0.0	0.0	0.0	0.0	56.0
8. IPO-SPO transactions by privatization criterion, share in %						
8.1. Privatization transactions IPO-SPO	38.8	0.0	0.0	0.0	0.0	38.8
8.2. Other transactions IPO-SPO	61.2	100.0	100.0	100.0	100.0	61.2

Source: Estimates of the Laboratory for the analysis of institutions and financial markets IAES RANEPa.

IPO-SPO deals concluded in 2022–2024 account for only \$1.8 bn of the total volume of public offering deals of Russian companies over the entire historical horizon of 28 years. Nevertheless, this period can be regarded as the start of a qualitatively new stage of public offering transactions of Russian companies for several reasons. First, it is the market growth relying on domestic investors and placements conducted on Russian stock exchanges. Second, more companies started to show interest in IPOs, allowing to hope that this market segment will play an important role in the structural transformation of the Russian economy. Thirdly, for the first time, supporting the IPO market became a priority goal of the government. In line with the federal program of financial market development adopted in follow-up to the Executive Order of the President of the Russian Federation No. 309 dated 07.05.2024, the government aims to hold IPOs worth Rb 4.5 trillion (about \$45 bn) or Rb 750 bn (\$7.5 bn) per year during 2025–2030. IPOs worth Rb 4.5 trillion (about \$45 bn) or Rb 750 bn per year (\$7.5 bn).

The modern wave of IPO-SPO transactions is featured by a number of qualitative differences from the previous period of 1996–2021 (*Table 2*).¹ In 2022–2024, the share of IPO-SPO transactions in the total volume of IPO-SPO has increased to 79.3%. In 1996–2021 it amounted to 67.9%. This indicates a more active arrival of new companies to the market compared to a relatively narrow range of issuers that regularly conduct repeat offerings. Amid sanctions in 2022–2024, all IPO-SPO transactions of Russian companies were exclusively performed on Russian stock exchanges, while for the entire period 1996–2021, an average of 56.8% of IPO-SPO transactions were performed on foreign stock exchanges. In 1996–2021, an important growth driver of the IPO-SPO market of Russian companies included privatization transactions with their shares performed on stock exchanges, which accounted for 38.8% of the value of transactions. Total amount of privatization transactions for the above period amounted to Rb 51.9 bn or Rb 5.2 trillion. There were no IPO-SPO privatization transactions in 2022–2024. According to forecasts of the federal project of financial market development, the Ministry of Finance of Russia plans to secure the above transactions in 2025–2030 worth Rb 1.0 trillion.

The so-called “underpricing” indicator plays an important role in estimating IPO success.² As a rule, academic studies mostly dominate the view of underpricing as a premium that the issuer pays to investors for higher level of information asymmetry when offering shares. IPOs of Russian companies are usually marked, on average, by one of the lowest sizes of underpricing compared to their parameters in other countries, which evidences the reluctance of many Russian companies to compensate for investors’ information risks amid a high level of information asymmetry.

1. For details refer A. E. Abramov, M. I. Chernova, IPO of Russian companies’ shares: theory, indicators, trends and prospects // Financial Journal. 2024. V. 16. No. 6. p. 42–60. URL: <https://doi.org/10.31107/2075-1990-2024-6-42-60>.

2. Underpricing reflects the difference between the closing price of the shares on the first stock exchange day and the offering price of these shares.

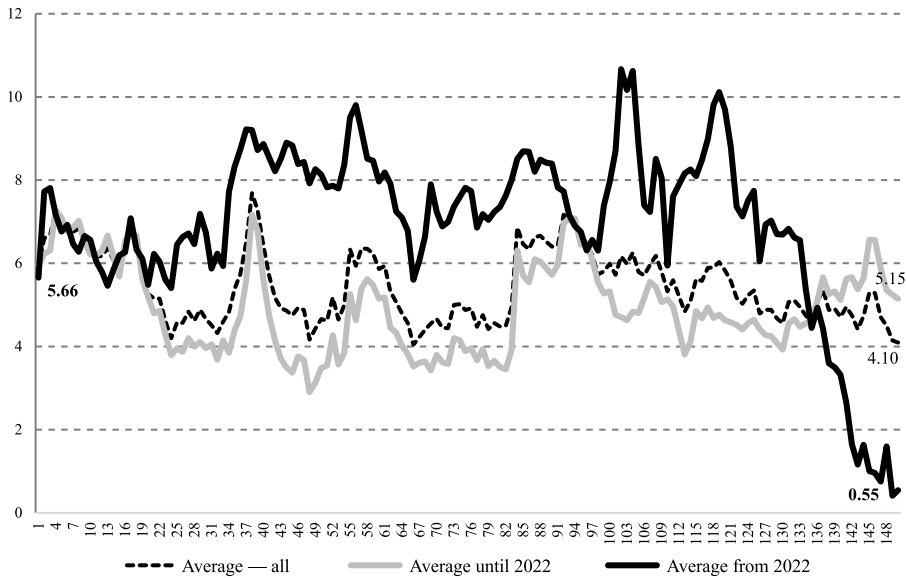


Fig. 27. Cumulative excess return of the IPO portfolio of Russian companies' shares for 150 days from the date of the IPO in a sample of 95 IPOs transactions concluded from 2002 to 2024, p. p.

Source: estimates of the Laboratory for analysis of institutions and financial markets IAES RANEPa.

The average level of IPO underpricing in 2022–2024 was lower than the same indicator in 1996–2021 (*Table 2*). However, the alarming trend is that the level of underpricing dropped to 3.4% for IPOs in 2024. The low premium for investors amid a high level of information asymmetry is a factor preventing attraction of new funds to this segment of the capital market.

Average cumulative excess return on IPO-companies' shares relative to the offering price (CAR)¹ in 150 business days from the start of their exchange trades was positive for both 2002 through 2021 and 2022 through 2024 trades of 5.15% and 0.55%, respectively (*Fig. 27*). However, a worrying trend for prospects for the new wave of IPOs and the attractiveness of these deals for investors is that over 150-day horizon under review, the average CAR of stocks in the new wave was significantly lower than that of the 2002–2021 deals. Low average performance of 2022–2024 deals was achieved due to negative CARs for such issuers as VI.ru, Svetoфор and Kristall Group in the amount of –54.0%, –53.9% and –39.8%.

1. It is calculated as a difference, e. g. on day 150, between the stock's return to the offering price on day 150 and the index return over the same time period. Average CAR is defined as simple average CAR of different shares in the sample.

In terms of median value, this indicator for 150 trading days was indeed negative: for IPO deals 2002–2021 in the amount of –2.1%, and for deals 2022–2024. –8.0%. Consequently, attractiveness of these deals for investors remains a serious issue.

Dividend policy

Active dividend policy of public companies became a significant phenomenon of the Russian stock market starting from 2012. Growth in dividend yields and, above all, in shares of state-owned companies (“SOCs”) resulted from the government’s intention, as a major shareholder, to attract dividend income to finance the budget. In accordance with the Resolution of the Government of the Russian Federation No. 1589-r dated June 11, 2021, starting from July 1, 2021, a requirement was introduced for mandatory allocation to dividend payments of at least 50% of the annual profit calculated according to consolidated financial reporting prepared in line with IFRS and adjusted for a number of factors (net adjusted profit) for issuers holding federally owned shares. However, for a significant portion of both public and private issuers, increasing the dividend yield of shares was an effort to maintain shareholder loyalty by offsetting their losses in terms of declining share price. As shown above (*Fig. 13*), over time horizon 2015–2024, with the exchange rate geometric mean return of the Moscow exchange index at 7.5% and inflation at 7.0%, dividend payments by the largest companies yielded a return of 14.8% for the Moscow exchange index portfolio, i.e. full return (including dividends), and 23.3% for the factorized portfolio of high-dividend stocks.

Over 2005–2024, Russian companies paid Rb 32.8 trillion in dividends, of which Rb 26.5 trillion or 80.9% were dividends paid in 2012–2024 (*Fig. 28*).¹ Meanwhile, number of public companies paying dividends has stabilized over the past 10 years, varying year-to-year between 103 and 146 companies.

Most dividend payments go to state-owned companies (SOC). From 2017 to 2024, except for 2021, the year for payment dividends accrued in the year of the coronavirus epidemic, the share of SOC dividends ranged from 54–56% of total dividend payments (*Fig. 29*).

High dividend strategy is largely hedging; it generates higher total shareholder return (TSR) during stock market falls, however, during market rises, high-dividend portfolios tend to generate lower returns than broad equity indexes. Risk of high dividend paying strategy would be that it may limit the share of issuers’ net profit allocated to business development. This risk confirms that the rate of return on shares, and thus the capitalization of issuers paying high dividends, usually grows slower than the rate of return on other shares, and sometimes may be accompanied by its decline.

1. Hereinafter, one can see results of the study by the Laboratory of analysis of institutions and Financial Markets IAES RANEPa on dividend policy of Russian companies for 2005–2024.

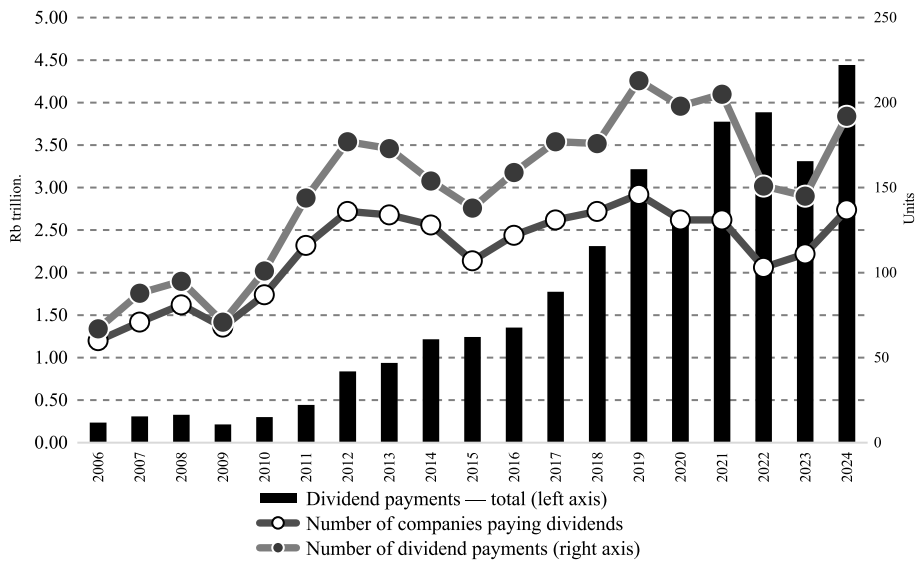


Fig. 28. Number of Russian public companies paying dividends, number of dividend payments and amount of dividend payments in 2005–2024, Rb trillion

Source: own estimates according to Cbonds, SPARK and Moscow exchange.

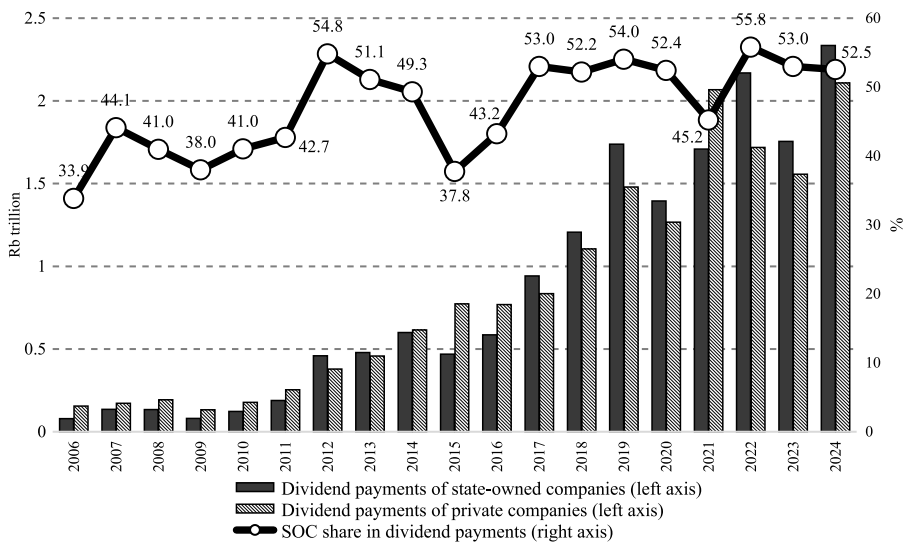


Fig. 29. Value of dividends paid by private companies and SOCs in Rb trillion and share of dividend payments by SOCs in total dividend payments, %

Source: own estimates according to Cbonds, SPARK and Moscow exchange.

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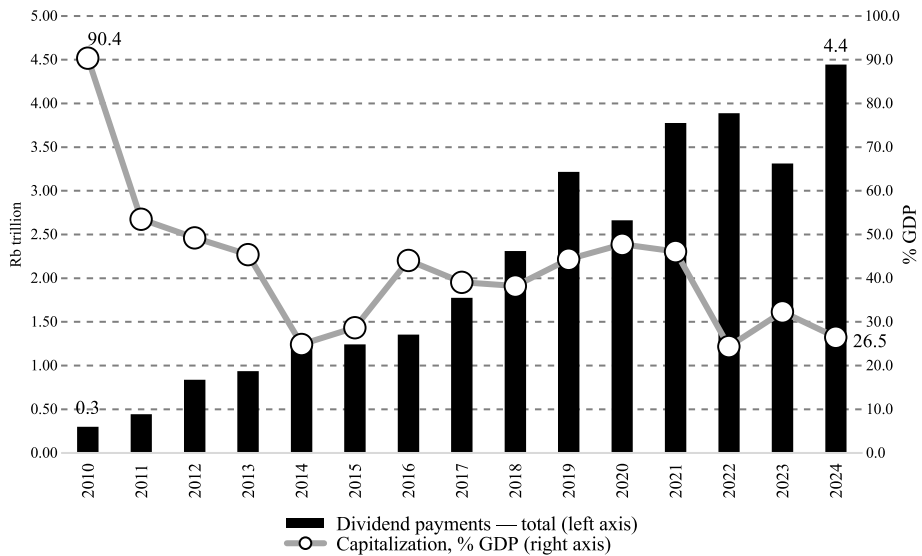


Fig. 30. Capitalization (% GDP) and amount of dividend payments by Russian public companies in 2010–2024, Rb trillion

Source: own estimates according to Cbonds, SPARK and Moscow exchange.

Growth of dividend payments by companies from Rb0.3 trillion in 2010 to Rb4.4 trillion in 2024, or by 17.7 times, was accompanied by a reduction in capitalization/GDP from 90.4% in 2010 to 26.5% in 2024 (*Fig. 30*). The reduction in relative capitalization for given years could be due to various factors, but one of them was the growth of dividend payments.

Mergers and acquisitions

Stock markets contribute to structural changes in economy through merger-acquisition (M&A) transactions. Amid high central bank interest rates in the US and the EU and geopolitical uncertainty, M&A deals declined globally in 2023, as in the previous year (*Fig. 31*). Weak growth of the M&A market that has started in 2024 is still fragile.

The 2024 completed deals of \$3.4 trillion were significantly lower than \$5.4 trillion in 2021. In Russia, merger-acquisition deals also declined in 2022 and 2023. Growth of such transactions amid sanctions, when many subsidiaries of foreign companies moved to Russian owners, did not cause any increase in M&A market volumes due to their low value, formed in accordance with legislative requirements. As a result, M&A deals involving Russian companies fell from \$37.7 bn in 2021 to \$28.1 bn

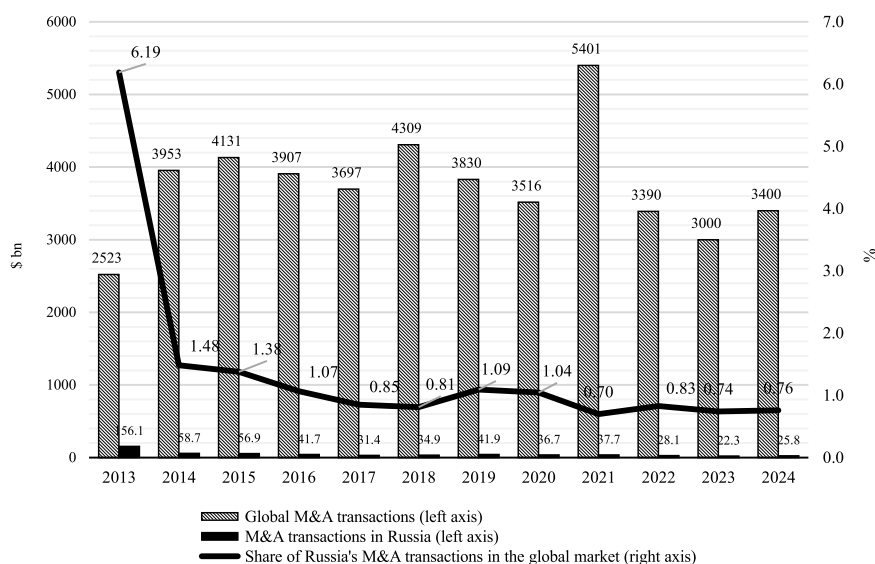


Fig. 31. M&A value worldwide and in Russia (\$ bn) and share of M&A transactions in Russia in the total value of similar transactions in the world (%) in 2013–2024

Source: own estimates according to information resources Merger.ru (URL: <http://mergers.ru/>), SIFMA and McKinsey.

in 2022, \$22.3 bn in 2023 and \$25.8 bn in 2024. However, according to our estimates based on Merger.ru data, Russia's share in the global M&A deal volume slightly rose from 0.70% in 2021 to 0.76% in 2023.

Competition in the equity market

Russian equity market evidences a high level of concentration of issuers by capitalization, however, starting from 2020, there is a tendency towards its reduction (Table 3 and Fig. 32). The share of top 10 PJSCs in total issuer capitalization fell from 70.1% in 2019 to 62.5 in 2024, while the share of top 20 issuers fell from 82.9% to 75.8%, respectively. This partly reflects changes in the structure of stock exchange listings consisting in the outstripping growth of market value and investment attractiveness of less liquid second and third tier shares compared to blue chips.

In 2024, capitalization declined to Rb53.0 trillion compared to Rb57.0 trillion in 2023. as for capitalization structure, 9 of the 10 largest companies retained their position in the top 10 list in terms of capitalization. Only Severstal PJSC replaced the restructured Yandex ICPJSC. Compared to 2023, share in capitalization of the following issuers increased in 2024: Rosneft—from 11.0% to 12.0%, Sberbank—from 10.3% to 11.2%, Lukoil—from 8.2% to 9.4%, Polyus—from 2.5% to 2.8% and V.D. Shashin Tatneft—

Table 3

Capitalization of the 10 largest Russian public joint stock companies in 2022–2024

	Name of issuer	2022		Name of issuer	2023		2024	
		Capitalization Rb bn	Relative share, %		Capitalization Rb bn	Relative share, %	Capitalization Rb bn	Relative share, %
1	PJSC Gazprom	3852	10.1	PJSC Rosneft	6278	11.0	PJSC Rosneft	6377
2	PJSC Rosneft	3834	10.0	PJSC Sber	5863	10.3	PJSC Sber	5962
3	PJSC NOVATEK	3242	8.5	PJSC LUKOIL	4680	8.2	PJSC LUKOIL	4968
4	PJSC Sber	3040	7.9	PJSC NOVATEK	4448	7.8	PJSC Gazprom	3118
5	PJSC LUKOIL	2811	7.4	PJSC Gazprom neft	3983	7.0	PJSC Gazprom neft	3098
6	PJSC MMC Norlisk Nickel	2339	6.1	PJSC Gazprom	3790	6.7	PJSC NOVATEK	2965
7	PJSC Gazprom neft	2169	5.7	PJSC MMC Norlisk Nickel	2476	4.3	PJSC Polyus	1904
8	PJSC Polyus	1044	2.7	PJSC V.D. Shashin Tatneft	1539	2.7	PJSC MMC Norlisk Nickel	1762
9	PJSC FosAgro	828	2.2	PJSC Polyus	1444	2.5	ICPJSC YANDEX	1505
10	PJSC Surgutneftegaz	774	2.0	PJSC Severstal	1172	2.1	PJSC V.D. Shashin Tatneft	1483
	Capitalization of all issuers at ME	38 238	100	Capitalization of all issuers at ME	56 981	100	Capitalization of all issuers at ME	53 015
	Capitalization of top 5 issuers	16 778	43.9	Capitalization of top 5 issuers	25 252	44.3	Capitalization of top 5 issuers	23 523
	Capitalization of top 10 issuers	23 931	62.6	Capitalization of top 10 issuers	35 673	62.6	Capitalization of top 10 issuers	33 142
								62.5

Source: own estimates according to Moscow exchange URL: <https://www.moex.com/s26>

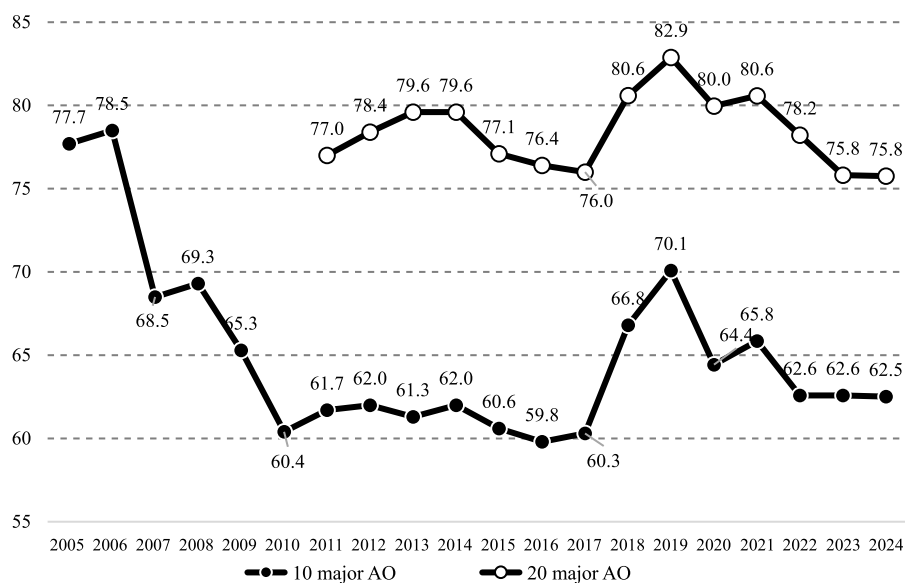


Fig. 32. Share of the largest PJSCs in capitalization of domestic equity market, %

Source: own estimates according to Moscow exchange.

from 2.7% to 2.8%. On the contrary, the share in capitalization of the following major issuers declined: Gazprom—from 6.7% to 5.6%, NOVATEK—from 7.8% to 5.6%, Gazpromneft—from 7.0% to 5.8% and MMC Norilsk Nickel—from 4.3% to 3.3%.

Thus, in 2024, due to a high key rate, sanctions and geopolitical uncertainties, the capitalization of Russian companies declined, while the yield of the Moscow Exchange Index including dividends was slightly above zero. There were no clear signs that the equity finance market was contributing to structural transformation. Both the market actors and the regulators were looking for ideas of capitalization growth and stimulation of domestic demand for shares. The most exciting drivers of market growth were companies' active dividend policy and expectations of growth in the market of public offerings.

2.1.5. The bond market

The situation on the bond market

From the end of July 2024, a new wave of a rise in the key rate from 16.0% to 21.0% amid a steady increase in the inflation rate created difficult conditions for bond market growth. RGBITR Broad Government Bond Index Yield was equal to -2.1% at the end of the year, with an inflation rate of 9.5%.

However, even in such conditions, the bond market did not stop growing because, on the one hand, both the government and corporate issuers had to keep refinancing their previous debts, and, on the other hand, market participants managed to adapt quickly to the new situation by switching over to the money market, using floaters, as well as currency, yuan and other types of bonds. The bond market stability was facilitated by a surplus of bank liquidity, which remained almost throughout 2024. At the end of 2024, amid hopes for a settlement in Ukraine, the suspension of an increase in the key rate and the prospects for a reduction thereof in H2 2025, there was a marked decrease in the yield on repayment of many bond issues, and investors' interest in buying OFZs with a constant coupon income began to decline.

According to the data of the Moscow Stock Exchange, in 2024, private investors reduced their investments in stocks through the exchange by Rb 109.8 bn, bringing new funds to the bond market in the amount of Rb 859.3 bn of which 74.0% accounted for corporate bonds. Another Rb 570.6 bn of new funds went to exchange-traded funds, mainly money market funds.

In 2024, the value of RF government securities increased from Rb 20.2 trillion in 2023 to Rb 23.2 trillion, or by 14.9%. The value of domestic corporate bonds increased from Rb 25.2 trillion to Rb 31.0 trillion, or by 23.0%. The volume of regional bonds decreased from Rb 0.8 trillion to Rb 0.6 trillion, or by 22.5% (Fig. 33).

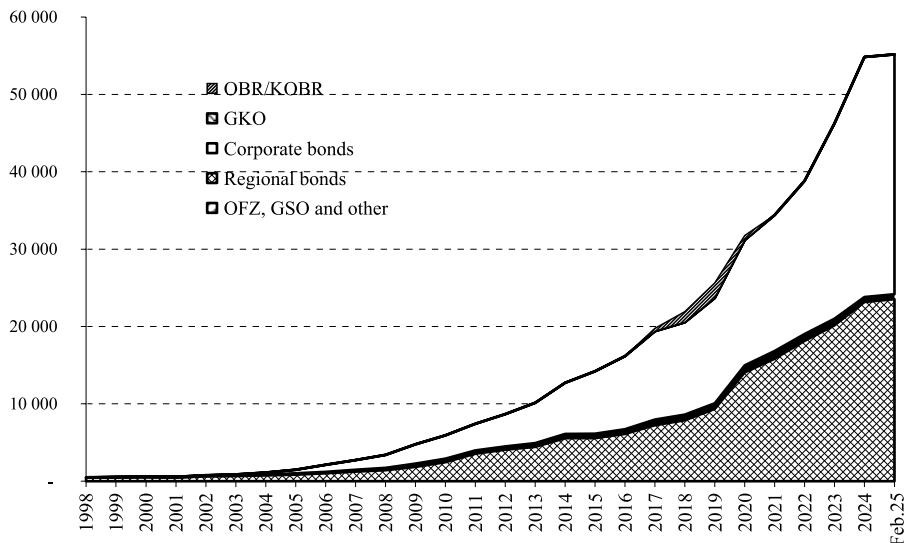


Fig. 33. The volume of outstanding ruble-denominated bonds from 1998 to February 2025, billion rubles

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

Unlike 2023, when the first wave of a key rate rise occurred and the volume of OFZ placements at auctions decreased by 15.2%, in 2024 the situation changed: growth in new OFZ issues considerably surpassed that in corporate bond placements. By contrast with the previous year, in 2024, new OFZ issues increased from Rb 2.8 trillion to Rb 4.3 trillion, or by 57.3%, and the volume of corporate bond placements increased from Rb 7.2 trillion to Rb 8.1 trillion, or by 11.3%. It is to be noted that only new issues of regional bonds decreased from Rb 0.03 trillion to Rb 0.01 trillion, or by 61.0% (Fig. 34).

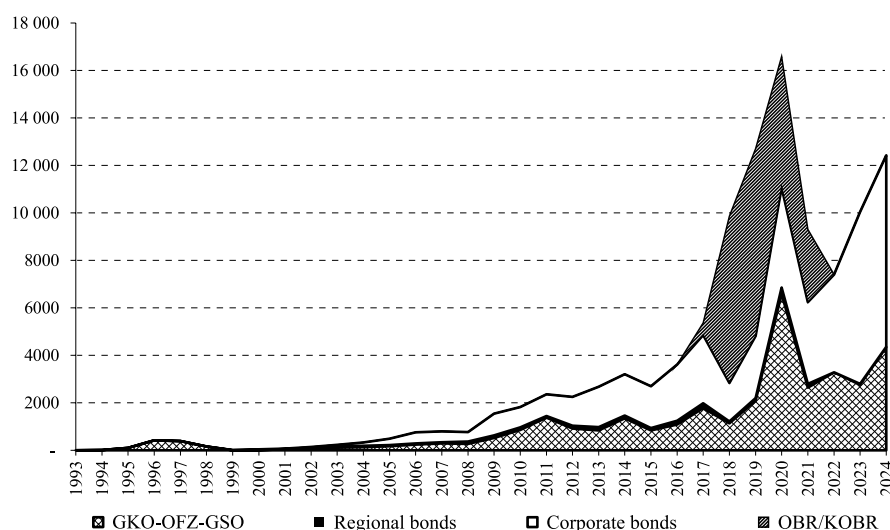


Fig. 34. The volume of ruble-denominated bond placements from 1993 to 2024, billion rubles

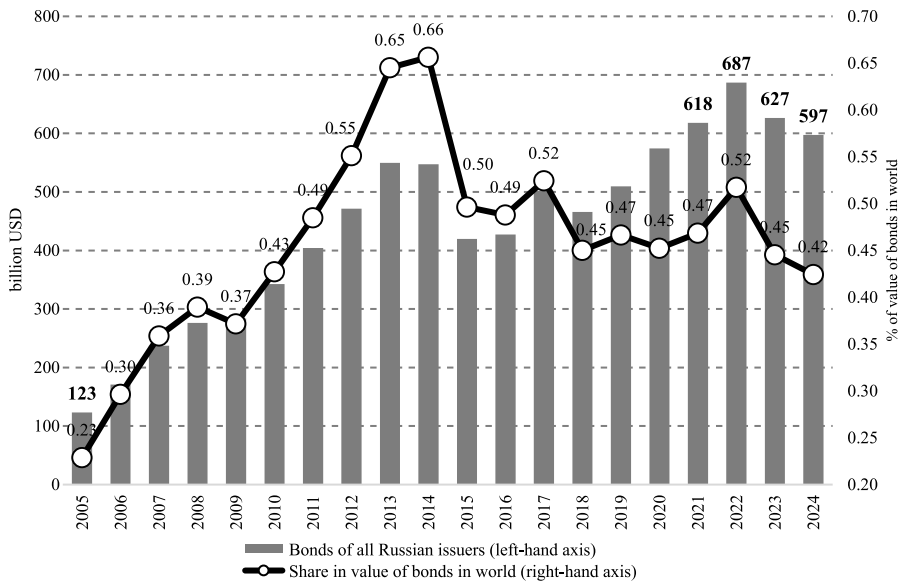
Source: own calculations based on the data of Cbonds.

In 2024, all types of bonds issued by Russian issuers accounted for 0.42% of the value of outstanding bonds worldwide (Fig. 35). The value of Russian issuers' bond issues in dollar terms and their share in the value of outstanding bonds in the world grew rapidly from 2005 to 2014, during which period the Russian debt market grew at a faster pace than the global one. Since 2015, the Russian bond market growth has slowed down and become more volatile. Over 10 years from 2015 to 2024, the share of Russian bonds in the value of outstanding bonds in the world decreased from 0.50% to 0.42%. For comparison, the share of capitalization of Russian companies in the world decreased almost the same way over the same period from 0.51% to 0.41%.

The increase in the key rate since July 24, 2024, in a situation where bond issuers had to refinance their debts, led to higher credit risks in the corporate bond market,

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Note. Russian issuers' bonds include corporate, government and municipal domestic bonds and Eurobonds.

Fig. 35. The value of Russian issuers' outstanding bonds (USD billion) and their share in the value of bonds in the world (%) in 2005–2024

Source: own calculations based on the data of Cbonds and SIFMA Capital Markets Fact Book: URL: <https://www.sifma.org/resources/research/statistics/fact-book/>

which manifested themselves both in an increase in the overall level of G-spreads of bond issues¹ and an increase in the dispersion of these credit spreads for bonds with different credit quality. The spreads of the broad portfolio of IFX-Cbonds corporate bonds increased from 167.9 p. p. as of December 29, 2023 to 304.7 as of December 30, 2024, or 81.5% (Fig. 36). At the same time, the credit spread on the Cbonds-GBI RU High Yield index increased from 391.7 p. p. to 2367.4 p. p., or 6.0 times over.

Since 2025, the Cbonds information resource has stopped updating some corporate bond indices, but has begun to disclose a wide range of new corporate bond indices with different rating levels, but with less depth of archival data. Data on G-spreads of new corporate bond indices show an increase in the level of credit spreads of many bond portfolios in 2024 to the level of April 2022 immediately after the opening of the corporate bond market after the pause caused by the start of the special military operation (SMO) and sanctions. The G-spread of bonds with the highest credit

1. G-spread is an indicator of the credit risk of corporate bond issues, representing the difference between the yield to maturity of corporate bonds and the yield to maturity of government bonds with a similar duration.

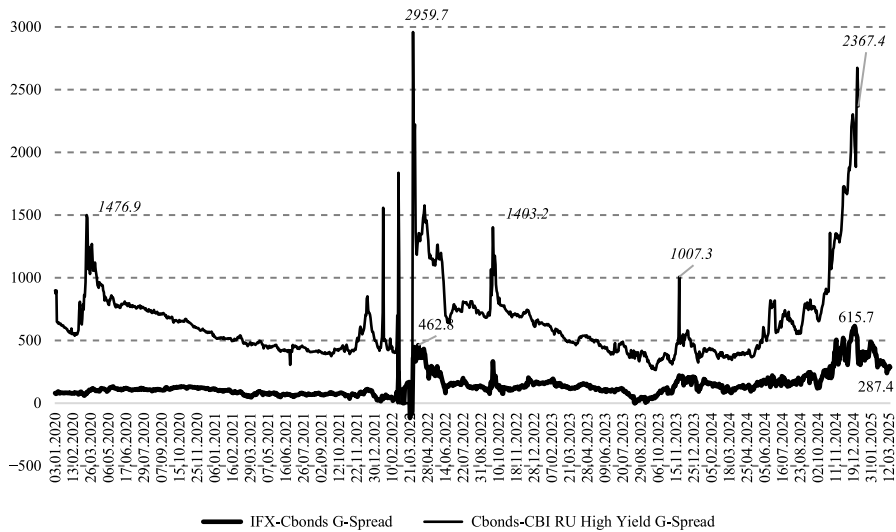


Fig. 36. Average G-spreads of ruble-denominated corporate bonds with different credit ratings from 2020 to March 14, 2025, p. p.

Source: own calculations based on the data of Cbonds.

rating Cbonds CBI AAA increased from –2.5 p.p. on December 29, 2023 to 74.6 p.p. and 151.9 p.p. on December 30, 2024 and March 14, 2025, respectively. The G-spread of the VDO Cbonds CBI HY portfolio with ratings from B- to BBB increased on similar dates from 662.5 p.p. to 2657.5 p.p., but then declined to 1667.2 p.p.

Another reaction of corporate issuers to the increase in interest rate risk is a reduction in the maturity, or duration, of the bonds they issue. The duration of the broad IFX-Cbonds bond portfolio decreased from 437 days at the end of 2023 to 358 days in 2024, or by 18.1%, the duration of the bond with a high investment rating of Cbonds-CBI RU BBB/ruAA- decreased from 660 days to 611 days, or by 7.4%, over the same period; for VDO (high yield bonds) it increased from 310 days to 332 days, or by 7.1% (Fig. 37). A decrease in bond duration occurs during periods of economic uncertainty and expectations of interest rate growth. Low duration bonds are more difficult to use as a source of long-term investment, so in the current situation they act more as an instrument of refinancing issuers' current activities and repaying their debt on bank loans.

Similar trends in the reduction of corporate bond duration are highlighted by the RF Central Bank's more systematic data on bonds with different durations (Fig. 38). The share of bonds with a duration of up to one year increased from 34.6% in 2023 to 41.3% in 2024. Over the same period, the share of bonds with a duration of 3 to 5 years decreased from 21.4% to 18.0%, and that of bonds with maturities from 1 year to 3 years, from 31.2% to 26.4%. At the same time, the share of bonds with a duration of 10 years and longer increased from 6.9% to 9.6%, which shows

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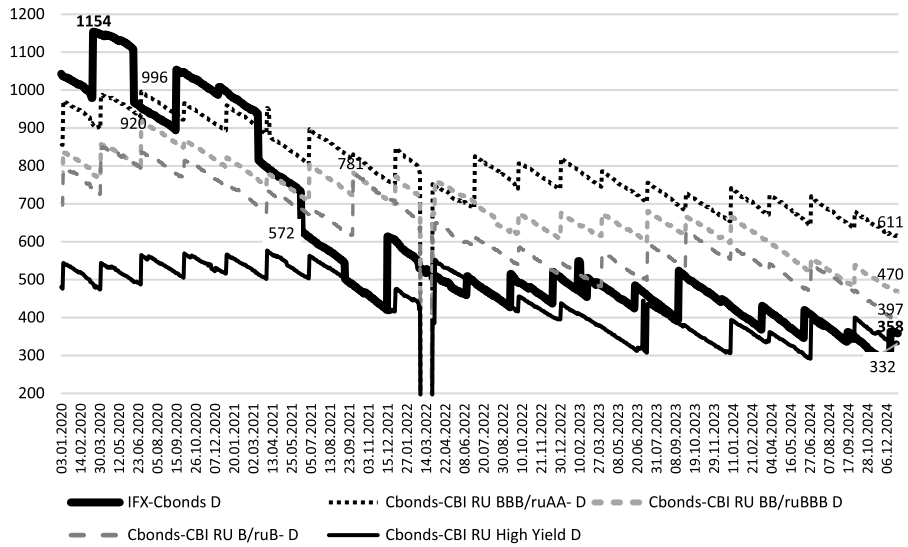


Fig. 37. Duration of corporate bonds (days) from January 1, 2020 to December 30, 2024

Source: own calculations based on the data of Cbonds.

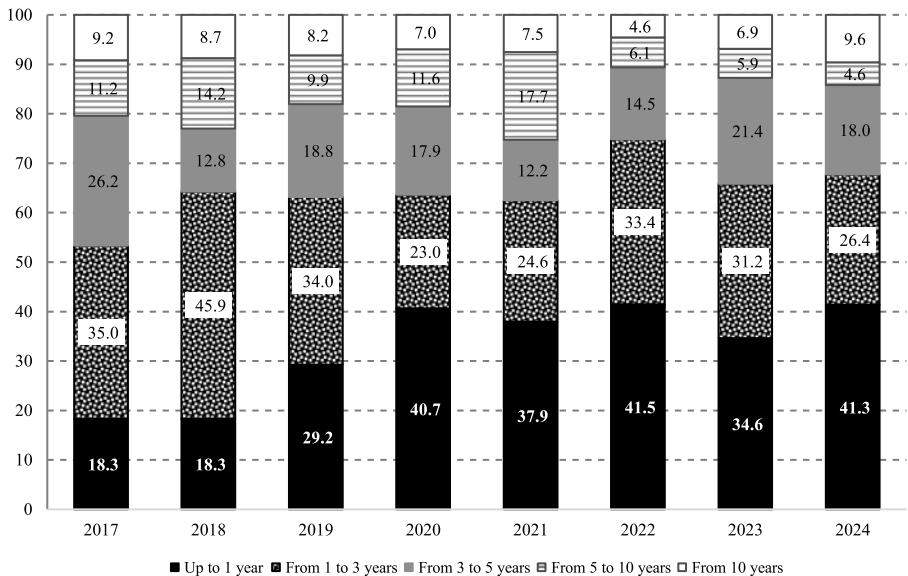
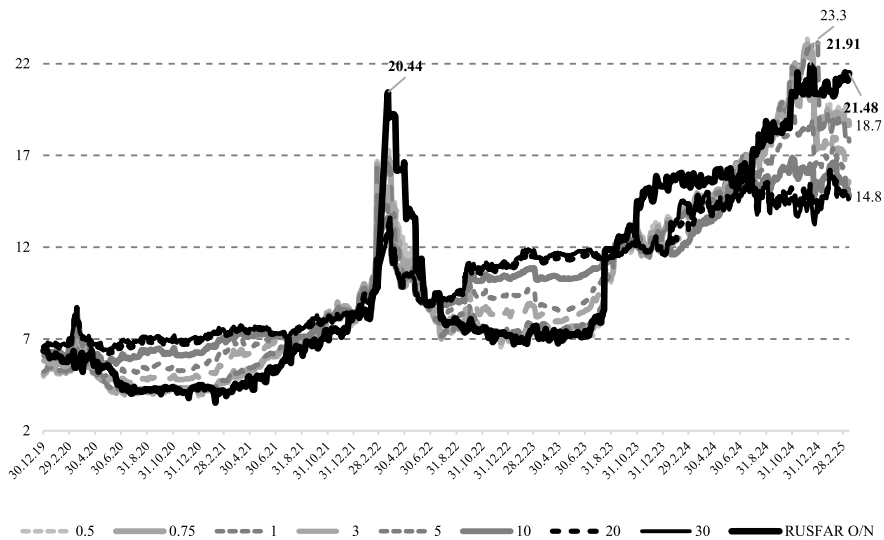


Fig. 38. Structure of corporate bonds with different maturities in 2017–2024, %

Source: own calculations based on data of the RF Central Bank's Financial Instruments Review for a number of years; URL: https://www.cbr.ru/ec_research/analitics/



Note: RUSFAR is the interest rate of the Russian money market, calculated by the Moscow Exchange on the basis of REPO transactions with the Central Counterparty, which are secured by clearing participation certificates.

Fig. 39. Values of the zero-coupon yield curve of OFZ with a maturity of 0.5 to 30 years and the RUSFAR money market rate from December 30, 2019 till March 14, 2025 (% per annum)

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

a pickup in demand for very long-term corporate bonds in anticipation of normalization of inflation and a decrease in the key rate in the medium term.

As shown in *Fig. 39*, the two-stage increase in the key rate in July 2023 and July 2024 caused an inversion of the yield curve of government bonds, when the money market rate (RUSFAR O/N) and the yield to maturity of short-term (1-year) OFZs begin to exceed the yield on 10-year and other long-term government securities. Generally, the exit from the reversion takes place when the central bank begins to cut rates and the yield on short-term bonds falls at an accelerated pace, catching up with the yield on long-term securities. As rate cuts are often carried out in order to prevent a recession, the moment of exit from the inversion often signals the possible onset of a recession in 6 months or more.

The increase in the key rate in July 2023 led to an increase in the yield on short-term bond issues and money market rates with a moderate increase in the yield to maturity of long-term OFZ issues because investors expected that the high key rate would help reduce inflation and that the RF Central Bank would start reducing this rate no later than the beginning of H2 2024. In July- December 2023, the yield on 1-year OFZs grew from 8.5% to 12.5%, while that on 10-year government bonds, only from 10.9% to 11.9%.

However, as early as January-February 2024, amid the lack of marked progress in reducing inflation, OFZ market participants began to doubt that the Bank of Russia would be able to bring inflation to the level of 4.0–4.5% by the end of 2024, so the yield on long-term OFZ issues began to grow at a high rate, and when placing new OFZ issues, the RF Ministry of Finance had to increase the yield on bonds, providing buyers with an additional premium compared to the yield on similar outstanding bonds.¹ From December 2023 to July 2024, with an increase in the yield on 1-year OFZs from 12.5% to 16.8%, or by 4.3 p.p., the yield on 10-year bonds increased from 11.9% to 15.9%, or by 4.0 p.p., that is, market participants did not expect inflation to decrease in the long term.

A new wave of a rise in the key rate from July to October 2024 proved market participants' expectations that actual inflation would be higher than the RF Central Bank's targets. On the back of a rise in the key rate, the inversion of the OFZ yield curve increased. At the same time, growth in yields on long-term bonds slowed down. From July to December 2024, the yield on 1-year OFZs increased from 16.8% to 23.3%, and that on 10-year OFZs decreased from 15.9% to 15.2%. This means that market participants expect the current rate to facilitate a decrease in inflation and no considerable increases are expected.

The Corporate Bond Market

High interest rates have slowed growth of the corporate bond market in 2024. After the cost of new corporate bond issues increased by 75.3% in 2023, it fell to 11.3% in 2024. The share of corporate bonds in the value of bank loans to businesses decreased from 39.9% in 2023 to 35.7%.

Nevertheless, the continued growth of the corporate bond market, albeit at a slightly slower rate, in 2024 amid a record-high key rate of the RF Central Bank is an unusual phenomenon. It can be explained by companies' stable need to re-finance previous bond issues, as well as the use of floaters, which are attractive to investors when high inflation prevails. Further, with growth of credit spreads, the bond market remained stable, without mass defaults. This is explained not only by the fact that over the previous years issuers have accumulated some liquidity and investors were ready to buy bonds even amid banks' very high deposit rates. In our opinion, the propensity of issuers to default remained low also due to their fear of being subject to administrative and criminal prosecution as a result of such events.

In 2024, the new corporate bond issues' overall volume of Rb 8.1 trillion was higher than that of Rb 7.2 trillion in 2023 only owing to companies' increased issuing activity in September-December 2024 after issuers began to adapt to the conditions of a high key rate of 21% per annum (*Fig. 40*).

1. URL: <https://quote.rbc.ru/news/article/65d611589a79479c6573e62c>

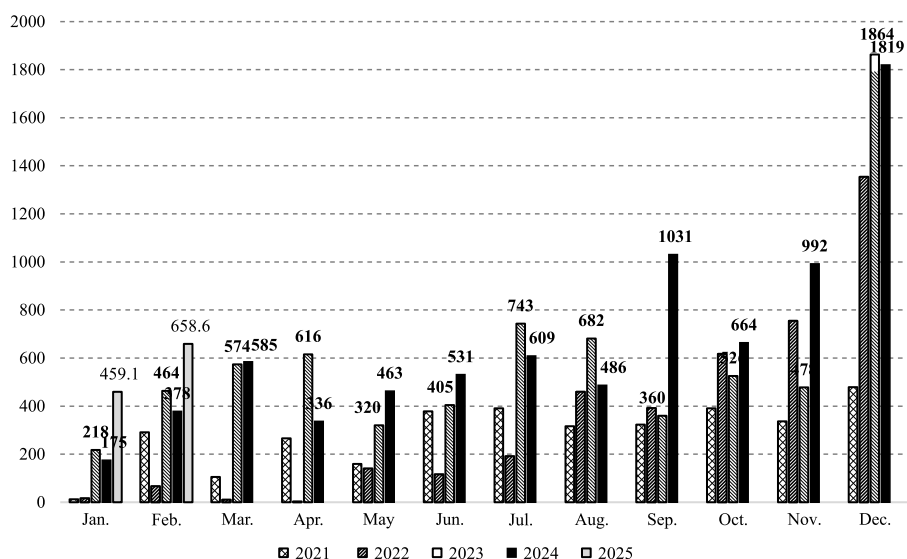


Fig. 40. The volumes of corporate bond placements
in 2020–2024 and January–February 2025, billion rubles

Source: own calculations based on the data of Cbonds.

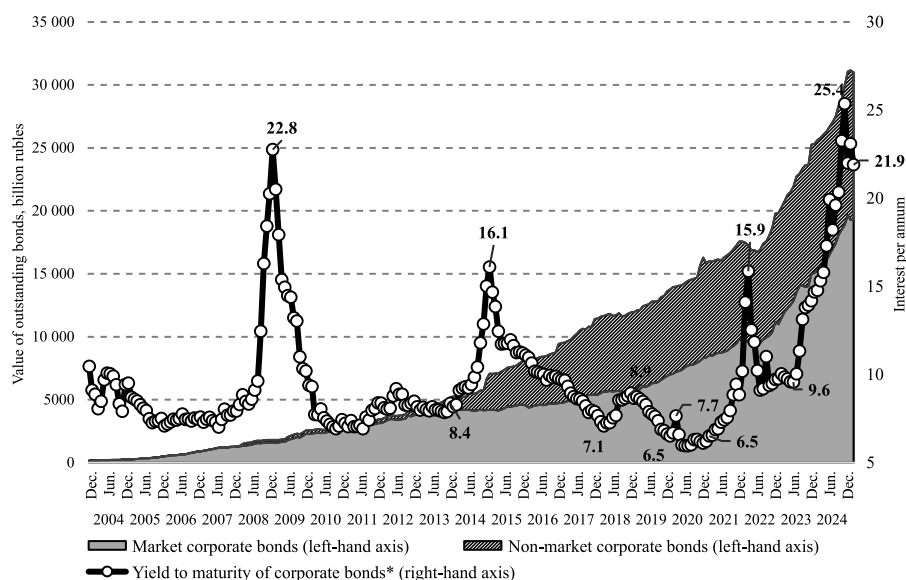
After the 2008 crisis, the ruble yield on the IFXCBND index of the most liquid corporate bonds of large issuers grew now and then on the back of drops in oil prices and investor fears amid geopolitical risks (Fig. 41). The peaks of the yield to maturity of the index portfolio in 2014 and in February 2022 coincided with the highest values of the key rates set by the RF Central Bank. Since 2014, the corporate bond market growth has been largely facilitated by growth of non-market bond issues.¹

In November 2024, the yield to maturity of IFXCBND bond index reached 25.4%, an absolute record since the beginning of 2004. It is noteworthy that even during the 2008 crisis this ratio was equal to 22.8%, and with the start of the SMO and the introduction of sanctions it amounted only to 15.9%. As the situation stabilized and investors began to hope that the key rate would stop growing and decrease from H2 2025, this ratio fell to 21.9% in February 2025. In February 2025, out of the total value of Rb 31.0 trillion worth of outstanding ruble-denominated corporate bonds, market bond issues accounted for Rb 19.2 trillion, or 62.2%.

1. According to the definition of the RF Central Bank, a non-market issue means a situation where the buyback of all or most of the placed issue is carried out by the lead bank or companies close to the issuer (The RF Central Bank (2020). Review of the Russian Financial Sector and Financial Instruments. 2019. Analytical material. P. 37).

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* Yield to maturity (YTM) on IFXCBN portfolio.

Fig. 41. The value of outstanding ruble-denominated corporate bonds and the yield to maturity of the IFX-Cbonds corporate bond portfolio from December 2003 to February 2025

Source: own calculations based on Cbonds data.

In 2024, the pattern of corporate bond issues was dominated by financial instruments with a high credit rating. The share of bonds with an AAA rating increased from 55.5% in 2023 to 65.2% in 2024, while bonds with ratings from A- to AA+ decreased slightly — from 32.0% to 29.5% (Fig. 42). At the same time, the share of bonds with a rating below investment grade BB+ to BBB+ and the share of bonds with no or withdrawn credit rating decreased over the same time from 2.0% to 1.3% and 10.3% to 3.9%, respectively. In the absence of access to external financing, the largest issuers with a high-quality investment rating entered the domestic bond market first.

The number of issuers on the Moscow Exchange corporate bond market considerably exceeds that of companies listed on the stock exchange. In this sense, the corporate bond market is used more actively than the stock market to attract new funds and refinance companies in various sectors of the economy. The number of corporate bond issuers on the Moscow Exchange increased from 451 in 2023 to 606 in February 2025, or by 34.4% (Fig. 43).

A positive trend is the gradual decrease in the concentration level of new bond issues starting from 2021, which is evidence that an increasingly wider range of issuers are gaining access to bond borrowing. The share of the top 20 issuers in the over-

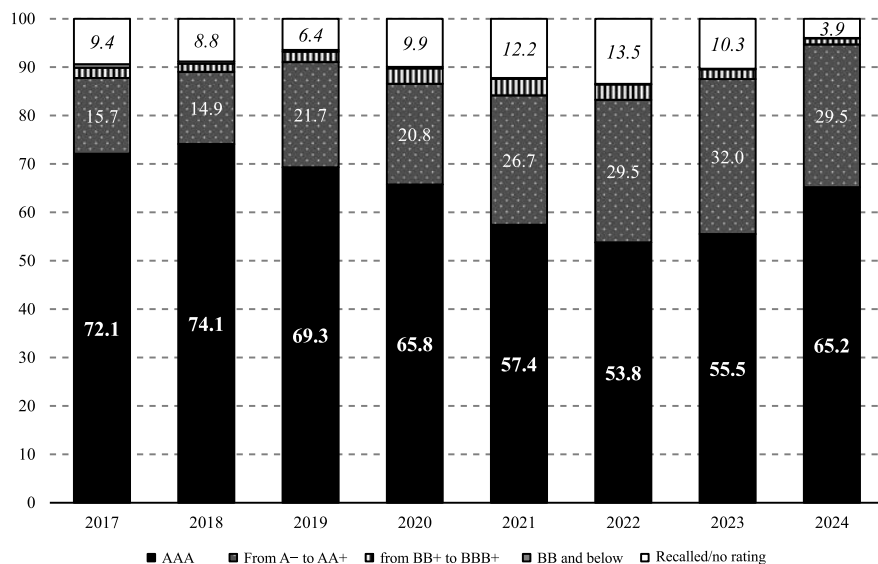


Fig. 42. Rating pattern of corporate bonds by issue value in 2017–2024, %

Source: own calculations based on the data of the Review of Financial Instruments of the RF Central Bank for a number of years URL: https://www.cbr.ru/ec_research/analitics/

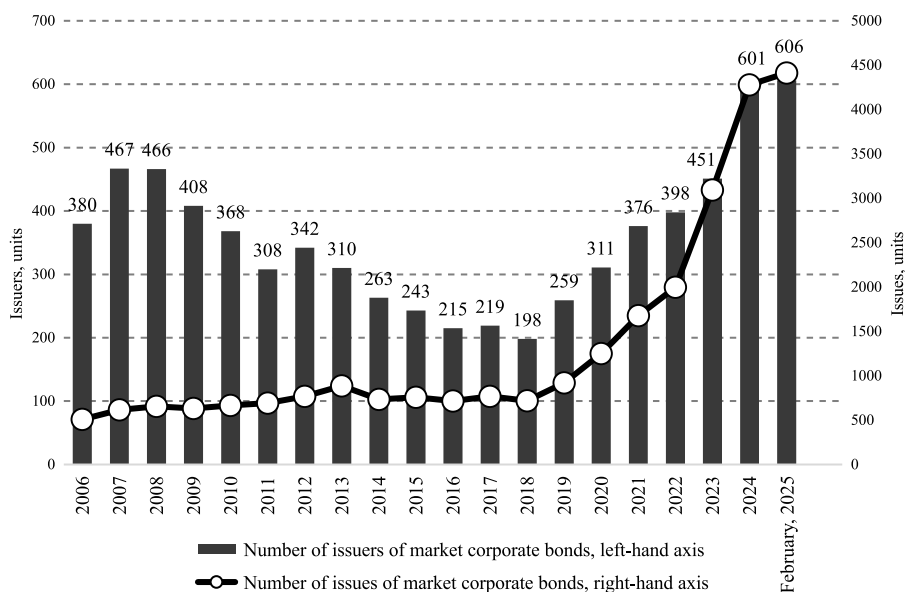


Fig. 43. Number of issuers and market issues of corporate bonds on the Moscow Exchange from 2006 to February 2025

Source: own calculations based on the data of Cbonds.

all volume of new bond issues decreased from 78.6% in 2020 to 73.4% in 2024, and the share of the top 10 issuers, from 68.3% to 56.7, respectively (Fig. 44).

In 2024, the group of issuers DOM.RF, DOM.RF Mortgage Agent, Bank DOM.RF and SOPF DOM.RF accounted for about 10.6% of the value of ruble-denominated corporate bond issues, Rosneft 9.0%, VEB.RF 7.5%, SFO Optimum Finance 02 7.1%, SFO Ideas and Investments 5.0%, Rostec 4.5% and VTB 4.1% (Table 4). In 2022–2024, a specific feature of the corporate bond market was the active attraction of funds by the so-called SFO (specialized financial companies), established as JSC or LLC on the basis of Article 15.1 of Federal Law No 39-FZ of April 22, 1996 “On the Securities Market” with a non-transparent ownership structure and data on their activities. As a rule, such organizations are formed to finance large business projects to limit sanction risks for issuers and investors, or for the purpose of issuing structured notes by financial institutions. According to our calculations, in 2024 the cost of new issues of SFO bonds to finance development projects (excluding issues of structured notes) amounted to about Rb1.5 trillion, or 19.7% of the market issues of corporate bonds in our sample when calculating the data in Table 4.

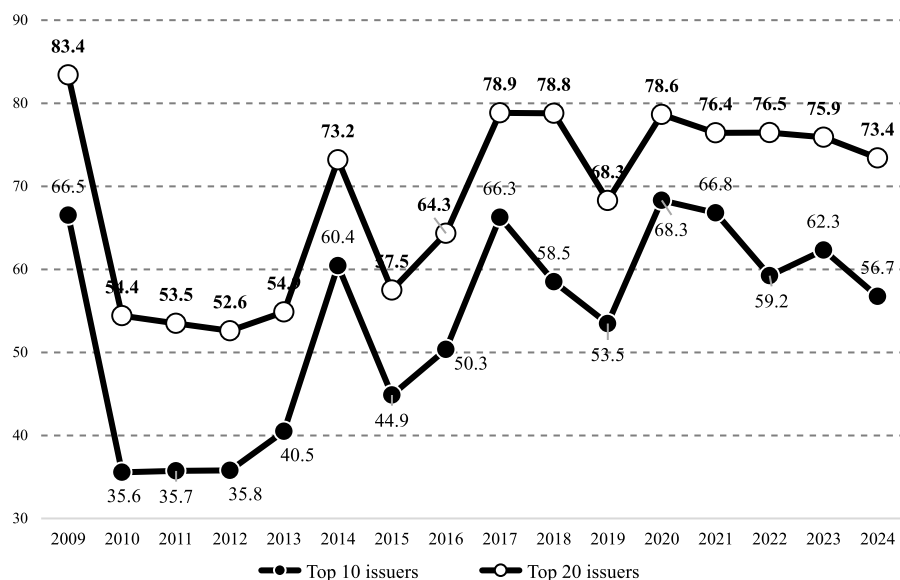


Fig. 44. Share of the top 10 and top 20 issuers in new issues of ruble-denominated corporate bonds in 2009–2024, %

Source: own calculations based on the data of Cbonds.

In 2022–2024, the share of KGU (municipal public institutions) and SFO, which are essentially government-sponsored business financing programs, increased si-

Table 4

The top 10 issuers of corporate bonds (CB) and their share in the total value of the issue of ruble-denominated CB

	Issuers	2021		Issuers	2022		Issuers	2023		Issuers	2024	
		Billion rubles	%		Billion rubles	%		Billion rubles	%		Billion rubles	%
1	DOM.RF Mortgage Agent	418	13.3	DOM.RF and DOM.RF Mortgage Agent	519	18.6	Gazprombank and Gazprom Capital	1106	18.6	DOM.RF and DOM.RF Mortgage Agent. Bank DOM.RF and SPPF DOM.RF	806	10.6
2	VEB.RF	411	13.1	Avtodor	277	10.0	DOM.RF and DOM.RF Mortgage Agent	776	13.0	Rosneft	684	9.0
3	Sberbank of Russia and Sberbank KIB	399	12.7	SFO Ideas and Investments	156	5.6	SFO Ideas and Investments	316	5.3	VEB.RF	568	7.5
4	VTB, including Demetra Holding	273	8.7	VEB.RF	156	5.6	NLK-Finans	265	4.4	SFO Optium Finans, O2	542	7.1
5	Veresayeva 6	130	4.1	Sberbank of Russia and Sberbank KIB	149	5.3	Avtodor	263	4.4	SFO Ideas and Investments	377	5.0
6	Gazprombank and Gazprom Capital	162	5.2	SFO Aurum-1	101	3.6	Sberbank of Russia and Sberbank KIB	259	4.3	Rostec	340	4.5
7	OTEKO-Portservis	96	3.1	SFO MIP-1	83	3.0	SFO Optium Finans	208	3.5	VTB Bank (PAO)	315	4.1
8	Alfa-Leasing	76	2.4	Rosseti	80	2.9	VEB.RF	186	3.1	Gazprom Capital	260	3.4
9	RZhd	69	2.2	MTS	72	2.6	Aviakapital-Servis	180	3.0	SFO PB Servis Finans, O1	226	3.0
10	AFK Sistema	63	2.0	SFO Media Assets	58	2.1	RZhd	150	2.5	GMK Norilsk Nickel	200	2.6
	Capitalization of all issues of CB	3137	100	Capitalization of all issues of CB	2787	100	Capitalization of all issues of CB	5958	100	Capitalization of all issues of CB	7611	100
	Capitalization of issues of Top-10 issuers of CB	2096	66.8	Capitalization of issues of Top-10 issuers of CB	1651	59.2	Capitalization of issues of Top-10 issuers of CB	3710	62.3	Capitalization of issues of Top-10 issuers of CB	4319	56.7

Source: own calculations based on the data of Cbonds.

gnificantly in the top 20 issues of the largest issuers. If in 2020 and 2021 the share of KGU in the top 20 issues was equal to 85.3% and 84.2%, in 2022, 2023, and 2024 the share of KGU and SFO amounted to 96.7%, 87.4%, and 92.4%, respectively. This is a manifestation of the upward trend of the role of government borrowers in the debt market of corporate issuers.

The data in *Table 5* show that corporate bonds, despite the annual volume of new issues amounting to Rb8.1 trillion in 2024, are not yet an instrument for financing the structural transformation of the Russian economy. In the overall value of outstanding corporate bonds, the share of financial institutions' bond issues increased from 43.7% in 2023 to 47.4% in 2024. The share of the financial sector, together with mining, transportation, electric power industry, construction and basic materials, which traditionally dominate in the Russian economy, amounted to 86.3% of the value of corporate bond issues in 2024. Companies in such sectors as manufacturing, chemistry and petrochemistry, IT, telecommunications and communications, education and other currently account for the mere 13.7% of outstanding bonds.

Table 5

Industry structure of the ruble corporate bond market in 2018-February 2025, %

	2018	2019	2020	2021	2022	2023	2024	February 2025
Financial institutions	40.3	41.8	40.2	42.9	43.7	43.7	47.4	47.7
Production of oil, gas and coal	30.2	27.9	28.3	25.5	25.3	27.1	26.4	25.3
Transportation	9.5	8.9	9.3	9.7	7.6	5.9	5.4	5.6
Electric power industry	4.6	3.9	3.2	2.8	3.1	2.9	3.1	3.1
Building	4.1	4.4	4.4	4.3	5.4	5.2	4.0	4.0
Basic materials	2.0	2.8	2.6	1.9	3.7	4.3	4.9	4.7
IT, telecommunications, communications	2.2	2.9	3.0	2.7	2.5	3.3	3.3	3.5
Chemistry and petrochemistry	2.6	2.1	2.5	3.7	2.4	2.3	2.4	2.3
Other industries	4.4	5.4	6.5	6.5	6.3	5.3	3.1	2.1

Source: own calculations based on the data of Cbonds.

As a result of the requirement for Russian companies to replace Eurobond issues with replacement bonds, the volume of Eurobond issues decreased from \$46 bn in 2023 to \$30 bn in 2024, or by 25.0% (*Fig. 45*). At the same time, a considerable portion of Eurobond issuers maintain these issues in the hope of returning to the global financial market if sanctions are eased.

In 2024, the corporate bond market saw a surge in innovative activity by issuers in terms of issuing various types of debt financing instruments. The value of replacement bond issues increased from Rb1.8 trillion in 2023 to Rb2.4 trillion in 2024,

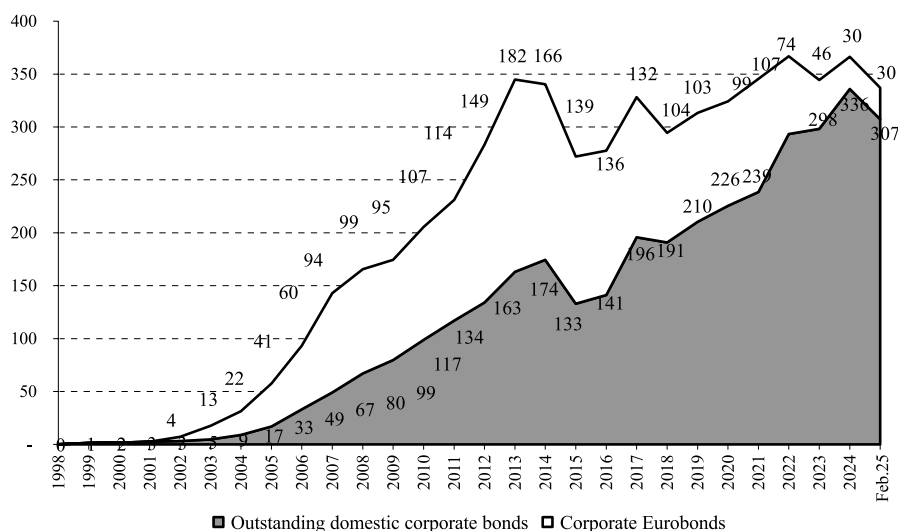


Fig. 45. Volumes of Russian issuers' corporate bonds in circulation from 1998 to February 2025, billion USD

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

Table 6

Value of outstanding corporate bond issues with special risk features or issue terms, billion rubles

Types of bonds	2022	2023	2024	Increase in 2024 on 2023, %
Replacement bonds	545.9	1788.2	2393.4	33.8
Foreign currency bonds (domestic market)	4006.5	5008.9	6671.2	33.2
Bonds in yuan	599.4	1088.1	1754.8	61.3
Corporate bonds – floaters	3696.3	4160.5	5497.6	32.1
Gold-linked bonds		17.8	34.0	90.9
VDO (High Yield Bonds)	73.0	89.5	18.7	-79.1
Green bonds	300.3	336.6	337.1	0.2

Source: own calculations based on data of Cbonds and the RF Central Bank's Financial Instruments Review for a number of years.

or by 33.8%. The value of foreign currency bonds increased from Rb5.0 trillion in 2023 to Rb6.7 trillion in 2024, or by 33.2%, the volume of corporate bonds in yuan, from Rb1.1 trillion to Rb1.8 trillion, or by 61.3% (Table 6).

To raise the attractiveness of corporate bonds for investors amid high inflation and a volatile key rate of the RF Central Bank in 2023, companies began to issue more actively floaters with a floating coupon income. The cost of their issues in-

creased from Rb 4.2 trillion in 2023 to Rb 5.5 trillion in 2024, or by 32.1%. According to the data of the RF Central Bank, 49.3% of the total volume of corporate floater issues in 2024 was accounted for by the oil and gas industry, 11.6% by transportation, 9.3% by energy and 6.1% by non-ferrous metallurgy. The risks of an increase in floater issues are reflected in the fact that companies have begun to take on the risks of interest rate changes to a greater extent.

By contrast with 2023, in 2024 there was a significant reduction in VDO issues. Their value decreased from Rb 89.5 bn in 2023 to Rb 18.7 bn in 2024, or by 79.1%. According to the RF Central Bank, in 2023 the main VDO investors were private investors and credit institutions, which accounted for 83.6% and 12.1%, respectively, in the structure of holders of these bonds. The dominance of individuals in the structure of VDO holders distinguishes the Russian market from those of developed countries in which institutional investors are the main holders of these bonds.

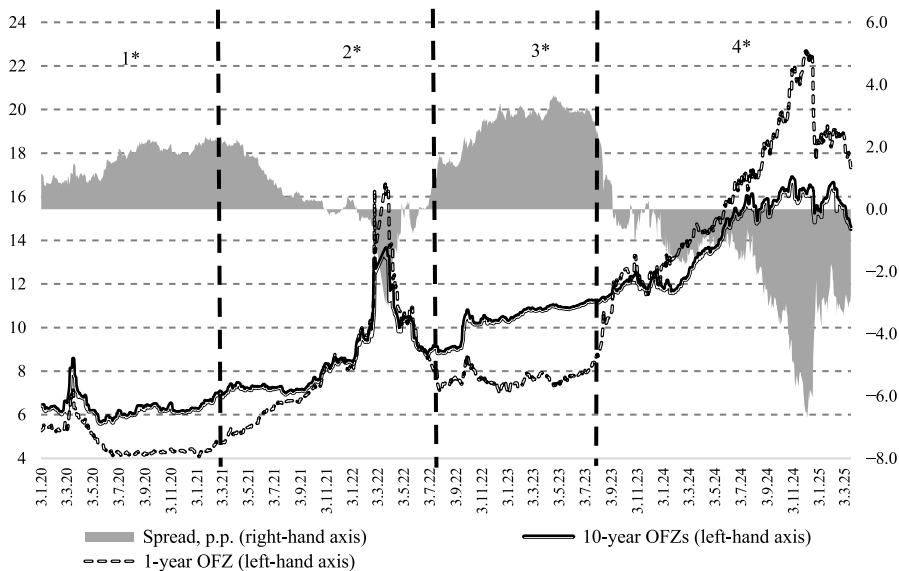
Despite the decline in global interest in ESG investments, there has been no noticeable decline in the green bond market in Russia. In 2024, their issues worth Rb 337.1 bn remained virtually at the previous year level. In 2023, two gold mining companies issued Rb 17.8 bn worth of bonds linked to the price of gold, that is, a new type of bonds on the domestic market interesting for investors who invest in gold and its derivatives. In 2024, the value of gold-linked bond issues increased to Rb 34.0 bn, or by 90.9%.

Thus, the corporate bond market kept growing in 2024, although at a more moderate pace compared to its growth in 2023 and that of bank loans to businesses. Amid record high interest rates, issuers had to refinance debts by taking on credit and interest rate risks. At the same time, the bond market demonstrated a high level of adaptability of its participants to difficult business conditions. This was reflected in the outpacing growth of new bond categories such as yuan-denominated bonds, corporate floaters, foreign currency bonds and bonds pegged to the value of gold.

The government bond market of the Russian Federation

Despite the difficult situation on the financial market in 2024, OFZ new issues amounted to Rb 4.3 trillion this year, an increase of 57.3% on 2023. In 2024, the RF Ministry of Finance surpassed the planned target for gross attraction to the budget by issuing Rb 3.9 trillion worth of government bonds, with its specification in July 2024 taken into account. The volume of new OFZ issues in 2024 in the amount of 4.3 trillion rubles. In 2024, the volume of new OFZ issues, amounting to Rb 4.3 trillion, was second only to the volume of funds (Rb 6.6 trillion) raised in 2020.

It is planned to raise significant amounts of funds for the budget through the issue of government bonds in 2025–2027. In accordance with the budget legislation, the net funds raised through the placement of OFZs should amount to Rb 3.4 trillion, Rb 3.7 trillion and Rb 3.9 trillion in 2025, 2026 and 2027, respectively.



Notes. 1* is the period of a stable key rate from January 03, 2020 to January 22, 2021, when the key rate first decreased from 6.25% to 4.25% and then remained low and stable at 4.25% from July 20, 2020 to March 22, 2021; 2* is the period of high volatility of the key rate from March 22, 2021 to July 25, 2022 when it increased from 4.25% to 20.0% by April 08, 2022 and then began to sharply decrease to 8.0% by July 25, 2022; 3* is a period of relative stability of the key rate from July 25, 2022 to July 24, 2023, when the rate decreased from 8.0% to 7.5% and remained at this level from September 19, 2022 to July 24, 2023; 4* is a new wave of growth of the key rate on the back of inflation expectations from July 24, 2023 to the present (March 18, 2025), when the rate increased from 7.5% to 21.0% with expectations of its decrease only in H2 2025.

Fig. 46. Yield to maturity of one- and 10-year OFZs in percent per annum and the spread between the yield on 10- and one-year OFZs in percentage points from January 3, 2020 to March 18, 2025

Source: own calculations based on the data of the RF Central Bank and the Moscow Exchange.

One of the indicators of the stability of conditions for the placement of government bonds is the yield-to-maturity spread of 10-year and 1-year government bonds. With positive expectations of a decrease in the rate of inflation and continued economic growth, the yield on long-term securities normally exceeds that on short-term bonds. With high inflation, an unstable key rate and expectations of growth slowdown, an inversion of the yield curve of bonds take place, when the yield to maturity of short-term bonds exceeds the ratio for securities with a long duration. Due to a high key rate or a shortage of liquidity, the short-term cost of money is high, and a decrease in key rates is expected for long-term bonds to support economic growth.

From January 2020 to March 18, 2025, four periods can be singled out in the government securities market (*Fig. 46*). The first period from January 3, 2020 to March 22,

2021 is characterized by a stable key rate and favorable conditions for the placement of OFZs. During this period, the yield to maturity of 1-year OFZs decreased from 5.6% per annum to 5.4% per annum, or by 0.2 p. p., the yield on 10-year government securities increased from 6.4% to 7.4%, or by 1.0 p. p.

The second period from March 22, 2021 to July 25, 2022 is characterized by increased volatility of the key rate, inversion of the yield curve of government bonds and difficulties in raising funds when issuing OFZs. During this period, the yield to maturity of one-year OFZs increased from 5.4% to 7.2% per annum, or by 1.8 p. p. and the yield on 10-year government securities, from 7.4% to 8.8%, or by 1.4 p. p.

The third period — July 25, 2022 to July 24, 2023 — was characterized by relative stability of the key rate and high activity of the RF Ministry of Finance in placing bonds to finance the budget deficit. During this period, the yield to maturity of one-year OFZs increased from 7.2% per annum to 8.4% per annum, or by 1.2 p. p. and the yield on 10-year government securities, from 8.8% to 11.2%, or by 2.4 p. p.

The fourth period — July 24, 2023 to March 18, 2025 — saw growth in the key rate, recovery of the yield curve inversion and volatile investor demand for OFZs. During this period, the yield to maturity of one-year OFZs increased from 8.4% per annum to 17.3% per annum, or by 8.9 p. p. and the yield on 10-year government bonds, from 11.2% to 14.5%, or by 3.3 p. p.

Thus, it can be assumed that the signs of unfavorable conditions for the placement of OFZs are high volatility of the key rate and growth of the spread between 1-year- and 10-year government bonds in the process of inversion of the yield curve of government securities. With the inversion prevailing, the yield on bonds has begun to decline since November 29, 2024 and this spread started to decrease. Accordingly, the opportunities for new issues of government bonds began to increase.

The placement of new OFZ issues in 2024 was highly uneven (*Fig. 47*). Of the total value of new bond issues amounting to Rb 4.3 trillion, Rb 2.1 trillion, or 48.6% of all annual placements, were raised in December alone. This was facilitated by the RF Central Bank's refusal to raise the key rate above 21%, despite the continued growth in inflation in November and December 2024. In addition, according to a number of experts¹, the main buyers of new OFZ issues in December 2024 were state-owned banks, particularly VTB. In order to buy new OFZs, state-owned banks could use funds raised from the RF Central Bank through repo transactions against the pledge of securities.

The total value of government bond issues increased from Rb 20.2 trillion in 2023 to Rb 23.2 trillion in 2023, or by 14.9% (*Fig. 48*). The growth in the value of OFZs was facilitated by three types of government securities: OFZ-PK, a floating-coupon bond (floaters), OFZ-PD (a fixed-income bond) and OFZ-IN, a bond with a par value indexed to the inflation rate (linkers).

1. The Kommersant daily (2024). Repetition is the Mother of Attraction // The Kommersant online, December 11, 2024. URL: https://www.kommersant.ru/doc/7364972?from=glavnoe_7

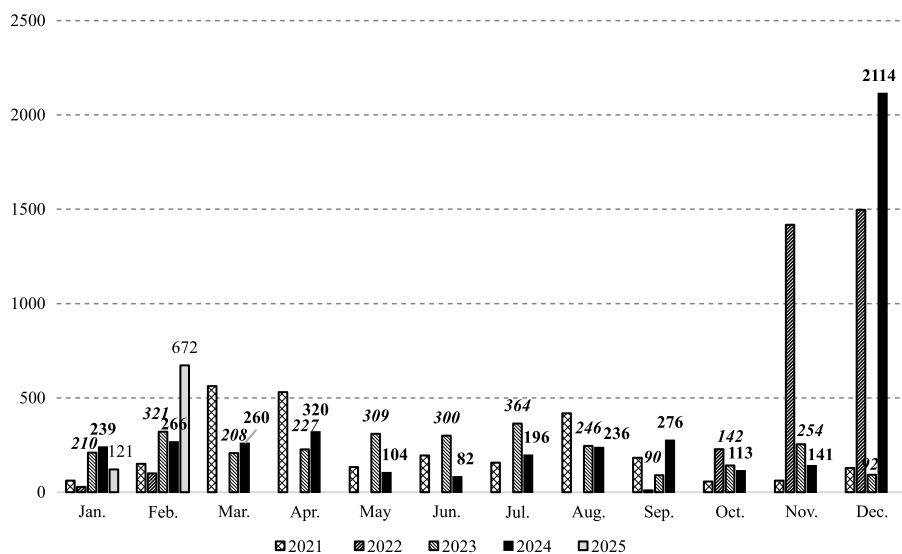


Fig. 47. Volumes of OFZ placements at auctions
in 2021–2024 and January–February 2025, billion rubles

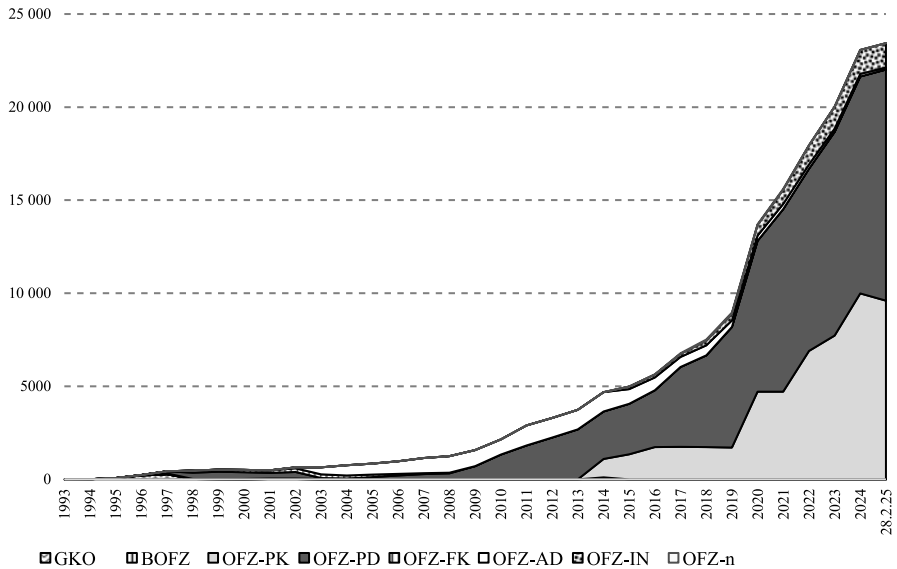
Source: own calculations based on the data of Cbonds.

The most significant segment of the OFZ market in terms of value is OFZ-PD with a constant coupon income. The amount of coupon income on these OFZs is set in advance for the entire period of duration, thus making it feasible the RF Ministry of Finance to effectively manage the costs related to public debt servicing without taking on interest rate risks. OFZ-PDs are characterized by a diversified owner structure facilitating a higher level of liquidity of this type of OFZ. According to the RF Central Bank, in 2023, 27.3% of these bonds belonged to credit institutions, 22.9% to public sector entities, 15.6% to NPFs, 13.7% to non-residents, 7.4% to insurers, 6.9% to other financial institutions and 3.5% to private investors. Before the sanctions, the main investors in OFZ-PDs, particularly with a long duration, were for quite a long time foreign portfolio investors. The value of OFZ-PD increased from Rb 10.9 trillion in 2023 to Rb 11.7 trillion in 2024, or by 7.3%.

Amid rising inflation and the key rate, OFZs with a floating coupon (OFZ-PK) are usually more attractive to domestic investors, providing them with more flexibility in managing liquidity and interest rate risks. In OFZ-PK, the coupon size is linked to the RUONIA money market rate, which usually follows the values of the RF Central Bank's key rate. The overall value of outstanding OFZ-PK bonds increased from Rb 7.7 trillion in 2023 to Rb 10.0 trillion in 2024, or by 29.9%, that is, floater issues grew faster than OFZ-PD.

Russian economy in 2024

Trends and outlooks



Note: The following abbreviations are used here and below:

BOFZ is zero-coupon federal loan bonds;

GKOs is government short-term zero-coupon bonds;

OFZ is federal loan bonds;

OFZ-AD is federal loan bonds with debt amortization;

OFZ-IN is federal loan bonds with a par value indexed to the inflation rate in the Russian Federation ("linkers");

OFZ-PD is federal loan bonds with a fixed coupon income;

OFZ-PK is federal loan bonds with a variable coupon income "tied" to the RUONIA rate ("floaters");

OFZ-n is federal loan bonds for individuals ("people's bonds").

Fig. 48. Volume of outstanding GKO-OFZ issues from 1993 to February 2025, billion rubles

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

Based on the results of the federal budget execution in 2024, the RF Accounts Chamber stated¹ that the use of floating rate instruments under unfavorable macroeconomic conditions may lead to an increase in the cost of servicing the national domestic debt, thus limiting the federal budget's ability to finance infrastructure projects. According to the calculations of the RF Accounts Chamber, the cost of servicing the national domestic debt increased from Rb 1.3 trillion in 2022 to Rb 1.7 trillion in 2023 and Rb 2.3 trillion in 2024, which is equal to 3.8%, 4.8% and 5.4% of the federal budget expenditure, respectively. According to our estimates, the spe-

1. The RF Accounts Chamber. The Operational report on the implementation of the federal budget in January-December 2024. URL: <https://ach.gov.ru/upload/iblock/f7d/mp3zg8a6s3o7gzxxv2sl260u2r6m-wmu4.pdf>

cified amount of expenditure for 2024 exceeds government expenditure on education and healthcare separately.

OFZ-IN (linkers) envisage indexation of the nominal value of bonds depending on the level of inflation measured by the consumer price index (CPI). By virtue of their protective properties, they are in demand among domestic institutional investors. According to the RF Central Bank, in 2023, 33.4% of linkers belonged to credit institutions, 30.8% to NPFs, 28.3% to other financial institutions, 4.7% to non-residents, 1.3% to insurers and only 1.3% to private investors. Such a structure with a dominance of institutional investors holding bonds until maturity reduces the liquidity of OFZ-IN on the stock market. The value of OFZ-IN increased from Rb 1.2 trillion in 2023 to Rb 1.3 trillion in 2024, or by 9.5%.

Two other types of government bonds — OFZ-AD with amortization of the principal debt for investing pension savings in a volatile financial market and OFZ-n, which are called “people’s bonds” because of their focus on private investors’ investments in the over-the-counter market -- are not popular under the current conditions. The value of OFZ-AD decreased from Rb 176 bn rubles in 2023 to Rb 140 bn in 2024, or by 20.5%. OFZ-n were fully repaid by February 28, 2025. The issuer’s previous hopes for the popularity of these bonds with households when selling them to private investors directly through banks, with the exchange infrastructure bypassed, did not come true.

Over 12 years from February 2013, i.e. from the moment the nominee holder accounts were opened with the National Settlement Depository (NSD) by Euroclear and Clearstream, foreign settlement and clearing institutions, until January 2025, the share of non-resident investments in OFZ was very volatile (*Fig. 49*). The maximum share of non-resident investments in OFZ was reached in February 2020 (34.9%), in January 2025 it fell to 4.0%.

Such a sharp decrease in the volume of non-resident investments in OFZs, despite the blocking of these funds in Russian depositories during the sanctions, suggests that many non-residents from unfriendly countries still managed to avoid Russian counter restrictions provided for by Federal Law No. 319-FZ of July 14, 2022, by reselling securities to entities that were not subject to sanctions.¹

The value of non-residents’ investments in Russian Eurobonds decreased from \$14.8 bn in 2023 to \$9.1 bn in 2024, or by 38.5% (*Fig. 50*). At the same time, the share of non-residents in Russian Eurobonds decreased from 44.8% in 2023 to 28.1% in 2024, or by 16.7 p.p. In the future, the share of non-residents in government Eurobonds will decrease as the RF Ministry of Finance expands the practice of issuing replacement bonds.

The total value of RF government bonds increased slightly from \$272 bn in 2023 to \$278 bn in 2024, or by 2.2%. At the same time, the share of ruble-denominated bonds increased from 87.5% in 2023 to 90.3% in 2024 (*Fig. 51*).

1. *Frank Media* (2023). Non-residents continue to sell OFZs at a discount of up to 40% in 2023. URL: <https://frankrg.com/110155>

Russian economy in 2024

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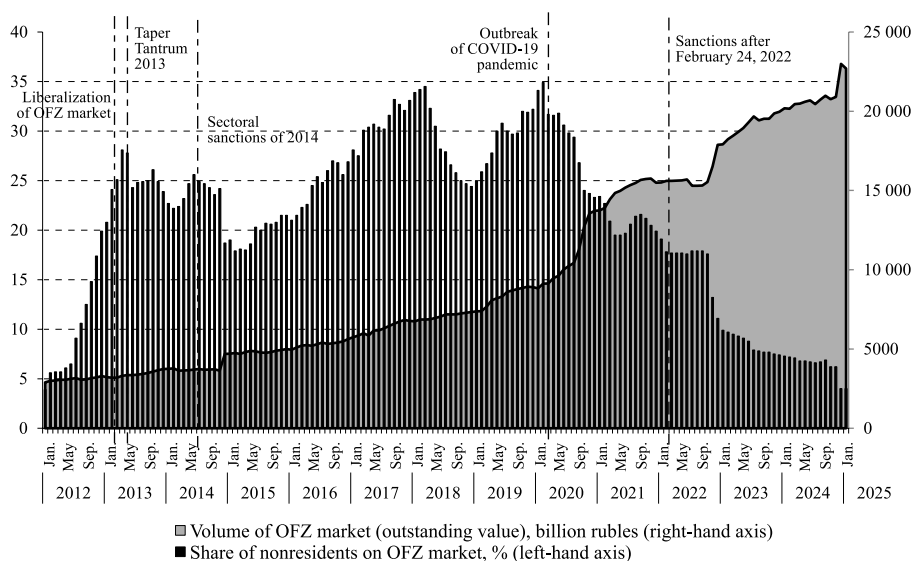


Fig. 49. Share of non-residents in the OFZ market (%) and the value of outstanding OFZs (billion rubles) from February 2012 to January 2025

Source: own calculations based on the data of the RF Central Bank and Cbonds.

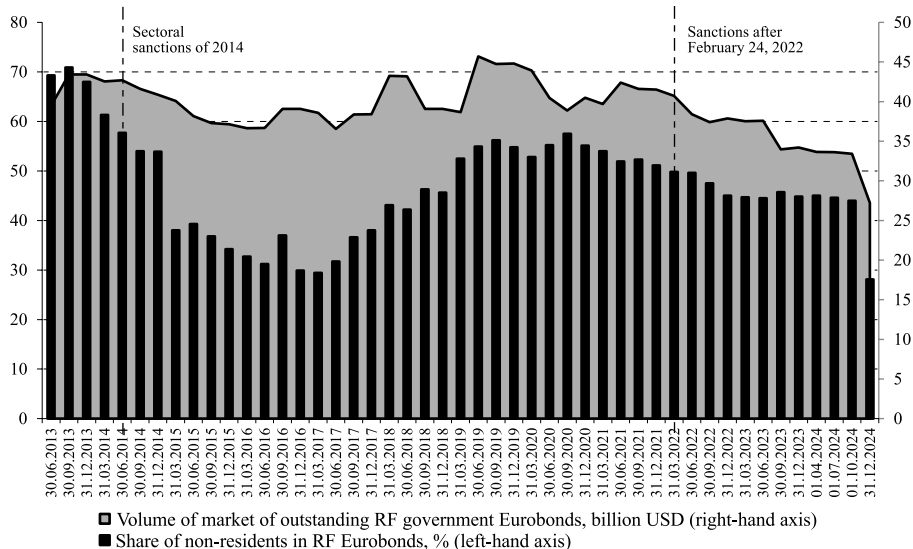


Fig. 50. Share of non-residents in the RF government Eurobonds market (%) and the value of outstanding RF government Eurobonds (billion USD), July 2013 to December 2024

Source: own calculations based on the data of the RF Central Bank and Cbonds.

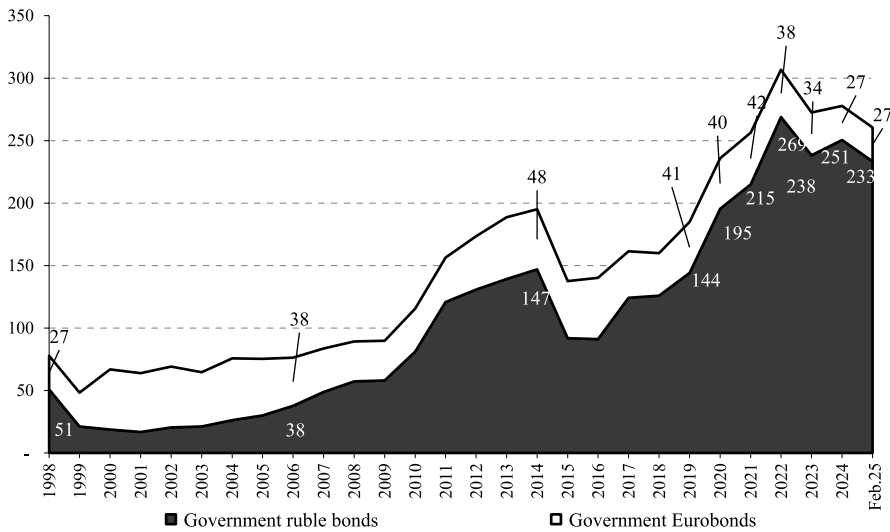


Fig. 51. Volumes of outstanding RF government domestic bonds and Eurobonds, 1998-February 2025, billion USD

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

Thus, in 2024, the RF Ministry of Finance managed to increase considerably the volume of borrowings for the budget by placing government bonds in amounts second only to those in 2020. The successful placement of OFZs at the end of the year was facilitated by the banking sector's liquidity surplus supported by the Central Bank's refinancing of the banking sector. The share of floaters in the structure of the OFZ issue grew, thus increasing the risks of higher expenses on the public debt servicing. The start of issuing replacement bonds reduced further the dependence of the budget deficit on the external market. The share of non-residents in the structure of OFZ and Eurobond holders reached a historical minimum. Lower borrowing rates at OFZ auctions in 2024 and early 2025 point to the fact that key investors (banks) expect the RF Central Bank to solve the problem of inflation in H2 2025 and the key rate to decline.

2.1.6. The futures market

The economic importance of the futures market lies in setting prices for investment assets, as well as in providing market participants with the opportunity to hedge themselves against sudden changes in asset prices in the future. However, the futures market, which is dominated by private investors, is often used not for risk management, but for speculative operations using high leverage.

The prevailing private investors in the futures market, according to the Moscow Stock Exchange they accounted for 62% of transactions in the futures market in 2024, use it more for short-term transactions rather than for hedging. The futures market trading volumes of the Moscow Stock Exchange increased from Rb 77.9 trillion in 2023 to Rb 96.6 trillion in 2024, or by 24.0% and the volume of transactions with options increased from Rb 2.9 trillion to Rb 3.3 trillion, or by 26.9% (Fig. 52). At the same time, in 2024, the liquidity of the futures and options markets reached only 67.3% and 48.3%, respectively, of the trading volumes seen in 2021.

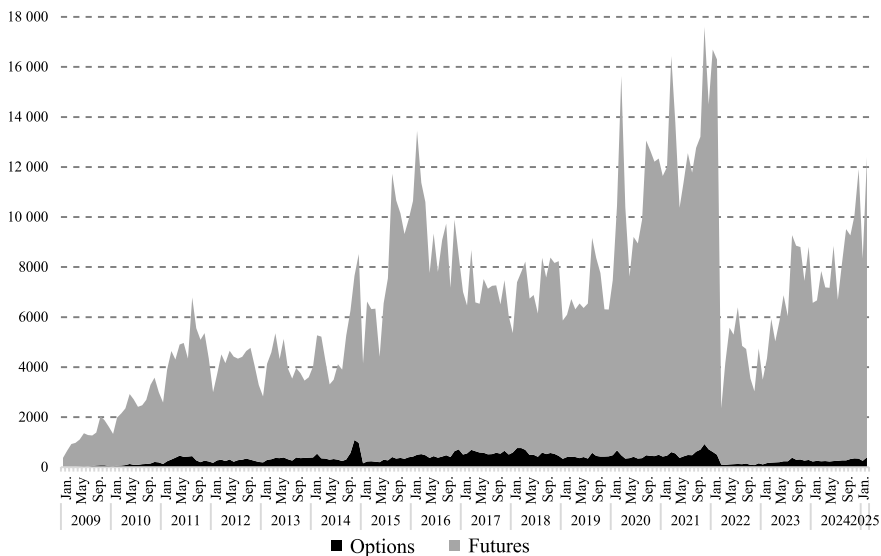


Fig. 52. The value of futures and options transactions on the Moscow Stock Exchange, January 2009 to February 2025, billion rubles

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

The Moscow Exchange futures market is dominated by foreign exchange instruments, but their share in the total volume of transactions decreased from 56.2% in 2023 to 49.3% in 2024 (Fig. 53). According to the RF Central Bank¹, in 2024 the most popular futures contracts were forwards for the USD/ruble exchange rate, the exchange rate of the ruble against the yuan and other currencies of friendly countries, the euro/ruble exchange rate and the euro/dollar exchange rate. In 2024, the share of commodity futures in the volume of transactions decreased slightly from 28.4% to 24.5%. Among these instruments, futures for gold, natural gas, Brent crude oil, silver and cocoa fruits were the most in demand.

1. URL: https://www.cbr.ru/collection/collection/file/50717/derivatives_market_2024.pdf

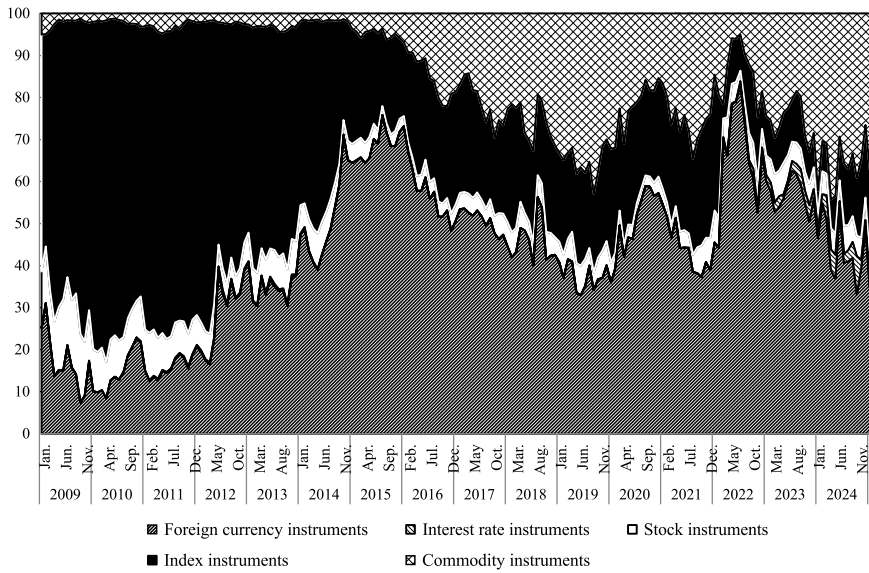


Fig. 53. The structure of the futures market of the Moscow Stock Exchange, January 2009 to February 2025, % of the value of transactions

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

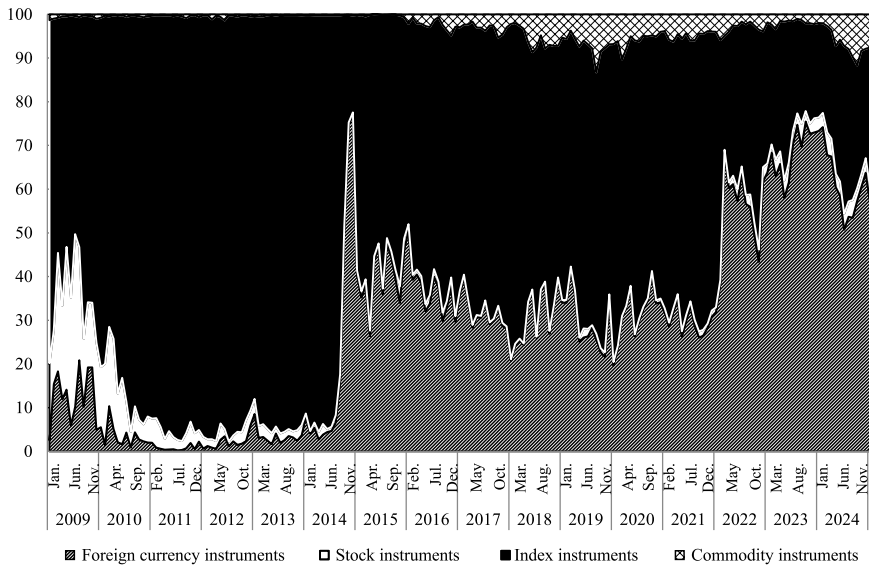


Fig. 54. The structure of the options market of the Moscow Stock Exchange, January 2009 to February 2025, % by transaction value

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

Over the year, the share of index instruments in the total volume of transactions increased from 8.2% to 21.9%. Contracts for the Moscow Stock Exchange index, shares of the American exchange-traded fund SPY for the S&P500 index, the RTS index, the Moscow Stock Exchange IPO index and others were most actively concluded there. The share of contracts for stock instruments increased from 4.9% to 5.2%. These contracts were concluded for individual shares of Russian issuers and a number of foreign securities. The share of interest rate futures remained the lowest, falling from 3.0% to 2.0% over the year.

The options market is highly risky for individuals' short-term transactions. Unlike previous years, foreign currency options have become the most traded contracts on the stock exchange in recent years (*Fig. 54*). The volume of options on foreign currency instruments decreased from Rb 2.2 trillion in 2023 to Rb 1.7 trillion in 2024, or by 23.3%. The volume of options on index instruments increased from Rb 771 bn in 2022 to Rb 964 bn rubles in 2024, or by 24.5%. Options on commodity instruments increased from Rb 61 bn to Rb 235 bn, or 3.2 times. The volume of transactions with options on individual stock instruments amounted to Rb 104 bn and remained virtually unchanged over the year.

2.1.7. Financial intermediaries and exchanges

According to the theory of competitive markets, competition is determined not by the number of actors, but by the freedom to enter the market.¹ Many improvements in the market in the interests of consumers are made by market participants under the threat of entry by new firms in cases where existing firms set prices above marginal costs and receive excess profits.²

A characteristic feature of the Russian financial market is that, despite the development of fintech and the arrival of tens of millions of private investors to the market, the long-term trend of a decrease in the number of licenses for professional activities in the securities market is accompanied by a very limited number of new companies entering the market. In 2024, compared to 2023, the number of entities with a broker's license increased from 254 to 255, while that with a dealer's license decreased from 282 to 280 and that with a trust management license, from 183 to 177 (*Fig. 55*). The number of new licenses issued for a professional participant in the securities market increased from 35 to 46.

In our opinion, the insufficient level of competition in the domestic stock market is evident in the following.

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1. Baumol W. Contestable Markets: An Uprising in the Theory of Industry Structure: Reply, *The American Economic Review*, 1982, Vol. 72/1. URL: <http://www.jstor.org/action/showPublisher?publisherCode=aea>
 2. Claessens S. Competition in the Financial Sector: Overview of Competition Policies, *The World Bank Research Observer*, 2009, Vol. 24/1, pp. 83–118. URL: <https://doi.org/10.1093/wbro/lkp004>.

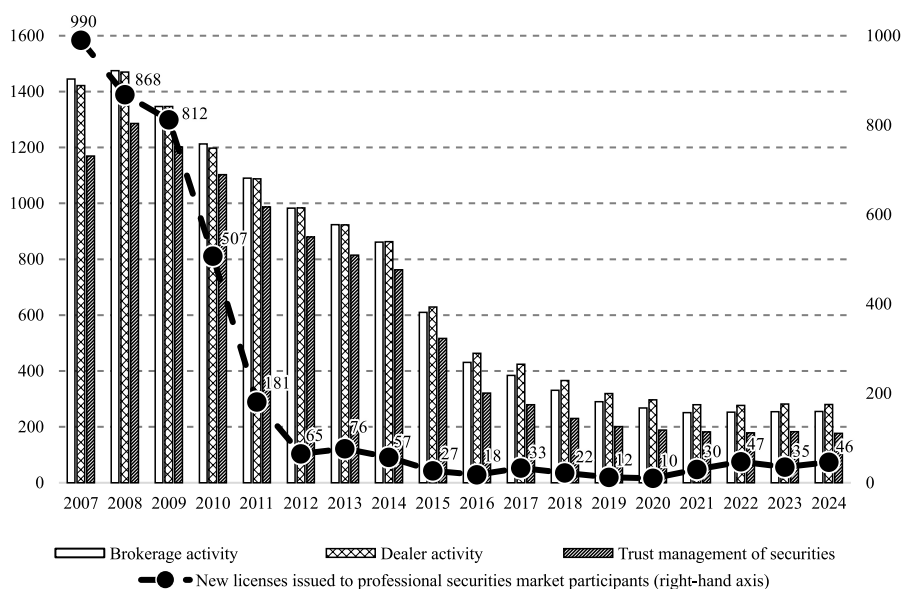


Fig. 55. The number of licenses for brokerage, dealer, and trust management of securities (left-hand axis) and the number of licenses issued to professional securities market participants (right-hand axis), 2007–2024

Source: own calculations based on the data of NAUFOR and the registers of the RF Central Bank. URL: https://www.cbr.ru/securities_market/statistic/

Unlike the United States, China, and EU countries, Russia has not developed independent fintech companies that could compete with large banks and brokers in the field of payment services, cash liquidity management and the formation of individual securities portfolios for private investors. In Russia, there are no analogues to such structures as Revolut, Robinhood, Betterment, Acorns, SoFi and many others. Unlike China, large bigtech companies in the Russian market have not become banks' competitors in the field of money settlements, payment services and the provision of financial services. Despite the use of modern financial technologies in banks, the level of tariffs for payment services and financial asset management related costs remain high, and the range and quality of financial services are rather limited.

In the Russian market, there is no competition between financial products from different suppliers, it is replaced by competition between financial institutions dominated by 4–5 large retail banks. As a result, financial institutions' clients have to use financial products only from the provider where their brokerage or other account is maintained. Due to a lack of competition between products, where an investor could purchase products from different suppliers using the same account,

the products received by such an investor are not the best on the market and involve high costs for investors.

A typical Russian investor does not have access to comparative analytics on the financial products they seek to purchase.¹

In 2011, the consolidation of the MICEX and RTS exchanges took place and it allowed to speed up the development of exchange technologies and concentrate liquidity in a single settlement and trading system. Along with the positive changes, the merger of the RTS and MICEX exchanges has led to the disappearance of competition between exchanges. In 2020–2021, the accelerated development of the St. Petersburg Stock Exchange (SPB), which organized trading in foreign issuers' equities, facilitated the restoration of competition between stock exchanges in the equity market. However, in 2023 the St. Petersburg Stock Exchange practically ceased its main activity due to the sanctions imposed on it and its settlement depository.

In recent years, the Moscow Stock Exchange has tried to realize its advantages in the market as a universal organizer of trading in various financial instruments. The total volume of exchange trading increased from Rb1310 trillion in 2023 to Rb1490 trillion in 2024, or by 11.4 (Fig. 56).

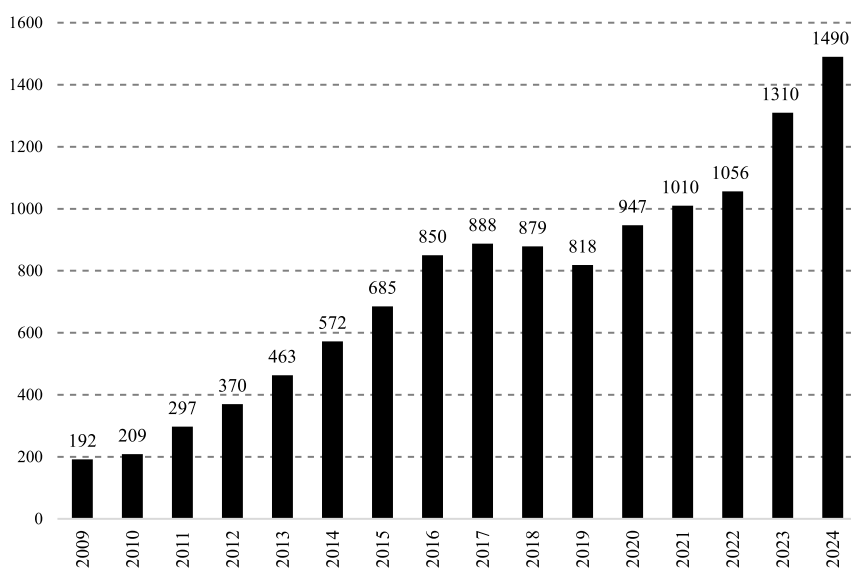


Fig. 56. Total trading volumes of all instruments on the Moscow Exchange, 2009–2024, trillion rubles

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

1. For more information on the issues of competition in the domestic market and their causes, see Abramov A. People's Financial Options// Bulletin of NAUFOR, No. 1, January 2025, pp. 5–15. URL: <https://naufor.ru/download/pdf/2025/1/Abramov.pdf>

The universal exchange model has not only advantages, but also creates risks that reduce its incentives to develop business segments that do not generate high commissions. As shown in *Table 7*, the share of the stock market decreased from 5.2% in 2021 to 4.8% in 2024, while in 2010 it was equal to 13.2%. The main trading volumes on the Moscow Stock Exchange are generated by the currency and money market, its share in 2022–2024 was at the level of 89–90% compared to 72.0% in 2010. The share of the futures market increased slightly from 6.2% in 2023 to 6.7% in 2024.

Table 7

The structure of the Moscow Stock Exchange market from 2010 to February 2025, %

	2010	2015	2020	2021	2022	2023	2024	February 2025
Stock market	13.2	3.0	5.8	5.2	3.5	4.8	4.8	5.6
Including:								
Equities, RDR and units	8.0	1.4	2.5	3.0	1.7	1.8	2.2	3.5
Bonds	5.2	1.6	3.2	2.2	1.9	3.0	2.6	2.1
Secondary trading	3.4	1.2	1.2	1.0	0.6	0.9	0.3	0.5
Offering market	1.8	0.4	2.1	1.2	1.2	2.2	1.9	1.1
Foreign exchange and money market	72.0	83.3	80.5	78.9	89.1	89.0	88.5	85.7
Including:								
Money market	33.9	38.0	45.7	47.2	63.7	64.0	71.5	78.2
REPO operations	31.5	33.2	40.7	41.7	51.3	50.4	56.9	68.2
Credit market	2.4	4.8	5.0	5.5	12.4	13.6	14.6	9.9
Foreign exchange and commodity markets	38.1	45.4	34.7	31.7	25.4	25.1	17.0	7.6
Futures market	14.8	13.7	13.7	15.7	7.4	6.2	6.7	8.7
TOTAL	100	100	100	100	100	100	100	100

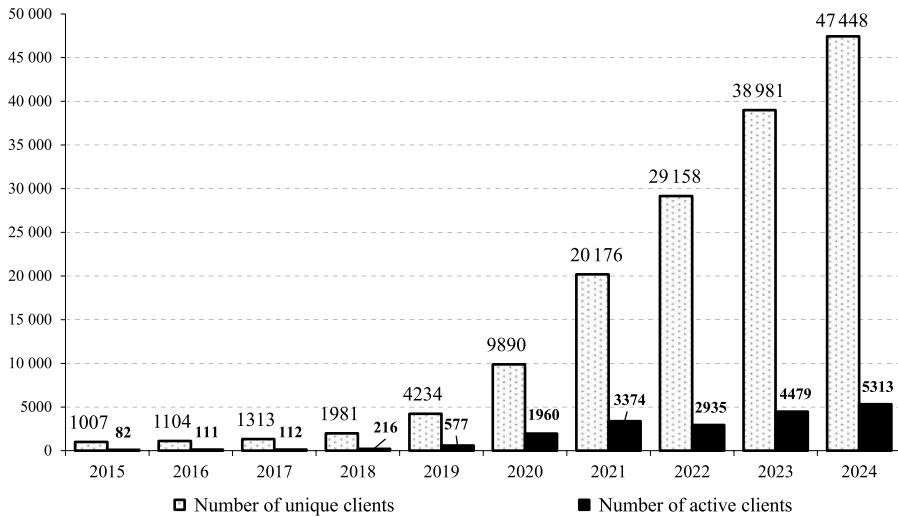
Source: own calculations based on the data of the Moscow Exchange.

2.1.8. Investors in the domestic financial market

Over the past 5–7 years, the number of private investors has been growing in the Russian market. According to the RF Central Bank, the number of unique client accounts with brokers increased from 39.0 mn in 2023 to 47.4 mn in 2024, or by 21.5 (*Fig. 57*).¹ However, as most of these accounts have no assets, a more ob-

1. Unfortunately, the exchange statistics on the number of accounts of private investors are becoming less transparent. Following the refusal to publish statistics on customer accounts with a breakdown into individual brokers, the Moscow Stock Exchange has stopped publicly disclosing information on the total number of broker customer accounts and actively managed accounts since May 2024.

jective indicator of the trading activity of private investors is the number of accounts of active clients who have made at least one exchange transaction once a month. The number of such accounts with brokers increased from 4.5 mn in 2023 to 5.3 mn in 2024, or by 17.7%.



Note. The number of unique broker clients in 2015–2018 was determined by adding up the unique brokerage accounts on the Moscow and St. Petersburg stock exchanges. The number of active clients was calculated based on the number of unique active brokerage accounts on the Moscow and St. Petersburg stock exchanges. In 2019–2024, data on the number of broker clients is based on the data of the “Dynamic Series of Key Broker Performance Indicators” of the RF Central Bank:

Fig. 57. The number of accounts of registered and active clients of brokers on Russian stock exchanges, 2015–2024, thousand

Source: own calculations based on data of the Moscow and St Petersburg Stock Exchanges and the RF Central Bank.

At the same time, information about the existence of 44.7 mn private investor accounts with brokers is not fully correct because most of these accounts do not have any assets. The number of funded accounts is only 35.2% of the total number of accounts with brokers, i. e. the number of funded customer accounts with brokers increased from 13.6 mn in 2023 to 16.7 mn in 2024, or by 22.8% (*Fig. 58*).

In the practice of other countries – the USA, the EU, China, India and South Korea – information is normally published only on clients’ funded accounts with brokers.

The number of individual investment accounts (IIS) of private investors increased from 6.0 mn in 2023 to 6.1 mn in 2024, or by only 1.7% (*Fig. 59*). The value of assets in IIS increased from Rb 543 bn in 2023 to Rb 595 bn in 2024, or by 9.6%.

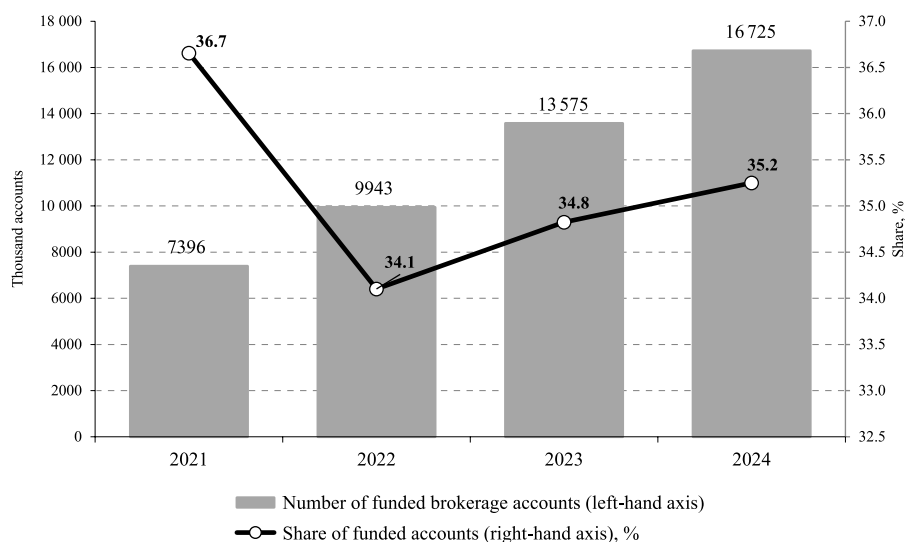


Fig. 58. The number of clients' funded brokerage accounts (thousands) and their share in the total number of brokerage accounts (%) in 2021–2024

Source: own calculations based on the data of the RF Central Bank.

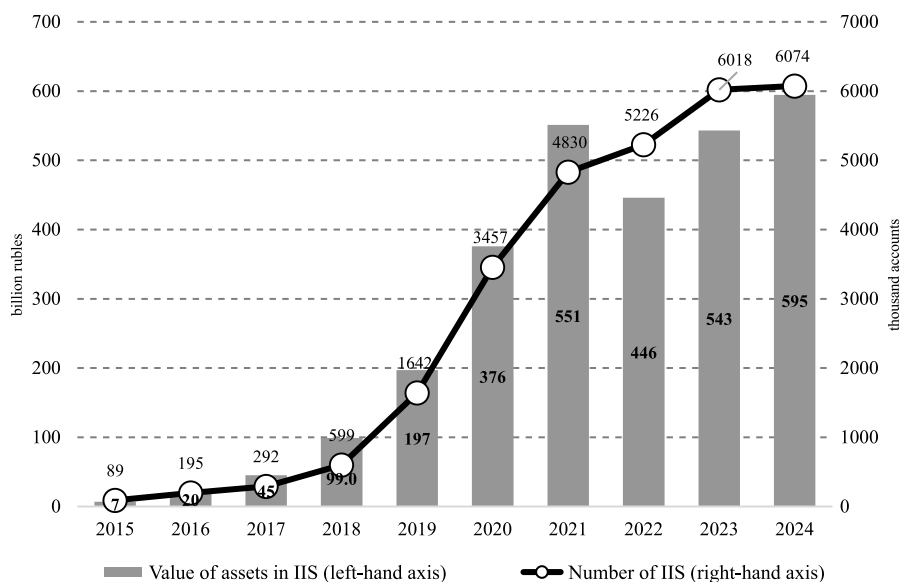


Fig. 59. The number of individual investment accounts (IIS 1–3) in thousands and the value of client assets in these accounts, billion rubles, 2015–2024

Source: own calculations based on the data of the RF Central Bank and the Moscow Exchange.

In accordance with the Federal Law “On the Securities Market” as amended, which entered into force on January 1, 2024¹, instead of the previous IIS-1 and IIS-2, individuals could open only accounts of a new type, that is, the so-called IIS-3. The new type of IIS allows their owners to enjoy a wider range of tax benefits in terms of personal income tax deduction when depositing new funds to the account in the amount of up to Rb400,000 per year, as well as exemption from personal income tax on investment income when withdrawing savings from the account. At the same time, the amount of funds deposited into the IIS-3 account is not limited, and the maximum amount of investment income exempt from tax is equal to Rb30 mn. The main disadvantage of IIS-3 compared to IIS-1 and IIS-2² is that the minimum duration of asset retention in the account should be 5 years with a subsequent increase to 10 years.

In our opinion, the rule on a minimum asset retention period of 5 years or more amid high volatility of the domestic stock market, with a share of household deposits for up to 1 year in the total value of ruble deposits being equal to 98.1% in 2024³, is a serious obstacle for these accounts being attractive to households.

In terms of the number of accounts and assets held on them, brokerage IIS grow significantly slower as compared to similar indicators of individuals’ ordinary brokerage accounts (*Fig. 60*). At the peak of popularity of IIS in 2020, the value of assets kept on them was equal to the mere 6.7% of individuals’ assets in brokerage accounts, while in 2024 this indicator fell to 4.7%. The share of brokerage accounts with IIS status in the total number of brokerage accounts peaked at 33.6% in 2019, and then decreased to 12.3% in 2024.

The data on the number of brokerage accounts registered by exchanges do not reflect the actual extent of households’ involvement in stock market transactions. Most brokerage accounts opened by individuals are empty or hold insufficient assets for safe investment. As shown in *Table 8*, the value of assets in private investors’ brokerage accounts increased from Rb9.2 trillion in 2023 to Rb10.6 trillion in 2024, and the number of unique broker clients, from 38.2 mn to 47.4 mn over the same period of time.⁴ Similar indicators for trust management accounts were 0.8 mn and 0.8 mn, respectively, as well as Rb1.8 trillion and Rb2.0 trillion.

In 2024, of the total number of brokerage account holders 30.7 mn (64.5%) had no assets in their accounts compared with 65.1% in 2023. According to our estimates, in order to build a very simple diversified portfolio a private investor needs

1. Federal Law No. 600-FZ of December 19, 2023 “On Amendment of Individual Statutory Acts of the Russian Federation.”

2. The minimum asset retention period on IIS-1 and IIS-2 was three years, and it was not linked to the time of depositing funds into the account.

3. Calculations based on the RF Central Bank’s data as of January 1, 2025.

4. The data on the number of private investors’ brokerage accounts disclosed by the RF Central Bank normally exceed the indicator on the number of brokers’ unique clients published by the Moscow Stock Exchange.

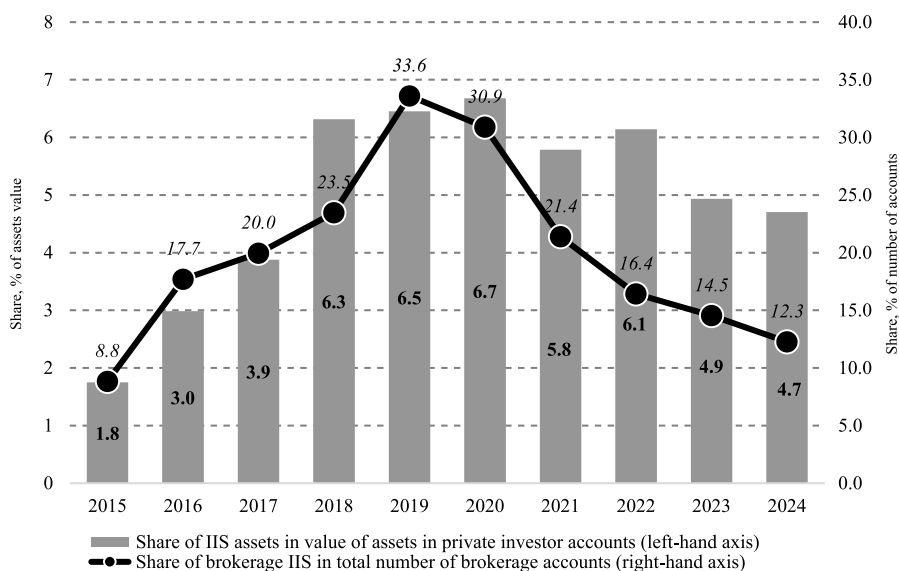


Fig. 60. The share of assets on IIS (IIS-1 and IIS-2) in the total value of assets in private investor accounts and the share of brokerage IIS in the total number of brokerage accounts, 2015–2024

Source: own calculations based on the data of the RF Central Bank. URL: (https://www.cbr.ru/analytics/rcb/iis_4q_2024/)

to have at least Rb100,000 on the account.¹ In 2024, the number of private investors with investment potential (with assets of Rb100,000 and more in the brokerage account) was equal only 2.5 mn people, or 5.3% of the total number of brokerage account holders; in 2023 The share of such investors was equal to 6.2%. Similar indicators for individual trust management accounts (IDU) were equal to 0.3 mn people with a share of 42.6% in 2023 and 0.3 mn people with a share of 34.2% in 2024.

The data in Table 8 also show a high concentration of private investors' assets with brokers. In 2024, only 800,000 people with assets of Rb1 mn or more had 93.2% of assets held in brokerage accounts. Similar indicators for IDU accounts were 100,000 people and 95.8% of assets.

In 2024, amid high bank deposit rates, households sharply increased investments in deposits from Rb59.7 trillion in 2023 to Rb75.3 trillion in 2024, the share of deposits in the structure of household assets increased from 55.4%

1. According to a study by the RF Central Bank, owing to a failure to fully diversify the portfolios of broker clients with assets from Rb10,000 to Rb100,000, this group of investors experienced the worst negative returns on individual portfolios across different investor groups in H1 2022 (RF Central Bank (2022). Portrait of the Broker's Client. H1 2022, Moscow, p. 14: URL: https://cbr.ru/Content/Document/File/143859/Portrait_client_brok.PDF)

Table 8

Data on the distribution of the number of private investors and the value of client assets depending on the value of assets in the brokerage account in 2021–2024

a) Broker's clients

	Number of clients						Portfolio volume					
	2021		2022		2023		2024*		2021		2022	
	Million people	%	Million people	%	Million people	%	Million people	%	Trillion rubles	%	Trillion rubles	%
1. From Rb1 mn and above	0.6	3.0	0.5	1.8	0.7	1.8	0.8	1.7	7.6	91.1	5.3	87.6
2. From Rb100,000 and above	2.0	9.9	2.0	6.9	2.4	6.2	2.5	5.3	8.2	99.1	5.9	98.5
3. Up to Rb100,000	5.4	26.8	8.0	27.4	11.2	28.7	14.2	30.0	0.1	0.9	0.1	1.5
4. Empty accounts	12.8	63.3	19.2	65.7	25.3	65.1	30.7	64.7	0.0	0.0	0.0	0.0
5. Total (sum of lines 2–4)	20.2	100.0	29.1	100.0	38.9	100.0	47.4	100.0	8.3	100.0	6.0	100.0

b) Clients of trust managers:

	Number of clients						Portfolio volume					
	2021		2022		2023		2024.		2021		2022	
	Million people	%	Million people	%	Million people	%	Million people	%	Trillion rubles	%	Trillion rubles	%
1. From Rb1 mn and above	0.1	9.3	0.1	9.1	0.1	11.0	0.1	10.5	1.1	88.4	1.1	88.7
2. From Rb100,000 and above	0.4	48.0	0.4	43.0	0.3	42.6	0.3	34.3	1.2	98.9	1.2	99.1
3. Up to Rb100,000	0.4	51.8	0.5	56.7	0.5	56.7	0.5	65.0	0.0	1.1	0.0	0.9
4. Empty accounts	0.0	0.2	0.0	0.3	0.0	0.7	0.0	0.7	0.0	0.0	0.0	0.0
5. Total (sum of lines 2–4)	0.8	100.0	0.8	100.0	0.8	100.0	0.8	100.0	1.2	100.0	1.8	100.0

* For 2024, data on the number of clients in the “Less than 0” category, which includes client portfolios where the amount of net liabilities to the broker exceeds the amount of assets, are taken into account in the “empty accounts” line, and for net assets – in the category of clients with assets from Rb 0 to Rb10,000.

Source: The RF Central Bank. Statistical data for the review of key indicators of securities market professional participants. URL: https://www.cbr.ru/securities_market/statistic/

to 58.4% (*Table 9*). Investments in stocks decreased from Rb 7.2 trillion to Rb 6.9 trillion; their share in the structure of financial assets fell from 6.7% to 5.4%. During the period under review, the share of household investments in bonds decreased from 3.6% to 3.4% and the share of investments in investment funds (mainly closed-end mutual funds) increased from 4.9% to 6.7%.

However, cash reserves remained the second largest category of household financial assets. The share of these investments decreased from 23.2% in 2023 to 20.1% in 2024, but the value of these assets increased from Rb 24.9 trillion in 2023 to Rb 25.9 trillion in 2024. An alarming trend in 2024 is a decrease in the share of pension and insurance reserves in household financial assets from 6.3% to 6.0%.

Thus, in 2024 the consolidated portfolio of household financial assets remained emphatically conservative, focused more on preserving value rather than generating additional income from investments in risky assets.

Table 9

Structure of financial assets of households from 2017 to January 2025, %

	2017	2018	2019	2020	2021	2022	2023	2024	January 2025
Cash	24.7	25.5	23.5	26.3	24.3	25.1	23.2	20.1	19.4
Deposits and funds in escrow accounts	57.8	56.4	56.4	52.9	52.5	54.6	55.4	58.4	57.6
Shares	3.7	3.6	4.4	5.3	6.8	5.3	6.7	5.4	6.0
Bonds	1.9	2.3	3.0	3.3	4.0	3.3	3.6	3.4	3.5
Mutual funds	2.3	2.8	3.0	3.4	4.1	3.9	4.9	6.7	7.1
Pension and insurance reserves	9.6	9.4	9.7	8.8	8.3	7.8	6.3	6.0	6.4
Financial assets — overall	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: own calculations based on the data of the RF Central Bank. URL: http://www.cbr.ru/statistics/macro_itm/households/

With the freezing of non-resident investments in Russian issuers' securities in 2022 and the insufficient level of development of domestic institutional investors, private investors have become the main driving force supporting the exchange liquidity of stocks and bonds. As shown in *Fig. 61*, the share of non-residents in market transactions with shares on the Moscow Stock Exchange decreased from 48.5% in 2021 to zero in 2022–2024, and, conversely, the share of private investors increased from 38.5% to 75.0% in February 2025. The share of resident institutions, primarily non-bank financial institutions, also increased from 13.0% in 2021 to 25.0% in February 2025.

The high level of dependence of the stock market on private investors leads to new challenges. In particular, private investors' funds that are newly entering

the market normally contribute to growth in the value of small and medium-sized companies in which non-residents did not participate. Here, the funds of private investors produce the greatest effect on the example of rising share prices of the second and third echelons and the boom of companies' IPO-SPO market. At the same time, most blue chips have significant blocks of shares blocked in non-resident accounts and this factor is constraining growth in the value of these issuers' shares. In future, domestic institutional investors are expected to become growth drivers of these stocks.

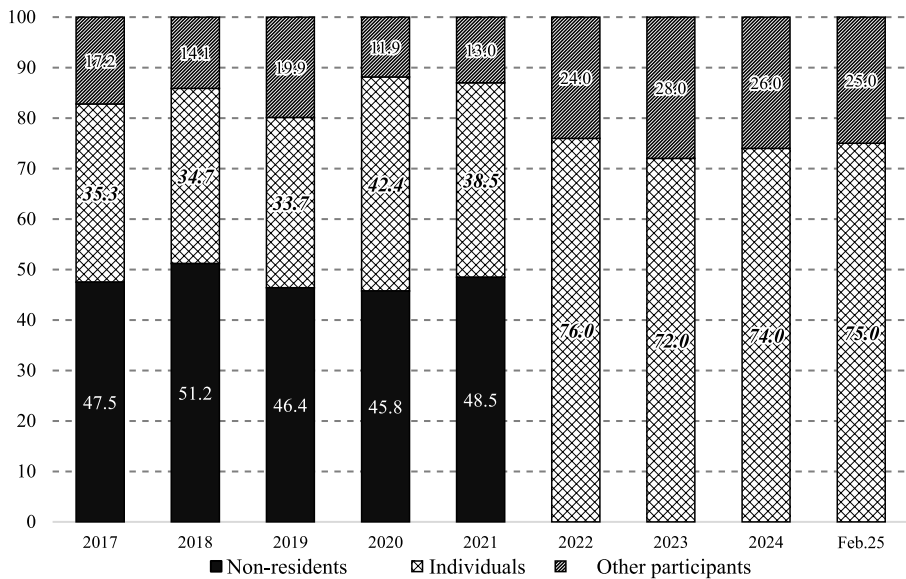


Fig. 61. The structure of investors in secondary stock trading on the Moscow Stock Exchange, 2017-February 2025, %

Source: own compilation based on the data of the Moscow Exchange.

As shown in Fig. 62 and in Table 10, the main holders of corporate bonds are credit institutions, NPFs, and other financial institutions. In 2024, as compared with the previous year, the share of credit institutions in the structure of corporate bondholders decreased from 42.9% to 34.3%, the share of other financial institutions increased from 19.2% to 25.1%, the share of NPFs decreased from 14.1% to 12.1%. The share of private investors (households) increased from 3.8% in 2023 to 4.4%. The share of non-residents in corporate bonds does not exceed 1%. In future, growth of the corporate bond sector depends on attracting funds from credit institutions and banks, as well as private investors and partly non-residents of friendly countries.

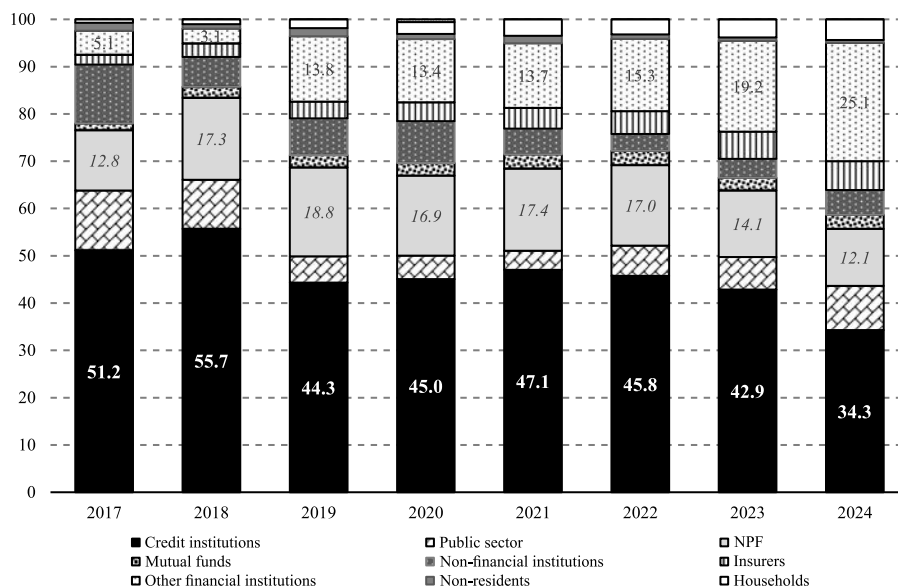


Fig. 62. The structure of corporate bondholders in 2017–2024, %

Source: own calculations based on the data of the Review of Financial Instruments of the RF Central Bank for a number of years.

Table 10

The structure of corporate bondholders in 2017–2024, %

	2017	2018	2019	2020	2021	2022	2023	2024
Credit institutions	51.2	55.7	44.3	45.0	47.1	45.8	42.9	34.3
Other financial institutions	5.1	3.1	13.8	13.4	13.7	15.3	19.2	25.1
Non-residents	1.7	1.0	1.7	1.1	1.6	0.9	0.8	0.6
Households	0.7	1.0	1.9	2.5	3.5	3.2	3.8	4.4
NPF	12.8	17.3	18.8	16.9	17.4	17.0	14.1	12.1
Mutual funds	1.4	2.3	2.6	2.7	3.0	3.0	2.7	3.0
Public sector	12.7	10.4	5.5	5.0	4.0	6.4	6.8	9.4
Insurers	2.1	2.9	3.6	4.0	4.4	4.8	5.8	6.1
Non-financial institutions	12.4	6.3	7.7	8.8	5.4	3.6	4.0	5.2
Other	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
Overall	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
For reference: share of non-residents as per RF Central Bank's previous data published before 2023.	14.0	10.0	13.0	12.0	11.0	1.0		

Source: own calculations based on the data of the Review of Financial Instruments of the RF Central Bank for a number of years.

As shown in *Fig. 63*, the main government bondholders are currently credit institutions, non-residents, NPFs and the public sector (development institutions, etc.). In 2024, as compared with 2023, the share of banks in the structure of government bondholders increased from 61.5% to 64.0%, the share of non-residents decreased from 8.1% to 4.5, the share of NPFs rose from 12.2% to 12.2% and the share of the public sector grew from 3.5% to 4.0%. The size of the households' participation in government bonds remains moderate so far, its share increased from 2.3% in 2023 to 2.5% in 2024. In this segment of financial instruments, the main growth prospects of the market are associated with banks, domestic institutional investors, partly households and non-residents of friendly countries.

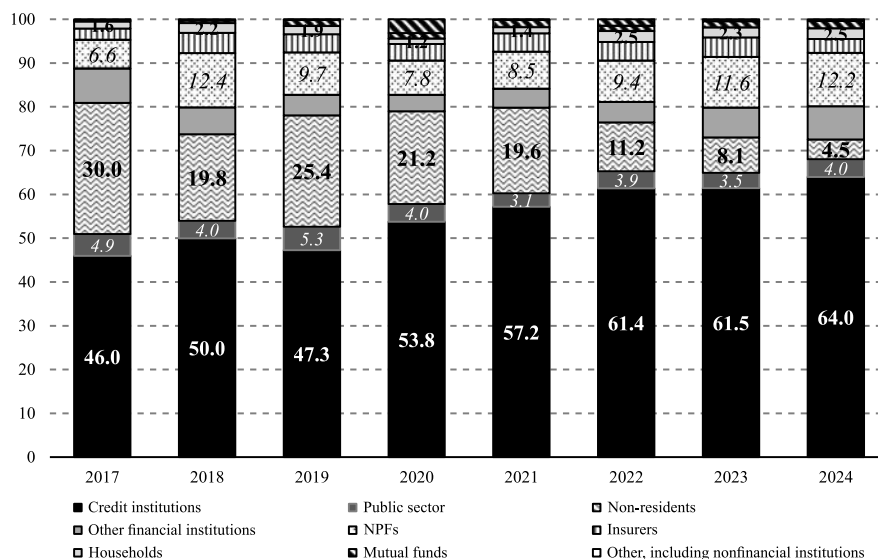


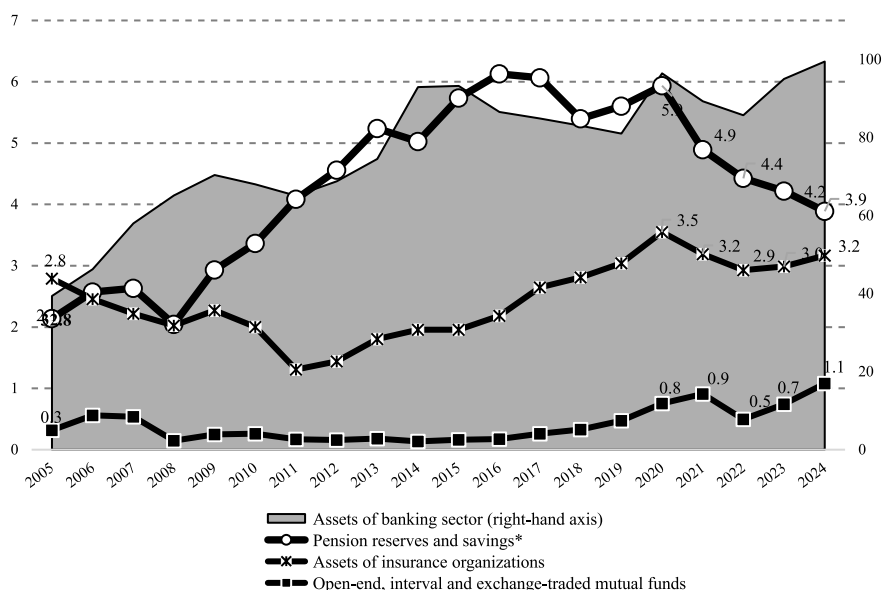
Fig. 63. The structure of government bondholders in 2017–2024, %

Source: own calculations based on the data of the RF Central Bank's Review of the Russian Financial Sector and Financial Instruments for a number of years.

In 2024, as compared with 2021, the value of financial institutions' assets¹ relative to GDP increased from 98.3% to 107.6% (*Fig. 64*). However, the main growth in this indicator was facilitated by the share of banks' assets in GDP, which increased

1. This review provides a narrower list of other financial institutions than Strategy 2030, which sets targets for the growth of the share of assets of all financial institutions to GDP by 2030 to 140–180%, including assets of non-bank financial institutions to 40–60%. Our list of financial institutions under study does not include closed-end mutual funds and proprietary assets of professional participants in the securities market.

from 89.3% to 99.5%. Most of other financial institutions saw multidirectional dynamics of their share in GDP. The share of net assets of open-ended, interval and exchange-traded mutual funds (mutual funds) in GDP increased from 0.9% in 2021. In 2024, the share of pension reserves and savings decreased from 4.9% to 3.9%, while the share of insurers' assets remained unchanged at 3.2%. Thus, the size of long-term savings of households is still considerably lagging behind bank deposits. The total share of these savings in GDP decreased from 9.0% in 2021 to 8.2% in 2024, while the share of banks' assets in GDP increased by more than 10 p.p. from 89.3% to 99.5%.



* For 2024, data on pension reserves and savings are calculated as of October 1.

Fig. 64. The share of bank assets, pension reserves and savings, assets of insurance organizations and the value of net assets of open-end, interval and exchange-traded mutual funds in Russia's GDP from 2005 to 2024, %

Source: own calculations based on the data of the RF Central Bank, the VEB and Rosstat.

The year 2024 saw some acceleration in growth of net asset value of open-end, interval and exchange-traded mutual funds compared to previous years. However, in 2024 the main growth driver in pooled investments was money market exchange-traded funds, which demonstrated high returns while the value of stock and bond portfolios decreased.

As shown in Fig. 65, the net asset value (NAV) of exchange-traded mutual funds increased from Rb 381 bn in 2023 to Rb 1,133 bn in 2024, or 3.0 times. At the same time,

Russian economy in 2024

Trends and outlooks

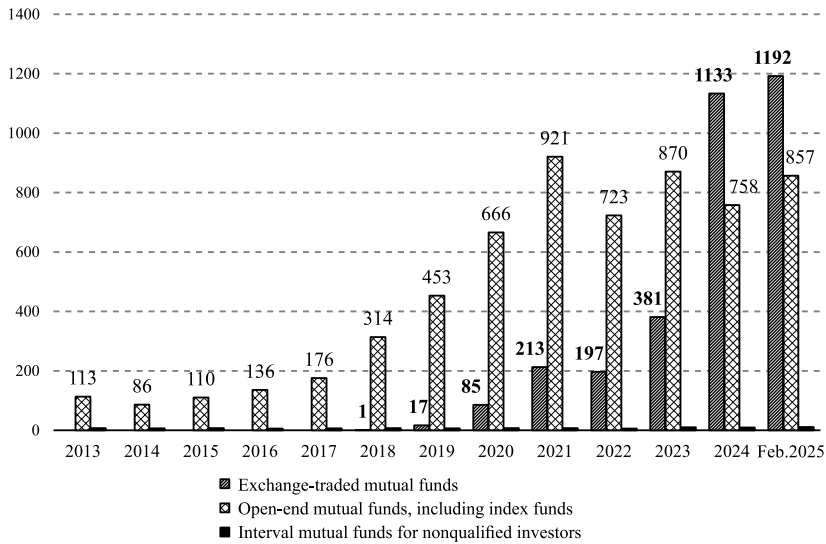
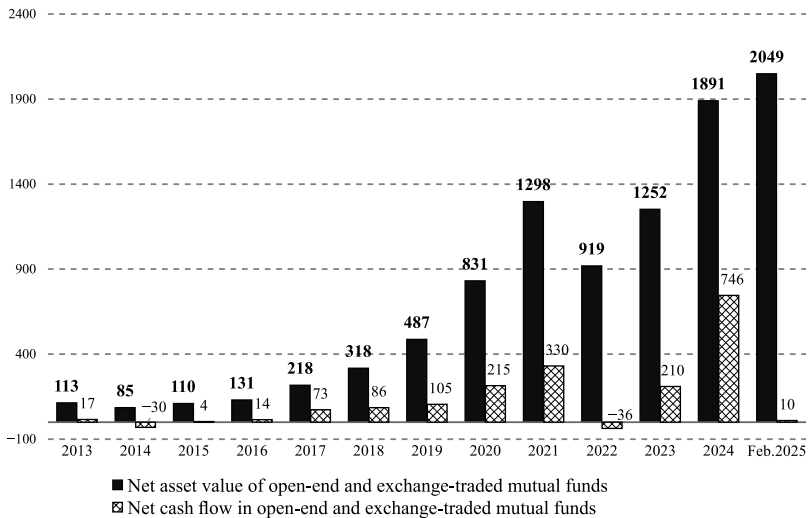


Fig. 65. Net asset value of open-end and exchange-traded mutual funds, 2013–February 2025, billion rubles

Source: own calculations based on the data of Investfunds.ru, including the value of funds with blocked assets.



Note: The net asset value of open-end and exchange-traded mutual funds in 2022–2024 includes the value of mutual funds with blocked assets.

Fig. 66. Net asset value of open-end and exchange-traded mutual funds and net cash flow of investors into these funds from 2013 to February 2025, billion rubles

Source: own calculations based on the data of Investfunds.ru.

the NAV of money market mutual funds increased from Rb 207 bn to Rb 1,048 bn, or 5.1 times, that is, almost all of the growth in exchange-traded mutual funds was facilitated by money market funds. Among other things, this means that the bulk of investors' funds in exchange-traded mutual funds in 2024 moved from investments in stocks and bonds to money market funds, which profitability is provided mainly by repo transactions in the money market.

The NAV of shares of open-end mutual funds decreased from Rb 870 bn in 2023 to Rb 758 bn in 2024, or by 12.9%. In addition to the unfavorable economic situation, growth of open-end mutual fund assets is largely hampered by their low information transparency for investors, outdated practices for selling equity units, high costs of assets management and insufficient effectiveness of investment strategies used by many mutual funds.

The attractiveness of investments, primarily in exchange-traded mutual funds, ensured the inflow of new investor funds into mutual funds in 2024 (*Fig. 66*). The value of net cash inflows into exchange-traded and open-end mutual funds increased from Rb 210 bn in 2023 to Rb 746 bn in 2024, or 3.6 times.

* * *

The year 2024 was a difficult one for the Russian financial market. In addition to externally imposed sanctions, the domestic economy faced a record high level of the Bank of Russia's key rate, which caused a decline in stock and bond indices, as well as a shift of private investors' funds into bank deposits and money market instruments.

However, the financial market demonstrated its ability to adapt even to such difficult conditions. In the capital market, this was facilitated by companies' active dividend policy which allowed to mitigate the fall in the share price for investors and achieve, if not a high, but a positive overall return on investment. In 2024, mainly in H1, the market for public offerings of shares was actively growing. A goal to increase the level of capitalization in 2030 set in the Executive Order of the President of the Russian Federation as one of the guidelines for national projects mobilized market participants to search for internal reserves for growth of company value, the IPO market and the system of internal savings.

The bond market continued to grow in 2024. In 2024, it allowed the RF Ministry of Finance to place government bonds to finance the budget; it was record-breaking in terms of volume in recent years. In the corporate bond market, issuers refinanced their debts and attracted new funds for development. A number of financial innovations (floaters, linkers, replacement bonds, yuan bonds, etc.) made it feasible to find a balance of interests between issuers and investors. Despite growth of interest rate and credit risks, the bond market avoided mass defaults.

Moderate growth in the derivatives market, especially the futures market, was accompanied by the emergence of new instruments attractive to investors.

The demand for financial instruments and the stability of the market were supported by liquidity surplus in the banking sector, activity of private investors in the stock and futures markets, and the growing popularity of pooled investments. In 2024, such long-term savings mechanisms as PDS and IIS-3 began to operate.

At the same time, the market is facing serious challenges.

- For now, stock and corporate bond markets do not play a significant role in the structural transformation of the Russian economy.
- Capitalization keeps declining, and the measures discussed to increase it do not yet allow one to be confident in achieving the goal of capitalization of 66% of GDP in 2030.
- Partly due to the difficult economic situation in 2024, new savings mechanisms in terms of PDS and IIS-3 have not yet revealed their potential in increasing individuals' long-term savings.
- The level of competition between financial institutions remains low and is accompanied by high tariffs in the payment services sector and high costs of asset management services. There are still outdated practices of selling financial products.
- The negative trend in disclosing material information for investors about issuers and securities has failed to be reversed.

The solution of these issues requires a more detailed discussion within the scope of the RF Central Bank's development of the Main Guidelines for the Development of the RF Financial Market for the Next Year and possible changes to the Strategy for the Development of the Financial Market for the Period up to 2030.

Annex

Table A1

Nominal total dollar returns of popular equity and alternative investment portfolios for the period 2015–2024 (% p.a.)
and for January–February 2025, %

Nº	Investment strategies	Benchmarks: Morningstar indexes and exchange traded funds (ETFs)	2025 Jan–Feb	2024	2022– 2024	2015– 2024
	Global market					
1	Broad stock market	Morningstar Global Markets	2.45	16.81	5.41	9.51
2	Shares of companies from developed countries	Morningstar Developed Markets	2.66	18.08	6.20	10.16
3	Shares of companies from developed countries excluding the USA	Morningstar Developed Markets ex-US	6.20	4.93	1.78	5.82
4	Fintech stocks	Morningstar Global Fintech Innovation	1.64	15.68	–5.34	
5	Dividend shares of international companies	Vanguard International Dividend Appreciation (VIGI)	4.50	2.73	–0.19	
6	Stocks of European companies	Vanguard European Stock Index/FTSE Europe ETF (VEUSX, VEGK)	10.60	1.89	0.95	5.27
7	Shares of world companies	Vanguard Total World Stock Index/ETF (VTWAX, VT)	2.63	16.49	5.23	9.32
8	Shares of European, Australian and Far Eastern large companies	iShares MSCI EAFE (EFA)	7.90	3.51	1.63	5.21
9	Shares of small capitalization companies	Dimensional International Small Cap ETF (DFIS)	3.64	3.79		
10	Quality stocks of global companies	Harbor International Compounds ETF (OSEA)	4.10	–0.72		
11	Shares of value of non-U. S. companies in developed countries (unhedged)	iShares MSCI EAFE Value (EFV)	9.21	5.40	5.92	4.26
12	Growth shares of non-U. S. developed country companies (unhedged)	iShares MSCI EAFE Growth (EFG)	6.22	1.54	–2.81	5.62
13	Investing in non-U. S. growth shares in developed countries with hedging of local currency risks	iShares Currency Hedged MSCI EAFE (HEFA)	6.91	13.72	9.22	8.84
14	Shares of 23 developed and 24 emerging markets (unhedged)	iShares MSCI ACWI ex US ETF (ACWX)	6.06	5.19	0.71	4.70
15	Share investments in companies from 23 developed and 24 emerging markets, hedging local currency risks	iShares Currency Hdgd MSCI ACWI exUS ETF (HAWX)	5.03	14.89	7.13	
16	Global equity portfolios based on quantum computing	Defiance Quantum ETF (QTUM)	–2.80	50.54	14.46	

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Nº	Investment strategies	Benchmarks: Morningstar indexes and exchange traded funds (ETFs)	2025 Jan-Feb	2024	2022–2024	2015–2024
	USA					
	Broad stock market					
17	U.S. Broad Equity Market	Morningstar US Market	1.32	24.09	8.13	12.66
18	S&P 1500 Index Stocks (90% of equity capitalization in the U.S.)	SPDR® Port S&P 1500 Comps Stk Mkt ETF (SPTM)	1.15	23.87	8.55	12.65
19	S&P500 Index Stocks	Vanguard S&P 500 ETF (VOO)	1.40	24.98	8.90	13.07
20	U.S. Broad Stock Market	Vanguard Total Stock Market Index/ETF (VTSAX) (VTI)	1.09	23.81	7.90	12.50
21	NASDAQ-100 Index Stock	Invesco QQQ Trust (QQQ)	-0.60	25.58	9.45	18.28
	Factor strategies					
22	Value Equity	Vanguard US Value (VTV)	5.22	15.94	7.47	9.99
23	Growth Stocks	Vanguard US Growth (VUG)	-1.15	32.69	9.21	15.75
24	Stocks of major companies	Vanguard Large Cap Index/ETF (VLCAX) (W)	1.49	25.25	8.47	13.01
25	Stocks of small companies	Vanguard Small-Cap ETF (VB)	-1.12	14.17	3.64	9.08
26	Morningstar strategy momentum	Morningstar US Momentum Factor TR USD	3.19	43.21	8.75	15.52
27	Morningstar stock quality strategy	Morningstar US Quality Factor TR USD	-0.35	29.31	8.96	14.00
28	Quality Stocks	iShares MSCI USA Quality Factor ETF (QUAL)	1.96	22.28	8.37	12.89
29	ESG-companies shares	Morningstar US Sustainability	2.55	21.21	7.59	12.37
30	Shares with minimum volatility	iShares MSCI USA Min Vol Factor ETF (USMV)	6.51	15.75	4.98	10.24
31	Multi-factor strategy in the US (active ETF)	iShares U.S. Equity Fac Rotation Act ETF (DYNF)	1.72	30.29	12.28	
32	Smart (strategic) beta equity fund	Vanguard Value Index Adm (VVIAX)	5.21	15.99	7.45	9.99
33	Smart (strategic) beta equity fund	Nuveen ESG Large-Cap Value ETF (NULV)	5.50	11.94	2.70	
34	Smart (strategic) beta equity fund	DFA US Small Cap Value I (DFSVX)	-2.49	9.57	7.93	8.61
	Dividend strategies					
35	Dividend stocks — broad diversification	Schwab U.S. Dividend Equity ETF (SCHD)	4.47	11.67	4.16	11.03
36	High-dividend stocks (beta for dividend strategies in the US broadest index of the most dividend-paying US companies)	Morningstar US High Dividend Yield	4.78	16.86	7.22	9.64
37	Index of 75 quality (moat) stocks with high dividends	Morningstar Dividend Yield Focus TR USD (MDYFT)	7.51	14.21	7.63	7.91
38	Stocks of companies with high dividends	WisdomTree US High Dividend ETF (DHS)	7.15	18.02	8.34	8.17

39	US stocks with stable dividends and growth potential	JPMorgan Equity Income A (OIEIX)	6.18	12.23	4.70	8.81
40	Index of stocks of US companies with high dividend yields	Morningstar US High Dividend Yield TR USD (2750632)	4.78	16.86	7.22	9.64
41	Index of shares of global companies with high dividend yields	Morningstar Global Markets High Dividend Yield GR USD (2750630)	5.13	12.25	6.34	7.69
	Sectors of the US economy					
42	Telecommunications and communications	Morningstar US Communication Services	2.38	39.13	8.27	12.63
43	Cyclical consumer goods sector	Morningstar US Consumer Cyclical Sector	-4.66	25.49	4.11	13.99
44	Counter-cyclical consumer goods sector	Morningstar US Consumer Defensive Sector	5.97	14.23	4.43	8.64
45	Energy sector	Morningstar US Energy	5.24	6.70	19.91	4.42
46	Financial services	Morningstar US Financial Services Sector	7.45	31.23	10.12	12.12
47	Medicine and healthcare	Morningstar US Healthcare Sector	7.67	2.67	-0.16	8.75
48	Manufacturing	Morningstar US Industrials Sector	1.31	16.57	9.01	11.13
49	Utilities Sector	Morningstar US Utilities Sector	4.65	26.74	6.19	8.64
50	Technology Sector	Morningstar US Technology Sector	-3.45	36.16	14.03	21.39
51	Basic Materials Sector	Morningstar US Basic Materials Sector	5.51	-1.78	0.01	8.08
52	Real Estate Sector	Morningstar US Real Estate Sector	5.87	5.03	-4.39	5.14
	Thematic strategies					
53	Investments in shares of AI companies	Global X Robotics & Artificial Intelligence ETF (BOTZ)	0.38	12.26	-3.66	
54	Investments in shares of AI companies	Robo Global Artificial Intelligence ETF (THNQ)	2.80	18.82	3.88	
55	Portfolios compiled using AI	QRAFT AI-Enhanced US Large Cap Mmntm ETF (AMOM)	-6.84	35.79	8.34	
56	Portfolios compiled using AI	AI Powered Equity ETF (AIEQ)	-0.80	12.54	-1.03	
57	Blue chip growth stocks in the US	Fidelity® Blue Chip Growth ETF (FBGC)	-2.85	39.04	10.19	
58	Stocks of innovation companies	ARK Innovation ETF (ARKK)	-1.99	8.40	-15.65	12.01
59	Investments in blockchain technologies	iShares Blockchain and Tech ETF (IBLC)	-11.64	18.59		
60	Investments in IPO shares	Renaissance IPO ETF (IPO)	-3.32	15.68	-8.98	6.90
61	Leveraged investment in shares of an IT company investing in Bitcoins (super risk)	Defiance Daily Target 2X Lng MSTR ETF (MSTX)	-33.34			
62	Portfolio reflecting the investments of Democrats in Congress ("Nancy")	Unusual Whales Subversive Dem Trd ETF (NANC)	0.86	26.83		

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Nº	Investment strategies	Benchmarks: Morningstar indexes and exchange traded funds (ETFs)	2025 Jan-Feb	2024	2022-2024	2015-2024
63	Portfolio reflecting the investments of Republicans in Congress ("Cruz")	Unusual Whales Subversive Rep Trd ETF (KRUZ)	1.72	14.45		
	Alternative assets					
64	Gold	SPDR® Gold Shares (GLD)	8.73	26.66	12.30	7.86
65	Real estate	Vanguard Real Estate ETF (VNQ)	5.41	4.81	-4.75	5.04
66	Cryptocurrency	ProShares Bitcoin Strategy ETF (BITO)	-10.82	105.41	20.72	
67	Cryptocurrency	S&P Bitcoin Index	-9.88	122.29	26.75	76.52
68	S&P Commodity Assets Index	iShares S&P GSCI Commodity-Indexed Trust (GSG)	1.93	8.52	8.36	0.09
69	Return index of public private equity funds	The S&P Listed Private Equity Index	2.23	25.40	8.33	13.46
70	Fund investing in publicly traded private equity funds globally	Invesco Global Listed Private Equity ETF (PSP)	2.52	17.35	0.41	8.77
71	Mutual Venture Investment Fund	AXS FTSE Vntr Cptl RetTrckr I (LDVIX)	2.15	26.64	-4.66	16.82
72	Mutual fund of non-public companies' shares	The Private Shares Fund I (PIVIX)	-0.37	11.66	1.08	
73	Mutual fund of shares of non-public global companies	HarbourVest Global Priv Equity Ord (HVPE)	3.58	12.50	-2.56	12.80
	Speculative and hedging strategies in the US					
74	Down play on NASDAQ-100 index stocks	ProShares UltraPro Short QQQ ETF (SQQQ)	0.83	-49.77	-37.73	-52.17
75	Upside play on NASDAQ-100 index stocks	ProShares UltraPro QQQ ETF (TQQQ)	-5.32	58.23	-0.43	35.10
76	Betting on changes in VIX index	ProShares Ultra VIX (UVXY)	-2.94	-50.90	-67.82	-75.76
77	Shares popular on social media	VanEck Social Sentiment ETF (BUZZ)	-1.39	33.74	2.67	
78	Buy low, sell high strategy for US stocks	Invesco FTSE RAFI US 1000 ETF (PRF)	4.31	16.72	7.59	10.47
79	Hedging strategies for trend reversal ("crisis alpha")	iMGP DBi Managed Futures Strategy ETF (DBMF)	-1.15	7.25	5.88	
80	Hedging strategies for trend reversal ("crisis alpha")	Simplify Managed Futures Strategy ETF (CTA)	3.01	24.15		
81	Risk parity hedging strategies (investments in less volatile assets)	AQR Equity Market Neutral I (QMNNX)	7.35	25.00	22.83	5.93
82	Fund with covered options (hedging by selling call options)	JPMorgan Equity Premium Income ETF (JEPI)	3.84	12.58	6.05	
83	Fund with covered options (hedging by selling call options)	Global X NASDAQ-100 Covered Call ETF (QYLD)	0.36	17.16	5.18	8.28
84	Long/Short strategy — buy undervalued stocks, sell stocks whose prices are likely to fall	Neuberger Berman Long Short Instl (NLSIX)	2.40	7.47	4.23	5.78

Source: own calculations on Morningstar statistics; URL: <https://www.morningstar.com/>

Table A2

**Nominal dollar returns on global bond and blended portfolios for the period 2013–2022 (% p.a.)
and for January–February 2025, %**

No.	Investment strategies	Benchmarks: Morningstar indexes and exchange traded funds (ETFs)	2025 Jan-Feb	2024	2022– 2024	2015– 2024
	Global market					
85	Broad bond market	Morningstar Global Core Bond	2.03	-1.86	-5.17	-0.21
86	Broad global bond market (active management)	Fidelity Total Bond Fund (FTBFX)	2.94	2.49	-1.45	2.28
87	Government bonds	Morningstar Global Treasury Bond	1.99	-3.62	-6.66	-0.91
88	Inflation-linked government bonds	Morningstar Global Treasury Inflation-Linked Securities	2.41	-3.64	-7.83	0.06
89	Corporate bonds	Morningstar Global Corporate Bond	2.30	0.47	-3.10	1.27
90	Long-term US and global corporate bonds	Vanguard Long-Term Corporate Bond Index/ETF (VITCX, VCLT)	3.86	-1.91	-6.70	2.07
91	Infrastructure bonds	Morningstar Global Bond Infrastructure	2.48	0.25	-3.79	1.22
92	Global Money Market Fund	Invesco Treasurer's Ser Tr Prem Instl (IPPXX)	0.71	5.33	4.05	1.84
	USA					
93	US money market fund	Vanguard Cash Rsrv Federal MnyMktAdmiral (VMRXX)	0.69	5.24	3.96	1.84
94	US money market fund	Fidelity® Treasury Money Market (FZFX)	0.65	4.90	3.65	
95	Broad bond market	Morningstar US Core Bond	2.73	1.36	-2.43	1.32
96	Broad bond market	Vanguard Total Bond Market Index/ETF (VBTLX, BND)	2.71	1.38	-2.37	1.34
97	Broad bond market of US issuers	iShares Core US Agg Bond ETF (AGG)	2.76	1.31	-2.36	1.29
98	1–3 Yr broad bond market	Morningstar US 1–3 Yr Core Bond	1.15	4.99	1.82	1.66
99	5–10 Yr broad bond market	Morningstar US 5–10 Yr Core Bond	3.02	0.74	-2.63	1.27
100	Government bonds	Morningstar US Treasury Bond	2.69	0.76	-2.86	0.83
101	1–5 Yr government bonds	Morningstar US 1–5 Yr Treasury Bond	1.48	3.41	0.67	1.34
102	5–10 Yr government bonds	Morningstar US 5–10 Yr Treasury Bond	3.12	0.45	-3.00	1.00
103	Inflation-protected securities	Morningstar US Treasury Inflation-Protected Securities	3.49	2.08	-2.29	2.17
104	ETF municipal bonds	iShares National Muni Bond ETF (MUB)	1.32	1.26	-0.32	2.03
105	Mortgage securities	Morningstar US Asset-Backed Securities	1.33	5.87	2.42	2.21

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No.	Investment strategies	Benchmarks: Morningstar indexes and exchange traded funds (ETFs)	2025 Jan-Feb	2024	2022–2024	2015–2024
106	Commercial mortgage-backed securities	Morningstar US Commercial Mortgage-Backed Securities	2.28	4.73	-0.23	2.13
107	Corporate bonds	Morningstar US Corporate Bond	2.68	2.13	-2.27	2.36
108	1–5 Yr corporate bonds	Morningstar US 1–5 Yr Corporate Bond	1.57	4.87	1.47	2.41
109	Short-term corporate bonds	Vanguard Short-Term Corporate Bond Index/ETF (VSTBX, VCSH)	1.48	4.91	1.69	2.33
110	5–10 Yr corporate bonds	Morningstar US 5–10 Yr Corporate Bond	2.67	3.13	-1.14	2.81
111	Investments in the US CO floaters	T. Rowe Price Floating Rate ETF (TFLR)	0.76	8.84		
112	ETF fallen angel bonds	VanEck Fallen Angel High Yield Bond (FALN)	2.15	7.69	1.74	
113	US high-yield bonds (DLJ)	Morningstar US High-Yield Bond	2.07	8.20	2.91	5.17
114	Hight-yield securities	CrossingBridge Low Dur Hi Yld Instl CBLDX	1.30	7.18	5.23	
	USA and world: ESG factors					
115	ESG corporate bonds USA	iShares ESG USD Corporate Bond ETF (SUSC)	2.58	1.91	-2.39	
116	ESG corporate bonds USA	Vanguard ESG US Corporate Bond ETF (VCEB)	2.57	2.22	-2.00	
117	A broad portfolio of US green bonds	iShares USD Green Bond ETF (BGRN)	2.21	2.77	-1.64	
118	US broad bond ESG index	Nuveen ESG US Aggregate Bond ETF (NUBD)	2.45	1.30	-2.38	
119	US broad bond ESG index	NYLI MacKay ESG Core Plus Bond ETF (CPLB)	2.87	4.18	-1.52	
120	ESG HYB USA	Nuveen ESG High Yield Corporate Bd ETF (NUHY)	2.47	7.26	1.69	
121	ESG corporate securities USA	Morningstar US Corporate Bond Sustainability TR USD (MSBICSTU)	2.71	1.88	-2.36	
122	ESG global corporate securities	Morningstar Global Corporate Bond Sustainability GR USD	2.33	0.38	-3.12	
123	ESG corporate securities Eurozone	Morningstar Eurozone Corporate Bond Sustainability GR USD	1.50	-2.17	-4.15	
	Eurozone, UK, Japan					
124	Broad bond market	Morningstar Eurozone Core Bond	1.16	-4.02	-6.26	-1.32
125	Government bonds	Morningstar Eurozone Treasury Bond	1.04	-4.60	-6.82	-1.32
126	1–3 Yr government bonds	Morningstar Eurozone 1–3 Yr Treasury Bond	0.96	-3.28	-2.56	-1.36
127	5–7 Yr government bonds	Morningstar Eurozone 5–7 Yr Treasury Bond	1.29	-4.22	-5.15	-1.21
128	Government inflation-linked securities	Morningstar Eurozone Treasury Inflation-Linked Securities	1.14	-6.23	-4.45	0.17
129	Corporate bonds	Morningstar Eurozone Corporate Bond	1.49	-2.30	-4.27	-0.76

130	High-yield securities (HYS)	Morningstar Eurozone High-Yield Bond	2.09	1.56	-0.35	2.11
131	Broad bond market	Morningstar UK Core Bond	2.19	-4.59	-10.36	-2.32
132	Government bonds	Morningstar UK Gilt Bond	2.21	-5.76	-11.68	-2.79
133	Corporate bonds	Morningstar UK Corporate Bond	2.08	-0.75	-6.65	-0.53
134	Government bonds	Morningstar Japan Treasury Bond	2.76	-13.23	-12.41	-2.89
	Developing markets					
135	Broad bond market	Morningstar Emerging Markets Composite Bond	2.86	4.34	-1.38	3.00
136	Government bonds	Morningstar Emerging Markets Sovereign Bond	3.14	2.30	-1.88	2.51
137	Corporate bonds	Morningstar Emerging Markets Corporate Bond	2.61	6.15	-0.96	3.32
138	Infrastructure bonds	Morningstar Emerging Markets Infrastructure Bond	2.45	-7.62	-4.93	1.84
139	High-yield bonds (HYB) EM	Morningstar Emerging Markets High-Yield Bond	2.77	9.77	1.69	4.42
140	Broad bond market of Chinese issuers	Morningstar China USD Broad Market Bond	2.73	6.34	-1.35	1.95
	Mixed investments					
141	60% stocks / 40% bonds – the largest fund	American Funds American Balanced A (ABALX)	2.65	14.95	4.82	8.14
142	60% stocks / 40% bonds – the oldest fund	Vanguard Wellington™ Inv VWELX	2.01	14.76	3.98	8.36
143	Life cycle fund 2025 (50%/50%)	Fidelity Freedom® 2025 (FFTWX)	3.29	8.21	0.96	6.23
144	Life cycle fund 2040 (85%/15%)	Fidelity Freedom® 2040 (FFAFX)	3.28	13.21	3.56	8.74
145	Life cycle fund 2065 (90%/10%)	Fidelity Freedom® 2065 (FFSFX)	3.32	14.02	3.95	
146	Life cycle fund 2045 (85%/15%)	Vanguard Target Retirement 2045 Fund (VTIVX)	2.60	13.91	4.00	8.57
147	Life cycle fund 2035 (70%/30%)	Vanguard Target Retirement 2035 Fund (VTTHX)	2.50	11.78	2.97	7.51
148	70% stock/30% bonds	Fidelity Asset Manager® 70% (FASGX)	2.31	10.84	2.36	7.46
149	Classic fund with 60/40 strategy in the US	Vanguard Balanced Index I (VBAIX)	1.75	14.60	3.86	8.18
150	Morningstar strategy 60/40	Morningstar US Moderate Target Allocation NR USD (MSAAUMTU)	2.15	12.95	3.75	7.45
151	Global Market Dynamic Asset Allocation Mixed Fund with 35% to 70% equity exposure	Loomis Sayles Global Allocation A (LGMAX)	2.19	12.25	1.72	7.89
152	Roubini Defense Fund against market shocks in the form of rising inflation and geopolitics (10% equities / 60% bonds / other 30%)	Atlas America Fund (USAF)	1.55			

Source: Own compilations based on Morningstar statistics: URL: <https://www.morningstar.com/>

Table A3

**Nominal dollar total returns of emerging market equity index portfolios for the period 2014–2023 (% p.a.)
and for January–February 2025, %**

No.	Investment strategies	Benchmarks: Morningstar indexes and exchange traded funds (ETFs)	Ticker	2025 Jan–Feb	2024	2022–2024	2015–2024
153	ETF broad market	iShares Core MSCI Emerging Markets ETF	IEMG	2.34	6.51	–1.66	3.79
154	ETFs of emerging markets bonds	iShares MSCI Emerging Markets	EEM	3.33	6.50	–2.67	2.88
155	Broad market indexes	Morningstar Emerging Markets	Index 1	0.75	7.41	–0.45	4.71
156	Dividend stocks	Morningstar Emerging Markets Dividend Yield Focus	Index 4	2.12	4.52	–0.83	4.09
157	Developing countries except China	iShares MSCI Emerging Mkts ex China ETF	EMXC	–1.57	2.76	–0.57	
158	European developing countries	Morningstar Emerging Markets Europe	Index 3	2.34	12.42	–23.59	–2.14
159	BIC (Formerly – BRIC)	Morningstar BIC (formerly – BRIC)	Index 2	0.81	0.22	–1.89	4.39
160	BIC (ETF)	iShares MSCI BIC ETF	BKF	5.35	9.23	–4.70	2.46
161	China	iShares MSCI China ETF	MCHI	14.34	17.71	–6.89	1.18
162	China, major companies	iShares China Large-Cap ETF	FXI	15.74	28.95	–3.57	–0.69
163	China, small companies	iShares MSCI China Small-Cap ETF	ECNS	8.48	5.61	–15.02	–1.49
164	China, bonds class A	Xtrackers Harvest CSI 300 China A ETF	ASHR	0.38	11.95	–10.79	0.23
165	Brazil	iShares MSCI Brazil ETF	EWZ	7.11	–30.47	1.20	0.07
166	Brazil, small companies	iShares MSCI Brazil Small-Cap	EWZS	7.68	–35.99	–8.95	–0.88
167	India	iShares MSCI India ETF	INDA	–8.62	8.64	5.04	7.16
168	India, small companies	iShares MSCI India Small-Cap ETF	SMIN	–17.96	16.83	10.71	10.43
169	RSA	iShares MSCI South Africa ETF	EZA	5.94	7.30	1.10	0.18
170	Saudi Arabia	iShares MSCI Saudi Arabia	KSA	0.71	–0.17	2.56	
171	Poland	iShares MSCI Poland ETF	EPOL	21.13	–2.47	3.49	1.01
172	Argentina	Global X MSCI Argentina ETF	ARGT	0.13	63.48	41.09	17.31
173	Indonesia	iShares MSCI Indonesia ETF	EIDO	–13.64	–12.95	–3.75	–1.81
174	Chili	iShares MSCI Chile ETF	ECH	14.30	–8.63	7.62	–1.55
175	Turkey	iShares MSCI Turkey ETF	TUR	–4.41	12.91	28.51	–1.29
176	Mexico	iShares MSCI Mexico ETF	EWX	7.90	–28.20	0.68	0.08
177	Malasia	iShares MSCI Malaysia ETF	EMW	–3.51	19.49	2.69	–1.00
178	Vietnam	VanEck Vietnam ETF	VNM	4.48	–11.15	–16.83	–3.48
179	Russia	RTS Index	RTSI	27.89	–17.56	–17.59	1.23
180	Russia	RTS Index – total yield	RTSTR	28.49	–9.93	–10.32	8.06

Source: Own compilations based on Morningstar statistics: URL: <https://www.morningstar.com/>

Table A4

Largest exchange traded funds (ETFs) investing in crypto assets as of February 29, 2024

No.	Investment strategies	Benchmarks: indexes	Ticker	Asset value, USD bn	2025 Jan-Feb	2024	2022-2024	2015-2024
181	Investments in cryptocurrency derivatives	ProShares Bitcoin Strategy ETF	BITO	2.3	-10.82	105.41	20.72	
182	Investing in cryptocurrency derivatives, betting on Bitcoin's decline in value	ProShares Short Bitcoin Strategy ETF	BITI	0.1	9.25	-62.60		
183	Direct investment in Bitcoin on the spot market not through ETFs	Grayscale Bitcoin Trust (BTC)	GBTC	19.2	-10.01	137.30	33.86	73.37
184	Direct investment in Ethereum on the spot market not through ETFs	Grayscale Ethereum Trust (ETH)	ETHE	4.7	-1.03	44.14	-4.69	
185	Direct investment in a basket of cryptocurrencies on the spot market not through ETFs	Grayscale Digital Large Cap ETC	GDLC	0.7	-16.16	136.98	19.27	
186	Direct Bitcoin investment in the spot market	iShares Bitcoin Trust ETF	IBIT	51.7	-9.71			
187	Direct Bitcoin investment in the spot market	Fidelity Wise Origin Bitcoin ETF	FBTC	18.8	-9.90			
188	Direct Bitcoin investment in the spot market	ARK 21Shares Bitcoin ETF	ARKB	4.4	-9.87			
189	Direct Bitcoin investment in the spot market	Bitwise Bitcoin ETF	BITB	3.8	-9.85			
190	Direct Bitcoin investment in the spot market	Invesco Galaxy Bitcoin ETF	BTCO	0.7	-9.92			
191	Direct Bitcoin investment in the spot market	Hashdex Bitcoin Futures ETF	DEFI	0.0	-10.37	109.39		
192	Digital Asset Fund for US government securities	BlackRock USD Institutional Digital Liquidity Fund	BUIDL	90.2	1.06	4.59	4.70	3.50
193	Direct investment in Ethereum on the spot market	Fidelity Ethereum Fund	FETH	1.5	-33.73			

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No.	Investment strategies	Benchmarks: indexes	Ticker	Asset value, USD bn	2025 Jan-Feb	2024	2022–2024	2015–2024
194	Direct investment in Ethereum on the spot market	iShares Ethereum Trust	ETHA	3.6	–33.61			
195	Direct investment in Ethereum on the spot market	Franklin Ethereum ETF	EZET	0.0	–33.62			
196	Direct investment in Ethereum on the spot market	Invesco Galaxy Ethereum ETF	QETH	0.0	–33.72			
197	Direct investment in Ethereum on the spot market	Grayscale Ethereum Mini Trust ETF	ETH	1.6	–33.57			
198	Direct investment in Ethereum on the spot market	2x Ether ETF	ETHU	0.9	–62.44			
199	Direct investment in Ethereum on the spot market	Proshares Ultra Ether ETF	ETHT	0.2	–63.10			
200	Direct investment in Ethereum on the spot market	ProShares Ether ETF	EETH	0.1	–34.40	33.34		
201	Direct investment in Ethereum on the spot market	Proshares UltraShort Ether ETF	ETHD	1.0	85.52			
202	Bitcoin and Ethereum in view of capitalization	ProShares Bitcoin&EtherMktCapWtdETF	BETH	0.0	–14.82	85.18		

Source: Own compilations based on Morningstar statistics: URL: <https://www.morningstar.com/>

Table A5
Return and risk map of investment strategies in the global financial market over a 10-year time horizon from 2015 to 2024*

	No.	Investment strategies (141)	Benchmarks: Morningstar and exchange funds indexes	Yield**, %	Risk***, %	Yield/Risk
High risk	76	Betting on changes in the VIX index	ProShares Ultra VIX (UVXY)	-75.76	112.52	-0.67
	67	Cryptocurrency	S&P Bitcoin Index	76.52	78.75	0.97
	183	Direct investment in Bitcoin on the spot market not through ETFs	Grayscale Bitcoin Trust (BTC)	73.37	77.26	0.95
Increased risk	75	Upside play on the NASDAQ-100 Index stocks	ProShares UltraPro QQQ ETF (TQQQ)	35.10	57.71	0.61
	74	Down play on the NASDAQ-100 Index stocks	ProShares UltraPro Short QQQ ETF (SQQQ)	-52.17	51.50	-1.01
Moderate risk	166	Brazil, small companies	iShares MSCI Brazil Small-Cap	-0.88	36.54	-0.02
	58	Shares of innovation companies	ARK Innovation ETF (ARKK)	12.01	36.10	0.33
	165	Brazil	iShares MSCI Brazil ETF	0.07	33.57	0.00
	175	Turkey	iShares MSCI Turkey ETF	-1.29	33.23	-0.04
	179	Russia	RTS Index	1.23	32.20	0.04
	180	Russia	RTS Index — total yield	8.06	32.20	0.25
	172	Argentina	Global X MSCI Argentina ETF	17.31	31.70	0.55
	158	Developing countries in Europe	Morningstar Emerging Markets Europe	-2.14	31.51	-0.07
	45	Energy sector	Morningstar US Energy	4.42	30.01	0.15
	71	Mutual venture capital investment fund	AXS FTSE Vntr Cptl RetTrckr I (LDVIX)	16.82	28.59	0.59
Moderate-low risk	171	Poland	iShares MSCI Poland ETF	1.01	27.81	0.04
	60	Investment in IPO shares	Renaissance IPO ETF (IPO)	6.90	26.71	0.26
	163	China, small companies	iShares MSCI China Small-Cap ETF	-1.49	25.94	-0.06
	174	Chile	iShares MSCI Chile ETF	-1.55	25.37	-0.06
	169	South Africa	iShares MSCI South Africa ETF	0.18	25.08	0.01
	161	China	iShares MSCI China ETF	1.18	24.98	0.05
	162	China, Major companies	iShares China Large-Cap ETF	-0.69	24.79	-0.03
	164	China, shares of class A	Xtrackers Harvest CSI 300 China A ETF	0.23	24.35	0.01

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No.	Investment strategies (141)	Benchmarks: Morningstar and exchange funds indexes	Yield**, %	Risk***, %	Yield/ Risk
176	Mexico	iShares MSCI Mexico ETF	0.08	23.69	0.00
168	India, small companies	iShares MSCI India Small-Cap ETF	10.43	22.62	0.46
34	Smart (strategic) beta equity fund	DFA US Small Cap Value I (DFSXX)	8.61	22.35	0.39
70	Fund investing in global publicly traded private equity funds	Invesco Global Listed Private Equity ETF (PSP)	8.77	22.05	0.40
69	Return index of public private equity funds	The S&P Listed Private Equity Index	13.46	21.97	0.61
173	Indonesia	iShares MSCI Indonesia ETF	-1.81	21.80	-0.08
178	Vietnam	VanEck Vietnam ETF	-3.48	21.79	-0.16
68	S&P commodity-indexed assets	iShares S&P GSCI Commodity-Indexed Trust (GSG)	0.09	21.59	0.00
43	Cyclical sector of consumer goods	Morningstar US Consumer Cyclical Sector	13.99	20.90	0.67
51	Masic materials sector	Morningstar US Basic Materials Sector	8.08	20.55	0.39
50	Technology sector	Morningstar US Technology Sector	21.39	20.00	1.07
46	Financial services	Morningstar US Financial Services Sector	12.12	19.65	0.62
25	Small companies shares	Vanguard Small-Cap ETF (VB)	9.08	19.43	0.47
160	BIC (ETF)	iShares MSCI BIC ETF	2.46	19.12	0.13
48	Manufacturing sector	Morningstar US Industrials Sector	11.13	18.75	0.59
21	Stocks of the NASDAQ-100 Index	Invesco QQQ Trust (QQQ)	18.28	18.51	0.99
159	BIC (previously -BRIC)	Morningstar BIC (previously — BRIC)	4.39	18.31	0.24
65	Real estate	Vanguard Real Estate ETF (VNQ)	5.04	18.13	0.28
167	India	iShares MSCI India ETF	7.16	18.09	0.40
52	Real estate operations	Morningstar US Real Estate Sector	5.14	17.93	0.29
23	Growth shares	Vanguard US Growth (VUG)	15.75	17.80	0.88
26	Morningstar strategy momentum	Morningstar US Momentum Factor TR USD	15.52	17.79	0.87
42	Communications	Morningstar US Communication Services	12.63	17.59	0.72
154	ETFs stocks of developing economies	iShares MSCI Emerging Markets	2.88	17.18	0.17
6	Shares of European companies	Vanguard European Stock Index/FTSE Europe ETF (VEUSX, YGK)	5.27	17.08	0.31

Low risk	153	ETF of broad market	iShares Core MSCI Emerging Markets ETF	3.79	16.99	0.22
	27	Morningstar strategy of quality shares	Morningstar US Quality Factor TR USD	14.00	16.71	0.84
	155	Broad market index	Morningstar Emerging Markets	4.71	16.64	0.28
	11	Shares of value of non-US developed economies companies (unhedged)	iShares MSCI EAFE Value (EFV)	4.26	16.56	0.26
	78	Buy low, sell high strategy for US stocks	Invesco FTSE RAFI US 1000 ETF (PRF)	10.47	16.07	0.65
	20	US broad stock market	Vanguard Total Stock Market Index/ETF (VTSAX) (VTI)	12.50	15.82	0.79
	12	Growth stocks of non-US developed economies (unhedged)	iShares MSCI EAFE Growth (EFG)	5.62	15.81	0.36
	17	US broad stock market	Morningstar US Market	12.66	15.75	0.80
	28	Quality shares	iShares MSCI USA Quality Factor ETF (QUAL)	12.89	15.75	0.82
	177	Malasia	iShares MSCI Malaysia ETF	-1.00	15.65	-0.06
	18	Shares of the S&P 1500 Index (90% of equity capitalization in the US)	SPDR® Port S&P 1500 Comps Stk Mkt ETF (SPTM)	12.65	15.58	0.81
	8	Shares of European, Australian, and Far Eastern major companies	iShares MSCI EAFE (EFA)	5.21	15.57	0.33
	24	Shares of major companies	Vanguard Large Cap Index/ETF (VLCAX) (VV)	13.01	15.51	0.84
	29	Shares of ESG-companies	Morningstar US Sustainability	12.37	15.43	0.80
	19	Shares of the S&P500 Index	Vanguard S&P 500 ETF (VOO)	13.07	15.36	0.85
	3	Shares of companies from developed economies, excluding the US	Morningstar Developed Markets ex-US	5.82	15.32	0.38
	14	Shares of 23 developed and 24 emerging markets (unhedged)	iShares MSCI ACWI ex US ETF (ACWX)	4.70	15.30	0.31
	49	Utilities sector	Morningstar US Utilities Sector	8.64	15.25	0.57
	2	Shares of companies from developed economies	Morningstar Developed Markets	10.16	15.18	0.67
	7	Stocks of global companies	Vanguard Total World Stock Index/ETF (VTWAX, VT)	9.32	15.04	0.62
	22	Value shares	Vanguard US Value (VTI)	9.99	15.00	0.67
	32	Smart (strategic) beta equity fund	Vanguard Value Index Adm (VVIAX)	9.99	15.00	0.67
	35	Dividend equities — broad diversification	Schwab U. S. Dividend Equity ETF (SCHD)	11.03	14.95	0.74
	1	Broad stock market	Morningstar Global Markets	9.51	14.93	0.64
	38	High dividend yield stocks	WisdomTree US High Dividend ETF (DHS)	8.17	14.83	0.55

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No.	Investment strategies (141)	Benchmarks: Morningstar and exchange funds indexes	Yield**, %	Risk***, %	Yield/ Risk
36	High dividend yield stocks (beta for dividend strategies in the US broadest index of the most dividend yield US companies)	Morningstar US High Dividend Yield	9.64	14.66	0.66
40	High dividend yield stocks of US companies	Morningstar US High Dividend Yield TR USD (2750632)	9.64	14.66	0.66
47	Healthcare sector	Morningstar US Healthcare Sector	8.75	14.57	0.60
41	Global high dividend yield stocks	Morningstar Global Markets High Dividend Yield GR USD (2750630)	7.69	14.48	0.53
37	Index of 75 quality (moat) stocks with high dividend yield	Morningstar Dividend Yield Focus TR USD (MDYFT)	7.91	14.38	0.55
39	US stocks with stable dividends and growth potential	JPMorgan Equity Income A (OIEIX)	8.81	14.37	0.61
156	Dividend yield stocks	Morningstar Emerging Markets Dividend Yield Focus	4.09	14.37	0.28
145	Life Cycle Fund 2040 (85%/15%)	Fidelity Freedom® 2040 (FFFFX)	8.74	14.07	0.62
147	Life Cycle Fund 2045 (85%/15%)	Vanguard Target Retirement 2045 Fund (VTIVX)	8.57	13.57	0.63
64	Gold	SPDR® Gold Shares (GLD)	7.86	13.56	0.58
133	Corporate bond	Morningstar UK Corporate Bond	-0.53	13.12	-0.04
152	Global market dynamic asset allocation mixed fund with 35% to 70% equity exposure	Loomis Sayles Global Allocation A (LGMAX)	7.89	12.99	0.61
13	Investments in non-US growth stocks in developed economies hedging local currency risks	iShares Currency Hedged MSCI EAFE (HEFA)	8.84	12.66	0.70
44	Counter-cyclical consumer goods sector	Morningstar US Consumer Defensive Sector	8.64	12.66	0.68
30	Shares with minimum volatility	iShares MSCI USA Min Vol Factor ETF (USMV)	10.24	12.51	0.82
90	Long-term US and global corporate bonds	Vanguard Long-Term Corporate Bond Index/ETF (VLCX, VCLT)	2.07	12.12	0.17
132	Government bonds	Morningstar UK Gilt Bond	-2.79	11.90	-0.23
149	70% shares/ 30% bonds	Fidelity Asset Manager® 70% (FASGX)	7.46	11.86	0.63
148	Life Cycle Fund 2035 (70%/30%)	Vanguard Target Retirement 2035 Fund (VTTHX)	7.51	11.84	0.63
131	Broad bond market	Morningstar UK Core Bond	-2.32	11.76	-0.20
73	Mutual fund of stocks of non-public global companies	HarbourVest Global Priv Equity Ord (HVPE)	12.80	11.63	1.10

83	Fund with covered options (hedging by selling call options)	Global X NASDAQ-100 Covered Call ETF (QYLD)	8.28	11.60	0.71
130	High-yield bonds	Morningstar Eurozone High-Yield Bond	2.11	11.52	0.18
134	Government bonds	Morningstar Japan Treasury Bond	-2.89	10.53	-0.27
144	Life Cycle Fund 2025 (50%/50%)	Fidelity Freedom® 2025 (FFTWX)	6.23	10.42	0.60
150	Classic fund with 60/40 strategy in the US	Vanguard Balanced Index (VBAX)	8.18	10.39	0.79
143	60% stocks / 40% bonds — the oldest fund	Vanguard Wellington™ Inv VWELX	8.36	10.35	0.81
139	High-yield bonds	Morningstar Emerging Markets High-Yield Bond	4.42	10.19	0.43
81	Risk parity hedging strategies (investments in less volatile assets)	AQR Equity Market Neutral N (QMNNX)	5.93	9.92	0.60
151	Morningstar strategy 60/40	Morningstar US Moderate Target Allocation NR USD (MSAUMTU)	7.45	9.89	0.75
128	Government inflation-linked securities	Morningstar Eurozone Treasury Inflation-Linked Securities	0.17	9.82	0.02
142	60% stocks / 40% bonds — the largest fund	American Funds American Balanced A (ABALX)	8.14	9.74	0.84
129	Corporate bonds	Morningstar Eurozone Corporate Bond	-0.76	9.49	-0.08
125	Government bonds	Morningstar Eurozone Treasury Bond	-1.32	9.48	-0.14
124	Broad bond market	Morningstar Eurozone Core Bond	-1.32	9.27	-0.14
136	Government bonds	Morningstar Emerging Markets Sovereign Bond	2.51	8.80	0.29
127	5-7 Yr government bonds	Morningstar Eurozone 5-7 Yr Treasury Bond	-1.21	8.77	-0.14
91	Infrastructure bonds	Morningstar Global Bond Infrastructure	1.22	8.31	0.15
88	Government inflation-linked securities	Morningstar Global Treasury Inflation-Linked Securities	0.06	8.10	0.01
126	1-3 Yr government bonds	Morningstar Eurozone 1-3 Yr Treasury Bond	-1.36	7.68	-0.18
113	High-yield bonds	Morningstar US High-Yield Bond	5.17	7.65	0.68
135	Broad bond market	Morningstar Emerging Markets Composite Bond	3.00	7.55	0.40
89	Corporate bonds	Morningstar Global Corporate Bond	1.27	7.31	0.17
87	Government bonds	Morningstar Global Treasury Bond	-0.91	7.07	-0.13
84	Long/Short strategy — buy undervalued stocks, sell stocks whose prices are likely to fall	Neuberger Berman Long Short Instl (NLSIX)	5.78	6.96	0.83
137	Corporate bonds	Morningstar Emerging Markets Corporate Bond	3.32	6.91	0.48

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No.	Investment strategies (141)	Benchmarks: Morningstar and exchange funds indexes	Yield**, %	Risk***, %	Yield/ Risk
107	Corporate bonds	Morningstar US Corporate Bond	2.36	6.89	0.34
138	Infrastructure bonds	Morningstar Emerging Markets Infrastructure Bond	1.84	6.82	0.27
110	5–10 Yr corporate bonds	Morningstar US 5–10 Yr Corporate Bond	2.81	6.67	0.42
85	Broad bond market	Morningstar Global Core Bond	–0.21	6.46	–0.03
102	5–10 Yr government bonds	Morningstar US 5–10 Yr Treasury Bond	1.00	5.57	0.18
140	Broad bond market of Chinese issuers	Morningstar China USD Broad Market Bond	1.95	5.47	0.36
99	5–10 Yr broad bond market	Morningstar US 5–10 Yr Core Bond	1.27	5.38	0.24
86	Broad global bond market (active management)	Fidelity Total Bond Fund (FTBFX)	2.28	5.15	0.44
96	Broad bond market	Vanguard Total Bond Market Index/ETF (VBTLX, BND)	1.34	5.07	0.26
97	Broad bond market of US issuers (Bloomberg US Aggregate)	iShares Core US Agg Bond ETF (AGG)	1.29	5.03	0.26
103	Inflation-protected securities	Morningstar US Treasury Inflation-Protected Securities	2.17	4.96	0.44
95	Broad bond market	Morningstar US Core Bond	1.32	4.90	0.27
100	Government bonds	Morningstar US Treasury Bond	0.83	4.87	0.17
104	ETF municipal bonds	iShares National Muni Bond ETF (MUB)	2.03	4.75	0.43
106	Commercial mortgage-backed securities	Morningstar US Commercial Mortgage-Backed Securities	2.13	3.89	0.55
109	Short-term corporate bonds	Vanguard Short-Term Corporate Bond Index/ETF (VSTBX, VCSH)	2.33	2.99	0.78
108	1–5 Yr corporate bonds	Morningstar US 1–5 Yr Corporate Bond	2.41	2.98	0.81
101	1–5 Yr government bonds	Morningstar US 1–5 Yr Treasury Bond	1.34	2.25	0.60
105	Mortgage securities	Morningstar US Asset-Backed Securities	2.21	2.09	1.06
98	1–3 Yr broad bond market	Morningstar US 1–3 Yr Core Bond	1.66	1.53	1.08
92	Global money market fund	Invesco Treasurer's Ser Tr Prem Instl (IPPPX)	1.84	0.55	3.35
93	US money market fund	Vanguard Cash Rsrv Federal MnyMktAdmiral (VMRXX)	1.84	0.53	3.47

* In order to classify investment strategies into 5 categories depending on the level of risk, the strategies in the sample with standard deviation from 0% to 80% were divided into 5 groups with equal risk range.

** Geometric mean total return of portfolios for the period 2015–2024.

*** Standard deviation of portfolio returns for the period 2015–2024, %.

Source: Own compilations based on Morningstar statistics: URL: <https://www.morningstar.com/>

Table A6

**Nominal yields of various financial instruments in the Russian financial market
for the period 2015–2024 (% p. a.) and for January-February 2025, %**

	No.	Investment strategies (105)	Yield, %	Risk, %	Yield/ Risk
Broad stock indexes	1	Moscow Exchange Index (IMOEX)	7.52	23.5	0.32
	2	Moscow Exchange Total Return Gross Index (MCFTR)	14.77	23.58	0.63
	5	Moscow Exchange Mid and Small Capitalization Index (MCXSM)	5.95	20.75	0.29
	6	Moscow Exchange Small and Medium Capitalization Index (MESMTR)	10.89	20.73	0.53
	7	Moscow Exchange Broad Market Index (MOEXBMI)	7.74	23.42	0.33
	10	Moscow Exchange Blue Chip Index (MOEXBC)	7.13	24.78	0.29
	11	Moscow Exchange Blue Chip Index (MEBCTR)	14.67	24.82	0.59
Sectoral stock indexes	12	Moscow Exchange Oil and Gas Index (MOEXOG)	8.70	25.31	0.34
	13	Moscow Exchange Oil and Gas Index (MEOGTR)	16.43	25.29	0.65
	14	Power Industry Index (MOEXEU)	7.23	23.63	0.31
	15	Power Industry Index (MEEUTR)	13.16	22.84	0.02
	16	Telecommunications Index (MOEXTL)	0.45	22.84	0.02
	17	Telecommunications Index (METLTR)	10.40	22.14	0.47
	18	Moscow Exchange Metals and Mining Index (MOEXMM)	6.65	22.81	0.29
	19	Moscow Exchange Metals and Mining Index (MEMMTR)	13.77	22.74	0.61
	20	Finance Index (MOEXFN)	9.10	26.58	0.34
	21	Finance Index (MEFNTR)	13.70	26.55	0.52
	22	Moscow Exchange Consumer Sector Index (MOEXCN)	3.01	20.91	0.14
	23	Moscow Exchange Consumer Sector Index (MECNTR)	7.03	20.88	0.34
	24	Chemicals and Petrochemicals Index (MOEXCH)	14.98	25.38	0.59
	25	Chemicals and Petrochemicals Index (MECHTR)	24.01	25.16	0.95
	26	Transportation Index (MOEXTN)	10.09	28.63	0.35
	27	Transportation Index (METNTR)	15.11	28.52	0.53
Mutual investment funds	60	IF-FI – bond funds	9.16	4.82	1.90
	61	IF-MM – monetary markets funds	9.50	2.76	3.44
	62	IF-EG – stock funds	14.39	17.34	0.83
	80	OPIF Pervaya — Russian Equity Fund MC Pervaya	11.55	23.55	0.49
	81	OPIF SI First — Balanced MC First	11.06	15.43	0.72
	82	Aton Equity OPIF — Pyotr Stolypin MC Aton Management	11.47	22.21	0.52
	83	Aton Equity OPIF — Echelon 2.0 MC Aton Management	19.18	21.86	0.88
	85	Oil and gas sector equity OPIF VIM Investments Management Company	14.62	22.15	0.66
	87	OPIF Treasury MC VIM Investments	8.73	7.39	1.18
	88	Raiffeisen OPIF — Corporate Bonds Raiffeisen Capital Management Company	6.20	4.26	1.45
	89	Raiffeisen OPIF — Dividend Stocks Raiffeisen Capital Management Company	8.10	20.86	0.39

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	No.	Investment strategies (105)	Yield, %	Risk, %	Yield/ Risk
	91	Metallurgy equity mutual investment fund VIM Investments Management Company	10.20	21.21	0.48
	92	April Capital OPIF — Stocks April Capital Management Company	21.68	21.56	1.01
	93	Alfa Capital Liquid Stocks OPIF	12.47	22.63	0.55
	94	Alfa Capital Balance OPIF (Alfa Capital)	12.46	16.65	0.75
Direct investment in stocks	99	Gazprom	0.21	33.10	0.01
	100	Sberbank (JSC)	17.39	34.09	0.51
	101	Rosneft	11.77	33.01	0.36
	102	Lukoil	12.14	30.46	0.40
	103	GMK Nornikel	3.50	29.99	0.12
	104	NOVATEK	8.15	33.55	0.24
	105	Surgutneftegaz (PAO)	7.20	30.65	0.23
	106	Sberbank (PAO)	21.92	31.74	0.69
	107	PJSC Ashinskiy Metzavod (AMEZ)	29.01	52.73	0.55
	108	PJSC PKK Energia (RKKE)	14.08	58.15	0.24
	109	OJSC Belon (BLNG)	15.59	63.46	0.25
	110	PAO GAZ (GAZA)	7.08	44.96	0.16
	111	PAO Krasny Oktyabr (KROT)	29.98	71.85	0.42
	112	PAO Sollers (SVAV)	6.77	42.09	0.16
	115	PAO TGK-14 (TGKN)	14.42	52.05	0.28
Factor strategies	119	Broad stock market	14.12	21.63	0.65
	120	Stocks of major companies	13.91	21.45	0.65
	121	Stocks of small companies	35.85	31.99	1.12
	122	Growth Stocks	12.62	19.85	0.64
	123	Value Stocks	10.48	23.08	0.45
	124	Stocks of companies with low capitalization	6.38	28.02	0.23
	125	Stocks of companies with high capitalization	14.80	22.24	0.67
	126	Low-liquidity stock	11.40	19.85	0.57
	127	High-liquidity stock	13.93	22.28	0.63
	128	Stocks with low dividend yield	14.07	23.89	0.59
	129	Stocks with high dividend yield	11.67	21.09	0.55
	130	Stocks without dividends	13.91	21.19	0.66
	131	Stocks with dividends	12.87	21.82	0.59
	132	Private companies stock	14.33	20.30	0.71
	133	KGU stock	12.63	23.69	0.53
	134	Equities of companies with low P/E	15.52	23.15	0.67
	135	Equities of companies with high P/E	12.37	21.76	0.57
	136	Broad stock market (total return)	21.58	21.76	0.99
	137	Stocks of large companies (total return)	21.41	21.58	0.99
	138	Stocks of small companies (total return)	39.38	32.10	1.23
	139	Growth stocks (total return)	21.80	20.09	1.08

	No.	Investment strategies (105)	Yield, %	Risk, %	Yield/ Risk
	140	Value stocks (total return)	15.69	23.24	0.67
	141	Shares of companies with low capitalization (total return)	11.22	28.03	0.40
	142	Stocks of companies with high capitalization (total return)	25.90	22.61	1.15
	143	Low-liquidity stocks (total return)	17.42	19.76	0.88
	144	High-liquidity stocks (total return)	21.82	22.37	0.98
	145	Stocks with low dividend yield (total return)	18.84	24.09	0.78
	146	Stocks with high dividend yield (total return)	23.28	20.96	1.11
	147	Stocks without dividends (total return)	15.09	21.32	0.71
	148	Stocks with dividends (total return)	21.23	21.90	0.97
	149	Shares of private companies (total return)	22.16	20.32	1.09
	150	KGU shares (total return)	19.72	23.82	0.83
	151	Shares of companies with low P/E (total return)	23.69	23.24	1.02
	152	Shares of companies with high P/E (total return)	19.74	21.87	0.90
Bonds and mixed investments indexes	32	Moscow Exchange Government Bond Index RGBITR	8.06	7.89	1.02
	34	IFX-Cbonds	10.24	2.87	3.57
	35	Cbonds-CBI RU BBB/ruAA-	8.79	3.48	2.53
	36	Cbonds-CBI RU BB/ruBBB	9.34	4.23	2.21
	37	Cbonds-CBI RU B/ruB-	11.30	5.86	1.93
	48	Cbonds-CBI RU 1-3Y	9.65	3.39	2.85
	49	Cbonds-CBI RU 3-5Y	8.86	6.47	1.37
	51	Cbonds-GBI RU	8.28	7.81	1.06
	52	Cbonds-GBI RU 1-3Y	8.38	3.81	2.20
	53	Cbonds-GBI RU 3-5Y	8.88	5.94	1.50
	54	Cbonds-GBI RU 5Y	8.56	10.66	0.80
	57	Tier 1 CO Index (RUCBITRL1)	8.17	4.53	1.80
	58	Tier 2 CO Index (RUCBITRL2)	9.10	4.34	2.10
	59	Tier 3 CO Index (RUCBITRL3)	8.83	4.93	1.79
	63	Mixed strategy portfolio: equities 10%, bonds 90%	9.99	5.98	1.67
	64	Mixed strategy portfolio: equities 40%, bonds 60%	12.04	11.31	1.07
	65	Mixed strategy portfolio: equities 50%, bonds 50%	12.63	13.29	0.95
	66	Mixed strategy portfolio: equities 60%, bonds 40%	14.45	21.49	0.67

Source: Own calculations on the basis of resources of the Moscow Exchange, Cbonds and Konstruktor CAPM-ru IAES RANEP. URL: <https://aea.ru>

Table A7

Map of yields and risks of 105 investment strategies in ruble-denominated financial instruments of Russian issuers on a 10-year time horizon in 2015–2024

	No.	Investment strategies (105)	Yield, %	Risk, %	Yield/ Risk
High risk	111	PAO Krasny Oktyabr (KROT)	29.98	71.85	0.42
	109	JSC Belon (BLNG)	15.59	63.46	0.25
	108	PAO RKK Energia (RKKE)	14.08	58.15	0.24
Heightened risk	107	PAO Ashinsky metzavod (AMEZ)	29.01	52.73	0.55
	115	PAO TGK–14 (TGKN)	14.42	52.05	0.28
	110	PAO GAZ (GAZA)	7.08	44.96	0.16
	112	PAO Sollers (SVAV)	6.77	42.09	0.16
Moderate risk	100	Sberbank (pao)	17.39	34.09	0.51
	104	NOVATEK	8.15	33.55	0.24
	99	Gazprom	0.21	33.10	0.01
	101	Rosneft	11.77	33.01	0.36
	138	Shares of small companies (total return)	39.38	32.10	1.23
	121	Shares of small companies	35.85	31.99	1.12
	106	Sberbank (pao)	21.92	31.74	0.69
	105	Surgutneftegaz (pao)	7.20	30.65	0.23
	102	Lukoil	12.14	30.46	0.40
	103	GMK Nornikel	3.50	29.99	0.12
	26	Transportation Index (MOEXTN)	10.09	28.63	0.35
	27	Transportation Index (METNTR)	15.11	28.52	0.53
	141	Shares of companies with low capitalization (total return)	11.22	28.03	0.40
	124	Shares of companies with low capitalization	6.38	28.02	0.23
Moderate-low risk	20	Financial Index (MOEXFN)	9.10	26.58	0.34
	21	Financial Index (MEFNTR)	13.70	26.55	0.52
	24	Chemicals and petrochemicals index (MOEXCH)	14.98	25.38	0.59
	12	Moscow Exchange Oil and Gas Index (MOEXOG)	8.70	25.31	0.34
	13	Moscow Exchange Oil and Gas Index (MEOGTR)	16.43	25.29	0.65
	25	Chemicals and petrochemicals index (MECHTR)	24.01	25.16	0.95
	11	Moscow Exchange blue chips index (MEBCTR)	14.67	24.82	0.59
	10	Moscow Exchange blue chips index (MOEXBC)	7.13	24.78	0.29
	145	Shares with low dividend yield (total return)	18.84	24.09	0.78
	128	Shares with low dividend yield	14.07	23.89	0.59
	150	KGU shares (total return)	19.72	23.82	0.83
	133	KGU shares	12.63	23.69	0.53
	14	Power sector index (MOEXEU)	7.23	23.63	0.31
	2	Moscow Exchange Index of total return “gross” (MCFTR)	14.77	23.58	0.63
	1	Moscow Exchange Index (IMOEX)	7.52	23.5	0.32
	80	OPIF Pervaya— Russian Equity Fund MC Pervaya	11.55	23.55	0.49

	No.	Investment strategies (105)	Yield, %	Risk, %	Yield/ Risk
	7	Moscow Exchange Broad Market Index (MOEXBMI)	7.74	23.42	0.33
	151	Shares of companies with low P/E (total return)	23.69	23.24	1.02
	140	Value shares (total return)	15.69	23.24	0.67
	134	Corporate stock with low P/E	15.52	23.15	0.67
	123	Value shares	10.48	23.08	0.45
	15	Power sector index (MEEUTR)	13.16	22.84	0.02
	16	Communications sector index (MOEXTL)	0.45	22.84	0.02
	18	Moscow Exchange Metals and Mining Index (MOEXMM)	6.65	22.81	0.29
	19	Moscow Exchange Metals and Mining Index (MEMMTR)	13.77	22.74	0.61
	93	Alfa Capital Liquid Stocks OPIF	12.47	22.63	0.55
	142	Shares of companies with high capitalization (total return)	25.90	22.61	1.15
	144	High liquidity stocks (total return)	21.82	22.37	0.98
	127	High liquidity stocks	13.93	22.28	0.63
	125	Shares of companies with high capitalization	14.80	22.24	0.67
	82	Aton Equity OPIF — Pyotr Stolypin MC Aton Management	11.47	22.21	0.52
	85	Oil and gas sector equity OPIF VIM Investments Management Company	14.62	22.15	0.66
	17	Communications Index (METLTR)	10.40	22.14	0.47
	148	Shares with dividends (total return)	21.23	21.90	0.97
	152	Corporate shares with high P/E (total return)	19.74	21.87	0.90
	83	Mutual Fund Shares Aton — Echelon 2.0 Management Company Aton-management	19.18	21.86	0.88
	131	Shares with dividend	12.87	21.82	0.59
	135	Corporate shares with high P/E	12.37	21.76	0.57
	136	Broad bond market (total return)	21.58	21.76	0.99
	119	Broad bond market	14.12	21.63	0.65
	137	Major companies' shares (total return)	21.41	21.58	0.99
	92	April Capital OPIF — Stocks April Capital Management Company	21.68	21.56	1.01
	66	Mixed strategy portfolio: equities 60%, bonds 40%	14.45	21.49	0.67
	120	Shares of major companies	13.91	21.45	0.65
	147	Shares without dividends (total return)	15.09	21.32	0.71
	91	Metallurgy equity mutual investment fund VIM Investments Management Company	10.20	21.21	0.48
	130	Shares without dividends	13.91	21.19	0.66
	129	Shares with high dividend yield	11.67	21.09	0.55
	146	Shares with high dividend yield (total return)	23.28	20.96	1.11
	22	Moscow Exchange Consumer Sector Index (MOEXCN)	3.01	20.91	0.14
	23	Moscow Exchange Consumer Sector Index (MECNTR)	7.03	20.88	0.34
	89	Raiffeisen OPIF — Dividend Shares Raiffeisen Capital Management Company	8.10	20.86	0.39
	5	Moscow Exchange Mid and Small Capitalization Index (MCXSM)	5.95	20.75	0.29

Russian economy in 2024

Trends and outlooks

	No.	Investment strategies (105)	Yield, %	Risk, %	Yield/ Risk
	6	Moscow Exchange Small and Medium Capitalization Index (MESMTR)	10.89	20.73	0.53
	149	Shares of private companies (total return)	22.16	20.32	1.09
	132	Shares of private companies	14.33	20.30	0.71
	139	Growth stocks (total return)	21.80	20.09	1.08
	122	Growth Stocks	12.62	19.85	0.64
	126	Low-liquidity shares	11.40	19.85	0.57
	143	Low-liquidity shares (total return)	17.42	19.76	0.88
	62	IF-EG – funds of shares	14.39	17.34	0.83
	94	Alfa Capital Balance OPIF (Alfa Capital)	12.46	16.65	0.75
	81	OPIF SI First — Balanced MC First	11.06	15.43	0.72
Low risk	65	Mixed strategy portfolio: equities 50%, bonds 50%	12.63	13.29	0.95
	64	Mixed strategy portfolio: equities 40%, bonds 60%	12.04	11.31	1.07
	54	Cbonds-GBI RU 5Y	8.56	10.66	0.80
	32	Moscow Exchange Government Bond Index RGBITR	8.06	7.89	1.02
	51	Cbonds-GBI RU	8.28	7.81	1.06
	87	OPIF Treasury MC VIM Investments	8.73	7.39	1.18
	49	Cbonds-CBI RU 3–5Y	8.86	6.47	1.37
	63	Mixed strategy portfolio: equities 10%, bonds 90%	9.99	5.98	1.67
	53	Cbonds-GBI RU 3–5Y	8.88	5.94	1.50
	37	Cbonds-CBI RU B/ruB-	11.30	5.86	1.93
	59	Tier 3 CO Index (RUCBITRL3)	8.83	4.93	1.79
	60	IF-FI — bond funds	9.16	4.82	1.90
	57	Tier 1 CO Index (RUCBITRL1)	8.17	4.53	1.80
	58	Tier 2 CO Index (RUCBITRL2)	9.10	4.34	2.10
	88	Raiffeisen OPIF — Corporate Bonds Raiffeisen Capital Management Company	6.20	4.26	1.45
	36	Cbonds-CBI RU BB/ruBBB	9.34	4.23	2.21
	52	Cbonds-GBI RU 1–3Y	8.38	3.81	2.20
	35	Cbonds-CBI RU BBB/ruAA-	8.79	3.48	2.53
	48	Cbonds-CBI RU 1–3Y	9.65	3.39	2.85
	34	IFX-Cbonds	10.24	2.87	3.57
	61	IF-MM — money market funds	9.50	2.76	3.44

Source: Own calculations on the basis of resources of the Moscow Exchange, Cbonds and Constructor CAPM-ru IAES RANEPa. URL: <https://aea.ru>

Table A8

**Financial Crisis Strength Ranking: 100 worst country financial crises
by exchange rate return in dollar terms as of June 30, 2024**

	Country	Market	Period	Force Index	Done?	Term, years	K max., %
1	China	EM	Dec.93 — Jun.24	100.0	no	30.5	-89.8
2	Thailand	EM	Dec.93 — Jun.24	92.3	no	30.5	-93.0
3	Taiwan	EM	Jan.90 — Nov.20	84.8		30.8	-78.0
4	New Zealand	DM	Sep.87 — Jun.20	83.0		32.8	-73.9
5	Greece	EM	Oct.07 — Jun.24	82.6	no	16.7	-98.7
6	Finland	DM	Apr.00 — Jun.24	79.8	no	24.2	-77.7
7	Bahrein	FM	Mar.08 — Jun.24	79.0	no	16.2	-94.7
8	Bulgaria	FM	Oct.07 — Jun.24	78.9	no	16.7	-92.4
9	Philippines	EM	Jan.97 — Jun.24	77.1	no	27.4	-88.4
10	Serbia	FM	Jun.08 — Jun.24	72.3	no	16.0	-88.3
11	Jordan	FM	Nov.05 — Jun.24	72.2	no	18.6	-89.3
12	Indonesia	EM	Mar.90 — Apr.11	69.6		21.1	-94.5
13	UAE	EM	Sep.05 — Jun.24	68.4	no	18.8	-86.5
14	Spaine	DM	Apr.74 — Dec.96	66.5		22.7	-87.9
15	Nigeria	FM	Feb.08 — Jun.24	66.4	no	16.3	-100.0
16	Japan	DM	Feb.89 — Jun.24	66.3	no	35.3	-65.4
17	Irland	DM	May.07 — Jun.24	65.7	no	17.1	-84.4
18	Austria	DM	May.07 — Jun.24	62.1	no	17.1	-81.2
19	Slovenia	FM	Dec.07 — Jun.24	61.1	no	16.5	-79.5
20	Portugal	DM	Nov.07 — Jun.24	59.8	no	16.6	-78.2
21	Vietnam	FM	Feb.07 — Jun.24	59.5	no	17.3	-77.6
22	Saudia Arabia	EM	Feb.06 — Jun.24	56.1	no	18.3	-77.6
23	Pakistan	FM	Feb.08 — Jun.24	54.5	no	16.3	-92.7
24	Italy	DM	Apr.07 — Jun.24	54.1	no	17.2	-72.0
25	Chechia	EM	Jun.08 — Jun.24	53.6	no	16.0	-80.7
25	Poland	EM	Oct.07 — Jun.24	53.6	no	16.7	-83.0
27	Egypt	EM	Apr.08 — Jun.24	52.8	no	16.2	-78.2
28	Oman	FM	May.08 — Jun.24	52.4	no	16.1	-74.9
29	Croatia	FM	Dec.07 — Jun.24	51.2	no	16.5	-68.9
30	Shri-Lanka	FM	Feb.94 — Aug.10	51.0		16.5	-88.0
31	Kuwait	EM	Feb.08 — Jun.24	49.7	no	16.3	-72.4
32	Brazil	EM	May.08 — Jun.24	49.2	no	16.1	-79.4
33	Rumania	FM	Jul.07 — Jun.24	49.0	no	16.9	-88.6

Russian economy in 2024

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	Country	Market	Period	Force Index	Done?	Term, years	K max., %
34	Marocco	FM	Mar.08 — Jun.24	48.8	no	16.2	−69.4
35	Turkey	EM	Oct.07 — Jun.24	48.6	no	16.7	−80.6
36	Kazakhstan	FM	May.08 — Jun.24	48.5	no	16.1	−81.4
37	Estonia	FM	Jul.07 — Jun.24	48.4	no	16.9	−77.1
38	Hungary	EM	Jul.07 — Jun.24	46.0	no	16.9	−78.1
39	Spain	DM	Oct.07 — Jun.24	45.7	no	16.7	−68.6
40	Russia	EM	May.08 — Jun.24	45.1	no	16.1	−78.3
41	Hong-Kong	DM	Feb.73 — Dec.86	43.8		13.8	−88.9
42	Poland	EM	Feb.94 — Jan.07	42.5		12.9	−77.9
43	Belgium	DM	Apr.07 — Jun.24	42.0	no	17.2	−74.5
43	Norway	DM	May.08 — Jun.24	42.0	no	16.1	−69.0
45	Pakistan	FM	Mar.94 — May.07	38.9		13.2	−85.5
46	Malasia	EM	Feb.97 — Mar.11	38.7		14.1	−87.7
47	Bosnia Herzegovina	FM	Mar.11 — Jun.24	37.6	no	13.2	−70.6
48	Columbia	EM	Jan.13 — Jun.24	36.1	no	11.4	−76.5
49	Italy	DM	Jun.73 — Nov.85	34.8		12.4	−76.1
50	Shri-Lanka	FM	Sep.10 — Jun.24	34.7	no	13.8	−85.3
51	Korea	EM	Mar.89 — Feb.05	34.3		15.9	−83.6
52	Chili	EM	Dec.10 — Jun.24	34.2	no	13.5	−70.6
53	UK	DM	Oct.07 — Jun.24	32.9	no	16.7	−61.3
53	Bangladesh	FM	Dec.10 — Jun.24	32.9	no	13.5	−67.9
55	Mauritius	FM	Feb.08 — Jun.24	32.8	no	16.3	−67.7
56	Austria	DM	Jul.90 — Sep.04	32.1		14.2	−59.0
57	Australia	DM	Oct.07 — Jun.24	26.7	no	16.7	−65.0
58	Columbia	EM	Jul.94 — Sep.04	26.4		10.2	−76.7
59	Turkey	EM	Jul.90 — Dec.99	25.6		9.4	−76.6
60	Argentina	FM	Jun.08 — Oct.17	24.3		9.3	−75.9
61	Israel	DM	Mar.10 — Jun.24	23.8	no	14.2	−47.2
62	France	DM	Oct.07 — May.21	23.5		13.6	−58.7
63	Zimbabwe	FM	Sep.19 — Jun.24	23.0	no	4.8	−96.1
64	Belgium	DM	Jun.73 — Nov.85	22.9		12.4	−58.9
65	Greece	EM	Jun.90 — Jul.98	21.7		8.1	−68.9
66	India	EM	Dec.07 — Dec.20	21.5		13.0	−69.4
67	Malasia	EM	Aug.14 — Jun.24	20.6	no	9.8	−55.1
68	Singapore	DM	Oct.07 — Jun.24	20.3	no	16.7	−61.2

	Country	Market	Period	Force Index	Done?	Term, years	K max., %
69	Germany	DM	Dec.07 — May.21	19.8		13.4	–61.8
70	Chili	EM	Jun.95 — Jul.05	19.5		10.1	–63.7
71	Brazil	EM	Jul.97 — Aug.05	19.4		8.1	–77.3
71	Katar	EM	May.14 — Jun.24	19.4	no	10.1	–50.6
73	Greece	EM	Sep.99 — May.07	19.3		7.7	–77.4
74	Mexico	EM	Jan.94 — Feb.04	18.9		10.1	–67.8
74	Turkey	EM	Apr.00 — Jan.06	18.9		5.8	–83.5
76	Russia	EM	Jul.97 — Aug.03	18.2		6.1	–91.4
77	South Africa	EM	Jan.96 — Nov.04	17.8		8.8	–62.2
78	Katar	EM	Sep.05 — May.14	17.6		8.7	–66.4
79	Jordan	FM	Jun.93 — Jan.04	17.5		10.6	–51.9
80	South Africa	EM	Apr.11 — Jun.24	17.4	no	13.2	–54.4
81	Canada	DM	Oct.07 — May.21	17.3		13.6	–57.3
81	Mexico	EM	Mar.13 — Jun.24	17.3	no	11.2	–59.4
83	Hong-Kong	DM	Jul.97 — Dec.06	16.8		9.4	–60.1
84	Sweden	DM	Feb.00 — Dec.06	16.5		6.8	–73.8
85	Portugal	DM	Jan.88 — May.97	16.4		9.3	–52.7
86	Singapore	DM	Jan.73 — Jan.80	16.0		7.0	–71.6
87	Portugal	DM	Apr.98 — Dec.06	15.9		8.7	–64.3
87	Argentina	FM	Feb.00 — Sep.05	15.9		5.6	–84.1
89	Australia	DM	Dec.69 — Jan.80	15.8		10.1	–61.9
89	Argentina	FM	Jan.18 — Nov.23	15.8		5.8	–77.8
91	Norway	DM	Jan.74 — Nov.79	15.7		5.8	–68.8
92	Netherlands	DM	Oct.07 — Jul.17	15.5		9.8	–61.4
93	Italy	DM	Apr.87 — Sep.97	15.4		10.4	–52.0
94	Indonesia	EM	Apr.13 — Jun.24	15.3	no	11.2	–49.3
95	Egypt	EM	Jan.00 — Dec.04	15.0		4.9	–75.5
96	Marocco	FM	Aug.98 — Feb.06	14.9		7.5	–59.7
97	Denmark	DM	Jul.73 — Mar.83	14.8		9.7	–47.5
98	Peru	EM	May.97 — Nov.03	14.5		6.5	–58.8
99	UK	DM	Apr.72 — Apr.79	14.3		7.0	–72.1
100	Lithuania	FM	Apr.14 — Jun.24	13.7	no	10.2	–40.2

Note. DM — developed markets (data since 1969), EM — emerging markets (data since 1987), FM — frontier markets (data since 1987, for most — since 2002); “unfinished crisis” means the absence of recovery of the index value from the moment of reaching the last historical maximum before the index falls by 20% or more (market shock).

Source: Own calculations based on data from MSCI.

2.2. Trends in the cryptocurrency market¹

2024 turned out to be one of the most significant years for the cryptocurrency market. The capitalization of the entire market reached its new highs in 2024 at \$3.71 trillion in December (Fig. 67), surpassing the peak of August 2022, when the crypto market was valued at \$2.8 trillion.

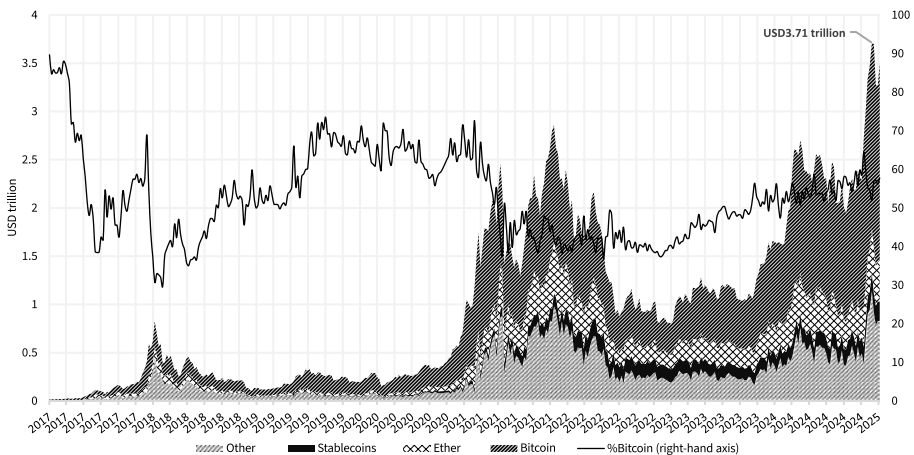


Fig. 67. Cryptocurrency capitalization dynamics, trillion USD

Source: Own calculations on the data released by coinmarketcap.com.

In 2024, Bitcoin was the main market driver, whose capitalization grew by more than 133% over the year, exceeding the \$2 trillion mark, while the capitalization of the second largest cryptocurrency Ether increased by 57% (to \$440 bn), stablecoins by 49% (to \$200 bn), and all other altcoins together by 127.5% (to \$830 bn). Bitcoin's share of total market capitalization continues its gradual growth for the second year running: while in 2023 Bitcoin's share of market capitalization averaged 47.3%, in 2024 it is already 54.8%. In price terms, Bitcoin in December exceeded the "psychological" mark of \$100,000.

2.2.1. Bitcoin

In 2024, Bitcoin expanded primarily due to the key event of 2024 — on January 11, the full-fledged start of trading in spot exchange-traded funds (equity trade funds,

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ETFs) for Bitcoin cryptocurrency, issued by such large financial companies as Black-Rock, Fidelity, 21 Shares, ARK Investments, VanEck, ProShares and others. Bitcoin-ETFs proved to be extremely popular in the financial market, which was reflected in the almost constant inflow of money into the corresponding funds throughout 2024 (Fig. 68).

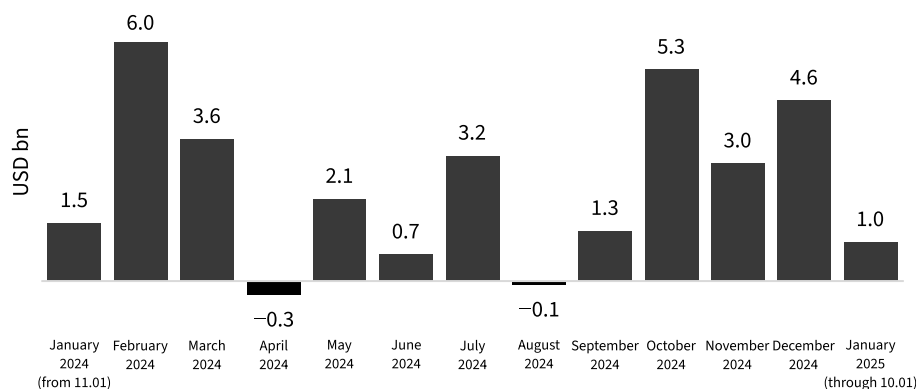


Fig. 68. Dynamics of inflows/outflows in Bitcoin-ETFs, USD bn

Source: Own estimates based on the data released by Farside Investors.

The average monthly gain in assets under management of the funds at the expense of investors' funds for the year totaled \$2.4 bn, and investors invested \$31 bn in these funds during the year. At the end of the year, the assets under management of Bitcoin-ETFs issued by U.S. financial companies exceeded \$100 bn, reaching \$123 bn¹ in mid-December. As of December 31, assets under management of U.S. gold ETFs totaled \$138.5 bn.²

The investors' high demand for Bitcoin-ETFs is evident by comparing it with another asset, the launch of trading in exchange-traded funds, which was considered the most successful until now. We are talking about physically-backed gold exchange-traded funds (EFTs), which began trading in November 2004 (Table 11). It should be noted that both categories of ETFs were launched under similar conditions: both assets had some publicity (of course, gold has much more), futures were actively traded on them (Bitcoin futures were launched on the CBOE back in December 2017) and there were already Bitcoin exchange-traded futures (Bitcoin futures were launched on the CBOE back in December 2017) and there have already been exchange-traded funds investing in these assets via futures (ProShares launched

1. According to data released by Coinglass. URL: <https://www.coinglass.com/bitcoin-etf>

2. According to data released by World Gold Council. URL: <https://www.gold.org/goldhub/data/gold-etfs-holdings-and-flows>

Table 11

Comparison of inflows and assets in Bitcoin and gold ETFs

	Bitcoin ETFs	Gold ETF
Launch	January 11, 2024	November 18, 2004
Net inflow of investor funds		
First 1.5 months	\$7 bn	\$2.3 bn*
First year	\$31 bn	\$6.23 bn*
Assets under management one year after launch		
In USD	\$100 bn	\$8.62 bn*
Number of Bitcoins/tons of gold	1.17 mn	337.8 t
% of total extracted supply	5.91%	0.22%**
As of the end of December 2024		
In USD		\$270 bn
Tons of gold		3218.8 t
% of total extracted supply		1.51%***

* In December 2024 prices.

** The 2005 year-end data of 156,435 tons is used as an estimate of total gold production.

*** The 2003 year-end data of 212,582 tons is used as the respective estimate.

Sources: Own estimates based on data released by Farside Investors, World Gold Council, U. S. Bureau of Labor Statistics <https://www.bls.gov/>; Turk J. and Castañeda J. The Aboveground Gold Stock: Its Importance and Its Size //GoldMoney Foundation. — 2012 (to estimate the amount of gold in 2005).

such an Bitcoin-ETFs in October 2021),¹ as well as OTC trusts,² but they are much less favorable in terms of commissions than exchange-traded spot funds.

In 2004, total inflows into gold ETFs reached about \$2.3 bn³ during the first 1.5 months, while Bitcoin ETFs were able to attract more than 3 times as much — \$7.5 bn — during the same period. In just the first year, gold ETFs attracted about \$6.3 bn⁴ in investor funds, which is almost 5 times less than the corresponding figure for Bitcoin ETFs. At the same time, in just one year, ETF issuers have already concentrated 5.91% of the total current supply of Bitcoin (or 5.57% of the 21 milli-

1. ETFs futures are less profitable for the investors due to higher commissions associated with the need to regularly sell expiring and buy the next futures with a new expiration date (so-called rolling costs), the existence of deviations between the dynamics of the price of the underlying asset and its futures, higher fees for the management of such a fund.
2. Separately, we can mention the OTC Bitcoin unit trust from Grayscale, which in 2015 became the first public Bitcoin fund on the stock market and whose balance sheet accumulated more than 500,000 units of the cryptocurrency by 2020 (around 2.4% of the entire Bitcoin supply)
3. \$1.4 bn in nominal prices.
4. \$3.9 bn in nominal terms.

on maximum supply), while under the management of funds for gold at the end of 2024 concentrated only 1.51% of the mined volume.¹

There are quite a few institutional investors and companies from the financial sector amongst the buyers of Bitcoin ETFs. Thus, according to the latest available 13-F² reporting data, by the end of 2024, more than a thousand asset management companies had Bitcoin ETFs in their portfolios. These include JPMorgan, Bank of America, Millennium Funds, Susquehanna, ARK Investment, Jane Street, Citadel, and others. Notably, the list also features the 8th largest U.S. pension fund by assets, State of Wisconsin Investment Board, which invested about \$163 mn³ in Bitcoin ETFs. In addition, there are 8 relatively small private companies providing pension portfolio management services.

What attracts investors to Bitcoin? Issuers of Bitcoin ETFs publicly label Bitcoin as “digital gold”, which, due to its limited supply, may have some protective properties against fiat money in the context of rapid growth of the money supply in many countries.⁴ Another important advantage of Bitcoin as a “new asset class” (in the words of Blackrock CEO Larry Fink) is the low correlation of its returns, for example, with the returns of U.S. stocks. In their materials, investment companies such as BlackRock,⁵ Greyscale,⁶ WisdomTree⁷ and others demonstrate the characteristics of investment portfolios that include some Bitcoin. They show that, on average, the addition of Bitcoin to a classic portfolio 60/40 — 60% in ETFs on the S&P 500 stock market and 40% in ETFs on the U.S. government bond market — in the amount of 1 to 5% of capital (mainly due to the reduction of allocation to the stock market), can significantly raise the profitability of such a portfolio with a slight increase in risk. In particular, the increase in the portfolio’s annualized return proves to be several times higher than the corresponding increase in the standard deviation (volatility).

Nevertheless, Bitcoin’s correlation with many other assets rather increased in 2024 compared to 2023 (*Table 12*). In particular, the effect of the emergence of Bitcoin ETF in the U.S. was primarily reflected in the change in the correlation of the cryptocurrency with all U.S. indices. First of all, Bitcoin’s correlation with the U.S. stock market (S&P 500, NASDAQ, Russell 2000, VIX) increased significantly,

1. Or about 4% of all gold in bullion and coins (publicly and privately held), excluding the manufacturing sector (jewelry, microelectronics, etc.)
2. A report required to be filed by U.S. asset management firms with a portfolio size of over \$100 million. It reflects all active positions of such companies. Data on Bitcoin-ETF holdings is taken from URL: <https://www.ccn.com/news/crypto/bitcoin-etf-holders-list-btc-investors-sec-13f-filing>.
3. Which, however, is just over 0.1% of their \$156+ bn portfolio.
4. URL: <https://cointelegraph.com/news/blackrock-larry-fink-calls-bitcoin-digital-gold>
5. URL: <https://www.blackrock.com/institutions/en-zz/insights/portfolio-design/sizing-bitcoin-in-portfolios>
6. URL: <https://www.grayscale.com/research/reports/crypto-in-diversified-portfolios>
7. URL: <https://www.wisdomtree.eu/en-gb/blog/2024-03-07/how-much-should-a-neutral-investor-allocate-to-cryptocurrencies>

Table 12

Correlation matrix of daily logarithmic returns of some asset classes and Bitcoin (in 2023 and 2024)

	BTC 2023	BTC	S&P 500	NASDAQ	Russell 2000	VIX	Euronext 100	Nikkei	Hang Seng	SSE	RTS	20+ UST	High yield US Bonds	EM Bonds	Infl Exp	REIT	Oil	Gold	DXY
S&P 500	0.27	0.36		0.96	0.75	-0.79	0.39	0.31	0.12	0.10	0.01	0.05	0.52	0.47	0.12	0.46	0.02	0.17	-0.12
NASDAQ	0.27	0.34	0.96		0.65	-0.72	0.36	0.28	0.12	0.11	0.01	0.01	0.46	0.41	0.13	0.31	0.04	0.15	-0.10
Russell 2000	0.31	0.44	0.75	0.65		-0.62	0.37	0.24	0.06	0.06	0.06	0.13	0.56	0.49	0.07	0.60	-0.01	0.19	-0.21
VIX	-0.26	-0.32	-0.79	-0.72	-0.62		-0.26	-0.32	-0.08	-0.01	-0.14	0.04	-0.42	-0.36	-0.12	-0.44	-0.01	-0.10	0.10
Euronext 100	0.12	0.11	0.39	0.36	0.37	-0.26		0.37	0.30	0.07	0.05	-0.01	0.29	0.19	0.14	0.16	0.17	0.22	-0.12
Nikkei 225	0.08	0.13	0.31	0.28	0.24	-0.32	0.37		0.16	0.04	-0.02	-0.07	0.22	0.10	0.13	0.19	0.08	0.05	0.12
Hang Seng	0.04	0.01	0.12	0.12	0.06	-0.08	0.30	0.16		0.55	0.00	-0.05	0.19	0.15	0.12	0.07	0.21	0.21	-0.11
SSE	0.03	0.02	0.10	0.11	0.06	-0.01	0.07	0.04	0.55		0.01	-0.06	0.14	0.09	0.13	0.04	0.13	0.03	-0.02
Composite																			
RTS	0.08	0.09	0.01	0.01	0.06	-0.14	0.05	-0.02	0.00	0.01		0.05	0.06	0.05	0.04	0.02	0.01	0.04	0.00
20+ UST Bonds	-0.02	-0.11	0.05	0.01	0.13	0.04	-0.01	-0.07	-0.05	-0.06	0.05		0.52	0.74	-0.65	0.43	-0.26	0.18	-0.54
High yield US Bonds	0.15	0.18	0.52	0.46	0.56	-0.42	0.29	0.22	0.19	0.14	0.06	0.52		0.82	-0.27	0.56	-0.09	0.25	-0.42
US Bonds																			
EM Bonds	0.11	0.11	0.47	0.41	0.49	-0.36	0.19	0.10	0.15	0.09	0.05	0.74	0.82		-0.41	0.59	-0.13	0.30	-0.56
Inflation Exp	0.05	0.15	0.12	0.13	0.07	-0.12	0.14	0.13	0.12	0.13	0.04	-0.65	-0.27	-0.41		-0.19	0.19	-0.03	0.38
REIT	0.17	0.24	0.46	0.31	0.60	-0.44	0.16	0.19	0.07	0.04	0.02	0.43	0.56	0.59	-0.19		-0.17	0.28	-0.41
Oil	-0.08	-0.08	0.02	0.04	-0.01	-0.01	0.17	0.08	0.21	0.13	0.01	-0.26	-0.09	-0.13	0.19	-0.17		0.20	0.05
Gold	0.09	0.07	0.17	0.15	0.19	-0.10	0.22	0.05	0.21	0.03	0.04	0.18	0.25	0.30	0.28	0.20	0.20		-0.32
DXY	-0.08	-0.03	-0.12	-0.10	-0.21	0.10	-0.12	0.12	-0.11	-0.02	0.00	-0.54	-0.42	-0.56	0.38	-0.41	0.05	-0.32	

Note. Correlation value for all returns except the first column for the full 2024. All index returns are in US dollars. Bond index returns are taken through the dividend-adjusted returns of the respective ETFs: 20+ UST Bonds — iShares 20+ Year Treasury Bond ETF, High yield US Bonds — iShares Broad USD High Yield Corporate Bond ETF, EM Bonds — iShares J.P. Morgan USD Emerging Markets Bond ETF, Inflation Exp — ProShares Inflation Expectations ETF, Vanguard Real Estate Index Fund ETF Shares returns are used as a proxy for REIT real estate fund returns, DXY — US Dollar Index. Oil — price of WTI crude oil

Sources: Own estimates based on data released by yahoo.finance, coinmarketcap.com and investing.com.

with the highest correlation of daily returns observed with the index of small-capitalization companies (Russell 2000), which is historically considered to be more risky than the S&P 500 index. In addition, correlations with all U.S. bond indices (20+ UST Bonds, High yield US Bonds, Inflation Expectations ETFs) and with U.S. commercial real estate fund (REIT) returns have increased markedly. At the same time, compared to 2023, Bitcoin's correlation with stock returns in Europe (Euronext 100), Japan (Nikkei 225), China (Hong Kong Hang Seng and Shanghai SSE Composite) and Russia (RTS), with emerging market bond yields (EM Bonds), as well as with oil and gold, remained virtually unchanged in 2024.

Of course, these results do not fundamentally undermine Bitcoin's ability to act as an interesting asset-diversifier for a portfolio of U.S. assets. Nevertheless, taking into account the high risk of investing in cryptocurrency, there is a possibility that due to the greater involvement of traditional market participants in the Bitcoin market, whose actions may be largely driven by macroeconomic shocks, the degree of correlation between Bitcoin and the U.S. equity market may increase even more, which may negatively affect the attractiveness of the investment properties of the cryptocurrency. On the other hand, the correlation matrix clearly shows that Bitcoin may prove to be a good asset for diversification in many other markets, including Russia.

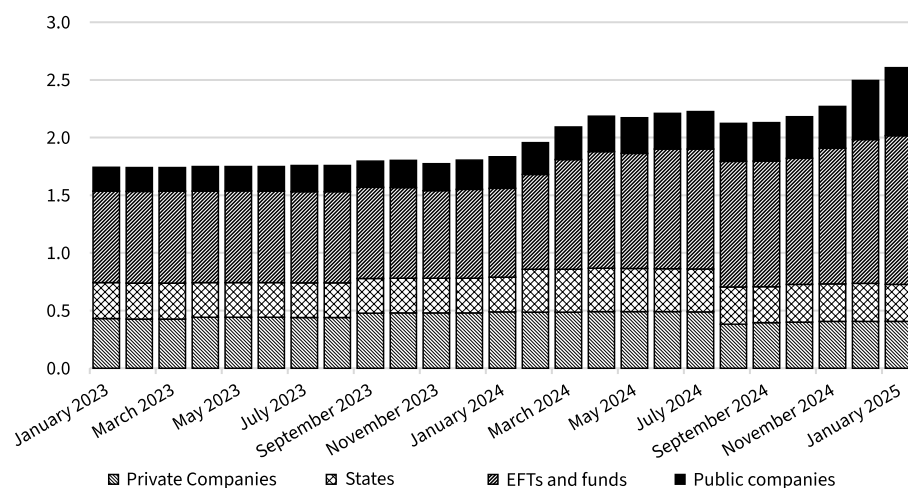


Fig. 69. Dynamics of Bitcoin cryptocurrency accumulation on wallets of companies, funds and states, mn cryptocurrency units

Sources: Own estimates based on data from URL: <https://bitcointreasuries.net> and Arkham Intel.

In addition to the purchase of Bitcoin ETFs in 2024, the trend of direct ownership of Bitcoin by private companies and even states has also increased (Fig. 69). During 2023, an average of about 976,000 Bitcoins were held on the respective wallets,

and about 787,000 more were held by various investment funds, including future ETF issuers, which have been accumulating the cryptocurrency on their accounts for quite some time.

According to the bitcointreasuries portal, 74 public companies from different countries hold a certain amount of cryptocurrency. The analytical software developer Microstrategy is the largest holder of Bitcoins among such companies that, however, is better known by its founder and chairman Michael Saylor and his strategy of constant purchase of Bitcoin by the company from 2020. As of the latest report,¹ the company acquired 471,000 units of the Bitcoin cryptocurrency, which is about 2.24% of its total supply. All other publicly traded companies collectively have 3 times less cryptocurrencies on their books than Microstrategy. The business of the vast majority of the remaining companies is related to cryptocurrencies in one way or another. Thus, about 20 companies are engaged in mining,² and about 25 more provide various financial services.³

Among the other 18 companies not directly related to the cryptocurrency sector that have more than 10 Bitcoins on their balance sheets are Tesla (11,500), online game developers, Hong Kong Boyya (3,800) and Japanese NEXON (1,700), medical equipment and software developer Semler Scientific (1,500), Chinese digital platform for the auto market Cango (0,900, engaged in mining). It is worth noting an intriguing fact that among these companies there are no Bitcoin ETF issuers (Blackrock, Fidelity, 21 Shares, ARK Investments). In open sources we could not find information that they acquire cryptocurrency on their own balance sheet (not as an asset for ETFs). Nevertheless, Blackrock and ARK hold some amount of their own ETFs on their balance sheet for about \$100 mn and \$200 mn, respectively.

As of January 2025, about 400,000 more Bitcoins are still in the possession of some non-public private companies. Naturally, all of them are related to the digital asset sector.⁴ The only exception is SpaceX, which has 8,300 Bitcoins on its balance sheet.

Among the countries actively investing in Bitcoin, so far solely El Salvador and Bhutan do so intentionally and openly. After accepting Bitcoin as a means of payment in September 2021, El Salvador began to gradually acquire the cryptocurrency also for government reserves. There were no official statistics regarding

1. URL: https://www.microstrategy.com/press/microstrategy-acquires-10107-btc-achieves-btc-yield-of-2-ytd-2025-now-holds-471107-btc_01-27-2025

2. For example, Marathon (18,000), Riot (13,000), Hut8 (8,000), CleanSpark (10,000), Hive (2,800.)

3. Among them are cryptocurrency exchange Coinbase (9,000); Block Inc (8,000), which actively integrates Bitcoin payments into its payment application; German Bitcoin exchanger Bitcoin Group (3,600); Galaxy Digital (3,100), which provides financial services and investment management of cryptocurrencies and blockchain projects; the creator of cryptocurrency wallet Exodus (1,900), etc.

4. The largest holders are Block One (164,000), which is engaged in blockchain development; USDT Tether (84,000), the issuer of the USDT stablecoin, cryptocurrency exchange BitMEX (52,000), the issuer of bank cards with the ability to pay with Bitcoins Xapo (39,000), etc.

the size of the purchases, other than President Naib Bukele's statements on social network X. The government acquired Bitcoins periodically throughout 2022, during which time the price of the cryptocurrency dropped from \$46,000 to \$16,000, with a total of 2,381 units known to have been purchased. In December 2022, El Salvador switched to a strategy of buying 1 BTC each day and by December 2023, the government's Bitcoin reserves went into the plus side and totaled about \$131 mn (or 3,111 BTC). In March 2024, the addresses of wallets used by El Salvador to accumulate cryptocurrency became known, and they already had 5,689 units, and by January 10, 2025, in accordance with the strategy of 1 BTC per day (although sometimes more), the amount had already reached 6,023, which corresponds to \$570 mn. For comparison, the foreign exchange reserves of El Salvador's central bank amount to \$3.5 bn.¹

The government of Bhutan through state-owned Druk Holding and Investments (DHI) has been actively involved in the cryptocurrency sector since 2019, however the main focus has been on mining, which has been able to monetize to some extent the surplus electricity from Bhutan's hydropower plants generated during the COVID-19 pandemic.² According to Arkham Intel, DHI increased the number of Bitcoins on its wallets from 1,700 in early 2023 to 10,000 by early 2024 and to 12,200 by January 2025 (or about \$1.1 bn at the exchange rate of early January). Also, as part of the development of the Gelephu special administrative region aimed at creating a number of socio-economic clusters (similar in meaning to domestic special economic zones), to which Bhutan plans to give a fairly wide autonomy, it is already planned to create a strategic reserve of digital assets such as Bitcoin, Ether and BNB.³

Nevertheless, the largest state holders of Bitcoins by far are countries that have not declared state support for cryptocurrencies during 2023–2024 — the USA (198,000) and the UK (61,000). All of these funds were obtained as a result of various operational and enforcement activities and (usually after some time) are subject to sale on the open market. In particular, the bulk of Bitcoins in the U.S. ended up in the U.S. after the anonymous marketplace Silkroad was shut down and its wallets seized. In January 2024, the police of Saxony (Germany) also seized 50,000 Bitcoins in a case about a website with pirated movies, closed back in 2013, but they were all sold last summer.⁴

It is worth noting that the arrival of the new administration in the United States is accompanied by a complete revision of the state's views on cryptocurrencies. Thus, by the end of January 2025, more than 10 U.S. states (including Texas, Florida, Pennsylvania, Ohio, etc.) are actively working on the creation of Bitcoin reserves

1. As of the end of December 2024, according to the data of the Central Bank of El Salvador. URL: <https://estadisticas.bcr.gob.sv/serie/reservas-internacionales-netas-bcr>

2. URL: <https://www.forbes.com/sites/digital-assets/2024/09/17/how-bhutan-quietly-built-750-million-in-bitcoin-holdings>

3. URL: <https://gmc.bt/digitalassets/>

4. URL: <https://intel.arkm.com/explorer/entity/germany>

at the state level,¹ and Cynthia Lummis, the initiator of the bill to create a state Bitcoin reserve,² was appointed head of the Senate Banking Subcommittee on digital assets. Under the bill proposed by Lummis, the U. S. should gradually form a reserve of 1 mn Bitcoins (4.7% of the proposal), acquiring 200,000 units of cryptocurrency per year. Thus, it is possible that the existing 198,000 Bitcoins in the U. S. will not be sold, but will be transferred to the newly created reserve if this bill is passed.

There is also some speculation as to what other countries may have cryptocurrency stockpiles on their balance sheets. According to some reports, China may have a stockpile of 194,000 Bitcoins seized as part of the shutdown of one of Asia's largest cryptocurrency pyramid schemes, PlusToken, in 2019. However, there is evidence that they were sold around the same year.³ Another possible major cryptocurrency owner could be Iran. The country has allowed mining since 2021, but the mined cryptocurrencies are subject to sale to the state through channels determined by the Central Bank of Iran,⁴ to use cryptocurrency assets as a means of payment to circumvent U.S.-imposed sanctions. In August 2022, the first import transaction using cryptocurrency (although it is not specified which one) worth \$10 mn was reported.⁵ As of the end of 2024, the estimated amount of cryptocurrencies Iran has in its possession is between \$30 billion and \$50 billion.⁶ If Bitcoin makes up the majority of that, Iran could own a minimum of 300,000 units, making it the largest government holder.

The trend of Bitcoin accumulation is likely to continue in 2025. On the investor side, this is attractive in terms of diversification benefits, and even if large investment funds do acquire Bitcoin for 1–2% of their portfolio, as advised by ETF issuers, it could lead to a significant increase in the price of the cryptocurrency. At the same time, managers of some public companies, especially after the phenomenal growth of Microstrategy shares more than 4 times, may also be “tempted” to acquire Bitcoin as one of the ways to increase the shareholder value of the company. The interest from the states in case of successful development of the situation in the USA is also likely to grow.

2.2.2. Altcoins

In addition to Bitcoin, Ether ETFs, the second largest cryptocurrency by capitalization, were also launched in July 2024. The success of Ether ETFs was not so resounding — over the last 6 months of 2024, net inflows into the respective funds

1. URL: <https://www.ccn.com/news/us-states-strategic-bitcoin-reserve-2025/>

2. URL: <https://www.lummis.senate.gov/press-releases/lummis-introduces-strategic-bitcoin-reserve-legislation/>

3. URL: https://x.com/ki_young_ju/status/1882328830649799039

4. URL: <https://www.odaily.news/post/5163133>

5. URL: <https://www.reuters.com/business/finance/iran-makes-first-import-order-using-cryptocurrency-tasnim-2022-08-09/>

6. URL: <https://www.presstv.ir/Detail/2024/12/07/738673/Iran-crypto-asset-market-worth-expert-view>

amounted to only about \$12 bn. In general, Ethereum has no strong growth drivers in the eyes of investors, which is reflected in the rather modest dynamics of the Ether price in 2024 — the cryptocurrency grew by only 46%. Despite the fact that Ethereum and its second-tier networks (Arbitrum, Base, Optimism, Polygon, zkSync, StarkNet) remain the main base for the decentralized finance (DeFi) sector and occupy more than 60% of its volume, native cryptocurrencies of competing networks demonstrated more positive dynamics. For example, the price of the Solana cryptocurrency has increased by more than 86% over 2024, while BNB has increased by 126%. Both cryptocurrencies rank 5th-6th in terms of capitalization around \$100 bn and reached their new highs in 2024, unlike Ether.

The main driver of Solana's growth in 2024 was memecoins — tokens with a funny name and no functions, but with the potential for multiple growth in value if other users find the token interesting. It became very easy to create your own memecoins on the Solana network with the launch of the specialized pump.fun service. According to Coingecko data for 2024,¹ about 5.3 mn memecoins were launched with the help of this service.² Binance research³ notes that in 2024, the capitalization of memecoins was 11% of the capitalization of all cryptocurrencies except Bitcoin and stablecoins. In comparison, in 2023, their share was 5%. At the same time, as of August 10, 2024.⁴ When 1.7 mn memecoins had already been created on Pump.fun, only 141 of them were listed in the database of the Coingecko aggregator site, of which only 41 had a market capitalization above \$1 mn for several weeks. Thus, at least 99.992% of the newly created memecoins for 2024 are essentially “dead”, i. e. have no significant market capitalization.⁵ However, those memecoins that “survived” and managed to bring their holders hundred- and even thousand-fold profits (BONK, WIF, PENGU, and earlier DOGE, SHIB and PEPE) are still for many a benchmark of possible profitability, despite the extremely high risk. Perhaps the “culmination” of the memecoin sector in January 2025 was the launch of the TRUMP token on the same pump.fun service, which was created by someone from the team of the newly elected U. S. president right before his inauguration, whose capitalization reached \$15 bn in just a day and a half (becoming the 12th cryptocurrency in terms of capitalization), after which it dropped to \$6.5 bn.

Stablecoin capitalization grew by 56% in 2024 (*Fig. 70*), reaching a new high of \$200 bn by early January 2025 and surpassing its past high of \$188 bn in April 2022. In absolute terms, the leading stablecoins USDT (+\$40 bn) and USDC (+\$20 bn)

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1. URL: <https://www.coingecko.com/research/publications/2024-annual-crypto-report#read-the-report-coingecko-s-2024-annual-crypto-industry-report>
 2. URL: <https://dune.com/queries/4440437/7432359>
 3. URL: <https://www.binance.com/en/research/analysis/understanding-the-rise-of-memecoins>
 4. URL: <https://x.com/newtoneinsteinx/status/1822117050464260458>
 5. Having said that, the Pump.fun service itself, which charges a commission for creating memecoins, earned more than \$400 mn for 2024.

grew the most, while the combined capitalization of all other stablecoins¹ increased by only \$2.7 bn. Stablecoin usage was also highest in 2024 — according to Visa data,² transaction volume on major blockchains using the digital dollar totaled \$5.62 trillion (vs. \$3.6 trillion in 2023), 99.4% of which was accounted for by USDT (\$4.02 trillion) and USDC (\$1.57 trillion). By comparison, the dollar turnover for all Mastercard cards in 2024 was \$9.76 trillion.³

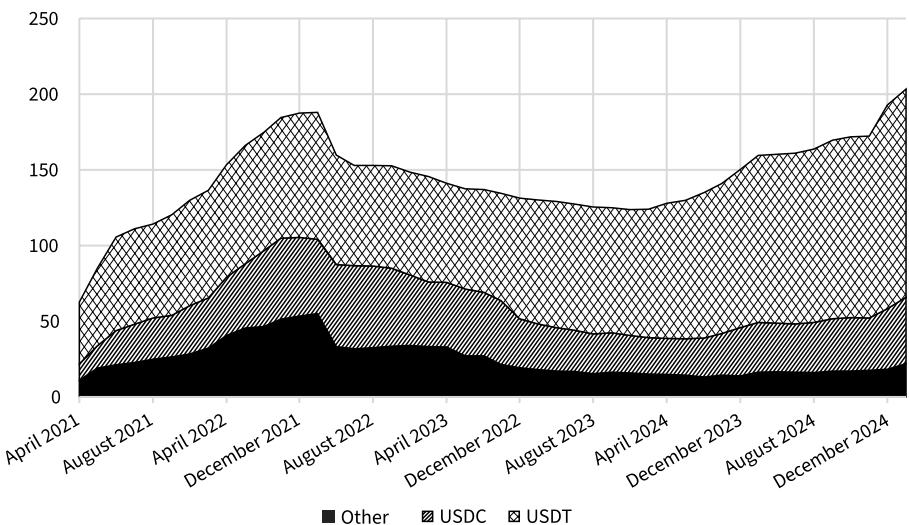


Fig. 70. Stablecoin capitalization, USD bn

Sources: Own estimates based on data released by DeFiLlama.com.

Tether, the issuer of the USDT stablecoin, reported that it was able to earn an extraordinary net profit of \$13 bn for 2024.⁴ In comparison, Goldman Sachs earned \$11.4 bn, Bank of America earned \$21.7 bn, and Blackrock earned \$6 bn, according to its last reported earnings for the previous 12 months. By some estimates, Tether is the most profitable company per 1 employee in the world (\$85 mn per employee). The main source of this profit is U. S. government bonds, in which Tether invests the funds it receives from customers, in exchange for which it issues USDT.

1. Of which, according to DeFiLlama, there are more than 200 and only 135 have a capitalization of more than \$1 mn.
2. URL: <https://visaonchainanalytics.com/transactions>
3. URL: <https://investor.mastercard.com/investor-news-details/2025/Mastercard-Incorporated-Fourth-Quarter-and-Full-Year-2024-Financial-Results-Available-on-Companys-Website>
4. URL: <https://tether.io/news/tether-hits-13-billion-profits-for-2024-and-all-time-highs-in-u-s-treasury-holdings-usdt-circulation-and-reserve-buffer-in-q4-2024-attestation/>

In June 2024, Europe adopted the new MiCa (The Markets in Crypto Assets Regulation), which sets requirements for issuers of digital assets to ensure transparency and investor protection. The USDT stablecoin appeared to be non-compliant with the new regulations in terms of operations and reserve requirements, which led to the delisting of USDT (and some other smaller stablecoins) from some cryptocurrency exchanges (Coinbase, Crypto.com, Kraken), but only for European users. Tether intends to bring USDT into compliance with the new regulation next year, but for now, the main USDT stablecoin for Europe is USDC, which is fully MiCa compliant.

2.2.3. Cryptocurrencies in Russia

As far as Russia is concerned, 2024 brought significant changes in legislation dealing directly with conventional cryptocurrencies rather than digital financial assets. Thus, in the middle of the year, a package of laws aimed at regulating the mining and turnover of cryptocurrencies (which are referred to as “digital currencies” in Russian law) was adopted. Since November 2024, mining in Russia has finally become fully legal and regulated, both for legal entities and individuals (within certain limits), but required to register in a special register of the Ministry for Digital Technology, Communications and Mass Media and submit reports on the amount of “mined” cryptocurrency. The procedure for determining the base for calculating tax in mining was also specified. In general, tax rates on mining income correspond to the standard calculation of income tax, but the moment when income arises is recognized as the crediting of “mined” cryptocurrency to the miner’s wallet. At the same time, the sale of such cryptocurrency is recognized as another taxable event, so if, for example, Bitcoin has managed to increase in value since the moment of mining, tax should also be paid on this increase. Legalization of mining is especially relevant in the context of the fact that according to HashRate Index estimates (as of December 2024¹) Russia has the second largest concentration of mining capacity in the world: Russia has about 16% of the total computing power of the Bitcoin network, which is less than in the United States (36%), but more than in all other countries, including China (14%), UAE (3.75%), Paraguay (3.5%), Canada (3%), Kazakhstan (2.5%) and others.

In terms of regulation of cryptocurrency turnover, the situation has also undergone some changes. In particular, in accordance with Article 1 of FZ-259 “On Digital Financial Assets, Digital Currency...”,² the definition of digital currency reveals its essence as a possible means of payment (which is not a monetary unit of the Russian Federation or another state) and investment. At the same time, the law prohi-

1. URL: <https://hashrateindex.com/blog/top-10-bitcoin-mining-countries-of-2025/>

2. Federal Law 259-FZ of July 31, 2020 “On Digital Financial Assets, Digital Currency and on Amendments to Certain Legislative Acts of the Russian Federation”.

bits the use of cryptocurrencies as a means of payment for goods/services in Russia, but allows their use in foreign trade transactions (which have been used before), and, for example, does not prohibit payment for goods/services with non-residents (part 5 of Article 14). However, advertising of cryptocurrencies is prohibited, as well as public offer of services to organize its circulation.

In general, based on current practice, buying/selling cryptocurrencies in Russia is not prohibited for investment and speculative purposes, including through foreign cryptocurrency exchanges. Nevertheless, the operation of cryptocurrency exchanges within the country is not explicitly regulated — the laws only state that it is necessary to verify the identity of cryptocurrency users and monitor their transactions for money laundering and terrorist financing. According to industry representatives,¹ participants of p2p services and offline/online exchangers are in a rather vulnerable position both to uncertain legislation and directly to fraudsters who try to “launder” illegally obtained funds through the exchanger.

During 2024, there have been several high-profile cases of organizations involved in “illegal cryptocurrency trafficking”² being closed down and The Central Bank, together with Rosfinmonitoring, is actively engaged in cracking down on “suspicious” activities related to the provision of services for buying/selling cryptocurrencies using bank cards,³ including by introducing new mechanisms for identifying “droppers”;⁴ people who transfer their bank cards to third parties. people who transfer their bank cards to third parties. The situation with “droppers” looks quite paradoxical: the lack of transparent regulation and the absence of the Bank of Russia’s instructions to domestic banks to stop working with customers involved in cryptocurrency transactions⁵ has forced online and p2p exchanges to hire “droppers” to be able to distribute turnovers between several accounts to avoid blocking by banks, but the use of which today, also in the absence of clear regulation, is considered a sign of “illegal” turnover and fraud. This situation has already led to an increase in the spread of cryptocurrencies between offline exchanges and p2p services.

At the same time, cards of droppers are also actively used in various fraudulent schemes (including phone fraud). Under the current regulation, however, the fight against “drops” harms the market of cryptocurrency exchangers, which, formally, is not illegal. It would probably be optimal for the regulator to “regulate” p2p services in some way, allowing, for example, commercial banks to open separate accounts for individual entrepreneurs and legal entities specifically for such trans-

1. See for example URL: <https://forklog.com/exclusive/delo-cryptex-za-chto-osnovatelya-birzhi-razyski-vali-v-ssha-a-arestovali-v-rf>

2. URL: <https://www.rbc.ru/crypto/news/66fd249f9a7947461d037335>

3. URL: <https://www.rbc.ru/crypto/news/67498b8d9a7947079b182fd0>

4. URL: <https://www.rbc.ru/finances/26/12/2024/676bb6029a7947844263d4ee>

5. The first of which were issued back in 2022 URL: <https://www.vedomosti.ru/economics/articles/2022/03/17/913983-popitki-vivoda-valyuti>, and also in early 2024 <https://cbr.ru/Crosscut/LawActs/File/7690>

actions (or at least adjust their recommendations and regulations).¹ This would reduce the demand for “droppers” on the part of this rather large market,² thus giving the regulator an opportunity to more effectively suppress criminal schemes directly, as well as simplify the interaction between exchangers and banks, which, in the end, is beneficial to both, as neither the bank nor the exchanger wants to be involved in the circulation of funds related to illegal activities.

Many people associate the future development of the cryptocurrency market with special experimental legal regimes (ELR) in the area of digital innovations in the financial market, which may be established by the Bank of Russia. It is expected that regulated platforms for buying and selling cryptocurrencies may emerge under the ELR, but it is still difficult to say to what extent these services will be available to retail users. First of all, they will obviously be aimed at ensuring foreign economic activity, which is certainly important in the context of sanctions.

1. URL: <https://pravo.ru/news/251842/?ysclid=m6klbv0oxz532293291>

2. In 2023, the p2p payment market was estimated at Rb 70-100 bn <https://plusworld.ru/journal/2023/plus-7-2023/p2p-kriptoperevody-zablokirovat-nelzya-pomilovat/>

Section 3

Real sector of the economy

3.1. Dynamics and structure of GDP and investments¹

3.1.1. Conditions and factors of economic dynamics in 2024

In 2023–2024, the Russian economy demonstrated a high potential of adaptation to restore growth in the domestic and external markets in the new formats of sanctions and infrastructure restrictions in the real and financial sectors. Positive GDP dynamics was recorded for seven quarters of the last two years. The acceleration of GDP growth in 2023 to 104.1% fully compensated for the previous year's decline and was supported by a 9.8% increase in fixed capital investment, 3.8% in government spending and 7.5% in household final demand. Starting conditions in 2024 were characterized by a 5.7% growth in production in 2023 of basic economic activities, 4.3% in industrial production and 9.3% in construction relative to the corresponding period of the previous year. Under the pressure of political and economic restrictions, the initial state of the domestic market in 2024 was determined by the change in the contribution of net exports to GDP to 4.2% in 2023 vs. 12.6% of GDP in 2022 (according to the SNA methodology in current prices), with the volume of foreign trade in goods decreasing by 16.3% and against the growth by 9.2% a year earlier (according to the balance of payments methodology). The dynamics of the domestic economy growth in 2024 was influenced by the factors of active structural changes in the domestic and external markets.

Retention of GDP growth rates achieved in the previous year at the level of 4.1% was determined by positive growth of the domestic market by 4.8%, including final consumption of households by 5.5% and investment in fixed capital by 7.4%. Given the difficulties in forming new directions and formats of international economic relations, the decrease in the contribution of net exports to GDP in 2024 to 3.8% (according to Rosstat) was accompanied by a slight growth of foreign trade in goods by 0.8%, including exports by 2.2% and a decrease in imports by 1.1% versus the previous year.

Features of economic development in 2023–2024 were determined by the expansion of the domestic market. The output of basic types of economic activities

1. Author: *Izryadnova O. I.*, Senior Researcher, Center for Real Sector, Gaidar Institute.

in 2024 increased by 4.8%. taking into account the growth to 5.7% in the previous year. Retention of positive dynamics was noted in industry, investment and construction, transportation and logistics sectors of the economy. According to the results of 2024, the acceleration of industrial growth rates up to 104.6% was driven by structural factors: the outstripping growth of manufacturing production by 8.5% in 2024 compensated for the restrained dynamics in mining and in the production and distribution of electricity, gas and water. With the growth of business activity and changes in consumer demand from the second half of 2023, the dynamics of trade organizations entered the area of positive values. In 2024, the turnover of wholesale trade increased by 6.8% and retail trade by — 7.2%. The expansion of consumer demand was based on the acceleration of real disposable income growth up to 107.3% against the previous year.

Differentiation of the conditions of adaptation to the new formats of interaction of individual industries and types of economic activities had a significant impact on the rates of the domestic market recovery. The factor of the restrained assessment of the 2024 results was the slowdown of the construction and investment complex to 102.1% against the exceptionally high base of the previous year. Decrease in the growth rates of construction volumes and the total indicator of investments in fixed assets was observed from the second half of 2023 and depended on the speed of adaptation to the financial and credit conditions of the economy functioning, limitations of material and technical support of construction and investment activities and peculiarities of changes in the structure of investments in fixed assets by types of activities and fixed assets.

A significant factor of economic growth in 2023–2024 was the change in the contribution of transportation to GDP dynamics. With the change in the movement of commodity flows in the domestic and foreign markets, the problems of building new transport and logistics schemes in terms of geography, types of cargo, and opportunities for the development of multimodal transportation infrastructure arose in the transport sector. With the negative dynamics of transport functioning in 2023, the acceleration of cargo turnover dynamics by 0.4% in 2024 did not compensate for the previous year's decline.

After a long period of positive contribution of agriculture to the dynamics of the Russian economy in 2024, agricultural production decreased by 3.2% relative to the near-stagnation indicator of the previous year (*Table 1*).

The impact of the sanctions on the real and financial sectors of the economy turned out to be stretched both in terms of time and the nature of the impact, which allowed Russian business to react quickly enough to the disruption of trade, transportation and logistics, production and technological chains and actively reorient to the formation of new business relations in loyal markets for goods and services. A damping effect on the dynamics of economic activity was also exerted by the preemptive accumulation of stocks of material assets of imported and domestic import-substituting production, which made it possible to somewhat weaken

Table 1

**Dynamics of main macroeconomic indicators in 2023–2024,
in % to the corresponding indicator of the previous year**

	Domestic market: output									
	2023					2024				
	Year	Q1	Q2	Q3	Q4	Year	Q1	Q2	Q3	Q4
GDP	104.1	98.8	105.7	106.3	105.4	104.1	105.4	104.1	103.1	103.8
Output of goods and services by basic economic activity	105.7	99.06	108.03	108.9	106.5	104.8	106.6	105.2	102.8	105.0
Industry	104.3	99.5	106.2	106.4	105.1	104.6	105.4	104.2	102.9	105.7
Agriculture	100.2	102.1	101.6	102.9	94.8	96.8	101.9	101.4	97.4	91.4
Construction	109.0	113.7	112.1	109.2	104.7	102.1	101.7	102.9	100.1	103.3
Transportation	99.4	98.4	97.5	100.0	101.9	100.4	100.9	99.4	100.5	100.8
Wholesale turnover	108.9	87.2	111.7	121.9	116.1	106.8	112.6	109.1	102.8	104.4
Retail turnover	108.0	94.5	111.2	114.0	111.7	107.2	110.4	107.5	106.1	105.5
Paid services to population	106.9	105.2	107.7	107.9	106.8	103.3	103.6	104.2	102.7	102.7
	Foreign market*									
Foreign trade in goods	83.7	80.1	86.6	87.8	81.0	100.8	93.8	98.1	101.3	109.9
Exports of goods	71.7	68.0	68.1	77.0	74.2	102.2	96.7	102.8	100.4	108.1
Imports of goods and services	109.5	106.9	135.9	110.0	93.0	98.9	89.8	91.7	102.6	111.6
Balance of foreign trade in goods	38.5	36.0	27.6	45.8	50.0	110.3	113.7	135.5	95.4	101.8
<i>For reference:</i>										
Ruble exchange rate (average for the period), Rb/dollar.	85.12	72.71	80.97	94.07	92.73	92.53**	90.75	90.58	89.20	99.59
Urals price, USD/bbl	62.8	49.0	56.0	73.7	72.5	67.74	64.0	71.3	63.0	62.3

* According to the balance of payments methodology.

** ruble exchange rate by the end of the year — 101.7 Rb/USD

Source: Rosstat.

the negative impact of unstable dynamics of imported goods in 2023–2024 with the complication of foreign trade relations and settlements, in particular, transportation and financial and insurance services.

The decline in Russian exports in recent years was determined by the slowdown in global market demand, decisions on voluntary reduction of export supplies for certain types of goods, as well as restrictions on transportation and logistics infrastructure and opportunities to redirect export flows to alternative loyal markets. However, in 2024, exports, although insignificant, still grew by 2.2%.

Under the circumstances of instability of geopolitical and market factors, the decline in foreign trade turnover of goods as a whole at the end of 2024 was suspended relative to the previous year (according to the balance of payments methodology), but remained at an extremely low level, and its dynamics was extremely unstable throughout the year and depended on changes in the situation and prices for major commodities in the global market, sanction restrictions on Russian exports and imports, and difficulties in international settlements. Changes in net exports of goods and services under the existing sanctions on financial transactions and the system of cross-border payments narrowed the possibilities of transferring net income from foreign trade activities to support the domestic market.

The dynamics and structure of the foreign economic component was also significantly affected by the ruble exchange rate weakening trend, associated, among other things, with the blocking sanctions imposed on Russian financial institutions, reduced requirements for the sale of foreign exchange proceeds by exporters and growing demand for foreign exchange on the part of non-financial companies. Under these circumstances, the implementation of measures of anti-sanction fiscal and monetary policy changed the conditions of exchange rate policy management from the second half of 2024. According to the new methodology, the Bank of Russia began to use bank reports and data from digital platforms of OTC trading in calculating the official ruble-dollar and euro exchange rates (*Table 2*).

The external trade and financial restrictions had a significant impact on the development opportunities. The strengthening of the Russian economy's orientation towards the domestic market was accompanied by the outstripping growth of final private and public consumption and acceleration of gross accumulation dynamic.

Changes in the balance of aggregate demand and supply and the ratio of the main factors of production, characterized by a dynamic increase in the utilization of production capacities and growing tension and deficit in the labor market, provoked pressure on prices.

Accelerated growth of producer prices of industrial products by 7.9%, in the construction sector by 8.1% and freight transportation tariffs by 13.5% was translated into consumer inflation. By the end of 2024, annual inflation was estimated at 9.5% against 7.4% a year earlier. A rather rapid build-up of inflationary pressure and the formation of a monthly devaluation wave in the foreign exchange market were regulated by monetary policy instruments. Changes in the domestic environment and price level determined the tightening of the monetary policy: the key rate of the Bank of Russia was raised to 21% (21.12.2024) from 8.5% (24.06.2023). In 2024, the average key rate reached the maximum level for the entire period of this instrument's operation (*Table 3*).

Adaptation of the economy to the new price proportions of the domestic market and the ruble exchange rate determined the change in the structure of GDP formation by income. While the decrease in the share of net taxes on production and imports to 7.6% was strongly influenced by changes in the volume of foreign supplies and the ruble exchange rate, the level of gross income was significantly affected

Table 2

Dynamics and structure of GDP use in 2020–2024

	As % of total, in current prices					In % on previous year, in comparable prices				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
GDP	100	100	100	100	100	97.3	105.9	98.6	104.1	104.1
including:										
Domestic demand	94.9	90.5	87.4	95.8	96.2	96.0	109.6	100.4	109.8	104.8
Net exports	5.1	9.5	12.6	4.2	3.8	110.2	79.5	n/a	n/a	n/a
— exports	25.5	30.0	27.5	22.9	21.4	95.8	103.2	n/a	n/a	n/a
— imports	20.4	20.5	14.9	18.7	17.6	88.1	119.1	n/a	n/a	n/a
<i>Fore reference:</i>										
Average ruble exchange rate USD/Rb	72.04	73.65	68.12	85.12	92.53	111.3	102.2	92.5	125.0	108.7
Average Brent price, USD/bbl.	42.03	70.44	99.82	82.1	80.7	65.6	167.6	141.7	82.2	80.7

Sources: Rosstat, Bank of Russia.

Table 3

Financial conditions: Key rate and price index in 2023–2024, in % on previous year

	2023					2024				
	year	Q1	Q2	Q3	Q4	year	Q1	Q2	Q3	Q4
Key rate (corresponding period end), % per annum	9.9*	7.5	8.5	13.0	16.0	17.5*	16.0	16.0	18.0	21.0
Consumer prices	107.4	101.7	101.1	101.8	102.7	109.5	102.0	101.9	101.8	101.3
Producer prices										
Industrial goods	119.2	102.6	106.2	110.8	98.8	107.9	101.9	101.9	103.1	100.8
Extraction of mineral resources	140.9	100.0	114.4	131.6	93.6	104.4	102.4	101.0	100.7	100.2
Manufacturing	114.9	102.4	105.1	106.4	100.4	108.5	101.7	102.9	102.8	100.9
Agricultural products	109.1	100.0	97.0	104.6	107.5	105.9	99.5	97.3	101.1	108.2
Capital goods	110.1	101.9	102.6	103.9	101.4	108.1	101.3	101.9	101.9	102.7
Freight transportation tariff index	116.5	104.1	108.2	103.7	99.4	113.5	103.0	108.3	108.3	94.1

* average annual key rate.

Sources: Rosstat, Bank of Russia.

by fiscal instruments of business regulation and fulfillment of social obligations, which strengthened the redistribution of gross profit of the economy and other mixed incomes in the GDP structure in favor of wages and salaries of hired workers. The share of labor remuneration of hired workers in 2024 rose to 44.1% of GDP and was 3.4 p. p. higher than in the previous year. The growth rate of nominal wa-

ges in 2024 was at the maximum level over the last sixteen years. With a shortage of labor resources, this allowed businesses to retain qualified human resources and maintain stability in the labor market, which determined the reduction of the general unemployment rate to historically low values.

However, with the long-standing trend of outstripping growth of wages in the Russian economy relative to labor productivity, income redistribution required effective measures to restructure employment in accordance with changes in demand for labor by qualifications, competencies and skills, but the implementation of these processes has not yet taken a systemic character. With the growth of production costs, the share of gross profit of the economy and gross mixed income in 2024 decreased to 48.3% of GDP, the balanced financial result (profit (loss) before taxation) of organizations in current prices amounted to 93.1% of the previous year against the growth in 2023 (*Table 4*).

Table 4

Structure of GDP by revenue source in 2019–2024 in % to GDP

	2019	2020	2021	2022	2023	2024	Q1	Q2	Q3	Q4*
ВВП	100	100	100	100	100	100	100	100	100	100
— remuneration of employees	44.1	45.2	40.7	39.4	40.7	44.1	44.8	43.0	42.8	45.5
— net taxes on production and imports	11.0	9.7	10.1	7.7	7.9	7.6	8.9	6.9	6.7	8.0
— gross profit of the economy and gross mixed income	44.9	45.1	49.2	52.9	51.4	48.3	46.3	50.1	50.5	46.5
<i>For reference:</i>										
Total unemployment rate, in % of the number of the employed	4.6	5.8	4.8	4.0	3.2	2.5	2.8	2.6	2.4	2.3
Growth rate of nominal wages, in % to the previous year	109.5	107.3	111.5	114.1	114.6	118.3*	119.5	116.7	117.8	118.8

* Preliminary estimate.

Source: Rosstat.

3.1.2. Structural changes in domestic production

The domestic market dynamic in the last four years had a significant impact on the nature of growth recovery of the Russian economy. In 2023–2024, domestic demand in GDP structure increased to its maximum values. The dynamic of the domestic market as a whole during this period was determined by a sharp acceleration of the growth rates of gross savings relative to final consumption and GDP growth rates. With GDP growth over the last two years by 8.4% and final consumption by 11.9%, the growth of gross savings by more than 20% determined the expansion of the domestic market.

Structural adaptation in the new environment of the domestic market was quite significantly differentiated by types of economic activity. In 2023–2024, the trend of outstripping growth of the services sector relative to the production of goods remained. The growth rates of gross value added in 2024 remained at the level of the previous year and amounted to 4.3%, but there was a change in the growth structure: in the production of goods by 2.5% against 3.3% a year earlier and in the services sector—by 5.4% against 5.0%.

In the services sector, the landmark events of 2023–2024 were the outstripping growth in the gross value added of information and communication services (123.6% by 2022), financial services and insurance (126.5%), public administration and military security (118.0%), professional, scientific and technical activities (111.9%), which together accounted for almost 1/3 of the gross value added of services provided. Higher contribution to GDP dynamics was illustrated by the hospitality industry (121.5%) and cultural and sports activities (108.5%). The change in the contribution and structure of the services sector was supported by the growth of public expenditures, credit subsidies and other government support programs.

The factor of effective support of the economy was the restoration of positive dynamics in trade and transportation, which together account for 20.0% of the value added in the economy as a whole and 31.7% of the gross value added of the services sector. The dynamics of formation of new formats of trade and transportation and logistics services in 2023–2024 outpaced the growth rate of goods production. However, there were still problems of restoration of activity by types of transport, by cargo and passenger transportation, by traffic directions, by material and technical provision of rolling stock and the state of transport routes.

The characteristic feature of output in 2023–2024 was the change in the structure and contribution of industry to economic growth. External shocks and short-term factors of the domestic market determined both annual and quarterly dynamics of industrial output. Preservation of the imbalance of supply and demand in the markets of material and technical resources, goods of final investment and consumer consumption was formed in the context of critically high utilization of production capacities in the range of 75–82% and growing shortage of personnel under the existing efficiency of labor resources utilization.

At the end of 2024, the industrial growth index amounted to 104.6% against 104.3% a year earlier, with the increase in manufacturing output reaching 8.5%, the mining index decreasing by 0.9% and the production of electric power, gas and water increasing by 2.3%.

In the mining industries, the persistence of negative dynamic was due to the strengthening of external restrictions on the export of mineral goods, as well as internal measures to regulate activities in the fuel and energy complex. In 2023–2024, the share of gross value added of mineral production remained at the level of 11.8% of the indicator for the economy as a whole and was 1.5 p. p. lower than the same indicator in 2022–2021. According to preliminary data, in 2024,

acceleration of coal mining (101.3% vs. 100.3% in 2023) and overcoming the decline in metal ore mining (102.5% vs. 98.3%) were recorded. The analysis of the dynamics of mineral extraction by physical volume made it possible to note an increase in natural gas production by 8.7%, liquefied gas by 5.4% and oil and natural gas extraction services by 14.0%. The share of the oil and gas sector in 2023–2024 was in the interval of 16.3–16.6% of GDP, compared to 18.7–20.0% in the period 2021–2022, and the growth index of the gross value added of the oil and gas complex in 2024 amounted to 101.9% against 91.7% in 2023.

On the contrary, the non-oil and gas sector indices, after falling by 1.8% in 2022, illustrated a dynamic recovery of growth by 7.2% in 2023 and by 4.5% in 2024. The share of the non-oil and gas sector in GDP increased to 83.4% against 80.0% in 2022 and 81.3% in 2021. The change in the contribution of the non-oil and gas sector to economic dynamics was supported by the strengthening of domestic market demand for domestic intermediate and final consumption goods, high-tech goods with high added value, intellectual and infrastructure services.

Structural changes in industrial growth were determined by the outstripping rates and increase in the share of manufacturing production in the gross value added of industry to 50.4% against 49.4% in 2023 and 47.6% in 2022. It should be noted that the efficiency of manufacturing industries in the last two years was shifting from operational situational response to the solution of long-term strategic development tasks. The index of production by types of activities of the high-tech sector in 2024 amounted to 128.3% against 126.7% a year earlier and 106.8% in 2022. Budget and tax support of critical activities, including through an increase in the size of government orders, had a significant impact on the nature of economic growth.

The main contribution to the growth of manufacturing output in 2024 was provided by the machine-building complex, which demonstrated a fairly confident diversification of the system of production-technological and trade-logistical interactions in the domestic market with the localization and increase in the production capacity of domestic manufacturers and in new niches of the external market of suppliers and sales of finished products. Expansion of the tested mechanisms of foreign trade operations and new directions of import of technologies, components and equipment, solution of logistical and financial problems, is conditioned by the expansion of budget support, as well as preservation of credit activity of business, taking into account the lags of broadcasting changes in the key rate.

In 2024, the 19.5% growth in production in the machine-building complex was backed by the preservation of positive dynamics in most sub-productions: the production of computer and electronic equipment increased by 28.8%, electrical equipment by 6.6%, vehicles by 16.5% and other vehicles by 29.6%. High-tech industries of the machine-building complex took the leading positions in terms of the potential for the output of import-substituting products. The main tendency of machine-building remained the expansion of production localization with the restructuring of activities from import-substituting production of finished goods to the substitu-

tion of materials and components, the output of which lagged behind the demand of the domestic market (*Table 5*).

Table 5

**Dynamic of extraction and manufacturing sectors of the Russian industry
in 2022–2023, in % on the corresponding period of the previous year**

	2021	2022	2023	2024				
				Year	Q1	Q2	Q3	Q4
Industry	106.3	100.7	104.3	104.6	105.4	104.2	102.9	105.7
Extraction of mineral resources	104.2	101.5	99.0	99.1	100.6	98.4	98.5	99.1
Manufacturing sectors	107.4	100.3	108.7	108.5	109.0	108.3	105.9	110.7
Consumer complex:								
— food industry	104.6	101.6	105.2	104.1	106.8	105.1	102.3	102.9
— light industry	111.6	104.5	111.4	103.6	107.0	102.4	101.4	104.1
Timber processing complex	110.5	98.0	101.3	104.9	109.8	105.9	101.9	103.0
Chemical complex	108.7	99.7	104.9	104.8	106.5	103.9	103.9	105.0
Petrochemical complex	103.6	99.4	102.5	97.9	95.9	97.6	99.4	98.5
Construction complex (non-metal mineral products)	109.3	103.9	100.9	104.4	109.2	103.9	102.7	103.3
Metallurgical complex	104.1	102.7	108.7	107.7	110.2	110.8	104.3	106.8
Machine building complex:	111.8	94.1	125.0	119.5	125.5	117.7	115.2	120.6
— computers, electronics, optics	109.9	109.4	139.4	128.8	136.4	127.2	124.5	129.3
— electrical equipment	107.7	101.1	120.6	106.6	112.2	104.6	102.1	108.3
— machinery and equipment not included in other groups	117.1	99.3	108.1	97.3	104.9	95.1	91.8	99.1
— road transport trailers and semi-trailers	114.6	55.8	116.0	116.5	135.3	118.2	108.1	110.3
— other means of transport and equipment	110.5	97.9	129.0	129.6	126.9	126.0	128.0	133.9
Electricity, gas and vapor supply		100.5	100.	102.3	105.0	102.3	102.1	99.8
Water supply; wastewater disposal, waste utilization		96.8	100.3	99.9	101.0	100.7	99.0	98.9

Sources: Rosstat, Ministry of Economic Development.

Ita In the metallurgical complex, the dynamics of output was formed under the influence of the growing domestic demand for structural materials on the part of machine-building and investment and construction complexes with simultaneous restructuring of the foreign trade component. The production rates of the metallurgical complex in 2024 increased on the back of an increase in the share of finished metal products with a high share of added value, respectively, to 35.3% vs. 26.4% a year earlier.

Construction demand for machinery, equipment and construction materials remains a significant factor of economic growth. However, with the deceleration of the dynamics of construction works in 2023 to 0.9% against the growth of 9.0% a year earlier, the quarterly dynamics of the production of construction materials in 2024 showed a gradual slowdown, but at the end of the year the growth amounted to 4.4% and remained above the base figure of the previous year.

The dynamics of the chemical and timber industries was significantly influenced by the capacity of the domestic market, the narrowing of exports under sanction pressure and the difficulties in forming new production, technological and trade and sales chains.

In the timber industry, a limited domestic market without adequate measures to stimulate exports hindered the processes of production restructuring and the formation of new approaches to the development of the industry, in particular, the development of clusters. In 2024, the output of the timber industry complex increased by 4.9%. After two years of negative dynamics, in 2024 the growth of wood processing recovered to 104.2%, and the dynamics of paper production accelerated to 105.6%.

The chemical industry, due to changes in geographical directions and the structure of exports by basic goods, was in the zone of high competition from producers from friendly countries both in the domestic market and in foreign markets. Limited availability of foreign technologies and services for maintenance of specialized foreign equipment, restrained dynamics of introduction of domestic technologies had a negative impact on the dynamics and economic efficiency. In 2024, the output of the chemical complex as a whole increased by 4.8%, which is close to the rates achieved a year earlier due to the increase in agrochemical products, recovery of growth in the production of basic chemicals, demand for the products of rubber products and plastics.

In the chemical complex, the production of pharmaceuticals retained a rather stable position in the domestic market, which remained outside the zone of strict restrictions on trade in chemical and biological substances and had a certain potential for development and import substitution due to the domestic base of production of chemical products and substances. In 2024, the production of pharmaceuticals and medical materials increased by 18.0% with accelerating quarterly dynamics.

The difficult situation continued to remain in the petrochemical complex, whose output in 2024 decreased by 2.1% year-on-year.

The growth rates of the consumer complex products in the last two years were in the positive zone. The growth of the food industry in 2024 by 4.1% took place in the context of narrowing volumes of agricultural production and restrictions on imports. The light industry in 2024 showed a growth rate of 103.6% with the implementation of conditions for localization of production of clothing and footwear products and support through increased government orders. The growth of domestic consumer goods and imports determined the acceleration of the retail market

turnover dynamics up to 7.2%, including food products market — by 6.3% against 3.3% a year earlier and non-food products — by 8.6%. However, under the existing growth rates of disposable monetary incomes of the population and accumulated pent-up demand, the limited commodity resources remained a factor of inflationary pressure on the domestic consumer market.

3.1.3. Investment and construction complex: structural features 2024

Structural and technological shifts in 2022–2024 associated with changes in the mechanisms of functioning of the domestic and external markets determined the outstripping growth of investment in fixed capital relative to GDP dynamic. The dynamics and structure of investment and construction activity was formed in the context of increasing contribution of investment demand to the dynamics of the domestic market. The state measures of support and regulation of construction and investment activity included: (1) updating of the main provisions of the agreement on protection of investments and in the form of capital investments and special investment contracts; (2) restructuring of credits for large businesses; (3) introduction of the practice of regional investment standard; (4) expansion of the practice of support for small and medium-sized enterprises; (5) specification of prices of state contracts in connection with the growth of the cost of resources; (6) adjustment of the programs of preferential lending to businesses; (7) adjustment of the prices of state contracts in connection with the growth of the cost of resources; and (8) adjustment of the programs of preferential lending to small and medium-sized enterprises.

The dynamics of investment activity in 2022–2024 was significantly influenced by changes in financial conditions. In 2022 — the first half of 2023, a gradual reduction in the key rate with a slowdown in the growth of prices for investment products and services allowed to maintain business activity in the construction sector at an average level of 108.2%. With the accumulated growth potential in the previous four years, investments in fixed assets in 2024, despite the growth of the key rate, increased by 7.4% and amounted to 19.8% of GDP against 19.3% of GDP a year earlier. Restructuring of floating rate loans has supported investors and construction companies as debt servicing costs have risen and as prices have risen. Reduced availability of debt financing for infrastructure projects with low margins and long implementation periods determined the slowdown in the growth rate of construction and investment activity to 102.1% y-o-y, and mortgage lending — the deceleration of residential space commissioning (*Table 6*).

The provisions for financing investment programs in 2023–2024 were determined by an increase in the volume and share of the use of own funds of enterprises and organizations, which allowed to partially compensate for the change in demand for bank loans at rising interest rates.

Table 6

**Dynamics of the investment and construction complex in 2020–2024,
in % to the previous period**

	2020	2021	2022	2023	2024				
					Year	Q1	Q2	Q3	Q4
GDP	97.3	105.9	98.6	104.1	104.1	105.4	104.1	103.1	103.8
Investment in fixed assets	99.9	108.6	106.7	109.8	107.4	114.5	108.7	105.7	104.9
Construction	102.1	107.0	107.5	109.0	102.1	101.7	102.9	100.1	103.3
Commissioning of living space	100.2	112.6	110.9	107.5	97.6	101.5	103.8	100.3	86.7
<i>For reference:</i>									
Key rate, in % p. a.	5.1	5.7	10.6	9.9	17.5	16.0	16.0	18.0	21.0
Consolidated price index for investment products (costs, services)	104.8	107.8	114.7	110.1	108.1	101.3	101.9	101.9	102.7

Source: Rosstat.

In 2024, the trend towards an increase in the share of own funds of enterprises in the funding of investment in fixed capital to 56.7% against 53.7% a year earlier was restored, while the dynamics of savings in the form of deposits weakened. However, it should be noted that the growth of interest rates with a simultaneous decrease in the profitability of business associated with rising prices and higher labor costs increased the pressure on investment decisions. With the trend of borrowing outpacing savings, corporate credit rises to 43.9% of GDP in 2024 from 41.5% of GDP in 2023 and 37.1% of GDP in 2022.

The increase in the companies' own funds, along with budgetary injections and growth of bank loans, allowed businesses to implement previously adopted investment programs. The implementation of state investment and infrastructure projects, allocation of additional funds within the framework of infrastructure budget credits, supported the dynamics of gross fixed capital formation and investment and construction activity. A characteristic feature of the recent years was the simultaneous strengthening of budget and tax mechanisms to stimulate investment activity and increase in the activity of private business in the domestic market. In 2024, the share of budget funds in the sources of financing decreased to 16.6%, which was compensated by the activity of the corporate sector.

The role of bank loans in the sources of funding of investments in fixed capital has been changing in recent years in a rather wide range depending on the level of the key rate. In 2024, despite the rise in the cost of loans, the share of Russian banks in the sources of funding of investment in fixed capital increased to 10.9% vs. 9.9% a year earlier, and of borrowed funds to 8.8% vs. 7.6%, which was one of the factors behind the continued high dynamics of investment in fixed capital.

Under external sanctions on the movement of capital and investment goods, the contribution of foreign bank loans and investments from abroad in the sour-

ces of investment funding steadily declined. Despite the sharp decline in foreign direct investment in the Russian economy, the withdrawal of foreign companies from the Russian market and the weakening dynamics of supplies of investment and intermediate goods under the influence of geopolitical sanctions, government measures to support domestic demand made it possible to maintain a high level of business investment activity (*Table 7*)

Table 7

**Structure of investments in fixed capital by sources of funding in 2019–2024,
in % on total**

	2019	2020	2021	2022	2023	2024
Investment in fixed assets	100	100	100	100	100	100
Own funds	55.0	55.2	56.0	53.1	53.7	56.7
Borrowed funds	45.0	44.8	44.0	46.9	46.3	43.3
— bank loans	9.8	9.9	11.0	10.2	9.9	10.9
Of which:						
— Russian banks	7.8	8.1	9.1	9.0	9.5	10.88
— Foreign banks	2.0	1.8	1.9	1.2	0.4	0.02
— borrowed funds of other organizations	4.8	4.9	4.5	5.9	7.6	8.8
— investments from abroad	0.4	0.3	0.4	0.3	0.1	0.02
— budget funds	16.2	19.1	18.3	20.5	19.7	16.6
Of which:						
— Federal budget	7.6	8.7	8.1	9.8	9.3	8.0
— Budgets of RF subjects	7.4	9.2	9.0	9.4	9.3	7.5
— Local budgets	1.2	1.2	1.2	1.3	1.1	1.1
— funds of state extra-budgetary funds	0.2	0.2	0.2	0.2	0.1	0.1
— other	13.6	10.4	9.6	9.8	8.9	6.9

Source: Rosstat.

The structure of sources of funding for investment in fixed capital was changed under the influence of institutional changes. The change in the contribution of investments in fixed capital to economic growth in 2023–2024 was significantly influenced by the placement of the National Welfare Fund resources in national and infrastructure projects. In 2024, the share of investments in state-owned facilities amounted to 16.0% (–1.9 p. p. versus 2023) in the structure of investments in fixed capital. Investments in fixed capital of private Russian property in 2024 regained the leadership in terms of the dynamics of investment activity. The share of private investments in the structure of investments in fixed capital increased to 67.1% and amounted to 13.3% of GDP. Structural changes by institutional investors were determined by the fall of investments with various forms of foreign ownership in 2024 to 8.3% of the total volume of investments in fixed capital, including foreign ownership — respectively to 1.5% (*Table 8*).

Table 8

**The share of investments in fixed capital by form of ownership in 2020–2024,
in actual prices**

	Share of investment in fixed assets, %					Share of GDP, %				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
Investment in fixed assets	100	100	100	100	100	18.9	17.2	18.1	19.3	19.8
Including:										
Russian ownership	87.4	86.0	89.5	91.7	91.7	16.6	14.8	16.2	17.7	18.1
Including:										
State ownership	17.5	16.2	17.0	17.9	16.0	3.3	2.8	3.1	3.5	3.2
Federal ownership	8.2	7.5	8.3	9.5	8.8	1.6	1.3	1.5	1.8	1.8
Ownership of subjects of the Federation	9.3	8.7	8.7	8.4	7.2	1.8	1.5	1.6	1.6	1.4
Municipal ownership	2.9	2.8	2.8	2.8	2.5	0.5	0.5	0.5	0.5	0.5
Private ownership	60.4	61.6	64.8	65.3	67.1	11.4	10.6	11.7	12.6	13.3
Mixed Russian ownership	5.8	4.4	3.9	4.4	4.7	1.1	0.8	0.7	0.8	0.9
State corporations' ownership	0.8	1.0	0.9	1.2	1.4	0.2	0.2	0.2	0.2	0.3
Joint Russian and foreign ownership	12.6	14.0	10.5	8.3	8.3	2.4	2.4	1.9	1.6	1.6
Foreign ownership	5.7	6.5	3.6	1.8	1.5	1.1	1.1	0.6	0.3	0.3

Source: Rosstat.

The strengthening of sectoral measures to support investment in a wide range of businesses became effective in 2023–2024. The changing dynamics of technological development has increased the importance of capital investments in transport and logistics, information and communication, social infrastructure, as well as in improving the competencies and skills of the labor force.

The analysis of the dynamics and structure of the Russian industry shows a differentiated impact of investments in fixed capital on the dynamics of output depending on the state of technological base, the degree of capacity utilization and support measures. Growing demand, including that associated with the restriction of imports and the withdrawal of a number of foreign producers from the Russian market, remained the common factor in increasing capacity utilization.

Implementation of investment programs in production and housing construction required the involvement of idle production capacities of the construction industry, machine-building industries focused on the production of machinery, equipment and technical means with simultaneous formation of new channels and alternative foreign suppliers of engineering equipment and materials for construction projects. The increase in the share of machinery and equipment in the type structure of investment in fixed assets to 35.3% against 33.8% in 2023 and the growth of the load on pro-

duction capacity at the level of 75–80% under the existing age structure of machinery, information, computer and telecommunications equipment and vehicles determined the risks of implementation of programs for technological modernization and reconstruction of the industrial sector and associated infrastructure. Creation of conditions for the development of own production and technological base of the investment complex remains a priority task of strengthening the economy and is accompanied by a steady increase in capital investments in intellectual property objects (*Table 9*).

Table 9

**Structure of investments in fixed capital by types of major funds in 2019–2024,
in % on total**

	2019	2020	2021	2022	2023	2024
Investment in fixed assets, total	100	100	100	100	100	100
Residential buildings and premises	14.4	14.5	12.9	14.2	14.0	12.6
Buildings (except for residential) and facilities	38.4	37.5	37.0	40.2	40.4	40.6
Machinery, equipment, means of transportation	37.0	37.1	39.5	34.8	33.8	35.3
Intellectual property items	3.3	4.0	4.4	4.6	5.6	6.0
Other	6.9	6.9	6.2	6.2	6.2	5.5

Source: Rosstat.

With the increase in investments in fixed assets by large enterprises in 2024 by 8.8%, the structural changes were determined by the outstripping growth of investment activity in manufacturing, trade, information and communication.

In mineral extraction, which accounts for more than 18% of the fixed capital volume in the economy as a whole, investment growth was 14.2%, and investments in oil and natural gas extraction 22.9% relative to 2023. The stable investment program of oil and gas companies supported the indicators of the oilfield service structure. With the fulfillment of guaranteed obligations under previously concluded contracts for the supply and servicing of process equipment and accumulated material reserves, the withdrawal of foreign investors and suspension of foreign companies' operations have not yet had a significant impact on the continuation of previously initiated projects. In 2024, the associated production facilities of the oil and gas chemical and refining complexes recorded an acceleration of investment rates as a result of adjustments in the timing or postponement of deliveries of imported equipment under previously concluded contracts.

In industries with import-substitution potential, the impact of investments is usually manifested over a long horizon. Operational short-term measures related to changes in transport and logistics links and partnerships with new suppliers have an impact on the indicators of commodity output but are weakly related to investment programs.

In transportation and storage, investments in the development of port and railway infrastructure have become important in the context of reorientation of cargo flows from western to southern and eastern directions.

In 2024, investments in freight railway transportation increased by 14.4%, while investments in road freight transportation increased by 2.4% and in air and space transportation by 47.0% as compared to 2023.

In the manufacturing industry in 2024, investments in all sub-products of the machine-building, metallurgical and chemical complexes grew dynamically. The highest rates of investment program financing were recorded in the production of electrical equipment, computers, electronic and optical products and motor vehicles.

Despite the fact that the majority of basic industries in the last twenty years carried out a fairly active modernization with the outstripping growth of expenditures on the renewal of machinery, equipment and vehicles it should be recognized that in general the state of fixed assets and does not correspond to the dynamic changes in demand for new product lines and production technologies. With the current level of capacity utilization in the economy as a whole and in the complex of manufacturing industries, changes in access to the world market of investment goods, transformation of the price structure and the exchange rate of the national currency, the Russian machine-building complex is experiencing a deficit of capacities capable of replacing the demand for technical means, especially in industries with a high share of foreign technologies and finished investment goods. The increase in risks associated with the expansion of fixed assets production has actualized the elaboration of the concept of technological development for the period up to 2030, which identified measures to support institutions of innovative development and active involvement of private business in the implementation of investment projects aimed at ensuring the development of investment production.

3.2. Sectoral dynamics of industrial production¹

3.2.1. Industry dynamics of industrial production

In 2024, industrial production was growing, which was sustained primarily by the manufacturing sector (the reason, among other factors, could be import substitution, including don the back of the positive effect of production localization programs). The extractive sector demonstrated a downward trend for most of the year. The production and distribution of electricity, gas and water in 2024 also slightly decreased.

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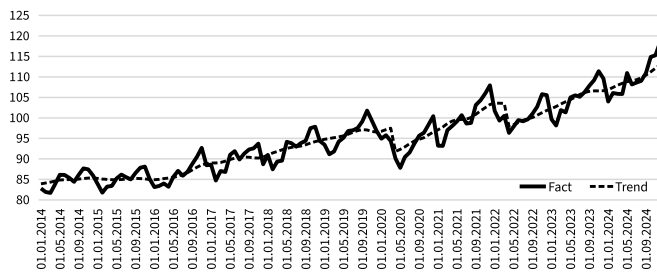


Fig. 1. Dynamics of the industrial production index in 2014–2024 (actual data and trend component), in % to 2021 annual average

Sources: Rosstat, own calculations.

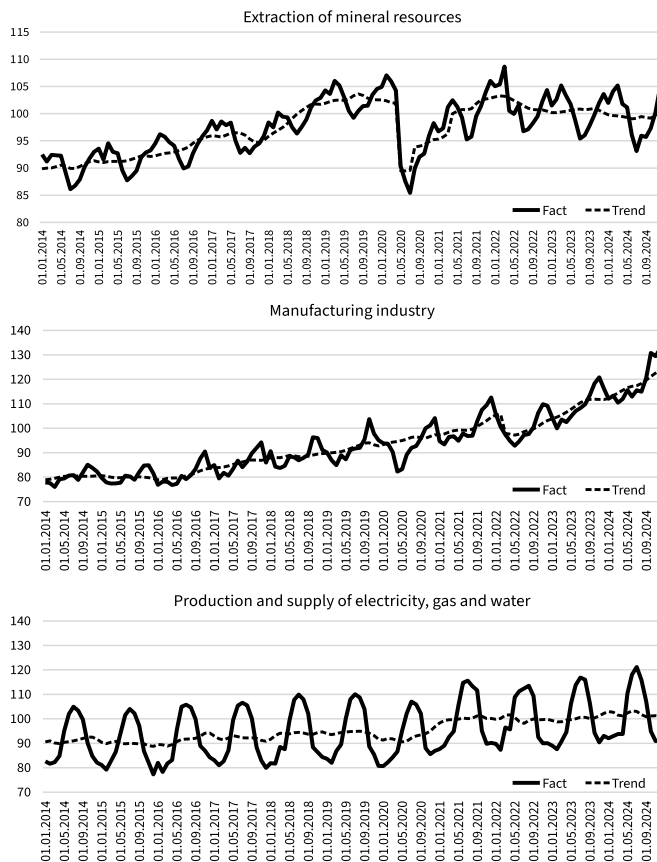


Fig. 2. Production indexes dynamic by industry in 2014–2024 (actual data and trend component), in % to 2021 annual average

Sources: Rosstat, own calculations.

Table 10

Change in the output index across sectors of the economy

Names of industries	Share in industrial production index, %	December 2024 on December 2023, %	December 2024 on June 2024, %	Changes in recent months
Industrial production index		105.97	103.61	Growth
Extraction of minerals	34.54	100.21	101.36	Slow growth
Manufacturing, including:	54.91	110.93	105.83	Growth
Production of food, including beverages and tobacco	16.34	111.40	105.11	Growth
Textile and garment production	1.14	114.69	110.24	Growth
Manufacturing leather, articles thereof and footwear	0.27	83.29	94.56	Recession
Wood processing and wood ware manufacturing	2.02	100.93	97.78	Recession
Pulp-and-paper industry	3.35	77.71	87.73	Recession
Production of coke and petrochemicals	17.25	99.61	100.09	Stagnation
Chemical industry	7.56	114.49	106.95	Growth
Manufacturing of rubber and plastic articles	2.14	98.21	96.88	Recession
Manufacturing of other nonmetallic mineral products	4.02	101.02	96.48	Recession
Metallurgy and manufacturing of ready-made fabricated metal products	17.42	125.91	108.91	Growth
Manufacturing machinery and equipment	6.97	98.89	102.71	Slow growth
Manufacturing electrical, electronic and optical equipment	6.27	113.35	106.29	Growth
Manufacturing transport vehicles and equipment	6.75	143.94	118.68	Growth
Other industries	2.42	98.61	89.81	Recession
Electricity, gas and water supply	13.51	98.90	97.94	Stagnation

Sources: Rosstat, own calculations.

To correctly interpret trends in individual industries, it is necessary to decompose their output into components: calendar, seasonal, irregular and trend;¹ the in-

1. Trend component is a well-established term used in the literature, but it should be noted that this component is not a “trend” in the strict sense used in econometrics when analyzing time series: in this case it is the residual from the separation of calendar, seasonal and irregular components from the series. “Trend component” is incorrect to use for time series forecasting (for most of the indexes of industrial production it is non-stationary in levels (and stationary in differences), but it can be used for interpretation of short-term dynamics and its comparison with the events that took place.

terpretation of the latter is of substantial importance. Experts of the Gaidar Institute have identified the trend component of the series of production indices for 2003–2024¹ based on actual statistics published by Rosstat.

The results of series processing for the industrial production index as a whole are presented in *Fig. 1*. The results for the aggregate indices of the extractive and manufacturing sectors, as well as production and supply of electricity, gas and water are presented in *Fig. 2*. For the other series the results of decomposition are summarized in *Table 10*.

3.2.2. Industrial production dynamic in H1 2024

The trend component of industrial production in H1 2024 showed growth (103.7% compared to the same period of the previous year). The manufacturing sector made a positive contribution to the dynamics. The extractive industry and the industry of production and supply of electricity, gas and water showed a decline.

The consequences of trade restrictions and the extension of the OPEC+ deal continue to have a negative impact on the production dynamic of the extractive sector. The suspension of the publication of statistics on oil production volumes was extended by the Russian Government until April 1, 2025, which limits detailed analysis.²

The reduction in coal production in the first 6 months of 2024 follows the decline in external demand for Russian coal. This is due to the fact that Russian coal has become less competitive, firstly, owing to the low level of world prices (there is a surplus of coal on the market, which, among other things, forces Russian producers to maintain discounts on their products); secondly, owing to the introduction of import duties in China (at the end of 2023, the main importers of Russian coal were China, India and Turkey); thirdly, owing to a decrease in demand from India on the back of the development of its own production; fourthly, owing to high transshipment costs, which increase the already high transportation costs (logistical restrictions at the Eastern polygon force to transport Russian coal products through the ports of the Azov-Black Sea basin and ports of the North-West, many companies from the beginning of 2024 refuse to transship coal through the port in Taman, as they do not want to incur losses from the loss of coal transshipment through the port in the North-West).³ For January-June 2024, according to Kpler, seaborne exports decreased by 17% to 79.1 mn tons compared to the same period in 2023.

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1. The trend component was extracted with the Demetra package using the X12-ARIMA procedure.
 2. Ban on publication of oil and gas production statistics extended until April 2025 // Interfax. 07.03.2024. URL: <https://www.interfax.ru/business/949492>
 3. *Milkin V.* Russian coal export prices fell to their lowest level in almost three years // Vedomosti. 11.04.2024. URL: <https://www.vedomosti.ru/business/articles/2024/04/11/1031100-eksportnie-tseni-na-rossiiskii-ugol-snizilis>

After a drop in gas production in 2022–2023, in H1 2024 gas production and LNG production increased to 345.8 bcm, up 8.2% y-o-y. The positive trend was mainly due to the attractive price. Increased demand from: the EU (via the Turkish Stream pipeline and through Ukraine), China (via the Power of Siberia pipeline), Uzbekistan, as well as domestic demand (due to the continuation of the domestic gasification program) contributed to the positive trend.

The growth of the manufacturing industry in H1 2024, as well as in 2023, is mostly associated with the production of intermediate products for the defense industry and import substitution.¹ Since the beginning of 2024, high growth rates were demonstrated by the production of motor vehicles and the production of computers, electronic and optical products, which is associated with a low base in 2023 and, possibly, the positive effects of production localization programs (which, among other things, creates a margin for growth in demand in the industries producing components).²

In other sectors of the economy in H1 2024, the growth of the trend component was also maintained (trade due to the sale of non-food products, including imports of new partners, construction due to the restoration of infrastructure and housing construction, including the growth of individual housing construction).

3.2.3. Industrial production dynamic in H2 2024

The trend component of industrial production at the end of 2024 showed growth (104.6% compared to 2023). The manufacturing sector made a positive contribution to the dynamic. The mining sector and production and distribution of electricity, gas and water had about zero growth rates, as in the first 6 months of the last year.

The main factor contributing to the dynamics of the extractive sector was the extension of the OPEC+ deal on additional voluntary cuts until the end of March 2025,³ as the oil production industry accounts for a significant share in the sector.

A positive contribution to the dynamics of industrial production in H2 2024 was largely made by manufacturing industries, in particular, by the machine-building complex due to the growth in the production of certain vehicles and equipment (rail cars, diesel locomotives, etc.), as well as the growth in production of computers and electronics (navigation devices, radar equipment, etc.).

1. Boiko A., Milkin V., Ilyushenko D. Why industrial production grew 3.5% last year // *Vedomosti*. 01.02.2024. URL: <https://www.vedomosti.ru/economics/articles/2024/02/01/1017832-pochemu-promishlennoe-proizvodstvo-viroslo>

2. Ilyushenko D. What happened to the localization of domestic cars after the departure of foreigners. // *Vedomosti*. 03.09.2023. URL: <https://www.vedomosti.ru/auto/articles/2023/10/03/998383-chto-proizoshlo-s-lokalizatsiei-otekhestvennih-avtomobilei>

3. The government has extended the ban on publishing oil production statistics until April 1, 2025.

Growth was retained in the chemical industry on the back of the ongoing development of vacant niches and development of cooperation with friendly countries. Growth is noted in production of not only large-tonnage raw chemical products (mineral fertilizers, caustic soda, ammonia), but also medium- and low-tonnage chemical products with high added value (dyes and pigments, paint and varnish materials, polymeric materials). Maintaining growth will be primarily determined by the change of the key growth factor: transition from “easy import substitution”¹ to the implementation of projects related to the development of production technologies of new materials and chemistry.²

Growth continues in metallurgical production and production of other metal products against the backdrop of growing demand for intermediate goods and components for the needs of the military-industrial complex.

Increasing control over compliance with sanction restrictions,³ the ongoing tight monetary policy and shortage of personnel, including those who meet the market requirements in terms of professional competencies (growth of the working-age population is lower than its drop),⁴ create risks of production decline in the industrial sectors of the Russian economy already in early 2025.

3.3. Transportation complex⁵

3.3.1. Trends in the development of the transportation sector

In 2024, despite the continuing pressure from the ongoing international sanction restrictions and new restrictive measures, the transportation industry demonstrated its ability to adapt, stabilize and build logistics supply chains, which is confirmed by the positive dynamics of cargo, freight and passenger traffic volumes. In the freight transportation industry, there is a trend towards the expansion of transportation and logistics services, which was facilitated by the development of transport and warehousing infrastructure. The growth of freight flows is faci-

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1. Taking up the vacated market share due to the withdrawal of foreign producers from the Russian domestic market.
 2. *Bateneva T.* The National Project “New Materials and Chemistry” is included in the pool of 12 top-priority megaprojects // RG.RU. 06.11.2024. URL: <https://rg.ru/2024/11/06/reakciia-vosstanovleniia.html>
 3. The Path Forward on Energy Sanctions. A Toolkit to Step Up Pressure on Russia in 2025 // The International Working Group on Russian Sanctions. Working Group Paper #21.15.11.2024.
 4. The sphere with the most severe shortage of personnel in Russia in Q3 2024 has been named // TASS. 12.10.2024. URL: <https://tass.ru/ekonomika/22106395>
 5. Authors: *Makarov A. V.*, Center for Spatial Economics, IAES RRANEPa; *Ponomarev Yu. Yu.*, Candidate of Economic Sciences, Head of Industrial Organization and Infrastructure Economics Department, Gaidar Institute, Head of Infrastructure and Spatial Studies Department, IAES RANEPa; *Rostislav K. A.*, Researcher at the Infrastructure and Spatial Studies Department, IAES RANEPa; Researcher at the Quantitative Analysis of Economic Effects, Gaidar Institute.

litated by Russia's inclusion in international trade and transport flows: according to preliminary estimates, in 2024, the volume of freight traffic along the Trans-Caspian international transport route (TCITR) increased significantly (by 63% to 4 mn tons).¹ The development of passenger transport is facilitated by the growing demand for transportation services, in particular air services, as well as the growth of transportation efficiency due to an increase in flight hours and passenger seat occupancy.² The sector managed to overcome the recession of the previous years and reduce the backlog of transportation workloads from pre-crisis levels.

One of the significant challenges for the transportation sector is the growth of prices and tariffs for transportation services, which exceeds the average growth rate of prices for all goods and services, with insufficient infrastructure development.³ Further development and growth of transport flows is hindered by the existing deficit of transportation infrastructure, i.e. capacity of railroad and air transport,⁴ even taking into account the existing development programs.⁵ The transport industry, as well as other industries, in 2024 experienced a shortage of qualified personnel, in particular, specialists in the field of transport engineering,⁶ which limits the opportunities for the development of the industry, taking into account the emergence of new technologies.

Special attention is paid to the development of digitalization of the transportation industry. In particular, the development of digital technologies and human resources in the transportation sector and the creation of new quality transportation infrastructure will be among the priority areas in the implementation of the new national projects "Efficient Transport System" ("Transport") and "Infrastructure for Life", which will be launched in 2025 and will succeed the national projects "Safe and Quality Roads" and "Comprehensive Plan for the Modernization and Expansion of Trunk Infrastructure".⁷

In 2024, the National Project "Safe Quality Roads" was completed: a total of 150 thousand km of road network was built and repaired during the implemen-

1. PortNews. Cargo transportation via TCITR for 11 months of 2024 increased by 63% to 4.1 million tons. URL: <https://portnews.ru/news/371565/>

2. Vedomosti. GTLK expects air transportation to grow by 6% year-on-year. URL: <https://www.vedomosti.ru/business/articles/2024/09/04/1059941-gtlk-ozhidaet-rosta-aviaperevozok>

3. RZD-partner.ru Russian Railroads tariff increase from December 1, 2024: How does the market react? URL: <https://www.rzd-partner.ru/zhd-transport/comments/povyshenie-tarifov-rzhd-s-1-dekabrya-2024-kak-reagiruet-rynok/>

4. Vedomosti. GTLK expects air traffic to grow by 6% year-on-year. URL: <https://www.vedomosti.ru/business/articles/2024/09/04/1059941-gtlk-ozhidaet-rosta-aviaperevozok>

5. RZG. Eliminating the deficit of railroad infrastructure in Russia will give GDP growth of Rb 2.3 trillion from 2030. — IPEM. URL: <https://company.rzd.ru/ru/9401/page/78314?id=215739>

6. Vedomosti. Demand for specialists in transport engineering in Russia increased by 23%. URL: https://www.vedomosti.ru/industry/industrial_policy/articles/2024/08/14/1055851-vostrebavannost-spetsialistov-v-transportnom-inzhiniringe-v-rossii-viroslo-na-23

7. Transportation in Russia. "Transport of Russia — 2024": afterword. On the Future of Transportation on the Eve of the Start of National Projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>

tation of the National Project,¹ more than 870 thousand road signs and 12 thousand traffic lights were installed, 31 thousand km of roads in urban agglomerations were brought to standard condition, 13.4 thousand units of public transport in the subjects of the Federation were renewed.²

3.3.2. Transportation performance in 2024

The share of the transportation sector in gross value added³ in the three quarters of 2024 amounted to 7.4% (an increase of 0.2 p.p. against 2023). In the structure of the gross value added of the transportation sector, the activities of land and pipeline transportation prevail: this type of activity accounted for approximately two thirds of the total gross value added of transportation.⁴ The balanced financial result (profit minus losses) of the organizations of the transport sector (transportation and storage) in January-November 2024 amounted to 1839.6 bn, which is lower than in 2023.⁵ The share of profitable organizations in the sector decreased from 71.6% in 2023 to 68.4% in 2024, which is comparable to the figure in 2022 (69.1%).

Cargo traffic activity

Cargo turnover increased in 2024 compared to 2023, although it decreased per unit of GDP (Fig. 3).

Ita On the whole, cargo turnover grew by around 0.42% in 2024; however, while the growth for road and rail transportation amounted to 6.6% and for pipeline transportation almost 4.5%, the main contribution to the drop in freight turnover was made by railroad transportation (–4.3%). In January and September, freight turnover at the railroads dropped significantly: –9.3% and –8.6% compared to the corresponding months of the previous year. In January-October 2024, on the contrary, in related industries, there was an increase in business activity: construction (+2.2%), wholesale trade (+7.8%), retail trade (+7.5%), industrial production (+4.4%), manufacturing (+8.1%).

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1. Transport of Russia. Over 150 thousand kilometers of road network have been brought up to standards in 6 years. URL: <https://transportrussia.ru/razdely/avtomobilnye-dorogi/11842-za-6-let-k-normativam-priveli-svyshe-150-tys-km-dorozhnoj-seti.html>
 2. Ministry of Transport of the Russian Federation. Over 150 thousand kilometers of road network have been brought to the standards over 6 years. URL: <https://mintrans.gov.ru/press-center/news/11649>
 3. Rosstat. Produced GDP. Quarterly data on OKVED 2 in current prices. URL: <https://rosstat.gov.ru/statistics/accounts>
 4. Ibid.
 5. Rosstat. Socio-economic situation in Russia. 2024. URL: <https://rosstat.gov.ru/compendium/document/50801>

Russian economy in 2024

Trends and outlooks

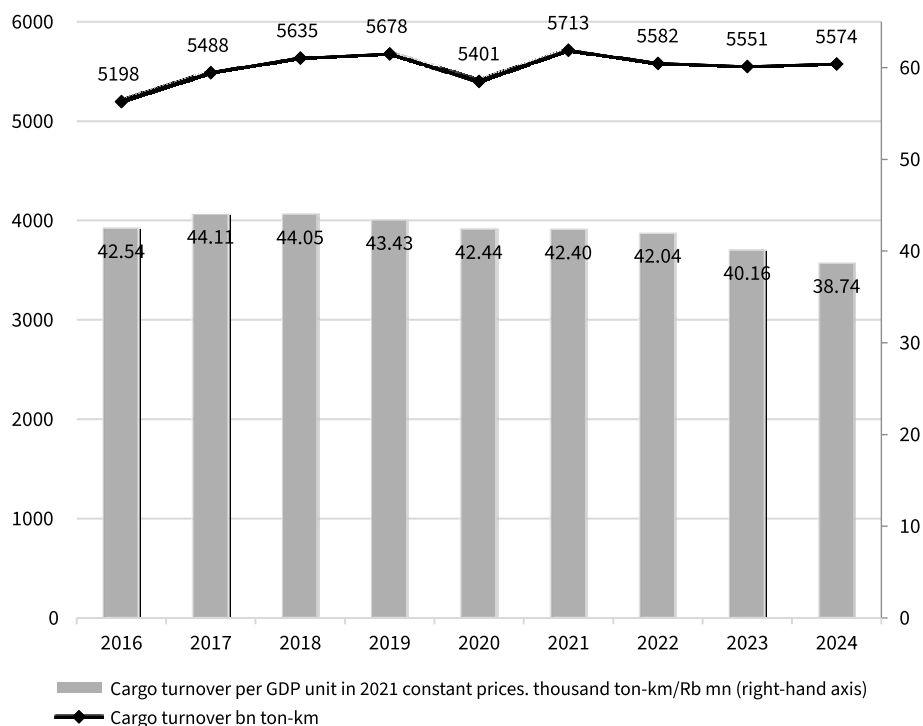


Fig. 3. Cargo turnover dynamic, 2016–2024

Sources: Rosstat, own calculations.

The growth in cargo turnover was due, among other things, to a significant increase in container turnover at seaports¹ and an increase in cargo and mail shipments by Russian airlines, including to foreign destinations,² as well as the global trend towards growth in civil aviation cargo turnover.³ Cargo turnover through the seaports of the Baltic (+1%) and Caspian basins (+5.4%) increased mainly due to increased transshipment of dry cargo, as well as growth in import transshipments.⁴

1. Interfax. Container turnover in Russian ports grew by 11.9% to 4.1 mn TEU in 9 months. URL: <https://www.interfax.ru/business/988598>

2. Interfax. The government expects air cargo transportation to grow by 15% in 2024. URL: <https://www.interfax.ru/russia/984424>

3. Infranews. Growth rate of global aviation cargo turnover accelerated to 14.7% in May. URL: <https://www.infranews.ru/logistika/65370-tempy-prirosta-gruzooborota-mirovoj-aviatsii-v-mae-uskorilis-i-dostigli-14-7/>

4. Interfax. Cargo turnover of Russian seaports decreased by 3.2% in 10 months. URL: <https://www.interfax.ru/business/991323>

The value of cargo intensity¹ decreased in 2023 and 2024, indicating a relatively more efficient use of transport and an increase in value added to the economy through the transport sector. Despite the slight decrease, cargo turnover remained almost at the same level as in 2022. Relative to 2021, when the domestic economy was recovering from the pandemic and international sanctions had not yet been imposed, cargo turnover declined by 2.43%.

The structure of cargo turnover by types of transportation did not undergo significant changes: the share of railroad transportation slightly dropped, but the share of pipeline transportation grew (*Table 11*).

Table 11

Structure of cargo turnover by type of transport (bn ton-km), 2016–2024

Type of transport	2016	2017	2018	2019	2020	2021	2022	2023	2024*
Railroad	1344	2493	2598	2602	2545	2639	2638	2638	2525
Automobile	248	255	259	275	272	296,7	314	362	386
Pipeline	2489	2615	2668	2686	2470	2653	2515	2423	2532
Maritime	43	50	37	41	43	44	45	69	73
Inland waterway	67	67	66	66	64	71	68	57	56
Air	6.6	7.9	7.8	7.4	7.1	9.2	2.8	1.7	1.9

* Operational data.

Sources: Rosstat, ow calculations.

According to the operational data, the volume of cargo transportation in 2024 increased by almost 4% year-on-year (*Table 12*). The increase in cargo traffic was due to the continued stabilization of logistics supply chains and growth of logistics and transportation services, primarily increased freight traffic by road transport (8.3%). The decrease in cargo transportation volumes affected air (more than 15%) and railroad (more than 13%) transportation.

According to SeaNews statistics, loading of construction cargo (–14%), ferrous metals (–10%) and ferrous scrap (–18%), hard coal (–6%)² decreased to a greater extent on the railroad network. Moreover, the negative dynamics accelerated during the year. In September, a record low of 94.5 million tons of loading on the Russian Railroads network was recorded for the month. This is a historical minimum for the last several years. The drop in loading is attributed to various factors, in-

1. Cargo intensity or “burden” of the economy by the transportation operation is the amount of cargo turnover (the sum of products of the weight of each batch of transported cargo by the distance of its transportation) per unit of GDP.
2. Information and analytical agency SeaNews. Russian Railways cargoes, 10 months 2024: minus 4.2% to January-October 2023. URL: <https://seanews.ru/2024/11/01/ru-gruzy-rzhd-10-mesjacev-2024-minus-4-2-k-janvarju-oktjabrju-2023/>

Table 12

Structure of cargo turnover by type of transport (mn t), 2016–2024

Type of transport	2016	2017	2018	2019	2020	2021	2022	2023	2024 *
Railroad	1325	1354	1411	1395	1359	1404	1351	1365	1184
Automobile	5397	5404	5544	5735	5405	5582	6211	6491	7030
Pipeline	1088	1138	1169	1159	1061	1141	1073	1060	1066
Maritime	25	26	23	23	25	23	28	33	33
Inland waterway	118	119	116	108	109	110	116	109	107
Air	1.1	1.3	1.3	1.3	1.3	1.6	0.7	0.6	0.5

* Operational data.

Sources: Rosstat, ow calculations.

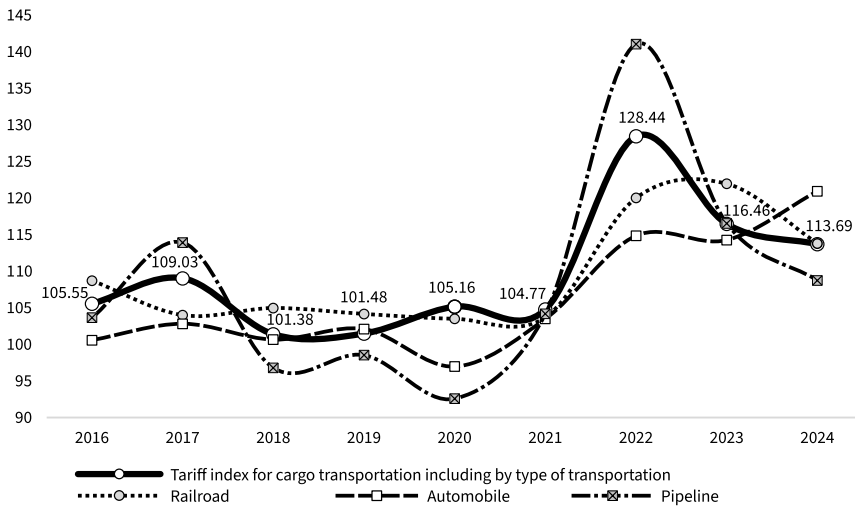


Fig. 4. Dynamics of tariff index for cargo transportation (consolidated and by mode of transportation) December on December, %

Sources: UISIS, own calculations.

cluding low export prices for coal with rising costs in the industry, lower volumes of new construction, and tougher sanctions against Russian metallurgy.¹

There is a tendency in railroad transportation to reduce profitability from the use of railcars due to high interest rates on loans and leasing. Operators are increasingly turning to subleasing railroad equipment.

1. RBC. Loading on the Russian Railroads network showed the largest decline since the beginning of the year. URL: <https://www.rbc.ru/business/01/10/2024/66fbf44d9a7947429c318361> (date of reference: 01.02.2025)

At the same time, the production of freight cars of all types, except platforms, increased by 21% year-on-year and reached 54.8 thousand units. The share of innovative railcars with improved characteristics, including those with increased axle loads of up to 25 tons, in the total production volume for the nine months exceeded 27%.

In 2024, the downward trend in the level of tariffs for cargo transportation averaged across all modes of transport continued. In the sector as a whole, cargo transportation tariffs increased by almost 13%, which is lower than the level of the previous two years (*Fig. 4*). However, the growth of cargo transportation tariffs, as before, exceeds the average growth rate of prices for all goods and services (8% in December 2024 to December 2023¹). For 2024, data as of 1.12.2024 are given.

The main contribution to the growth of tariffs was made by the growth in the cost of road freight transportation: according to the data for H1 2024, the cost of freight transportation rose by 10% on average, and by 20–30% on the most popular routes.² The main reasons for the increase in the cost of freight transportation by road in 2024 are the growth of prices for parts, components and fuel, indexation of salaries of personnel and drivers, increase in the amount of lease payments due to the high refinancing rate.³ In addition, in 2024, the utilization fee for cars was indexed (by 70–85% from October 1), and from February 1, the tariff for heavy-duty vehicles with a permitted maximum weight over 12 tons was increased from 2.84 Rb/km to 3.05 Rb/km on federal highways.⁴

The increase in transportation costs is caused by annual indexation of railroad freight tariffs by 13.8% from December 1, 2024⁵ and toll roads from April 23, 2024.⁶

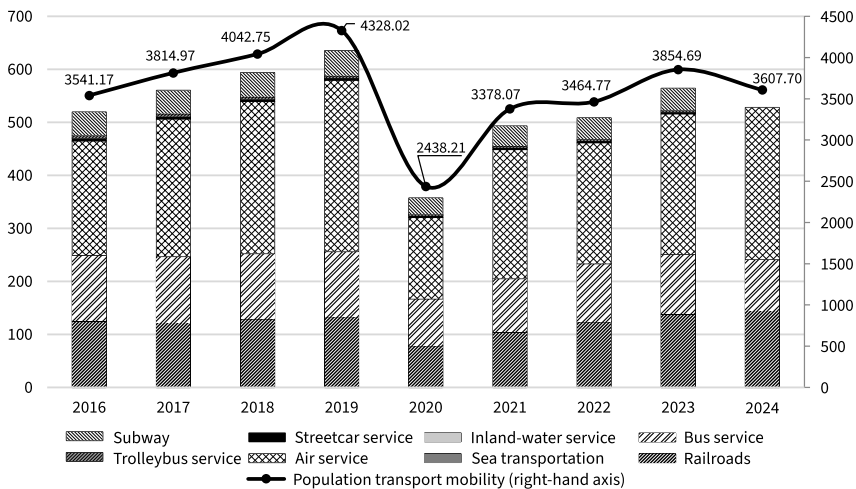
Passenger traffic

According to operational data, in 2024, passenger turnover, excluding streetcar, trolleybus and subway, increased by about 2% year-on-year. The transport mobility of the population within Russia has slightly decreased: about 3608 mn passen-

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1. Rosstat. URL: <https://rosstat.gov.ru/statistics/price>
 2. Rossiyskaya Gazeta. Road transportation of goods across Russia has risen by 10%. Will this affect the cost of goods on store shelves?. URL: <https://rg.ru/2024/10/08/rost-stoimosti-transportnyh-uslug-v-2025-godu-mozhet-sostavit-do-70.html>
 3. Alpha Transit. Growth in the cost of road freight transportation in Russia in May 2024. URL: <https://alfa-transit.com/rost-stoimosti-avtomobilnyh-gruzoperevozok-v-rossii-v-mae-2024-goda/>
 4. Ministry of Transport of the Russian Federation. Indexation of the tariff in the “Platon” system contributes to increased funding for the repair of federal highways. URL: <https://mintrans.gov.ru/press-center/news/11078>
 5. RZD Partner.ru Russian Railroads tariff increase from December 1, 2024: How does the market react? URL: <https://www.rzd-partner.ru/zhd-transport/comments/povyshenie-tarifov-rzhd-s-1-dekabrya-2024-kak-reagiruet-rynok/>
 6. Avtodor. Changes in toll rates on toll roads of the state-owned company in April 2024. URL: <https://russianhighways.ru/press/news/104107/>

gers -km/mn people in 2024 compared to more than 3854 million passengers-km/mn people in 2023 (Fig. 5).

An increase in passenger turnover is observed practically for all types of transport. Passenger turnover increased to a greater extent for air (over 8%), inland waterway (over 4%) and railroad (over 5.5%) transportation. A decrease in passenger turnover is noted for maritime (–23%) and bus (–15%) transportation. There were no significant changes in the structure of passenger turnover, but the share of railroad and air transport is increasing. The growth of air passenger turnover is attributed to the increase in demand for air transportation and the efficiency of airlines: in particular, an increase in the frequency of flights and passenger seat occupancy up to 90%.¹



Note. Transport mobility of the population — ratio of passenger turnover to the average annual number of population (mn passengers/km/mn people); 2024 is represented by operational data excluding streetcar, trolleybus and subway.

Fig. 5. Structure of passenger traffic by types of transportation, (bn passengers/kilometers), 2016–2024

Sources: Rosstat, ow calculations.

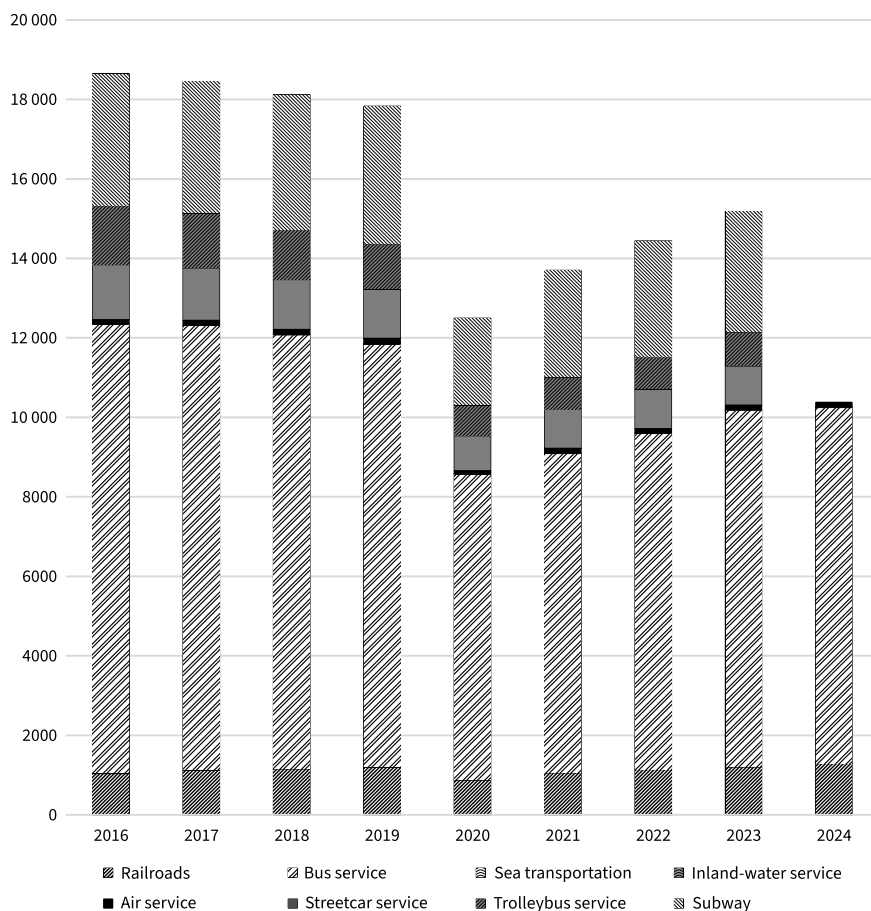
The main contribution to the growth in passenger transport was made by railroad (+7%), inland waterway (+6.5%) and air service (+4.6%). By the end of 2024, it is expected that 1.275 bn passengers² will be transported by Russian railroads

1. Federal Air Transport Agency. Passenger traffic of Russian airlines increased by 4.8% in September. URL: <https://favt.gov.ru/novosti-novosti/?id=13328>

2. Moscow City News Agency. Russian Railroads exceeded the volume of passenger traffic in 2024. URL: <https://www.mskagency.ru/materials/3439289>

and 110 mn passengers (including 86 mn domestic passengers) by air,¹ which exceeds the figures for 2023.

The volume of passenger services by sea transport decreased significantly (–43%) due to a reduction in the number of passenger vessels, including foreign cruise companies, serviced at seaports and marine passenger terminals. The main share in the passenger service structure is accounted for by bus transport – 86% of the total volume of passenger services (excluding streetcar, trolleybus and subway) (Fig. 6).



Note. 2024 is represented by operational data excluding streetcar, trolleybus and subway.

Fig. 6. Passenger traffic pattern by types of transport (mn passengers), 2016–2024

Sources: Rosstat, ow calculations.

1. TASS. The Ministry of Transport confirmed the forecast of air service in 2024 in the volume of more than 110 mn people. URL: <https://morvesti.ru/news/1679/108104/>

3.3.3. Challenges and problems of the transportation complex, prospects for the development of transportation infrastructure and rolling stock

Two basic national projects affecting the transport sector — “Efficient Transport System” and “Infrastructure for Life” — are planned to be launched in 2025, with more specific federal projects (9 projects and 7 projects, respectively) aimed at the development of different types of transport. Among the main objectives are:¹

- Raise the volume of shipments via international transport corridors by 1.5-fold compared to 2021.
- Raise the aviation mobility of citizens by 50%, which will require modernization of at least one third of the airport infrastructure, at least 75 airports.
- Ensure the road network is at least 85% in standard condition in urban agglomerations and 60% for regional roads.
- Raise the share of public transport with a standard service life to 85% in cities and agglomerations.

Railroads services

Among the priorities for the development of the railroad sector are such areas as the development of the Eastern polygon of railroads, modernization of the BAM and Trans-Siberian Railway. The goal is to increase their carrying capacity from 180 mn to 210 mn tons by 2030, and further to 270 mn tons by 2032.

The most important event in terms of railroad transport development in 2024 was the start of construction of the Moscow-St. Petersburg high-speed line (HSL). According to plans, the launch of the new transportation link should begin in 2028, according to the forecast, the trip will take 2 hours 15 minutes versus about 5.5 hours using high-speed “Sapsan”.² In addition, it is planned to significantly increase transport accessibility of other cities on the high-speed rail line, so the route Tver — Moscow will take less than 40 minutes. The speed on the High-Speed Railway should be up to 400 km/hour. At present, no roads of this format have been built in Russia yet.

According to forecasts, significant economic effects from the project realization are expected.³ Thus, the increase in output in the industrial sector may grow by Rb 1.5 for each ruble invested in the HSL, the increase in budget revenues as a re-

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1. Transportation in Russia. “Transport of Russia — 2024”: afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>
 2. Moscow — St. Petersburg high-speed line to be launched in 2028. URL: <https://mperspektiva.ru/topics/skorostnuyu-zh-d-magistral-moskva-sankt-peterburg-zapustyat-v-2028-godu-/>
 3. Transport in Russia. “Transport of Russia — 2024”: afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>

sult of the project (according to the methodology of Decree No. 1512)¹ may reach Rb 2.7 trillion, and GDP growth may exceed Rb 10.5 trillion.

At the same time, plans were announced to continue this experience, namely, the construction of additional high-speed lines Moscow — Nizhny Novgorod — Kazan — Yekaterinburg, Moscow — Rostov-on-Don — Adler, Moscow — Minsk, Moscow — Ryazan.

However, it should be noted that even according to the official plans of the “High-Speed Line Dve Stolitsy” LLC, the Moscow-St. Petersburg High-Speed Line project is expected to reach payback only by 2045. The costs of the High-Speed Line can amount to more than Rb 2.35 trillion, which is almost twice as much as the annual budget of the city of St. Petersburg.² It was noted that in the regions — participants of the High-Speed Line project there was a discussion about the sharing of contributions for construction, taking into account the risks that the High-Speed Line will not be as popular with passengers as it is planned.³

It seems that in modern socio-economic environment such substantial costs for the HSL (and especially for the planned HSL to other cities) require additional study, taking into account the possibilities of alternative use of public funds with a shorter payback period and greater social significance. At the same time, an important task is expert study and public discussion of not only the feasibility of the costs of the High-Speed Line, but also the feasibility of the selected routes, taking into account the opinion of residents and minimizing the damage to the right holders when seizing land plots for the needs of the High-Speed Line, for ecosystems on the route, etc.

Highway transport

In 2024, the problem of labor shortage in the transport sector, primarily in public transport in cities and major agglomerations, worsened.

Associations in the field of transport (Association of International Road Carriers (ASMAP), Association of Transport Experts and Specialists (APEC)) emphasize that the shortage of drivers reaches critical values and is worsening.⁴ It is noted

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1. Assessments within the framework of the Russian Government Decree No. 1512 dated 26.11.2019 “On Approval of the Methodology for Assessing the Socio-Economic Effects of Projects for the Construction (Reconstruction) and Operation of Transport Infrastructure Facilities Planned for Implementation with the Attraction of Federal Budget Funds, as well as with the Provision of State Guarantees of the Russian Federation and Tax Benefits”.
 2. Fontanka. The full cost of the Moscow — St. Petersburg HSL is known. URL: <https://www.fontanka.ru/2024/11/20/74356223/>
 3. Fontanka. He who does not risk, does not travel along the High-Speed Line. The high-speed line from St. Petersburg to Moscow scares Tver and not only. URL: <https://www.fontanka.ru/2025/02/03/75062210/>
 4. Business Quarter. The average age of drivers is 50 years old, car fleets are idle. Carriers have declared a crisis. URL: <https://www.dk.ru/news/237194097>

that by 2030 the shortage of personnel can reach 40%, the average age of a driver exceeds 50 years and is growing, there is a shortage of new personnel, according to APEC estimates, the shortage of drivers already reaches 400 thousand people.

The shortage has many reasons, including alternative income opportunities. Thus, according to some estimates, in H1 2024 the wages of truck drivers increased by 74% and exceeded Rb 130,000.¹ At the same time, wages in the economy as a whole increased: according to the results of the first half of 2024, the average wage increased to more than Rb 80,000, i.e. by 12%.² In this situation, public transport (largely financed by the state, unlike commercial freight transportation) should offer a comparable increase in wages for drivers, which is not always possible.

An additional factor is related to the turnaround of the state policy in the sphere of migration in 2024, when restrictions on the recruitment of foreign labor (both formal legislative and applied in practice) began to tighten. As a result, many regions, when deciding to ban the hiring of migrants, primarily banned such work in the areas of public transport and cabs.³ According to experts, this may further aggravate the shortage of personnel.⁴ In this situation, it seems natural that the authorities of some of the largest agglomerations, such as Moscow, are in no hurry to introduce such restrictions.⁵ For example, according to the data of 2022, about 27% of migrant drivers worked in Moscow cabs, and out of 220,000 drivers, most of the foreigners were natives of Kyrgyzstan (almost 45,000 people).⁶ This raises the problem of finding an optimal balance: on the one hand, it is necessary to reduce dependence on foreign labor, on the other hand, it is necessary to ensure balanced growth of the economy by developing human resources and increasing labor productivity.

Public transport is facing an important task of bus fleet renewal. Thus, at the State Council meeting in late 2024,⁷ the need to renew the fleet by more than 57,000 buses was discussed, which means the need to maintain a renewal rate of almost 9,500 buses per year. By the end of 2024, it is expected that more than 13,000 units of public transportation, including more than 12,000 buses, will be renewed com-

1. Transportation in Russia. "Transport of Russia — 2024": afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>

2. The average salary in Russia for the first time exceeded Rb 80,000. URL: <https://www.banki.ru/news/lenta/?id=11006938>

3. Parliamentary Gazette. Cabs, catering, trade: Where migrants will be banned from working. URL: <https://www.pnp.ru/politics/taksi-obshhepit-torgovlya-gde-zapretyat-rabotat-migrantam.html>

4. Expert: Banning migrant work in transportation will end in disaster. URL: <https://www.gazeta.ru/social/news/2024/10/15/24155323.shtml?updated>

5. Moscow authorities are not going to limit the work of migrants in cabs for the time being. URL: <https://www.interfax.ru/moscow/1000832>

6. Moscow Department of Transport named the share of migrants among cab drivers. URL: <https://www.rbc.ru/society/04/08/2022/62eb77d79a7947993951ee34>

7. Transportation in Russia. "Transport of Russia — 2024": afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>

pared to 2020, with another 300–400 units accounted for by trolleybuses, streetcars, and electric buses. Thus, a significant increase in renewal rates is required to implement the plans.

In 2024, the situation in the cab sector is not easy. It is noted that the cost of cab fares could rise by at least 25–50% during the year, and in 2025 prices are expected to rise by another 50%.¹ The main reasons are related not only to the shortage of drivers, rising costs of fuel and spare parts, but also to the complicated terms of state regulation, introduced by the legislation on cabs (No. 580-FZ).² Experts point out that pre-trip medical examinations and technical inspections, multiple price increase of MTPL policy for cabs, introduction of additional insurance of civil liability of the carrier (OSGOP) have significantly raised the costs of firms in the cab industry. In a situation of low demand, this leads to the withdrawal of companies from the market or the emergence of illegal services. For example, in the Sakhalin region the register of carriers has shrunk by more than 50%, mostly small participants and individual entrepreneurs remain. Some experts warn that if the situation develops unfavorably, official cab services may cease to be available in the regions, except for the largest agglomerations. An additional increase in the price of cab services is possible if the initiative to allow only Russian cars to be used in cabs is adopted. RSPP and the Self-Employed Association of Russia note that this step may lead to additional shortages in the cab industry, given the difficulties for the self-employed to meet this criterion.³ In the current situation, it seems important to work out support measures for cabs, including reduction of fees and liberalization of industry legislation.

The modernization of public transport has led to a significant digitalization of fare payment methods. While in 2019 the share of cash payment was sometimes almost half of payments, in 2024, for example, in the Rostov region, it has been reduced to less than 10%.⁴ Different forms of payment are used, including bracelets, QR codes, and bank cards. In this regard, measures should be developed to preserve the right of citizens (including tourists) to pay in cash, so that the lack of the appropriate instrument does not lead to the inability to use public transportation.

The process of construction and repair of highways continues apace. Thus, in 2024, more than 22,000 km of highways were built and reconstructed with federal co-financing alone, and in 6 years, according to the Deputy Prime Minister M. Khus-

1. Gazeta.ru. Cab fares are set to rise by 50% this year. We found out why. URL: <https://www.gazeta.ru/auto/2025/02/28/20630612.shtml>

2. Federal Law “On Organization of Passenger and Baggage Transportation by Passenger Taxi in the Russian Federation, on Amendments to Certain Legislative Acts of the Russian Federation and on Annulment of Certain Provisions of Legislative Acts of the Russian Federation” of 29.12.2022 No. 580-FZ.

3. Gazeta.ru. Russia warned of rising prices for cab services due to the initiative of the authorities. URL: <https://www.gazeta.ru/business/news/2025/02/28/25199804.shtml>

4. RBC. The share of cashless payment in Don's buses amounted to more than 90% in 2024. URL: <https://rostov.rbc.ru/rostov/freenews/674eebe59a79477fa5cbe122>

nullin, more than 150 000 km of roads were built and reconstructed.¹ However, active road construction requires greater consideration of public opinion and environmental risks, including the fundamental importance of avoiding fragmentation of ecosystems when dissecting them by roads.² As an example, in 2024, there was a heated discussion about the construction of a road through Losiny Ostrov to Korolev in the Moscow region. Many residents and environmentalists opposed this option, noting that such a road (1 lane per entrance) would not solve the problem of traffic jams in Korolev, but would cause significant damage to the ecosystem of Losiny Island by cutting off its northern part.³

There are mixed trends in the transition to the use of alternative energy vehicles, in particular electric vehicles. Firstly, the global market of electric vehicles was forecasted to grow by 21% in 2024, which is significantly lower than the growth rate in 2023 (33%), which was also associated with the reduction of subsidies.⁴ In Russia, a similar trend was noted: in the first 9 months of 2024, electric car purchases grew by 60%. However, for comparison, the previous year's growth was a record 4.7-fold. Lack of charging infrastructure (about 7 thousand stations in Russia), service and repair centers become constraining factors. Stricter regulation also limits the development of electric vehicles, for example, from April 1, 2024, the preferential customs clearance of such vehicles via the EAEU countries⁵ was restricted; according to some estimates, this could save up to 30% on imports. Starting from January 1, 2025, it is planned to increase the utilization fee by 20 times, which may increase the price of electric cars by another Rb0.5 mn.⁶ In Russia, as in the rest

1. Transportation in Russia. "Transport of Russia — 2024": afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>
2. Marshalkovich A. S., Afonina M. I. Ecology of urban environment: a course of lectures. M.: NRU MGSU, 2016: Primark R. Fundamentals of biodiversity conservation. M.: Publishing house of the Scientific and Training and Methodological Center, 2002.
3. Expert Council on Reserved Forest. Construction of a highway through the national park "Losiny Ostrov": The position of the Expert Council on Reserved Forests. URL: <https://zapovedcouncil.ru/stroitelstvo-avtodorogi-cherez-natsionalnyj-park-losinyj-ostrov-pozicziya-ekspertnogo-soveta-po-zapovednomu-delu/>

Members of the Expert Council criticized the planned road through "Losiny Ostrov" at a round table in the Public Chamber of the Russian Federation. URL: <https://dront.ru/news/2024/03/29/chleny-ekspertnogo-soveta-raskritikovali-planiruemyu-dorogu-cherez-losinyj-ostrov-na-kruglom-stole-v-obshhestvennoj-palate-rf/>

Scientists have proposed an alternative to the new highway through "Losiny Ostrov" to Korolev. URL: <https://tass.ru/obschestvo/20081675>

4. Schrödinger's electric car: Why demand for electric cars in Russia is both growing and falling at the same time. URL: <https://78.ru/articles/2024-10-31/elektrokar-shredingera-pochemu-spros-na-elektromobili-v-rf-i-rastet-i-padaet-odnovremenno>
5. Beginning April 1, drivers are in for some significant changes. List. URL: <https://rucars.ru/vvoz-elektromobiley-v-rossiyu>
6. "The pointlessness of these efforts is impressive." Automotive journalist — on the collapse of the electric car market in Russia. URL: <https://74.ru/text/auto/2024/08/15/73932863/>

of the world, hybrid vehicles, which can run on both gasoline and electricity, are increasingly recognized by users; they already account for almost half of electric vehicles in the country.

Air service

At the end of 2024, according to the estimates of the State Transport Leasing Company (GTLC), air passenger traffic is expected to grow to 112 mn people, which will mean a 6% growth compared to the previous year.¹ It should be noted that while the volume of transportation within Russia remains higher (84 mn) with a low growth rate (1%), a significant growth of 25% is expected on international flights, which means a recovery in tourist travel.

In terms of international travel, Turkey has traditionally remained the most popular destination (more than 5 million trips in January-September 2024 alone, an 11% increase), with significant growth in flights to a number of eastern countries. For example, during the same period, the number of flights to China increased by more than 120% (up to 1.36 mn), almost 30%—to Thailand, it should also be noted that air traffic to Georgia increased by 20%.²

The main problems in the industry turned out to be related to the shortage of aircraft; with a virtual absence of new aircraft arrivals and a shortage of spare parts for foreign used aircraft, airlines are facing an increasing dependence on equipment breakdowns. This forces air carriers to turn to domestic aircraft, including the reuse of previously mothballed aircraft, resulting in the share of Russian aircraft almost doubling to 11% between 2019 and 2024.³

Large-scale projects to subsidize air traffic remain in place, taking into account the need to ensure accessibility of remote areas, including those with low incomes of local residents. Thus, only within the framework of Decree No. 1242 of 25.12.2013 there were about 300 routes in the register of subsidized routes, and their total number reached 400 at the federal level. Only at the beginning of 2024, 28 more routes were added,⁴ and the number of subsidized passengers by the end of the year is projected at 4 mn people. At the same time, there is a slight decrease in government funding, with Rb 27 bn allocated for subsidies in 2022 and Rb 25 bn in 2024.

In order to implement the goals of the national projects in 2024, the modernization of regional airports continued, both in terms of increasing the number of inter-

1. GTLC expects air transportation to grow by 6% year-on-year. URL: <https://www.vedomosti.ru/business/articles/2024/09/04/1059941-gtlk-ozhidaet-rosta-aviaperevozok>

2. Which countries Russians are traveling to in 2024. Infographics. URL: <https://www.rbc.ru/business/10/11/2024/672e04f09a7947a61591aaeb>

3. GTLC expects air transportation to grow by 6% year-on-year. URL: <https://www.vedomosti.ru/business/articles/2024/09/04/1059941-gtlk-ozhidaet-rosta-aviaperevozok>

4. Flying mood: The government will support air transportation. URL: <https://iz.ru/1803453/lovov-lezneva/letnyi-nastroi-pravitelstvo-podderzit-vozdušnyi-transport>

national flights and increasing the connectivity of Russia's regions to provide direct flights between cities without transferring to Moscow or other major agglomerations. One example is the modernization of the Tolmachevo airport in Novosibirsk. Interestingly, a group of investors was formed for this modernization (Novaport, S7 Airlines, and the Novosibirsk Region Government), and the first special investment contract (SPIC) in this area was signed, providing substantial benefits for investors to stimulate technological modernization. As a result, the airport's passenger traffic in 2023 was twice as high as in 2017.

Sea and inland waterway transport

One of the priorities in the sphere of water transport in 2024 was the development of the Northern Sea Route (NSR), which can connect Russia's western ports with eastern ports, up to Vladivostok, and further facilitate trade with eastern countries. According to estimates, cargoes can be delivered twice as fast through the NSR as through the Suez Canal; cargo traffic has already reached more than 40 mn tons and is expected to reach 100 mn tons by 2030.¹ However, successful year-round development of the NSR requires an increase in the icebreaking and rescue fleet, as well as improvement of safety and navigation infrastructure. In the meantime, it is noted that the NSR is more focused on the export of minerals (LNG, nickel) and has not become a basic cargo transportation route.²

Measures were taken to develop inland water transport, which is increasingly in demand, including in terms of cruise transportation in the context of declining international tourism. Thus, according to the estimates of the Ministry of Transport, in the first nine months of 2024, passenger transport volumes went up by almost 14% (10.5 mn people) and cargo transportation by more than 2.5% (more than 83 mn tons).³ At the same time, domestic passenger transport is considered as a subject of federal support, which is provided in different formats. On the one hand, funds are invested in the reconstruction of navigable hydraulic structures (Bagaevsky and Gorodets hydroelectric installations), on the other hand, VAT benefits for carriers have been introduced, and 12 subsidized routes have been proposed for the main river system — the Volga River.

The first assessments in 2024 showed the success of such subsidization: while the federal budget expenditure amounted to about Rb 49 mn, the budget revenue

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1. Transportation in Russia. "Transport of Russia — 2024": afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>
 2. The Northern Sea Route is still more of a transit route for fossils than a cargo export route. URL: <https://www.interfax.ru/russia/1000634>
 3. Transportation in Russia. "Transport of Russia — 2024": afterword. On the future of transportation on the eve of the start of national projects. URL: <https://tr.ru/articles/5735-transport-rossii-2024-posleslovie-o-budushchem-transporta-nakanune-starta-nacproektov>

es from tourists and operators reached Rb93 mn. Measures were also taken to simplify the procedure for registration of vessels for river transport. Prospects for deepening the integration of river transport into the cargo transportation system are also discussed. Thus, the Sviyazhsky multimodal logistics center¹ was opened, which provides simultaneous operation of 13 vessels (with the possibility of access to the Baltic, Caspian and Black Seas), integration with railroads with the ability to use up to 1,500 cars per day. If the appropriate infrastructure is created, this kind of cargo river transportation may allow to reduce costs compared to both rail and road transport.

In terms of foreign trade, it is necessary to note the role of new sanctions against the so-called “shadow fleet”. This is a fleet that through the use of intermediary firms allows the sale of oil and oil products to third countries, bypassing the restrictions and sanctions adopted by the G7 countries. As a rule, the shadow fleet consists of old ships (older than 15 years) with anonymous owners. Initially, such ships transported the oil of Venezuela and Iran, which were under sanctions.

Western countries have recently tightened their sanction regime, including against ships (including Sovcomflot), insurance companies (Ingosstrakh, AlfaStrakhovanie), oil traders, and individuals. By the beginning of 2025, The US imposed sanctions against more than 180 tankers, Britain — against more than 130 tankers,² the EU expanded the list by 74 positions, increasing it to 153 vessels.³ However, the consequences of the fight against the shadow fleet are not obvious. On the one hand, experts note that the tightening of the policy leads to an increase in costs and discounts when selling Russian oil.⁴ On the other hand, sanctions have not led to the complete destruction of the shadow fleet. According to estimates as of November 2024, the shadow fleet accounted for about 17% of the global oil transportation tonnage (more than 100 mn tons).

Pipeline transport

As far as pipeline transport is concerned, the focus has traditionally been on the dynamics of gas and oil supplies. On the one hand, in 2024 Gazprom raised gas production by more than 60 bn cu m to 416 bn cu m, while setting a new record of gas supply through the Unified Gas Supply System — 1 bn 815 mn cu m per day.⁵ On

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1. Marine News of Russia. The Sviyazh Multimodal Logistics Center was opened in Tatarstan. URL: <https://morvesti.ru/news/1679/111090/>
 2. London added 40 tankers from the “shadow fleet” to sanction lists against Russia. URL: <https://www.interfax.ru/business/1010557>
 3. EU added 74 tankers from “shadow fleet” to sanction lists. URL: <https://www.interfax.ru/business/1010475>
 4. Why sanctions are powerless against Russia's shadow fleet. URL: <https://paluba.media/news/183224>
 5. Gazprom increased gas production by 61 bn cubic meters in 2024. URL: <https://www.vedomosti.ru/economics/news/2024/12/26/1083989-gazprom-uvlichil-dobichu>

the other hand, there are problems of rising production costs and falling profits from gas sales. For example, Gazprom's loss for the first nine months of operations exceeded 309 bn rubles, while revenues grew by 8%, while production costs rose by 13%.¹ Due to the sanctions regime, gas supplies to European countries decreased. In 2023, about 45 bn cubic meters were supplied. For comparison: in 2018, supplies reached more than 200 bn cubic meters. This is compensated by supplies to China, but it is noted that, according to the agreements, China will buy gas at a price 28% lower than European consumers in the coming years.²

As for oil supplies, despite the imposed sanctions, production and supplies remain generally stable. Thus, according to official forecasts, oil exports in 2024 were expected to reach 240 mn tons, compared to 238 mn tons in 2023. 233.5 mn tons are planned for 2025. The sanctions and reduction of oil supplies to Europe are compensated for by increasing trade relations with India and China. Thus, as early as in 2023, exports to India increased 2.6 times to almost 82 mn tons, and in January-October 2024 oil supplies from Russia increased by another 8.1%. In the area of cooperation with China, in 2023 supplies rose to 107 mn tons, making Russia the largest supplier; moderate growth in supplies continued in 2024 as well.³ At the same time, Europe is actively buying petroleum products from India and China, which are largely produced from the Russian crude oil.

3.4. Food security and agricultural sector in 2024⁴

3.4.1. Integral food security index

Considering the main components of food security (availability and resilience of production; economic and physical access to food; food security), the situation in Russia on the eve of 2024 was not alarming.

Thus, back in 2023, the integral indicator of food security improved⁵ after a number of years of steady decline (*Fig. 7*). While the downward trend until 2023 has been shaped mainly by deteriorating economic availability and high volatility of food prices, in 2023 economic availability improved due to lower volatility of food prices

1. Gazprom's parent company's loss under RAS amounted to Rb 309 bn in 9 months. URL: <https://www.interfax.ru/business/989213>

2. Bloomberg has learned of a discount of up to 28% on Russian gas for China until 2027. URL: <https://www.forbes.ru/biznes/511103-bloomberg-uznal-o-skidke-do-28-na-rossijskij-gaz-dla-kitaa-do-2027-goda>

3. What 2024 was like for the Russian oil and gas industry. URL: <https://www.vedomosti.ru/analytics/trends/articles/2024/12/23/1083310-kakim-bil-2024-god-dlya-rossiiskoi-neftegazovoi-otrasli>

4. Authors: *Shagaida N. I.*, Doctor of Economic Sciences, Head of the Center for Agricultural Policy IAES RANEPA; *Ternovsky D. S.*, Doctor of Economic Sciences, Leading Researcher, Center for Agricultural Policy IAES RANEPA.

5. The results obtained as part of R&D RANEPA 2024. Developing approaches to calculate an integral indicator of food security status of the Russian Federation and RF regions.

and rising incomes of households. This reduced the share of people who could not afford even 90% of the food set specified in a so-called rational standard.¹

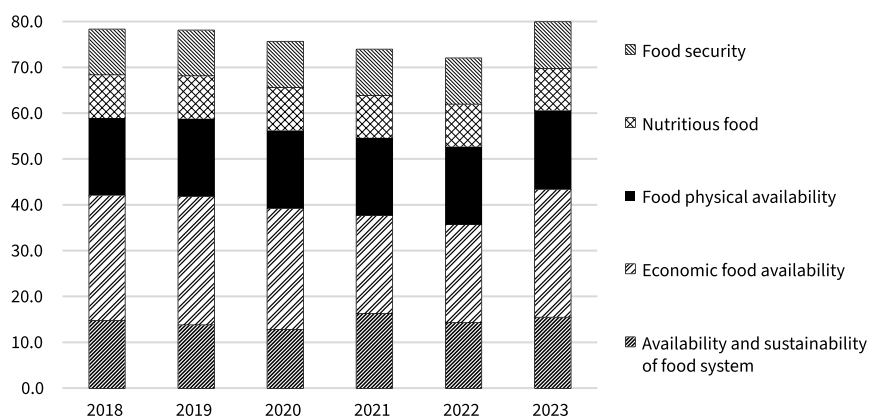


Fig. 7. Dynamics of integral index of food security in Russia

Sources: Rosstat. RANEPA methodology.

3.4.2. Agricultural production

The agricultural sector with performance ensuring basic food security and food availability, started the year 2024 with positive development rates (101% according to H1 compared to the same period of the previous year), which have exhausted in Q3 2024 (Fig. 8). The index of agricultural production amounted to 96.8% year-on-year. Taking into account that in 2023 the index was at 100.2%, it can be stated that production in 2024 declined relative to both 2023 and 2022.

The sub-sectors of agriculture developed abruptly in 2024. Thus, the production of livestock and poultry meat (3.2% for 10 months of 2024, 2.1% for the year), milk (0.9% for 10 months, 0.8% for the year) have increased. Stagnation in egg production has been almost got over by the end of the year compared to 2023 (−0.3% year-on-year, while in the first 10 months of 2024 it was −2.0%). The expected grain harvest in 2024 was lower than in the previous year: 125 mn tons (according to Rosstat 86.2% compared to 2023). However, this is compared to 2023, which was the second record year in Russia's history. The 2024 grain harvest remains in line with normal, compensating for all the country's domestic needs and ensuring exports.

1. Household members are food insecure if costs of food for eating at home, away, and natural food supply does not provide the food intake and 90% of the rational consumption rate. *Shagaida N. I., Uzun V. Y., Ternovsky D. S., Shishkina E. A.* Estimating economic availability of food in the Russian Federation in the context of food security. *Voprosy Ekonomiki*, 2024, No. 6. p. 73–95.

Russian economy in 2024

Trends and outlooks

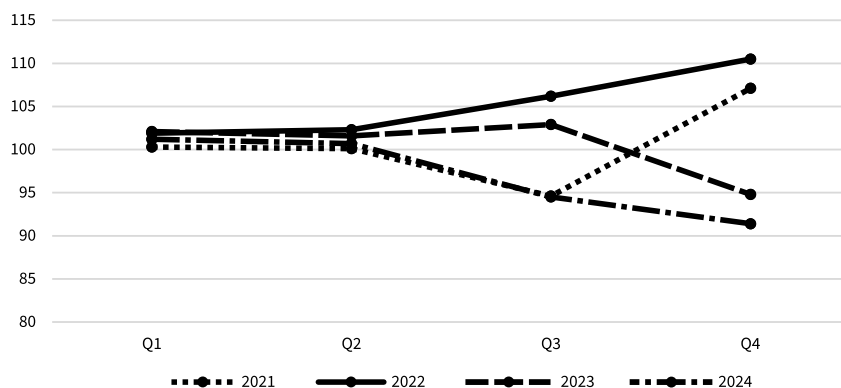


Fig. 8. Dynamics of agricultural production, % against previous year

Source: Rosstat.

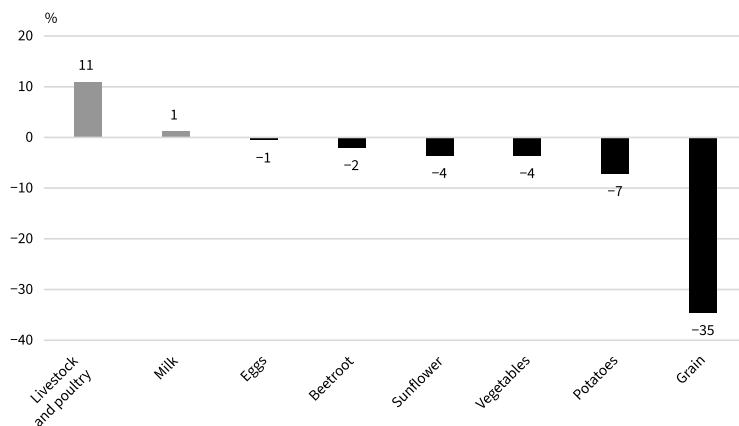


Fig. 9. Structure of absolute growth in the physical volume of production of main agricultural foods in Russia, 2024 vs. 2023

Source: Own estimates according to Rosstat.

The grain harvest was the key factor in the reduction of the physical volume of production of basic agricultural products, being responsible for almost half of the negative dynamics (Fig. 9). The Ministry of Agriculture of Russia considers high base of 2023 as the reason of reduction, which is associated with unfavorable spring weather conditions.¹

1. Ministry of Agriculture: in 2024 grain harvest can fall to 132 mn t. Agroinvestor. URL: <https://www.agroinvestor.ru/markets/news/42169-minselkhoz-v-2024-godu-urozhay-zerna-mozhet-sni-zitsya-do-132-mln-tonn/>

In 2024, new national goals were adopted with 2 benchmarks for agriculture. The first benchmark is to increase by 2030 the volume of agro-industrial production by at least 25% compared to 2021. The realistic achievement of this indicator fits so far in the dynamics of development of the agro-industrial complex in 2015–2023, when the average annual growth rate of gross agricultural output amounted to 2.9% and production of foods to 3.8% with the targets 2.5% for 2021–2030 (*Fig. 10*).

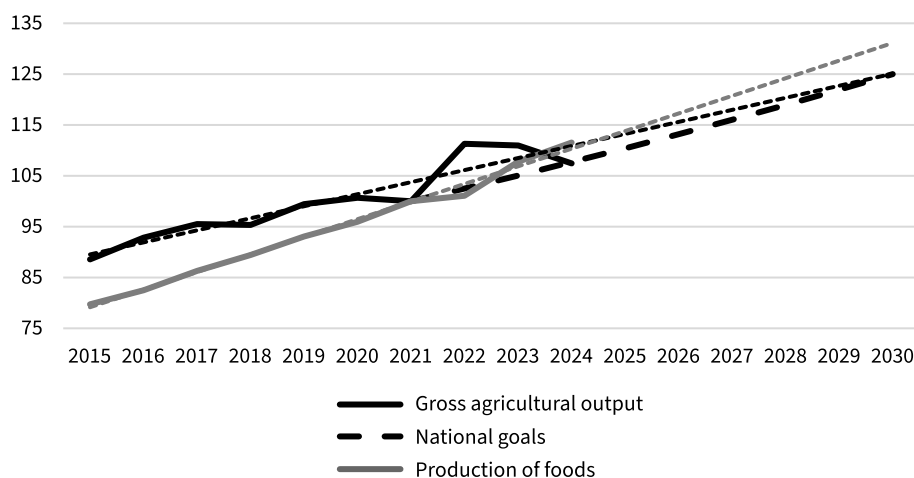


Fig. 10. Dynamics of agro-industrial production

Sources: Rosstat, Executive Order of the President of the Russian Federation of 07.05.2024 No. 309 "On national development goals of the Russian Federation for a period until 2030 and prospectively until 2036."

Involvement of Soviet-era abandoned land into agricultural turnover is often cited as a reserve for production growth. However, there are reasonable arguments against the need to stimulate this process. Using data from agricultural censuses (2006, 2016 and 2021)¹, it is clear that the area used by agricultural producers is decreasing. However, according to the Rosstat, production has increased. Despite the abundance of abandoned fields, the potential for their involvement is limited. Obviously, there are objective prerequisites for intensive use of available land. There is still some reserve for increasing grain and oilseed production due to growth of crop yields.

Given the high dependence of crop production on weather conditions, it is important to maintain the availability of world-class technologies, including seeds that can mitigate the negative impact of climate change. Russian agriculture has demonstrated an incredible progress in production efficiency, relying on structu-

1. Agricultural censuses. Rosstat. URL: https://rosstat.gov.ru/selskohozyajstvennye_perepisi

ral reforms in agriculture, government support for the industry and access to high-tech inputs that were largely imported. Since 2014, the RF government has been taking actions to reduce import dependence on agricultural inputs. Along with funding for scientific research, establishing world-class facilities (innovation facilities in the agro-industrial complex)¹, inclusion of sub-programs in the Federal scientific/technical program of agriculture development for 2017–2030 (FSTP), designing a National project “Technological support to food security”², which will be launched in 2025, various restrictive instruments were adopted. Such tools include import duties on high-tech plant protection products, as well as quotas on seed imports. Rosselkhoznadzor actively uses non-tariff instruments, restricting supplies of large European producers and completely localizing production of imported varieties and hybrids. The goal of this policy is to achieve self-sufficiency in staple crops up to 75%, as a threshold of self-sufficiency mentioned in the 2020 Food Security Doctrine. In 2024, there was a discussion on the size of utilization fee on agricultural machinery, which is, actually, a prohibitive duty on imported tractors, combines (with a small exception of some models)³, which was introduced since January 1, 2025. Evidently, a balanced approach towards the import substitution policy involving support for national research and promotion of its results for use in agriculture, while maintaining the previously available access to imported high-tech inputs, can reduce risks of disruptions in production. The argument for rejecting self-restrictions in the use of imported innovative resources may also be supported by the fact that Russia still holds only 59th place in the Global Innovation Index⁴ among 133 countries (33rd place among 36 European countries).

Despite government efforts to modernize agriculture in order to increase productivity, investment in agriculture has been declining in recent years. Obviously, this increases risks of failing to achieve the production growth target (*Fig. 11*).

Labor shortage, which poses risks to the industry’s functioning, remained an issue in 2024.⁵ Authors’ estimates proved⁶ that currently there are limited opportunities to fill the shortage of personnel in agriculture by using internal reserves. This deficit can be addressed by increasing labor productivity through application

1. URL: <https://xn--m1acy.xn--p1ai/centers>

2. In 2025, the national project “Technological Support of Food Security” will be launched. URL: <https://xn--80aapampemcchfmo7a3c9ehj.xn--p1ai/news/v-2025-m-startuet-natsproekt-tekhnologicheskoe-obespechenie-prodbezopasnosti/>

3. How the utilization fee on agricultural machinery evolved into a substitute for protective duties. URL: <https://agrovesti.net/news/indst/kak-utilisbor-na-agrotekhniku-prevratilsya-v-analog-zagraditelnykh-poshlin.html>

4. Global Innovation Index. URL: <https://www.wipo.int/web-publications/global-innovation-index-2024/en/> <https://www.wipo.int/gii-ranking/en/russian-federation>

5. Agriculture is still losing the “wage race” that started in many areas of the economy. URL: <https://rg.ru/2024/10/13/kto-nakormit-stranu-cherez-piat-let.html>

6. *Shagaida N. I.* Is it possible to quickly eliminate labor shortage in Russian agriculture? // Russian peasant studies, 2024. No. 2, p.139–152.

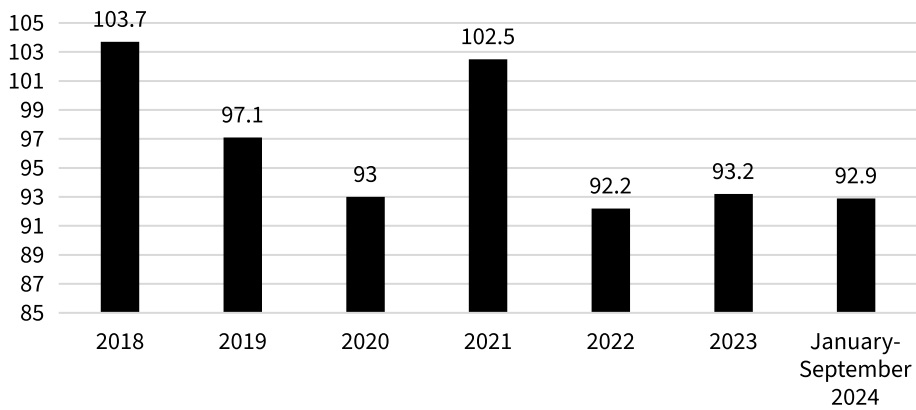


Fig. 11. Index of physical volume of investments in fixed capital of agriculture, % to the previous year

Source: Rosstat.

of modern/new technologies, but its implementation requires considerable time. In the short term, the deficit of personnel can be filled by attracting trained migrants. The latter requires establishing a system of recruitment in the country of residence, training, social guarantees and protection from unlawful actions within the country. Russia is rapidly losing its historical appeal for foreign workers from the post-Soviet space. It is beginning to lose the competition with countries of Western Europe, South Korea and Israel, who are actively building a bridge for redistribution of Russian-speaking migrants from Russia to their countries via governmental agreements.

One of the risks of agricultural production, considering sustainability of its functioning and stability of import supplies in modern time, is the concentration of production in a limited number of business units. It should be stated that the level of production concentration in Russia is very high. According to estimates for 2018–2023, 1.29–1.57% of agricultural organizations account for 50% of the revenue across a range of agricultural enterprises (22,000), not counting their consolidation into agricultural holdings.

Currently, the government can stimulate the establishment or development of agricultural organizations proportional to the potential of labor resources of the territory where they are located. It would be advisable to limit the amount of government subsidies under all support programs to one organization, to consider applications for government support taking into account local balance of labor resources. This would not only contribute to more uniform development of a wide range of organizations, but also limit their size, thereby reducing dependence on migrant workers.

3.4.3. Exports of food and agricultural products

Growth in exports of agro-industrial products should be at least 1.5 times higher than in 2021; this is the second benchmark for agriculture in the national development goals of the Russian Federation for the period until 2030, adopted in 2024. In real prices, exports of agro-industrial products in 2023 have already reached \$43.5 bn, which is 18.2% higher than in 2021. Food exports for the first 10 months of 2024 amounted to \$35.2 bn, down 2.4% y-o-y, largely due to a decline in world prices for exported goods (–14.2% for cereals according to the FAO Food Price Index). Food imports, meanwhile, rose by 4.9% to \$30.6 bn, maintaining a positive trade balance.

There is a great potential to increase the share of food and processing industry exports (12% in 2023). Growth in exports of meat and dairy products (4% in 2023) faces sanitary and veterinary restrictions, which requires scrupulous work to harmonize requirements of exporters and importers. Moreover, not all types of Russian livestock products are competitive in terms of price both on the world and domestic markets, which is evident from retrospective OECD NPC indicator (consumer protection rating factor¹) (*Table 13*). Traditionally highly competitive products on the foreign market are crops², excluding sugar, as well as eggs. Occasionally, sugar and milk fall among the competition.

Table 13

Consumer protection rating factor (consumer's NPC)

	2020	2021	2022	2023
Total index	1.05	1.00	1.01	0.99
Wheat	0.94	0.93	0.71	0.85
Barley	0.91	0.81	0.67	0.68
Corn	0.99	0.80	0.83	0.61
Oats	0.78	0.69	0.76	0.52
Raw sugar	1.38	1.03	1.24	1.00
Potatoes	1.00	1.00	1.01	1.00
Sunflower seeds	0.86	0.90	0.94	0.89
Row milk	1.07	1.00	1.16	1.00
Beef and veal	1.23	1.03	1.14	1.22
Pork	1.40	1.48	1.59	1.15
Poultry meat	1.11	1.02	1.05	1.10
Eggs	1.00	1.00	1.00	1.00
Other goods	1.00	0.98	0.96	0.96

Source: OECD³.

1. Consumer protection rating factor (CPRF): the ratio between the average price paid by consumers (at the farm gate) and the price at the border. URL: <https://www.oecd.org/content/dam/oecd/en/topics/policy-issues/agricultural-policy-monitoring/producer-support-estimates-manual.pdf>
2. Vegetables under cover are not considered.
3. URL: [https://data-explorer.oecd.org/vis?lc=en&df\[ds\]=dsDisseminateFinalDMZ&df\[id\]](https://data-explorer.oecd.org/vis?lc=en&df[ds]=dsDisseminateFinalDMZ&df[id])

To improve competitiveness of livestock products, the government will have to maintain/expand export subsidies in various forms¹, updating the discussion on beneficiaries of the Russian budget: the Russian consumer (for those types of products made for domestic market; vulnerable groups of people in terms of food) or the foreign consumer by subsidizing production/agricultural producers of export goods.

3.4.4. Demand and food prices

Agriculture and food chains have generally shown enviable resilience both amid the pandemic and nowadays, when the households' effective demand for food has increased despite rising prices. This is evident from the dynamics of the index of physical volume of retail food sales (*Fig. 12*). In 2024, food purchases in the retail trade remained at more than 100% of the respective month of pre-pandemic 2019. However, since June 2024, the index of physical volume of sales began to fall.

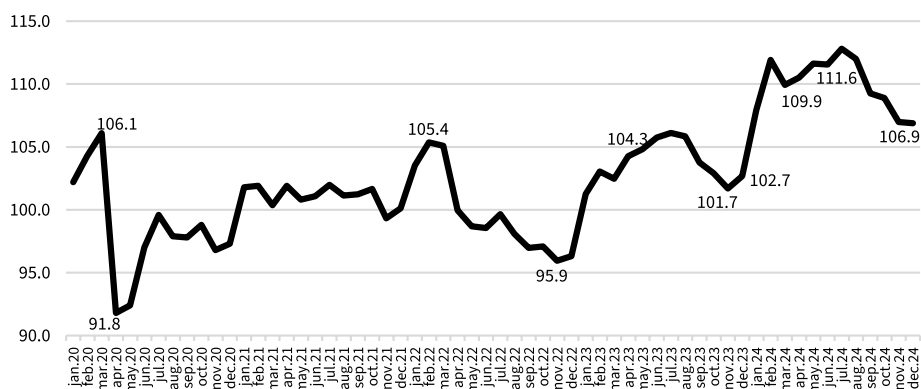


Fig. 12. Index of physical volume of retail trade turnover in foods including beverages and tobacco (in comparable prices), % to the corresponding period of 2019.

Source: Own estimates according to Rosstat.

Growth of food purchases since January 2021 was observed amid growing incomes. However, a comparison of dynamics of two indices: nominal size of monetary income and consumer prices illustrates a significant gap (for the first time since 2006) in dynamics of incomes and prices (*Fig. 13*). By the end of 2024, growth in food prices accelerated, while growth rate of incomes declined.

1. Which is not in line with WTO Rules.

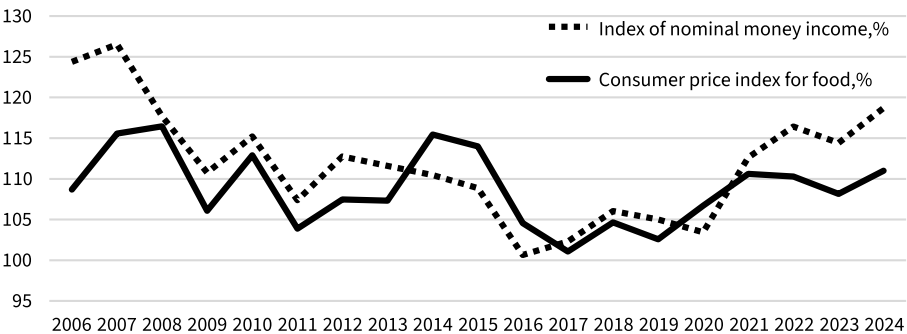


Fig. 13. Indices of nominal money income and consumer price for foods, % December vs. December

Source: UISIS.

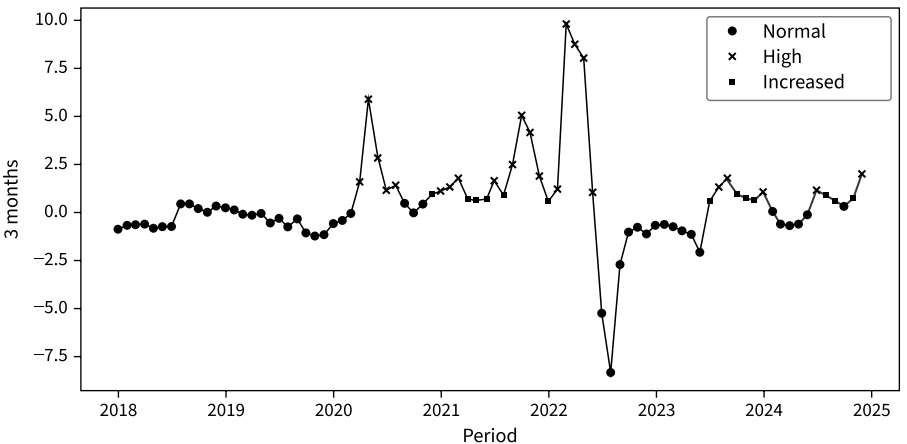


Fig. 14. Retail food market price anomaly indicator (based on FAO methodology of price volatility)

Source: own estimates according to Rosstat.

Fig. 14 shows dynamics of price volatility for foods calculated according to FAO methodology.¹ After a rather long period of high volatility (from mid-2020 to early summer of 2022) volatility was in the range of values allowing to describe it as normal (Normal), and from autumn 2023 until now it was in the zone of increased (price watching) and high (price alert) volatility.

1. URL: https://www.fao.org/fileadmin/user_upload/foodprice/docs/resources/a-i7550e.pdf

In December 2024, food inflation amounted to 11.7% (by December 2023), including 13.8% for socially important goods (Fig. 15). However, taking into account the share of socially important goods in consumption, their contribution to food inflation amounted to 3.5 p.p.

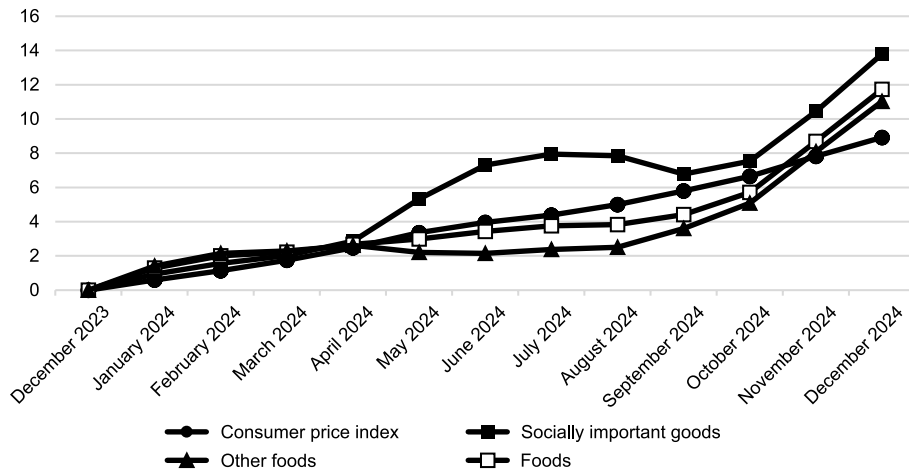


Fig. 15. Growth of retail prices for foods, %

Source: own estimates according to Rosstat.

Table 14

Change in food prices by commodity group,
December 2024 relative to December 2023

Commodity group	Price growth by individual commodity groups, %	Contribution to price growth given their share in consumption, p.p.
Vegetables	32.2	2.5
Butter and fats	28.6	1.0
Milk and dairy products	15.3	1.9
Fish and seafoods	14.9	0.9
Fruit	13.5	0.9
Bread and bakery	12.2	1.0
Sugar and confectionery	10.2	0.6
Non-alcoholic drinks	9.3	0.2
Alcohol	8.3	1.0
Meat and meat products	6.1	1.6
Groceries	5.9	0.3
Flour, cereals, pasta	3.8	0.2
Eggs	-10.9	-0.2

Source: own estimates according to Rosstat.

Table 15

**Change in prices for socially important goods
in December 2024 relative to December 2023**

Name	Price growth rate	Contribution to price growth, p. p.
Socially important goods		100,0
Potatoes, kg	102.8	22.1
Butter, kg	38.8	20.8
Apples, kg	20.6	10.1
Bread and bakery products made of wheat flour of various grades, kg	16.4	8.6
Beef (except for fine meat), kg	14.1	6.7
Drinkable whole pasteurized milk 2.5–3.2% fat, l	19.3	6.3
Rye bread and bread from a mixture of rye and wheat flour, kg	18.0	5.1
Fresh white cabbage, kg	44.7	4.3
Frozen ungutted fish, kg	21.8	4.0
Yellow onion, kg	50.2	3.6
Pork (except for fine meat), kg	6.0	3.4
Sunflower oil, l	12.9	3.2
Lamb (except for fine meat), kg	28.4	2.9
Polished rice, kg	7.3	1.6
Wheat flour, kg	8.0	1.5
Carrots, kg	14.8	1.0
White sugar, kg	3.1	0.8
Black loose-leaf tea, kg	4.5	0.7
Vermicelli, kg	5.2	0.5
Millet, kg	7.5	0.2
Buckwheat, kg	–5.9	–0.8
Chilled and frozen chicken, kg	–1.1	–0.8
Chicken eggs, 10 pieces	–11.9	–5.7

Source: Own estimates according to Rosstat

Current prices for foods are historically high. Compared to the average values for the previous 5 years, taking into account overall inflation, foods are more expensive by 4.0%, including socially important goods by 7.2%. Vegetables, dairy products, butter and fats evidenced the highest price increase, more than 10%. Taking into account the share in consumption, the same products were also the most important for consumers' wallets (*Table 14*).

Nominal potatoes prices for 2024 increased by 102,8%, 44,7% for cabbage, 50,2% for yellow onion. Meanwhile, the real prices for these foodstuffs, considering overall inflation, are still below the prices in comparable periods of the pre-

vious acute price crisis for vegetable in summer-autumn 2021. As a result, potatoes became the commodity that contributed most to the price index for socially important goods, 22.1 p.p. of the total change, taking into account the consumption structure. Butter was the second such product with a 38.8% rise in retail price; its contribution to the price index amounted to 20.8 p.p. The rise in the price of potatoes and butter together accounted for almost half of growth for socially important goods (*Table 15*).

Price growth is at the focus of public discussion. The Government of the Russian Federation and the President of Russia constantly declare the thesis of efforts to contain prices. They discuss limiting trade mark-ups on socially important products (within the range of 5–15%¹), introducing social subsidies (the so-called ration stamps) for vulnerable segments of the population.²

Agriculture has been “squeezed” between ever-increasing production costs and the consumer, who is concerned about rising prices regardless of whether he belongs to a vulnerable group or the share of food expenditures in his income/expenditures. This results in prices for agricultural products for the agricultural producer growing slower than his costs, increasing price disparity.

The example of wheat (the most common agricultural product) shows that its prices have increased by 15.3% over 5 years, while resources have become much more expensive. Thus, fertilizers increased in price by almost 40% and wages more than doubled. The total inflation rate for this period amounted to 49.8%, more than 3 times higher than the price of wheat (*Fig. 16*).

Attempts to limit trade mark-ups for retailers are unlikely to solve price growth. Thus, calculations based on retail chains’ data on purchasing and selling prices of vegetables, potatoes³ show that a 15% markup will make a set of socially important products more expensive compared to present, when chains take a differentiated approach to markups. Setting a marginal markup of 5%, which the Russian government is currently discussing for beets, carrots, cabbage, potatoes, onions, drinking milk, cottage cheese, kefir, butter, sugar and bakery products of non-durable shelf life⁴ will cheapen the set of foods, but will cause the exclusion of the assortment of products from this list; this has been repeatedly observed in similar cases.

Retailers are interested in the availability of socially important foods with minimal mark-ups. These can be foods under chain brand, certain types of the so-called “social food”, discounts on foods with a short period of permissible sale or enlarged packages. This practice looks reasonable. Support of social initiatives of retail chains at the state level looks attractive for all participants.

1. URL: <https://tomsk.spravedlivo.ru/25136610>

2. URL: <https://www.rbc.ru/life/news/676006d49a7947abbbf0762d>

3. Weekly report on price monitoring of socially important foods in ARC member retail chains. report@acort.ru

4. URL: <https://www.rbc.ru/business/04/02/2022/61fc62219a794725647465f7>

Russian economy in 2024

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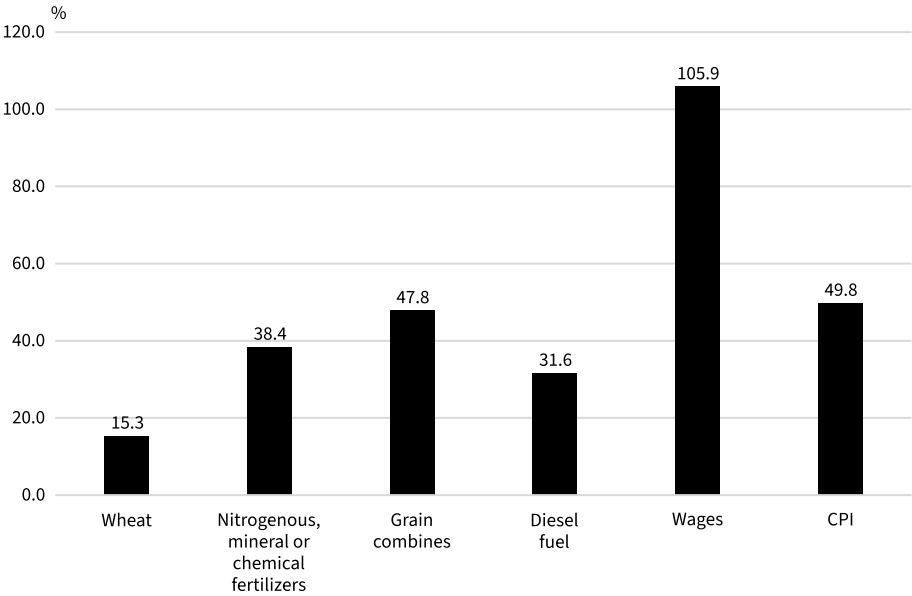


Fig. 16. Wheat price growth and resources required for wheat production in Russia (2024 vs. 2019)

Source: Own estimates according to Rosstat.

Finally, in 2024, the reduction of production rates in agriculture did not affect consumers, as it mainly affected export goods. Food chains have demonstrated their resilience to stress situations. This situation could change if new challenges are not addressed timely, including limiting constraints on access to resources as well as price regulation due to unpredictable producers’ reactions. In times of turbulence, it is useful to change the way the information is presented. In terms of price growth, switch from information on growth for the period in nominal prices of each product to information on growth adjusted for inflation or contribution of a product to the overall food hikes. If prices growth is highlighted, then it is necessary to show retailers’ efforts to support prices for socially important goods, allocating positions for vulnerable groups of the population. In rhetoric about food support, switch from focusing on labels that cause negative emotions (ration stamps, coupons) to focusing on the core: government efforts to support vulnerable segments of the population. In reporting on price hikes in different countries, do not focus on stating that they are worse, but look at the causes of the situation (spread of bird flu and need to take measures to prevent its spread, for example), as similar causes can arise in any country. Consumer education should help to soften the perception of a negative situation if prices rise.

3.5. The impact of sanctions on small technology companies in Russia¹

The sanctions and trade restrictions imposed on Russia limit access to sales markets and high technologies, lead to disruptions in value chains and complicate access to capital.² The Russian business sector's adaptive capacities play a significant role in overcoming various kinds of shocks and crises in the Russian economy.³ In particular, technological entrepreneurship makes it feasible to push back the boundaries of the economy's production capacities through implementation of scientific and technological solutions in products which are in demand on the market.

Within the scope of development of national technological leadership projects in accordance with the national goal of achieving "technological leadership"⁴, it will be required to increase at least sevenfold the revenues of small technology companies by 2030 compared to the level seen in 2023. The status of a small technology company (STC) is determined by a number of regulatory acts.⁵ By the end of 2024, about 4,000 STCs⁶ were registered in Russia; by 2030 their number is expected to increase to 11,000. It is believed that in future STCs may contribute greatly to technological development and import substitution, as well as facilitate competitive exports.

At the same time, at an early stage of development STCs may become more vulnerable to external constraints and face multiple growth challenges, in particular, a lack of capital for rapid scaling.⁷ In this regard, a "registry model" of support is being im-

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2. The Russian economy in 2023. Trends and Outlooks. (Issue 45) — Moscow: Gaidar Institute Press, 2024. 456 p.; *S. P. Zemtsov*. Sanction risks and regional development (on the example of Russia) // *Baltic Region*. 2024. Vol. 16, No. 1. pp. 23–45; *V. A. Barinova, S. P. Zemtsov, P. A. Levakov*. Russia and China: motives, opportunities and risks of scientific and technological convergence // *Economic policy*. 2024. Vol. 19, No. 3. pp. 118–153.
3. *S. P. Zemtsov, A. V. Voloshinskaya*. Shock resistance of Russian regions' economies amid sanctions // *Journal of the New Economic Association*. 2024. No. 3. pp. 54–83.
4. Executive Order No. 309 of May 07, 2024 of the President of the Russian Federation "On the National Development Goals of the Russian Federation for the period up to 2030 and for the perspective up to 2036." URL: <http://www.kremlin.ru/events/president/news/73986>
5. Federal Law No. 478-FZ of August 04, 2023 "On the Development of Technology Companies in the Russian Federation." RF Government Decree No. 1847 of November 2, 2023 "On the Classification of Technology Companies as Small Technology Companies and on the Termination of the Status of Small Technology Companies, the Formation and Maintenance of the Register of Small Technology Companies and on Information Interaction."
6. The Ministry of Economic Development of the Russian Federation. URL: https://www.economy.gov.ru/material/news/minekonomrazvitiya_srednyaya_vyruchka_malyh_tehnologicheskikh_kompaniy_sostavlyayet_pochti_200 mln_rubley.html
7. *Cantamessa M., Gatteschi V., Perboli G., Rosano M.* Startups' roads to failure // *Sustainability*. 2018. Vol. 10. No. 7. P. 2346.

plemented. It is noteworthy that 17 support measures are already available to STCs on special terms: grant programs of the Innovation Assistance Fund; industrial mortgages; acceleration and accreditation of IT companies; faster patent registration; from 2025 the regions have the right to set a reduced income tax rate for STCs.

The survey of STCs conducted by RANEPa experts in summer 2024 within a scope of a government assignment reveals the overall picture in terms of risk assessment and outlooks for STC development. Overall, representatives of 248 companies took part in the survey. According to the survey results, the impact of sanctions on small technology companies is negative: 68% of the surveyed firms were affected by sanctions, while only 3% of the total number noted the positive impact. Relations with foreign suppliers and consumers in most cases deteriorated after 2022. Sanctions slow down considerably the entry of companies into global markets, as well as create problems with import substitution. At the same time, sanctions increase overall economic uncertainties, which significantly worsen the business climate in the country.

3.5.1. The specifics of small technology companies

The status of a small technology company can be received by companies, with revenues of maximum Rb4 bn per year, operating in priority sectors, such as: manufacturing; production and distribution of electricity, gas and water; information and communication activities; professional, scientific and technical activities; tourism and tourism industry activities in order to develop domestic and inbound tourism; activities in the field of education; activities in the field of healthcare and agriculture.¹

STCs act as sources of innovative ideas and technologies, contributing to the speed-up of scientific and technological progress. Their flexibility and ability to quickly adapt to changes in the market allow them to implement new solutions faster as compared to larger companies.² Technological startups outside Moscow contribute to the preservation of human capital in the regions, which helps to balance the spatial development of the country.³ Import substitution po-

1. Approved by RF Government Decree No.1847 of November 2, 2023 "List of Economic Activities for Small Technology Companies in Accordance with the All-Russian Classifier of Economic Activities." URL: <http://static.government.ru/media/files/acckypbyEVJnuyYLj41TtgYFoioDCzth.pdf>

2. *Baumol U.* The Microtheory of Innovative Entrepreneurship. Moscow: Gaidar Institute Press. 2013. 432 p.; *Chernikova A. A., Kozhitov L. V., Kosushkin V. G., Sonkin V. S., Sherei kin M. L., Liev R. A.* The role of small and medium-sized high-tech companies in the Russian economy // *Innovations*. 2017. No. 9 (227).

3. *Barinova V. A., Zemtsov S. P., Tsareva Yu. V.* In Search of Entrepreneurship in Russia // Part I. What Prevents Small and Medium-Sized Businesses from Developing. Moscow: Delo. 2023. 300 p.; *Alkhazov A. A.* The Influence of Small and Medium-Sized Businesses on the Economic Potential of the Region // *Finance: Theory and Practice*. 2016. No. 5. pp. 37–44.

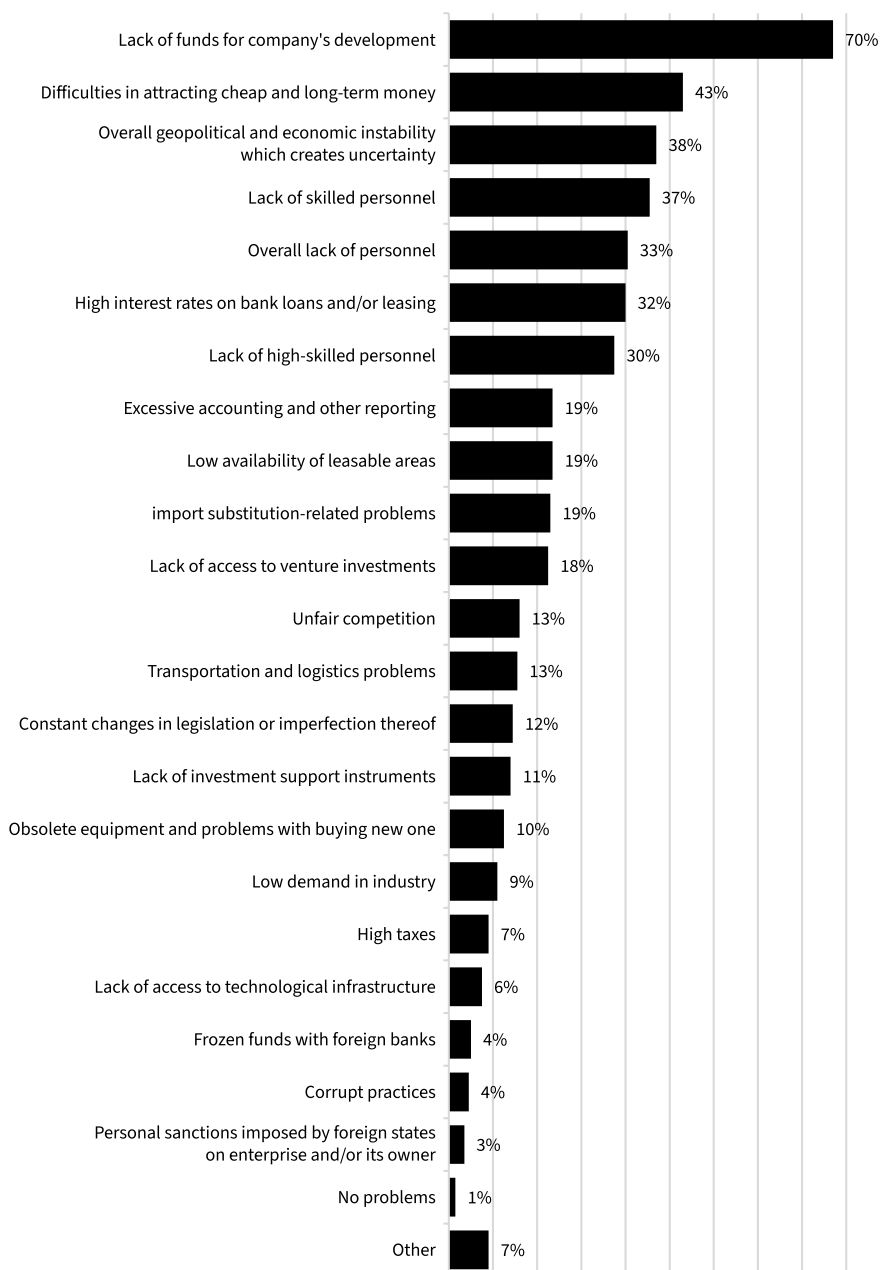


Fig. 17. Respondents' answers to the question:
"What are the main problems faced by your company?"

Source: Own compilation.

licies associated with the support of domestic technology companies can enhance the country's economic security and technological sovereignty by reducing dependence on foreign supplies. This is particularly important in the context of economic sanctions or instability in international markets. Import substitution can contribute to GDP growth by increasing production and consumption in the domestic market.¹

The development of export activities by small and medium-sized enterprises contributes to economic diversification growth. This is particularly important for countries dependent on commodity exports, as STCs can offer innovative and specialized products, which reduce the risks associated with fluctuations in commodity prices.² Active export activities contribute to promotion of economic ties with other countries. This can lead to a greater participation in international value chains and the expansion of sales markets for domestic producers.

In addition to common risks associated with insufficient access to finances, sales markets, personnel shortages and uncertainty, small technology companies are experiencing an increased sanctions pressure due to a limited access to foreign technologies and disruption of established supply chains (*Fig. 17*).

3.5.2. The results of survey of small technology companies

In 2024, a survey was conducted to identify the impact of sanctions on STCs. The survey involved 248 small technology enterprises; the respondents were company owners or hired managers.

Represented in the survey were companies from the following industries:

- Information technology and software: 20%;
- Industrial equipment and mechanics: 18%;
- Automotive industry: 15%;
- Medical technologies: 12%;
- Energy and electronics: 10%;
- Chemical industry: 9%;
- Environmental technologies: 8%;
- Space technologies: 3%;

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1. Import Substitution in the Russian Economy: Yesterday and Tomorrow. Analytical Report of the NRU Higher School of Economics / *Kuzminov Ya. I., Simachev Yu. V., Kuzyk M. G., Fedyunina A. A., Zhulin A. B., Glukhova M. N., Klepach A. N.* Moscow: Higher School of Economics Press, 2023. 272 p.; *Malgina I. V.* (ed.) Entrepreneurship and National Security. Minsk, 2024. 352 p.; *Zemlyansky D. Yu., Chuzhenkova V. A.* Production Dependence on Imports in the Russian Economy: Regional Projection // Bulletin of the Russian Academy of Sciences. The geographical series. 2023. Vol. 87. No. 5. pp. 651–665.
 2. *Malysheva E. V.* Trends in the Development of Export Activities of Small and Medium-Sized Businesses: International Experience and Russian Practice // International Trade and Trade Policy. 2021. No. 4 (28); *Barinova V. A., Zemtsov S. P., Knobel A. Yu., Lashchenkova A. N.* Small and Medium-Sized Businesses as a Factor of Russia's Economic Growth. Moscow: Gaidar Institute Press, 2019. 308 p.

- Construction and Architecture: 3%;
- Other industries, including food industry, agriculture, etc.: 2%.

Unfortunately, based on the survey results, it is impossible to judge on the basic indicators (profit, revenue, etc.) of the surveyed companies, however, in 2023, companies with a STC status demonstrated the following results: average revenues amounted to Rb 194 mn, the average salary of an employee exceeded Rb 200,000, and there were on average about 30 workplaces per enterprise.¹

Unlike most companies, STCs are focused on innovations: 39% of companies allocate more than 25% of their revenues for these purposes. For comparison, R&D costs in Russia, including budget expenditures, do not exceed 1% of GDP. It is noteworthy that 98% of the respondents carry out R&D on their own, 27% — with participation in government programs, 21% — with the support of development institutes and venture funds, 14% — through university orders. Among the respondents, 66% received support from the Innovation Assistance Fund and 48% from the Skolkovo ecosystem.

As 50% of STCs do not participate in foreign economic activities, this may slow down somewhat their entry into global high-tech markets, but 90% of STCs plan to enter new markets. Regulatory intervention is required, possibly prioritizing the support of STC on the part of the Russian Export Center (REC). REC's measures are needed to overcome barriers to entry to foreign markets: 41% of STCs specified certification as a barrier, 40% — ignorance of markets, 27% — ignorance of the legislation of another country.

3.5.3. The impact of sanctions on STCs

The survey put questions about the impact of sanctions on the activities of small technology companies in general and problems and risks associated with import substitution.

When answering the question about the impact of sanctions on the activities of companies, the respondents were allowed to indicate several possible answers (*Fig. 18*). A significant portion of the respondents noted negative consequences: 26% of the companies faced problems with foreign trade logistics and about 25% of the respondents reported overall costs growth, which probably reduced their competitiveness. In addition, 18% of the companies referred to the severance of contacts with Western partners, and another 18% of the companies indicated lack of access to Western markets. A small portion of the companies (5%) lost foreign partners, and 3% of the companies reported the exit of their key technology partner, which fact points to STC's high vulnerability amid sanctions pressure.

1. According to the data of the RF Ministry of Economic Development. URL: https://www.economy.gov.ru/material/news/minekonomrazvitiya_srednyaya_vyruchka_malyh_tehnologicheskikh_kompaniy_sostavlyayet_pochti_200 mln_rubley.html

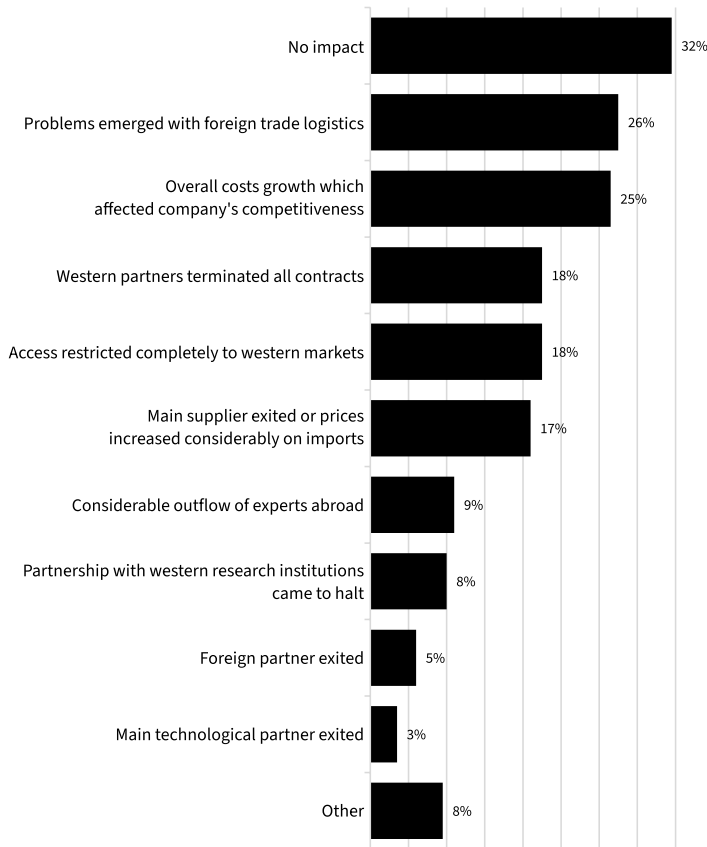


Fig. 18. The respondents' answers to the question: "How have the sanctions affected your company?"

Source: own compilation based on the results of STC survey carried out in 2024.

Note that 3% of the companies specified the positive impact of sanctions (Fig. 18), with almost the same result received in the 2022 survey.¹

It is noteworthy that when asked about changes in relations with foreign suppliers/consumers, 27% of STCs noted that this cooperation intensified in 2024 as compared to 2022. Despite the fact that sanctions were aimed, in particular, at isolating Russia and restricting access to markets and technologies, in 2024 90% of STCs planned to enter new foreign markets in the next 5–7 years.

1. Simachev Yu.V., Yakovlev A. A., Golikova V. V., Gorodny N. A., Kuznetsov B. V., Kuzyk M. G., Fedyunina A. A. Russian industrial companies amid the "second wave" of sanctions: response strategies // Voprosy Ekonomiki (Economic Issues). 2023. No. 12. P. 5–30.

The impact of sanctions on STC import substitution

One of the main functions of STCs in the economy is to facilitate import substitution, as STCs are considered the most promising companies in the field of development of new technologies that can quickly occupy vacant market niches. In the survey, import substitution was understood as accelerated development of import-independent technologies and localization of well-known foreign technologies. Note that 24% of the surveyed companies do not experience problems caused by sanctions in import substitution (*Fig. 19*).

At the same time, for the rest of STCs, the main barriers to accelerated import substitution are the following: lack of own financial resources (46%), unwillingness

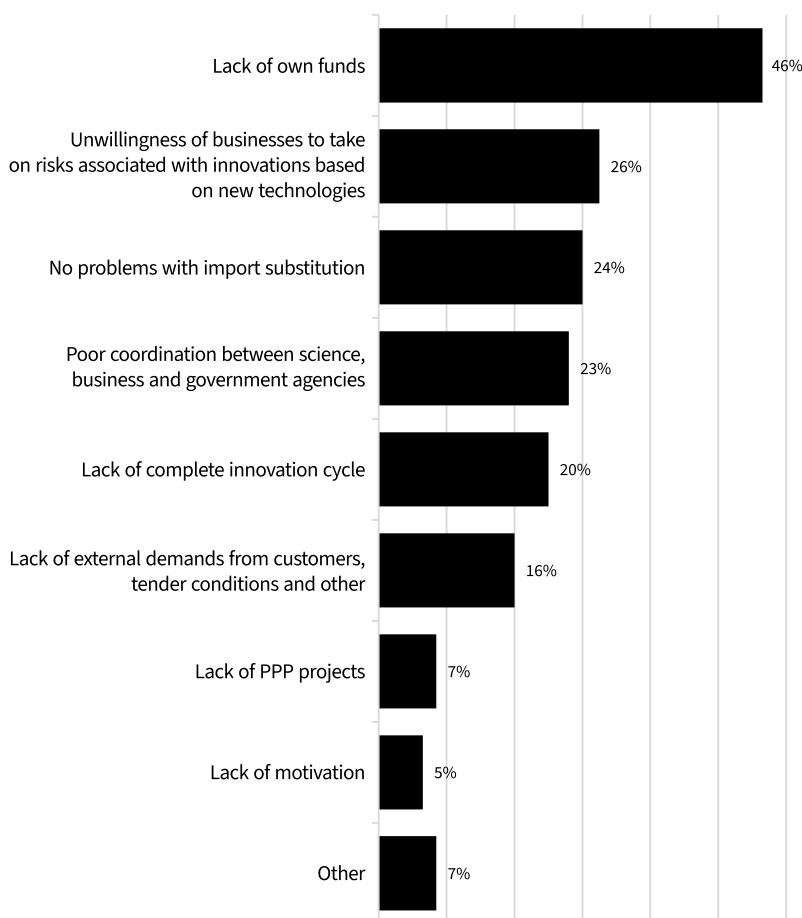


Fig. 19. The respondents' answers to the question: "What prevents import substitution in your industry?"

Source: own compilation based on the results of STC survey carried out in 2024.

of businesses to take on the risks associated with the introduction of new technologies (26%), poor coordination between science, business and government agencies (23%), lack of a closed innovation cycle, i.e. in the process of development and implementation of innovations the stages necessary for the successful commercialization and integration of new technologies or products into the economy are not fully completed (20%). The latter highlights the importance of creating more effective mechanisms for interaction between all participants in the innovation process. Further, 16% of the respondents indicated a lack of external demand, which means that it is important to stimulate demand for import-independent technologies through public procurement and other mechanisms. Also, it is to be noted that 19% of the respondents referred to an import substitution problem as the main one faced by their company.

The impact of sanctions on technological development of STCs

Despite the fact that companies from various industries participated in the survey, which implies the existence of different risks and threats, it is feasible to make some generalizations about the impact of sanctions on high-tech and promising companies

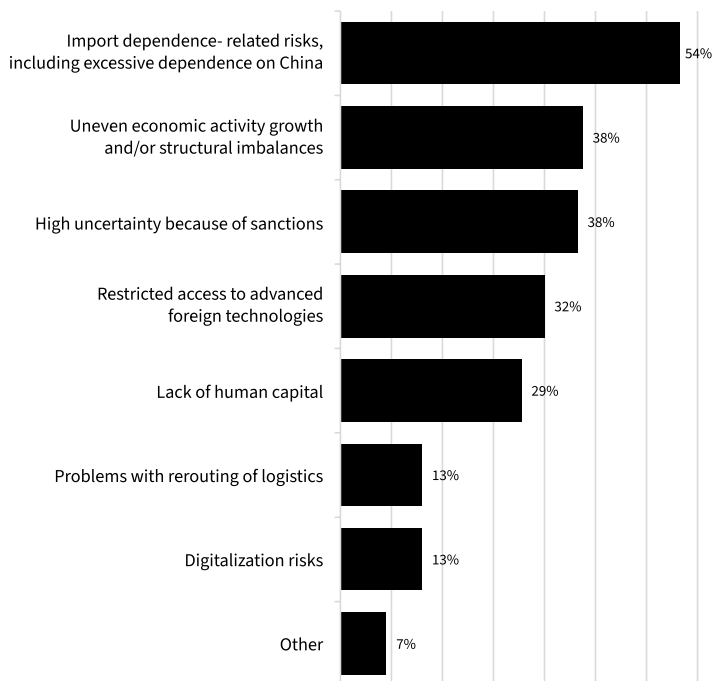


Fig. 20. The respondents' answers to the question: "What risks of the country's technological development do you see in your industry?"

Source: own compilation based on the results of STC survey carried out in 2024.

for the development of the industry as a whole. For almost all industries whose representatives were interviewed, excessive import dependence is regarded as an actual risk (54% of the respondents pointed to this factor), especially dependence on China (Fig. 20). This can be explained by the fact that most promising high-tech industries use foreign raw materials, equipment, technologies and often service specialists.

The same risk also includes restricted access to a number of advanced foreign technologies, but only 32% of the respondents referred to it.

Traditionally, a substantial risk is high uncertainty (38%), which is typical not only for the STC, but also for the business climate as a whole.

* * *

Small technology companies are currently considered entities which develop new technologies capable of restoring disrupted value chains, facilitating import substitution and competitive exports, and ultimately contributing to Russia's technological sovereignty and leadership in a number of areas in future.

External restrictions have an explicit negative impact on STCs in all of the listed areas of their activities.

First, sanctions make it difficult to interact with foreign suppliers and consumers and this means they hinder foreign trade.^{1,2}

Secondly, they reinforce existing barriers to import substitution, including mainly domestic problems of access to financial resources and weak links between education and science, business and the state. In addition, sanctions significantly increase uncertainty³, which in itself is one of the key negative factors for the business climate.

Thirdly, with access to technologies from unfriendly countries restricted, sanctions push companies to make quick decisions to find alternative suppliers, thus increasing in the current environment the risk of higher import dependence on China.

At the same time, the presence of a large trading partner reduces the effectiveness of sanctions.^{4,5} After the exit of foreign companies, competition in the mar-

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1. *Knobel A.Yu., Bagdasaryan K. M., Proka K. A.* International economic sanctions: theory and practice of their application // Journal of the New Economic Association. 2019. No. 3. pp. 152–162; *Ushkalo D. I.* Russia's foreign trade under sanctions pressure // Journal of the New Economic Association. 2022. Vol. 3. No. 55. pp. 218–226.
 2. *Fedyunina A. A., Simachev Yu.V.* Do international sanctions always achieve their goal? Sanctions policy limitations // ECO. 2023. No. 7. p. 95. 2023. Vol. 107.
 3. *Chernykh A. A.* Review of the methods for analyzing the effectiveness of economic sanctions and their adaptation to assess the impact on Russia in a new information context // Bulletin of the Plekhanov Russian University of Economics. 2024. No. 4. pp. 48–62.
 4. *Haidar J. I.* Sanctions and export deflection: evidence from Iran // Econ. Policy. Oxford University Press, 2017. Vol. 32, No. 90. P. 319–355.
 5. *Le H. T.* Global economic sanctions and export survival: Evidence from cross-country data // Entrep. Bus. Econ. Rev. Uniwersytet Ekonomiczny w Krakowie, 2022. Vol. 10, No. 1. P. 7–22.

kets decreased and demand for domestic products¹ increased, but only 3% of STCs noted the positive effect of sanctions.

To create favorable conditions for the development of STCs within the framework of the government policy of supporting entrepreneurship, it is important to focus on expanding access to sales markets, creating complete value chains, expanding access to capital, as well as advising on the commercialization of innovations, while maintaining existing incentive mechanisms, including grant programs from the Innovation Assistance Fund, industrial mortgages, measures facilitating acceleration of IT companies and faster patent registration.

An important area of support for STCs should be the promotion of these companies' export products through expansion of measures of the Russian export center and its regional divisions, as well as organizations offering similar services. In addition to certification and accreditation, information and consulting support is needed in terms of foreign legislation and market analysis, logistical support for foreign trade relations, organizational support for establishing interaction and contacts with foreign suppliers, consumers and partners.

To promote the ties between science and business, it is important to expand the range of measures to support university entrepreneurship, including specialized forums and platforms, mentoring programs and university business incubators in order to successfully commercialize innovations.

3.6. Foreign trade²

3.6.1. The state of world economy and world trade

The last four years have been a major test for the global economy. Pandemic, geopolitical conflicts and extreme weather disrupted supply chains and triggered energy and food crises. However, in 2024, the global economy demonstrated stability, inflation was declining, and international trade was gradually recovering.

The International Monetary Fund's January 2025 estimate³ of global economic growth for 2024 stands at 3.2%, almost identical to the estimates presented in previous editions of the World Economic Outlook for 2024. The world economy is expected to grow at 3.3% in 2025 and 2026, below the historical average (2000–1919) of 3.7%.

Persistent structural impediments, such as aging populations and low productivity growth, are holding back potential growth in many economies. Experts note

1. Zemtsov S. P., Barinova V. A., Mikhailov A. A. Sanctions, exit of foreign companies and business activity in the regions of Russia// *Economic Policy*. 2023. Vol. 18, No. 2. pp. 44–79.

2. Author: Volovik N. P., Senior Researcher, Center for Real Sector, Gaidar Institute.

3. The IMF official website. World Economic Outlook// Global Growth: Divergent and Uncertain. URL: <https://www.imf.org/en/Publications/WEO/Issues/2025/01/17/world-economic-outlook-update-January-2025>

that inflation is gradually declining, which could prompt central banks around the world to ease monetary policy. However, the IMF also points to several potential risks. Among them are the possibility of a sharp rise in commodity prices, persistent geopolitical tensions and inconsistent action by financial and fiscal authorities.

While global forecasts are broadly unchanged from October's World Economic Outlook, divergence in assessments is widening. Among developed economies, the US is performing better than previously expected. The US economy grew by 2.8% in 2024, 0.3 p.p. more than forecast in October. This is due to increased consumption and growth in non-residential real estate investment. The underlying demand remains robust, reflecting the significant impact of rising wealth, less tight monetary policy and favorable financial conditions.

In 2025, according to forecasts, the growth of the US economy is expected to slow down to 2.7% driven by a gradual tightening of fiscal policy and a cooling in the labor market, which slows down consumption. In addition, there are certain risks that may negatively affect the dynamics of the economy. These risks include geopolitical tensions, potential policy changes related to trade and immigration, and high levels of public debt.

Economic growth in the eurozone has been revised downward. There, economic growth in 2023 fell to its lowest level of 0.2%. GDP growth in 2024 is estimated at 0.8% (1.2% growth was expected in October). Weaker-than-expected growth in late 2024, especially in manufacturing, and increased political uncertainty explain the downward revision of economic growth by 0.2 p.p. to 1.0% in 2025. It is expected to rise to 1.4% in 2026, boosted by stronger domestic demand. Real wage growth is projected to boost consumption, while gradual monetary easing will support investment. However, in countries such as Germany and Italy, economic growth is constrained by continued weakness in manufacturing. Meanwhile, domestic demand in Italy is expected to improve thanks to the European Union-funded National Recovery and Resilience Plan, which provides Italy with around €200 bn in grants and low-interest loans while the country undertakes a series of reforms to strengthen the economy. Germany, on the other hand, is struggling due to fiscal consolidation and plummeting real estate prices.

In emerging and developing economies, stable growth is expected over the next two years. It was around 4.2% in 2024, is expected to grow at the same level in 2025, and will accelerate to 4.3% in 2026. Compared to the October forecast, China's economic growth in 2025 has been adjusted upward by 0.1 p.p. to 4.6%. This is due to the announcement of a new tax package in November, which will largely offset the negative impact on investment of increased uncertainty in trade policy and a slowdown in the real estate market. Economic growth is expected to remain stable at 4.5% in 2026. This is because the effects of trade policy uncertainty will begin to fade and the increase in the retirement age will slow the decline in labor supply. India's economy is expected to grow at a steady 6.5% in 2025 and 2026, as forecasted in October. This level of growth is in line with the country's potential. In the Middle East

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and Central Asia, growth was projected to accelerate at year-end but was less than expected in October. This was due to a downward revision of 1.3 p. p. to Saudi Arabia's 2025 growth forecast, mainly due to the extension of the OPEC+ deal to cut oil production. Economic growth is expected to accelerate in Latin America and the Caribbean. In 2023 growth came to 2.4%, remained at the same level in 2024, is expected to grow by 2.5% in 2025 and 2.7% in 2026, despite the anticipated slowdown in the region's largest economies. In Brazil, growth is estimated at 3.7% in 2024. Given the still tight monetary policy and the expected cooling in the labor market, economic growth is expected to slow to 2.2% in 2025—2026. In Mexico, economic growth is estimated at 1.8% in 2024, slowing to 1.4% in 2025. This is due to the weakening of domestic demand due to the tightening of monetary policy.

The IMF has upgraded its forecasts for Russian economic growth in 2025 to 1.4% and kept its estimate for 2026 at 1.2%. This is due to the fact that private consumption and investment are declining while labor market tensions are decreasing and wage growth is slowing down (*Table 16*).

Table 16

Dynamics of the global GDP and world trade (growth rates, in % on the previous year)

	2016	2017	2018	2019	2020	2021	2022	2023	Estimate	Forecast	
									2024	2025	2026
World GDP	3.3	3.8	3.6	2.8	-3.1	6.0	3.5	3.4	3.2	3.3	3.3
Advanced economies	1.7	2.5	2.3	1.7	-4.5	5.2	2.6	1.7	1.7	1.9	1.8
USA	1.6	2.4	2.9	2.2	-3.4	5.7	2.1	3.2	2.8	2.7	2.1
Euro zone	1.9	2.5	1.9	1.3	-6.4	5.2	3.3	0.2	0.8	1.0	1.4
Germany	2.2	2.5	1.5	0.6	-4.6	2.6	1.8	-0.2	-0.2	0.3	1.1
France	1.1	2.3	1.7	1.5	-8.0	6.8	2.5	1.3	1.1	0.8	1.1
Emerging and developing economies	4.3	4.7	4.5	3.7	-2.0	3.7	3.9	4.7	4.2	4.2	4.3
Russia	-0.2	1.5	2.3	1.3	-2.7	4.7	-2.1	4.8	3.8	1.4	1.2
Developing countries in Asia	6.4	6.5	6.4	5.5	-0.9	7.2	4.1	5.9	5.2	5.1	5.1
China	6.7	6.9	6.6	6.1	2.3	8.1	3.0	5.4	4.8	4.6	4.5
India	7.1	6.7	6.8	4.2	-7.3	8.7	7.2	7.8	6.5	6.5	6.5
Latin America and the Caribbean	-0.9	1.3	1.0	0.0	-6.9	6.9	4.2	2.2	2.4	2.5	2.7
Brazil	-3.6	1.4	1.1	1.1	-3.9	3.0	3.0	2.9	3.7	2.2	2.2
Mexico	2.3	2.2	2.0	-0.3	-8.1	4.8	3.9	3.2	1.8	1.4	2.0
World trade in goods and services	2.2	5.2	3.9	0.9	-8.2	10.4	5.2	0.8	3.4	3.2	3.3

Source: The IMF official website. URL: <https://www.imf.org/en/Publications/WEO/Issues/2025/01/17/world-economic-outlook-update-January-2025>

According to IMF experts, in 2022, the value of global trade set a record of \$31.55 trillion. In 2023, international trade in goods and services in real terms grew by only 0.8%. The main reason for the low performance was a 1.2% decline in trade in goods, which was driven by geopolitical tensions, low global demand, changes in inventories and the high base effect of 2022. In Q4 2023, the volume of global trade in goods began to grow, with growth picking up in the first quarter of 2024. Compared to the previous quarter, trade in goods increased by 1.0% in Q1 2024 and by 1.4% year-on-year. Supplies to international markets were increased by companies in the chemical, pharmaceutical, textile and metallurgical industries. A drop was noted only in the supply of transportation and communication equipment. In the second and third quarters of the last year, growth averaged 0.7%, which is equivalent to 2.7% year-on-year.

World trade forecasts for 2025 and 2026 have been slightly adjusted downward. According to IMF estimates, world trade grew by 3.4% in 2024, while growth is expected to slow to 3.2% in 2025. This is because it is still difficult to predict how the trade policy will evolve. In the baseline scenario, the impact of uncertainty is assumed to be temporary. In addition, due to the expectation of tighter trade restrictions in the near future, some trade flows may increase, which will help to compensate for losses.

The World Trade Organization (WTO) statistics also show a gradual recovery in merchandise trade, despite intensifying regional conflicts and rising political uncertainty. At the regional level, trade was weaker than expected in Europe and higher than expected exports in Asia. According to the October WTO forecast,¹ world merchandise trade will increase by 2.7% in 2024, slightly above the previous estimate of 2.6%. However, the forecast for 2025 was revised downward from 3.3% to 3%. Trade growth is likely to be accompanied by real world GDP growth of 2.7%.

According to the latest 2024 WTO Goods Trade Barometer,² world trade in goods has been recovering over the year after a downturn in 2023 driven by high inflation and rising interest rates. The Goods Trade Barometer is a comprehensive leading indicator of world trade, which provides an early assessment of the dynamics of trade in goods, ahead of official statistics on the volume of trade. The value of the indicator was 102.7, which exceeds the base value of the index equal to 100. This indicates that trade continued to expand at a moderate pace during the fourth quarter. All components of the Barometer were in line with or above trend, except for the electronic components trade index (95.4), which stabilized below trend. The Export Orders and Commodities indices were in trend (100.5), while the Air Transportation (102.9), Motor Vehicle Sales and Production (104.0), and Containerized Transportation (105.8) indices were well above trend. The container transportation index showed the most significant growth in the last three months of 2024, while the air transportation index

1. The WTO official website. Global trade outlook and statistics — update: October 2024 // URL: https://www.wto.org/english/res_e/booksp_e/stat_10oct24_e.pdf

2. The WTO official website. URL: https://www.wto.org/english/news_e/news24_e/wtoi_09dec24_e.pdf

lost momentum. The export orders index, which is usually the most accurate measure of economic growth, remains close to the baseline value of 100, indicating sustained trade growth in the near term. However, the outlook is clouded by growing economic uncertainty, including possible changes in trade policy.

3.6.2. Terms of Russian foreign trade: price trend for the main goods of Russian exports and imports

In 2024, commodity prices are shaped by a wide range of events, including changing supply management expectations, increased risks associated with military conflict, trade restrictions, and weather-related supply shocks.

In 2024, the World Bank (WB)¹ commodity price index was 105.1%, 2.7% lower than in 2023 (Fig. 21). Decreases were observed in the energy components of the index: the energy commodity price index decreased by 5.1%. According to the WB forecast, a further decline of 6% is expected in 2025, while in 2026 the price decline is expected to slow to 2%. The forecast assumes that there will be no further escalation of armed conflicts, global economic growth will remain stable, and oil supplies from non-OPEC+ producers will increase. In addition, OPEC+ countries are expected to maintain increased reserve capacity and postpone the reversal of the voluntary supply cut of 2.2 million bpd. The price index for non-energy commodities rose by 1.9%.

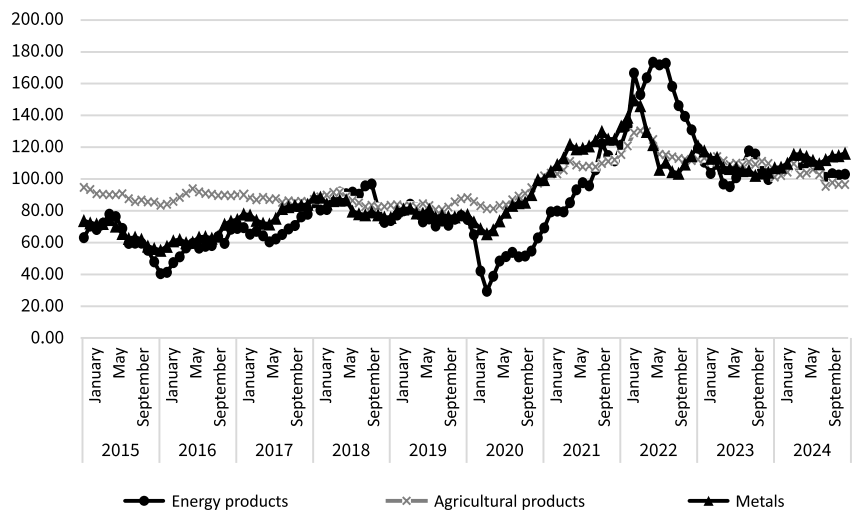


Fig. 21. The World Bank commodities price index (2010=100%)

Source: World Bank official website URL: <http://www.worldbank.org/en/research/commodity-markets#1>

1. The WB official website. URL: <https://www.worldbank.org/en/research/commodity-markets>

In energy markets, geopolitical tensions remain a key factor impacting short-term price fluctuations. In October 2023 and April 2024, oil prices rose sharply above \$90/bbl in response to the escalating situation in the Middle East, including the shelling of commercial ships passing through the Red Sea. In early September 2024, Brent crude oil prices fell below \$70/bbl: on September 10, Brent crude oil cost \$69.19/bbl. This drop in prices was due to slowing economic growth in China and increased oil production in non-OPEC countries.

Oil price volatility hit a maximum in October 2024 on the back of increased market concerns about the Middle East conflict, in particular, due to expectations of Israel's response to Iran's missile attack on October 1. Thus, on October 1, Brent crude oil cost \$73.56/bbl, on October 7 it rose to \$80.93/bbl, on October 29 the price fell to \$71.12/bbl.

The price decline reflects the impact of long-term factors. Firstly, the global consumption of oil is slowing down, which leads to a decrease in its share in global GDP. Thus, in its December oil market report, OPEC revised downward its forecasts of global oil demand growth — the estimate of demand growth in 2025 was reduced by 90,000 barrels per day (b/d) to 1.45 mn b/d. Second, oil supply diversification is taking place, with non-OPEC+ producers gradually increasing their market share. Third, after several rounds of production cuts, OPEC+ has spare capacity that amounts to just over 7% of current global production. This is almost twice as much as the average spare capacity in 2017–2019, when the average Brent oil price was \$63/bbl.

In 2024, the price of Brent crude oil averaged \$80.7/bbl, 2.3% lower than in 2023. In 2025, the price is expected to fall to \$73/bbl, and in 2026 to \$72/bbl. Thus, from the maximum in 2022 (\$99.8/bbl), average annual oil prices will decline for four consecutive years.

The Russian Urals crude oil in 2024 averaged \$67.74/bbl.¹ The Bank of Russia, in its medium-term forecast updated in February 2025,² expects the cost of Russian oil in 2025 at USD 65/bbl, in 2026 and 2027 at USD 60/bbl. — 60 USD/bbl.

Unlike oil prices, the cost of natural gas in Europe increased almost monthly through 2024 due to concerns about the availability of gas imports from Russia and increased competition for liquefied natural gas supplies on the global market. Average natural gas prices in Europe in 2024 settled at \$10.96 per million British thermal units (MMBtu), 16.4% lower than in 2023, as gas markets continue to adjust to the changing supply mix following the events surrounding the start of Russia's SMO in Ukraine. After several years of sharp fluctuations in gas prices, prices are expected to increase moderately by 7% year-on-year in 2025 and then decline in 2026 as supply goes up.

In the U.S., 2024 saw significant fluctuations in natural gas prices throughout the year, including record low prices in March when gas fell to \$1.5/MMBtu,

1. Calculated on data released by the Ministry of Economic Development.

2. Bank of Russia official website. URL: https://cbr.ru/Content/Document/File/172536/forecast_250214.pdf

Table 17

Average annual world prices

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Crude oil (Brent), USD/bbl.	98.94	52.37	44.05	54.39	71.07	64.03	42.3	70.44	99.82	82.62	80.7
Natural gas (USA), USD/MMBTU	4.37	2.61	2.49	2.96	3.16	2.57	2.01	3.85	6.37	2.54	2.19
Natural gas, European market USD/MMBTU	10.05	6.82	4.56	5.72	7.68	4.80	3.24	16.12	40.34	13.11	10.96
Natural gas (Japan), USD/MMBTU	16.04	10.93	7.37	8.61	10.67	10.56	8.31	10.76	18.43	14.39	12.85
Coal (Australia), USA/t	70.13	58.94	66.12	88.52	107.02	77.86	60.79	138.05	344.9	172.78	136.15
Copper, USD/t	6863.4	5510.5	4867.9	6169.9	6529.8	6010.2	6173.8	9317.1	8822.4	8490.3	9142.1
Aluminum, USD/t	1867.4	1664.7	1604.2	1967.7	2108.5	1794.5	1704	2472.8	2705	2255.7	2419.0
Nickel, USD/t	16893	11863	9595.2	10409	13114	13914	13787	18465	25833	21521	16814
Iron ore, USD/t	96.95	55.85	58.42	71.76	69.75	93.85	108.9	161.71	121.3	120.6	109.4
Gold, USD/troy ounce	1265.6	1160.7	1249	1257.6	1269.2	1392.5	1770.3	1799.6	1800.6	1942.7	2387.7

Source: Calculated on the World Bank data.

forcing producers to cut back on natural gas production. But prices began to rise later in the year, driven by the startup of new liquefaction and export projects such as Plaquemines LNG, Corpus Christi LNG Stage 3 and others. The U.S. Department of Energy's Energy Information Administration (EIA) expects natural gas prices to rise in 2025 and 2026 as demand for natural gas grows faster than supply, mainly due to increased demand from U.S. liquefied natural gas export facilities.

Metals price index in 2024 rose by 2.6%, non-ferrous metals by 4.7% and precious metals by 22.3%. Prices for base metals, mainly aluminum and copper, continue to depend on changes in the forecasts of global industrial activity and in the long term are supported by steady demand associated with the transition to renewable energy sources.

H1 2024 saw a significant increase in copper prices. In May, the average price on the London Metal Exchange (LME) hit its highest since April 2022 at US\$10139.33/t.

After reaching their peak in May, copper prices began to decline due to market correction and changes in demand. In 2024, compared to 2023, copper prices rose by 7.7%.

Aluminum prices in 2024 were also characterized by significant growth in the first half of the year. In May 2024, the average monthly price reached USD 2,564.54/t, which is the highest level since June 2022. The price growth was due to sanctions against Russian aluminum imposed by the European Union in December 2023, as well as disruptions in alumina supplies from smelters in Australia. In 2024, aluminum prices rose by 7.2% compared to 2023.

Geopolitical uncertainty combined with increased purchases of gold by central banks and investment funds supported gold prices, which grew throughout the year, repeatedly updating the historical maximum. At the end of trading on October 29, the cost of gold reached a new all-time high of \$2,797.3 per troy ounce. In 2024 compared to 2023, gold prices rose by 22.9%, silver—by 20.8% (*Table 17*).

The price index for food products and agricultural raw materials, calculated by the World Bank, increased by 3.5% in 2024. Beverages rose in price by 63.7%, agricultural raw materials—by 5%, which was partially offset by a decrease in food prices by 7.6%. In 2025, the price index for agricultural products is projected to decline by 4% due to favorable growth conditions in key exporters. In 2026, prices are expected to stabilize when supply and demand come to a more balanced state.

The FAO Food Price Index (FPI) in 2024 is 122.0 points, 2.1% below the 2023 average. Significant declines in cereals and sugar prices are offset by slight increases in vegetable oils, dairy products and meat. The decline in grain prices was due to a good harvest in key producing countries. Sugar became cheaper due to record exports from Brazil and favorable harvest views in India and Thailand. Vegetable oil prices rose due to reduced global supply. Higher meat prices are due to strong demand and production problems. The increase in prices for dairy products is due to higher demand and lower export supplies.

3.6.3. Main indicators of the Russian foreign trade

In 2024, Russia's foreign economic activities faced challenges due to global economic and geopolitical changes. The situation on international markets, sanctions and changes in trade flows had a significant impact on the country's export and import positions.

According to the data of the Bank of Russia, the foreign trade turnover of the Russian Federation in 2024 amounted to \$711.7 bn, which is 2.2% lower than in 2023. The foreign trade balance was positive in the amount of \$122.6 bn, which is 1.4% more than in 2023. This is due to the outstripping rate of decline in imports of goods (*Fig. 22*).

Exports of goods from Russia in 2024 amounted to \$417.2 bn, down 1.7% year-on-year. Exports are still constrained by foreign trade restrictions of unfriendly

Russian economy in 2024

Trends and outlooks

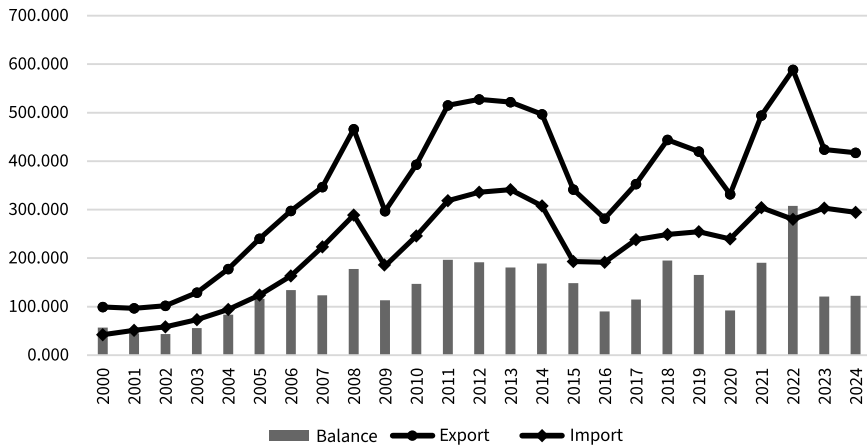


Fig. 22. Main indicators of Russian foreign commodities trade (USD bn)

Source: Bank of Russia official website.

jurisdictions and reduction of oil production due to OPEC+ deal. At the same time, exports were supported by the redirection of Russian export supplies. According to the Federal Customs Service of Russia, the share of Europe in Russian exports decreased to 15.8% in 2024 from 20.2% in 2023, while the share of Asia increased to 75.9% from 71.9% and Africa to 5.6% from 5.0%, respectively.

Mineral products still accounted for the largest share in the structure of Russia's exports in 2024 — 60.9% (61.2% in 2023). The second largest item was metals and metal products, accounting for 14.7% (14.1%). The third place was occupied by food products and agricultural raw materials with a share of 9.8% (10.1%) (Fig. 23).

Imports of goods to Russia in 2024 amounted to \$294.5 bn, which is 2.7% less than in 2023. The largest item of Russia's imports is machinery, equipment and vehicles, their share in 2024 accounted for 52% (51.1% in 2023). Next come products of the chemical industry — 18.9% (19.5%) and food products and agricultural raw materials — 13.3% (12.3%) (Fig. 24).

According to the Bank of Russia's estimates,¹ in 2024 the physical volume of exports decreased by 2.0% on the back of sanction restrictions. It is expected that in 2025–2027 exports will gradually recover as Russian companies adapt to external trade and financial restrictions through the expansion of logistics chains and re-orientation to new markets.

In 2024, the physical volume of imports will decrease by 1.0–3.0%. This is due to pressure on sanctions and problems with payments and supplies. It is expected

1. Bank of Russia official website. URL: https://cbr.ru/Content/Document/File/166586/forecast_241025.pdf

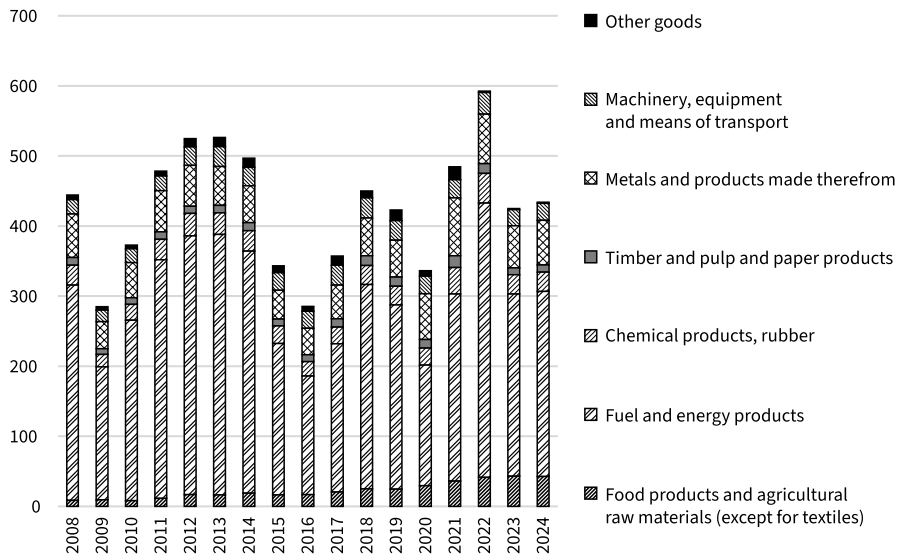


Fig. 23. Goods-wise dynamic of Russian exports (USD bn)

Source: Federal Customs Service.

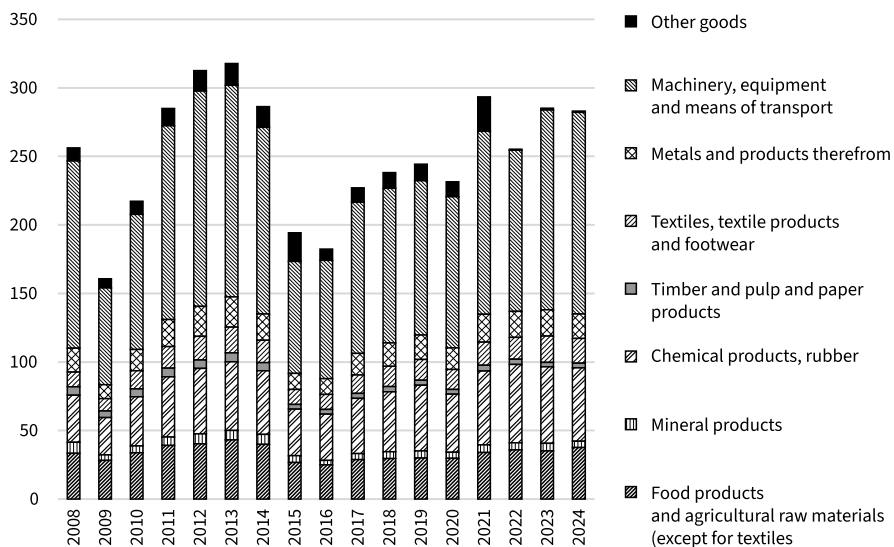


Fig. 24. Goods-wise dynamic of Russian imports (USD bn)

Source: Federal Customs Service.

that in 2025–2026 the physical volume of imports will gradually recover, but at a lower rate than previously expected. At the same time, the growth rate of imports will lag the dynamics of domestic demand, which also reflects import substitution processes. In 2027, import growth rates will stabilize at a long-term sustainable level, corresponding to the new structure of the economy.

According to the forecast of the Ministry of Economic Development,¹ the growth of physical volumes of Russian exports of goods will continue in the medium term (by 3.3% per year in real terms over the entire forecast horizon). Growth will be driven by non-oil and gas exports, which will grow faster (by an estimated 4.5% per year in real terms over the entire forecast horizon). The growth of physical imports will resume from 2025 — 9.2% in 2025 with growth slowing down to 4.3% by 2027. As a result, the trade surplus and current account balance in 2027 will amount to 4.9% of GDP and 1.0% of GDP, respectively.

3.6.4. Regional pattern of Russian foreign trade

Since the start of the special military operation in Ukraine, trade relations between the European Union and Russia have undergone significant changes. The EU has imposed import and export restrictions on certain goods. As a result, imports of goods to the Russian Federation from the EU in 2024 fell by 42.5% compared to 2022, while imports of goods from the Russian Federation dropped by 82.2%. As a result, the EU trade deficit with Russia amounted to €4.4 bn, which is significantly lower than the peak deficit of 147.1 bn € recorded in 2022.

In Q4 2024, compared to the previous quarter, exports of goods from Russia increased by 2.6%, while exports of goods to Russia decreased by 8.3%. Russia's share in exports of goods outside the EU decreased from 3.2% in Q1 2022 to 1.1% in Q4 2024. Over the same period, the share of Russian goods imported into the EU decreased from 9.3% to 1.5%.

Analysis of the quarterly data showed that the total trade volume between the EU and Russia is closely linked to energy trade. High energy prices in 2021 and 2022 led to a significant trade deficit, which reached a maximum of €46 bn in Q2 2022. However, the introduction of import restrictions and lower energy prices significantly reduced the trade deficit. In Q4 2024, it amounted to only €2.1 bn.

It should be noted that the EU cannot completely refuse from some Russian goods. Eurostat notes 5 groups of products that accounted for more than 60% of all EU imports from Russia. These are natural gas, oil products, mineral fertilizers, nickel, iron and steel.

1. Ministry of Economic Development official website. URL: https://www.economy.gov.ru/material/file/b028b88a60e6ddf67e9fec07c4951f0/proгноз_socialno_ekonomicheskogo_razvitiya_rf_2025-2027.pdf

The EU has imposed import restrictions on natural gas, coal and petroleum products, albeit with some exceptions. Restrictions were also imposed on iron, steel and fertilizers, but not on all goods in these categories. The restrictions led to a sharp reduction in imports of these commodities from Russia into the EU. As for imports of nickel, there were no restrictions on its supplies, but even here the value volume of imports decreased significantly, mainly due to the decrease in prices.

In Q4 2024, the physical volume of nickel supplies from Russia to the European Union amounted to 76%, while the value volume — 46% of the level of Q1 2021. Russia's share in the EU nickel imports in the period from Q4 2022 to Q4 2024 decreased by 22 p.p. At the same time, the share of the USA (+10 p.p.), Norway (+5 p.p.) and the UK (+4 p.p.) increased.

In Q4 2024, the physical volume of petroleum product imports from the Russian Federation amounted to only 10% of the volume recorded in Q1 2021, while the value volume amounted to 13%. In the period from Q1 2021 to Q1 2022, imports of petroleum products from Russia to the European Union almost doubled in value terms due to price growth. In 2021, Russia was the main supplier of petroleum products to the EU. However, after the start of the conflict in Ukraine, there was a serious diversification in the trade in petroleum products. The share of petroleum product imports from Russia decreased from 18% in Q4 2022 to 2% in Q4 2024. During this period, the shares of other supplying countries increased: the USA (+7 p.p.), Kazakhstan (+4 p.p.), Saudi Arabia (+2 p.p.) and Norway (+1 p.p.).

The physical volume of fertilizer imports from Russia to the EU in Q4 2024 compared to Q1 2021 decreased by 26 pp. However, due to rising prices, the value of imports more than doubled. Russia's share in the total volume of fertilizer imports to the EU increased from 20% in Q4 2022 to 25% in Q4 2024.

The volume and value of iron and steel imports from Russia to the European Union in Q4 2024 amounted to about one third of the figures of Q1 2021. In the period from Q1 2021 to Q2 2022, the value of iron and steel imports from Russia to the EU increased by 63 p.p., mainly due to price increases. Subsequently, there was a decrease in both physical and value volumes due to the imposition of sanctions on some goods in this category. Russia's share in iron and steel supplies to the EU in Q4 2024 compared to Q4 2022 decreased by 1 p.p. The main suppliers were China (10.1%) and South Korea (9.8%).

In Q4 2024 compared to Q1 2021, the physical volume of liquefied natural gas imports from Russia to the European Union increased by 18%. Due to price growth, the value of imports increased by 274% over the period. Russia's share in LNG imports to the EU decreased from 12% in Q3 2022 to 10% in the third quarter of 2023 but increased to 22% in the fourth quarter of 2024. The US accounts for the largest share of liquefied natural gas shipments to the EU at 36%.

In Q4 2024, the physical volume of natural gas imports from Russia to the EU was 61% lower than in Q1 2021. However, despite this, due to rising prices, its value decreased by only 9%.

In the period from Q1 to Q3 2022, the volume of natural gas imports from Russia to the EU increased significantly driven by a sharp increase in prices. In the following quarters, both the physical volume and value of imports declined significantly. In Q4, imports from Russia dropped, but the value went up. Russia's share of total EU natural gas imports diminished slightly, from 24% in Q4 2022 to 22% in Q4 2024. Algeria's share increased most notably over this period, to 32%.

The European Union continues to supply Russia with a variety of goods. From 2021 to 2024, exports of 4 out of 5 main categories of goods — machinery, vehicles, electrical engineering and plastics — have significantly decreased. The only exception was pharmaceuticals (*Table 18*).

Table 18

Exports of major European commodity groups to Russia (Euro mn)

	2021	2022	2023	2024
Machinery and equipment	19469.9	9837.7	5048.4	2875.9
Means of transport	8938.2	2195.0	731.2	250.7
Pharmaceuticals	7991.0	9863.9	8530.1	8562.5
Electrical equipment	7578.9	2850.9	1018.0	581.1
Plastics	4371.1	2648.2	1442.3	952.7

Source: Eurostat (online data code: ds-045409).

In 2021, Russia was one of the 40 largest foreign trade partners of the United States with an annual mutual trade turnover of around \$20 bn. The trade turnover between the countries reached its maximum level in 2021 — \$37.1 bn. U. S. exports to Russia declined to \$101.1 mn in March 2022 from \$497.5 mn in February 2022, reflecting the initial impact of U. S.-imposed sanctions and export controls on bilateral trade relations. Overall for 2022, U. S.-Russian foreign trade turnover is down 54.7% from 2023, with a further 67.2% decline in 2023. In 2024, the reduction in trade turnover continued: it lost another 30.9%, reaching its lowest level for the entire observation period — \$3.8 bn.¹

The import of American goods into Russia in 2022 decreased by 73.1% compared to the previous year, in 2023 — by 65.2%, in 2024 — by 11.9% to \$526 mn. The United States supplies the Russian Federation with sugar syrups with flavoring or coloring additives; vaccines, toxins, microorganism cultures; bovine semen; instruments and devices used in medicine, surgery, dentistry or veterinary medicine, as well as an insignificant amount of other goods.

The supply of Russian goods to the US in 2022 decreased by 50.9% year-on-year, by 67.5% in 2023, and by 33.3% to USD 3.27 bn in 2024. The main item of Russian

1. Bureau of Economic Analysis. URL: <https://www.bea.gov/news/2025/us-international-trade-goods-and-services-december-and-annual-2024>

imports to the US is fertilizers. In addition, the U.S. buys palladium; uranium and its compounds; glued plywood, veneered panels and similar laminated wood; soybean meal, titanium and titanium products, including waste and scrap.

China remains the main trade partner of the Russian Federation. In 2022, trade turnover between the countries amounted to \$190 bn; in 2023, it hit a record high of \$240.11 bn. According to the General Administration of Customs of the People's Republic of China,¹ the trade turnover between China and Russia in 2024 hit \$244.8 bn, increasing by 1.9% compared to the previous year. Of this, Russian exports amounted to \$129.3 bn (+0.14%) and counter supplies from China amounted to \$115.5 bn (+4.08%). For Russia, the trade balance was positive in the amount of \$13.8 bn (+4.08%).

There is a significant slowdown in the growth of Russian-Chinese trade turnover. If in Q1 2023 compared to the same quarter of the previous year the growth was 38.9%, in Q2 — 42.5%, in Q3 — 13%, in Q4 — 17.8%, in Q1 2024 — only 5.9%, in Q2 there was a decrease of 1.5%, in Q3 the growth amounted to 1.9%, in Q4 — 1.4%.

There were no significant qualitative changes in the commodity structure of mutual trade. Russia's exports to the PRC in 2024 were centered on energy carriers, metals and agricultural products. Despite the fact that there is an increase in non-resource exports, including agricultural products (fish, oils, grain), metals (copper, aluminum) and chemical products (fertilizers and chemical reagents used in agriculture and industry), energy resources (oil, gas and coal) remain dominant, as a result of which the value dynamics of Russian exports strongly depends on the price situation on the world market. Deterioration of the world market price environment in 2024, primarily for energy commodities, led to a slowdown in the growth of Russian exports.

The largest volume of Chinese goods supplies to Russia is accounted for by machinery and consumer products. Thus, the dynamics of Chinese supplies is determined by the size of solvent production and consumer demand in Russia. Chinese brands replaced European, American and Japanese brands that left the Russian market. However, since H2 2023, as the vacated niches in the Russian market are filled, the monthly growth rates of Chinese goods supplies began to decline.

China did not join the anti-Russian sanctions, but the vast majority of Chinese banks and companies did not violate the sanction restrictions. As a result, the problem of cross-border settlements remains a significant constraint to the further development of trade turnover. In March 2024, 80% of settlements between Russia and China were suspended due to Western sanctions, which seriously affected trade relations: Chinese exports to Russia in March decreased by almost 16% year-on-year.

Thus, the dynamics of trade turnover between Russia and China is decreasing due to the exhaustion of previous development factors and the growing sanctions pressure on the Russian Federation. There is a need for new large-scale investment

1. Official website of The General Administration of Customs of the People's Republic of China (GACC). URL: <http://english.customs.gov.cn/statics/report/preliminary.html>

projects, mass arrival of Chinese investors in Russia and localization of production of engineering products.

Trade turnover between Russia and India has increased 6-fold in the last three years, making India Russia's second largest foreign economic partner. The Russian Federation has become the largest supplier of oil to India, but Indian exports to the Russian Federation have faced difficulties, leading to an Indian trade deficit in bilateral trade. In the first 10 months of 2024, it amounted to \$50.7 bn.

According to the Ministry of Commerce of India,¹ in the first 11 months of 2024, trade turnover between India and Russia reached \$64.5 bn, exceeding the same indicator of the previous year by 8.6%. Russian goods imports to India amounted to \$59.98 bn, up 7.7% from 11 months of 2023. Indian goods imports to Russia in 2024 increased by 23.35% to \$4.5 bn. The main export items of goods from India include pharmaceutical products, organic chemicals, electrical equipment, mechanical appliances, as well as iron and steel. The structure of Russian goods supplied to India is dominated by oil and petroleum products, fertilizers, mineral resources, precious stones and metals, and vegetable oils.

The countries are working to strengthen the ruble-rupee settlement mechanism in national currencies by opening Vostro accounts to facilitate transactions in local currencies. A Free Trade Agreement (FTA) between the Eurasian Economic Union (EAEU) and India, as well as a bilateral agreement on services and investment, are still being developed.

The possibilities of expanding exports from India are being actively discussed and new models of cooperation are being developed. Within the framework of bilateral interaction, various connectivity initiatives are gaining importance. The North-South International Transport Corridor and the Chennai-Vladivostok Eastern Sea Corridor stand out in particular. In addition, the two countries continue to actively pursue cooperation in the development of Russia's Far Eastern region and joint work in research, logistics and training in the Arctic region. There is a strong correlation between Russia's pivot to the East, its resources and technology, and India's own key initiatives such as Atmanirbhar Bharat (Self-Sufficient India) and Make in India.

Western sanctions imposed against Russia have redirected global trade flows, as a result of which Turkey has become one of Russia's key trading partners. In 2022, the foreign trade turnover between the countries almost doubled: to \$68.2 bn from \$34.7 bn in 2021. However, in 2023, the trade turnover decreased by 17.1% due to a 22.5% drop in Russian exports, while imports of Turkish goods into Russia increased by 16.7%. In 2024, the trade turnover between the two countries decreased by 6.9% compared to 2023, amounting to \$52.6 bn.²

1. Official website of the Ministry of Trade of India. URL: <https://tradestat.commerce.gov.in/meidb/cnt-com.asp?ie=e>

2. Official website of Republic of Türkiye Ministry of Trade. URL: <https://www.trade.gov.tr/statistics/foreign-trade-statistics/monthly-foreign-trade-statistics-tables-november2024>

Although Turkey remains a major importer of Russian energy, supplies from Russia have declined slightly. U.S. sanctions on Gazprombank, a key bank for energy operations, have made it more difficult for Turkey to settle gas payments with Russia. Turkey has also suspended wheat imports from Russia from June through October 2024 to support local producers. Imports of Russian goods into Turkey decreased by 3.5% to \$44 bn. At the same time, the Russian Federation remained Turkey's main importer. Imports of Turkish goods into the territory of the Russian Federation declined by 21.5% to \$8.6bn. The reduction in the import of Turkish goods to the Russian Federation was mainly due to the impact of Western sanctions imposed on Russia. The re-export of European goods to Russia via Turkey dropped. Turkey has tightened control over re-exports of dual-use goods, due to which exports of such goods, including electronics, chips, semiconductors and other equipment, have significantly decreased. Since the beginning of 2024, Turkish exporting companies have faced an almost complete cessation of remittances from Russian customers. Fear of secondary U.S. sanctions on Turkish financial institutions has prompted stricter compliance measures for Russian customers. Payments to Turkey are now only possible for a limited set of goods and services, including pharmaceuticals, food, consumer goods and travel services.

Thus, the decline in trade between Turkey and Russia in 2024 was primarily a consequence of the threat of US sanctions, which led to stringent compliance measures by Turkish banks, restrictions on transaction types, and significant disruptions in trade, particularly affecting the non-oil sector and energy payments.

In November 2024, Kuala Lumpur, Malaysia, hosted an international business forum entitled “World of Opportunity: Russia — ASEAN”. Russia is a strategic partner of ASEAN.

Among ASEAN countries, only Singapore supports sanctions against Russia. Other ASEAN countries have not joined the anti-Russian sanctions despite pressure from the US and other Western countries. This is due to their economic interests and their efforts to maintain neutrality in international politics.

According to the ASEAN Statistics Division,¹ the trade turnover between Russia and ASEAN in 2023 went up by 3.5% compared to the previous year and reached \$15.9 bn. In 2024, the positive dynamics continued: for 9 months, trade turnover amounted to \$13.53 bn, which exceeded the same indicator of 2023 by 22.2%.

A strategic program of trade and economic cooperation between Russia and ASEAN for the next 10 years is currently being prepared. The program will include specific goals to increase trade turnover, as well as benchmarks for a wide range of areas of cooperation — from traditional areas of the economy, namely trade and investment, to digital transformation, science and technology, logistics, climate, tourism and creative economy.

1. ASEANStatsDataPortal. URL: <https://data.aseanstats.org/trade-quarterly>

Addressing the task of diversifying trade turnover, Russia supplies ASEAN countries not only with traditional energy resources, but also with medicines, chemical products, agricultural products, fertilizers and IT. The Russian Federation is actively developing settlement mechanisms in rubles and local currencies of ASEAN countries, which helps reduce dependence on the US dollar and facilitate trade transactions.

Currently, Russia's largest trade partner in Southeast Asia is the Socialist Republic of Vietnam. In 2015, Vietnam became the first country to establish a free trade zone (FTA) with the Eurasian Economic Union. It should be noted that the goal of Vietnam's trade policy is to strengthen international integration and maintain balanced economic relations with foreign partners. Vietnam is a party to or negotiating 17 bilateral and regional free trade agreements, including the Comprehensive and Progressive Trans-Pacific Partnership Agreement (CPTPP), the EU-Vietnam Free Trade Agreement (EVFTA) and the Regional Comprehensive Economic Partnership (RCEP). Vietnam has other free trade agreements, both as a member state of ASEAN and as a separate state, with China, Korea, India, Australia, New Zealand, Japan, Chile, and the UK.

Since the Vietnam-EAEU Free Trade Agreement came into force, the volume of mutual trade between Vietnam and Russia has grown significantly. While in 2015 the trade turnover amounted to \$2.19 bn, in 2016. — 2.75 bn, in 2017. — USD 3.56 bn. At the end of 2021, mutual trade turnover reached a record level of \$5.5 bn, 12.1% higher than in 2020. In 2022, due to changes in the geopolitical situation and the complication of logistics, there was a decline of 35.6% to \$3.55 bn. However, already in 2023, trade turnover between Russia and Vietnam increased by 2.3% compared to 2022, exceeding the level of \$3.6 bn.

According to the General Department of Customs of Vietnam,¹ in 2024, bilateral trade turnover between Vietnam and the Russian Federation reached \$4.59 bn, up 26.4% compared to 2023. Imports of Vietnamese goods reached \$2.34 bn, up 34.5%; exports of Russian goods reached \$2.25 bn, up 19%. These figures show the recovery of trade turnover between the two countries despite numerous difficulties in transportation and payment.

The development of economic relations between Russia and Vietnam will be hampered by the imposed sanctions, but the existing political ties between the two countries, as well as the operation of joint ventures on Vietnamese territory will contribute to maintaining trade between the countries. Businesses in the two countries are looking for ways to maintain economic ties by utilizing free trade zone mechanisms and adapting their activities to the new environment created by the Western countries' sanctions against Russia.

The Russian Federation significantly increased its trade with neighboring countries in 2024.

1. General Department of Vietnam Customs. URL: <https://www.customs.gov.vn/index.jsp?pageld=4964>

According to the Ministry of Foreign Affairs of the Republic of Belarus,¹ the volume of trade turnover between the countries in 2024 amounted to more than \$55 bn. Belarusian exports to Russia increased by 6.3%, imports by 8.0%. Russia continues to be Belarus's main trade partner: in 2024, Russia accounted for more than 60% of the value of foreign trade in goods, almost 55% of exports, and more than 65% of imports.

Belarus supplies Russia with food products—dairy products and finished meat products, as well as vehicles, electrical machinery and equipment, and textile products. Russia, in turn, supplies Belarus with electrical machinery, equipment and vehicles, plastics and plastic products. A significant share in the structure of Russian exports is taken by food products—flour products and meat. In addition, Russia exports mineral fuel, ferrous metals and paper products to Belarus.

Kazakhstan remains Russia's main trade partner among the neighboring countries in Asia. According to the Bureau of National Statistics of Kazakhstan,² Russia's trade turnover with Kazakhstan increased by 2.8% to \$27.8 bn in 2024. Kazakhstan purchased \$18.252 bn worth of goods in Russia, which is 8.3% more than in 2023. Deliveries of Kazakh goods to Russia decreased by 6.5% in 2024 compared to 2023—to \$9.546 bn. Russian supplies of machinery, equipment and vehicles to Kazakhstan increased, while supplies of food and agricultural raw materials from Kazakhstan increased. The supplies of goods with high added value increased in both directions.

Armenia became Russia's second most important trade partner in the region, replacing Uzbekistan from this position. In 2024, the volume of trade between Russia and Armenia increased 1.7-fold to \$12.6 bn. Trade with Uzbekistan grew more moderately—by 17.2% to \$11.6 bn.

Azerbaijan was the fourth largest trading partner in the region in 2024, with trade with Russia increasing by almost 10% to \$4.8 bn.

Kyrgyzstan continues to occupy the fifth place. Over the year, trade between the two countries totaled \$3.2 bn, up 10.3% from the previous year.

Trade with Georgia increased by 4% to \$2.5 bn, overcoming the decline seen a year earlier. Trade turnover with Tajikistan grew by 15.5% and reached \$2 bn.

3.6.5. Regulation of Russian foreign trade³

In order to prevent shortages of certain goods on the domestic market and to curb price increases, the Russian Government has taken an extensive set of measures in the area of customs and tariff regulation over the past 3 years.

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1. Official website of the Foreign Ministry of Belorussia. URL: <https://mfa.gov.by/bilateral/russia/regions/economy>
 2. Official website of the Bureau of National Statistics of Kazakhstan. URL: <https://stat.gov.kz/ru/industries/economy/foreign-market/>
 3. This section was drafted using materials from the legal information portal GARANT.RU

Tariff regulation***Export customs duties***

Within the framework of the Decree of the Government of the Russian Federation of 29.08.2024 No. 1173 “On Amendments to Certain Acts of the Government of the Russian Federation” the term of validity of export duties on sunflower seeds (in the amount of 50%, but not less than 32 thousand rubles/t) and soybeans (in the amount of 20%, but not less than \$100/t), as well as the term of validity of floating rates of export customs duties on sunflower oil and sunflower meal is extended until August 31, 2026. In addition, from September 1, 2024 to August 31, 2026, export duties on rape seeds are established to replace the current temporary export ban. The rate will be 30%, but not less than €165/t.

Decree of the Government of the Russian Federation No. 1482 of 02.11.2024 amends the rates of export duties in respect of fish products and seafood. Sardine and pollock fillets, as well as cooked or preserved crustaceans, mollusks and invertebrates, are excluded from the list of goods for which export duty rates are set.

Resolution of the Government of the Russian Federation No. 1745 dated 11.12.2024 establishes that the export duty on exports of nitrogen, phosphate, potash and compound fertilizers will be no more than 7% depending on the ruble exchange rate

Import customs duties

Decree of the Government of the Russian Federation No. 1757 of 11.12.2024 amends Decree of the Government of the Russian Federation No. 2240 of 07.12.2022. Temporary rates of import customs duties are extended until December 31, 2025 in respect of certain types of goods, such as alcoholic beverages, sweets, household chemicals, perfumes, cosmetics, clothing, batteries, weapons, etc., whose country of origin is unfriendly countries.

Tariff quotas

Decree of the Government of the Russian Federation No. 1400 of 19.10.2024 “On the introduction of temporary quantitative restrictions on the export of certain types of fertilizers” establishes quotas for the export of certain types of mineral fertilizers in the amount of 19.2 mn t. from 1 December 2024 to 31 May 2025 inclusive. Non-tariff quotas also apply to fertilizers exported from the territory of the EAEU from December 1, 2024, declared and released in accordance with customs procedures. The cases to which the imposed restrictions do not apply are defined.

Decree of the Government of the Russian Federation of 30.11.2024 No. 1688 established a tariff quota for export from the Russian Federation of certain types of rape seeds produced in the territory of the Trans-Baikal Territory for the period until August 31, 2025 (inclusive),

Decree of the Government of the Russian Federation of 18.12.2024 No. 1815 from the date of entry into force of this Decree and up to and including August 31, 2025 establishes a tariff quota for export from the Russian Federation outside the EAEU of certain types of sunflower seeds (code 1206 00 990 0 TN VED EAEU) produced in the territory of the Zabaikalsky Krai in the amount of 9,300 tons.

Decree of the Government of the Russian Federation of 18.12.2024 No. 1818 amended the Rules of distribution among participants of the Foreign Economic Activity of the volume of tariff quotas in respect of wheat and meslin, barley, rye and corn exported outside the territory of the Russian Federation to states that are not members of the EAEU, approved by Decree of the Government of the Russian Federation of 31.12.2021 No. 2595. According to the Decree, the quota volume for wheat and meslin exports will be 10.6 million tons, barley, rye and corn — 0 tons. The tariff quota will be valid from February 15 to June 30, 2025.

Decree of the Government of the Russian Federation No. 1633 of 27.11.2024 raised the volume of the tariff quota for export of ferrous metal scrap and waste outside the Eurasian Economic Union. According to the Decree, the quota will increase by 100,000 tons—from 550,000 to 650,000 tons. The Ministry of Industry and Trade will distribute the additional quota among participants of foreign trade activities. The decision was valid until December 31, 2024. As before, when exporting ferrous scrap and waste within the quota, the duty is 5%, but not less than €15/t, in excess—5%, but not less than €290/t.

Import bans and restrictions

Russian Government Decree No. 1400 of 19.10.2024 sets a total export quota of about 19.2 mn t of mineral fertilizers to be exported from Russia from December 1, 2024 to May 31, 2025 inclusive. For nitrogen fertilizers, the exported volume will be about 11.2 mn t, for complex fertilizers—almost 8 mn t.

Decree of the Government of the Russian Federation No. 1544 of 14.11.2024 supplements the list of certain types of goods in respect of which export ban was introduced. This refers to the export of enriched uranium to the US or under foreign trade agreements concluded with persons registered in US jurisdiction. The exception is deliveries under one-time licenses issued by the Federal Service for Technical and Export Control.

Decree of the Government of the Russian Federation of 28.11.2024 No. 1653 extends until December 31, 2026 the food embargo on imports of products from unfriendly jurisdictions, as well as the Rules for the destruction of sanctioned food products.

Decree of the Government of the Russian Federation No. 1661 of 28.11.2024 amends Decree of the Government of the Russian Federation No. 1074 of 13.08.2024 “On the Introduction of a Temporary Ban on the Export of Marketable Gasoline from the Russian Federation”. According to the amendments, the term of validity

of the temporary restriction on export of commercial gasoline from the Russian Federation is extended until January 31, 2025.

Executive Order of the RF President No. 1069 of December 13, 2024 “On Amendments to Executive Order the President of the Russian Federation No. 961 of December 27, 2022 ‘On Application of Special Economic Measures in the Fuel and Energy Sphere in Connection with the Establishment by Certain Foreign States of a Price Ceiling for Russian Oil and Petroleum Products’ extends the ban on the supply of Russian oil and petroleum products to foreign buyers applying the ‘price cap’ introduced by unfriendly jurisdictions until June 30, 2025 inclusive. Previously, such a ban was to be in effect until December 31, 2024.

By Decree of the Government of the Russian Federation No. 1603 of 22.11.2024, for the period from December 1, 2024 to May 31, 2025 inclusive, a temporary ban on export from Russia of waste and scrap of precious metals or metals clad with precious metals, other waste and scrap containing precious metal or precious metal compounds used primarily for the extraction of precious metals, as well as waste and scrap of electrical and electronic products used primarily for the extraction of precious metals.

Section 4

Social sphere

4.1. Labor market: employment, unemployment and shortage of personnel¹

The labor market in Russia in recent years evidences specific features of the demographic wave, changes in migration flows and growing demand for labor while business activity in the economy is recovering.

The structure of labor supply and demand in the previous five years was significantly influenced, firstly, by the active development of providing goods and services in online formats, remote and platform employment, and secondly, by sanctions shocks resulting in the expansion and creation of new niches and jobs in industry, in transport and logistics and foreign trade facilities, and in the sphere of information and financial services.

In 2023, the number of people employed in the economy due to involvement of potential labor force and changes in retirement age increased by 2.3% at one time, however, there was a slowdown to 0.8% in 2024 while exhausting the stock of resources due to these factors. The labor market in 2023–2024, amid record high employment and low unemployment, was shaped by subdued changes in labor productivity, intensifying supply-demand imbalances and contributing to structural deficits (*Table 1*).

As economic activity increased, the unemployment rate in the number of the employed in the economy was steadily falling from 3.9% in 2022 to 3.2% in 2023 and 2.5% in 2024, while the rate of the officially registered unemployed in employment agencies was reducing to historically low values (*Table 2*).

In recent years, the structure of demand in the labor market has been transforming quite dynamically with the development of new types and formats of economic activities and technologies, however, labor supply was restricted in terms of training of qualified personnel and workers of mass professions. In this environment, rising labor costs as a factor of retaining and attracting qualified personnel encouraged companies to invest in labor productivity depending on the situation and competition in the market. Differentiation in wages increased competition

1. Author: *Izryadnova O. I.*, Senior Researcher, Center for Real Sector, Gaidar Institute.

Table 1

**Labor productivity index by main types of economic activities in 2021–2023,
% vs. previous year**

	2020	2021	2022	2023*
Economy as a whole	99.6	103.9	97.2	101.9
Agriculture, forestry, hunting, fisheries and aquaculture	99.9	101.9	108.3	102.6
Mining	95.2	100.4	97.4	95.6
Processing industries	104.2	102.5	97.6	103.4
Electricity, gas and steam supply	99.2	105.6	101.5	100.9
Water supply; wastewater disposal, waste utilization	103.4	106.3	95.3	98.3
Construction	100.3	100.0	103.8	103.6
Wholesale and retail trade	104.0	103.4	87.0	105.8
Transportation and storage	89.8	103.1	97.9	101.0
Hotel and catering operations	78.7	119.8	102.5	102.9
Information and cooperation	101.8	107.8	97.3	101.4
Real estate operations	95.7	102.8	102.7	99.9
Professional, research and technical activities	104.7	107.2	98.9	102.3
Administrative activity	94.3	103.8	96.8	100.3

* Labor productivity data for 2024 were not available at the time of the review.

Source: Rosstat.

Table 2

Labor market in 2020–2024: employment and unemployment rate

	2020	2021	2022	2023	2024	Q1	Q2	Q3	Q4
Mn people									
Workforce	74.9	75.3	74.9	76.0	76.1	75.6	76.1	76.3	76.4
Employed in economy	70.6	71.7	72.0	73.6	74.2	73.4	74.2	74.5	74.6
Unemployed (according to ILO methodology)	4.3	3.6	3.0	2.4	1.9	2.1	1.9	1.8	1.8
In % vs previous year									
Workforce	99.4	100.6	99.4	101.5	100.1	100.0	100.4	99.9	100.1
Employed in economy	98.1	101.6	100.4	102.3	100.8	100.7	101.0	100.5	100.7
In % vs. population size									
Labor force participation rate	61.9	62.3	62.2	62.8	62.9*	62.6	63.1	61.3	
Employment rate in the economy	58.3	59.3	59.7	60.8	61.2*	60.9	61.6	61.6	
In % vs. number of employed									
Total unemployment rate	5.8	4.8	3.9	3.2	2.5	2.8	2.6	2.4	2.3
Registered unemployment rate	3.7	1.0	0.8	0.6	0.5	0.5	0.5	0.4	0.4

* Preliminary data.

Source: Rosstat.

for jobs, influenced sectoral and institutional mobility of the labor force and dynamics of staff turnover in the economy at a high level of employment.

Structural deficit of personnel in 2023–2024 was generated by the impact of the forced shift associated with growth of output in manufacturing industries; active investment and construction activities; changes in interregional interactions in the new geo-economic realities. Rapidly changing skill and knowledge requirements for filling vacant positions exacerbated the imbalance of supply and demand by skill level. Structure of demand shifted from traditionally high demand for specialists in information/communication and financial and insurance technologies to the segments of the labor market of engineering and technical personnel, skilled workers and traditional mass professions. Shortage of personnel amid the expansion of production and increase in government orders has become especially acute for machine-building, chemical, metallurgical and investment and construction industries. Reorientation of trade and economic chains and cargo flows has increased the need for personnel in transportation and logistics sector, especially in the Far East and southern regions.

In Q4 2024, the economy as a whole hired 8.0% of employees on the payroll (in 2023: –7.7%) and 7.6% (7.5% in 2023) of employees on the payroll left for various reasons. The share of hiring for additional jobs in the total number of hired workers totaled 6.5% in the entire economy (6.4% in 2023). In the production of computers, electronic and optical products, 12.9% of the total number of hired workers were hired for additional jobs, in production of electrical equipment 10.1%, in production of fabricated metal products 8.7%, in production of chemicals 8.1% and in production of medicines and pharmaceutical materials 10.1%.

With the limited human resources potential and growing government orders, some industries switched to a multi-shift mode of operation. At the end of the year, the average duration of a working day reached the maximum for the last twenty years and amounted to 7.19 hours.

Conditions of competition for human resources in the labor market were changing with the growing demand of organizations for employees to fill vacant jobs. This problem was aggravated by lack of skills and competencies to fill vacant positions. While the number of officially registered unemployed fell by 28.5% compared to 2022, the load per 100 vacancies declared to employment agencies dropped from 25.9 people in 2023 to only 19.7 in 2024.

Deficit in the labor market, despite severe demographic constraints, was still structural. The potential of underutilized labor resources was determined by the size of underemployment: in 2024, 13.3% of the total number of payroll employees across economy were underemployed. The unemployment rate taking into account potential labor force and share of underemployed personnel is estimated at 4.7%. In addition, it is worth considering that market situation was significantly affected by the continued high level of employment in the informal sector, which accounted for 20.5% (in the first three quarters of 2024) of the total number of employed in the economy. It should be noted that structure of employment in the informal

sector showed a high level of personnel trained under programs of skilled workers and clerks (23.6%), compared to 18.7% across the whole economy.

The key unrealized reserves for reducing shortage of personnel include challenges of increasing labor productivity by forming effective models of business management aimed at improving staff qualification and labor intensity and automation of workplaces.

4.2. Consumption and households' incomes¹

Starting conditions of final consumption in 2024 were defined by favorable situation in the social sector due to the trend of the previous year, i. e. growth of real disposable households' incomes by 6.1%, real wages by 8.2%, real size of awarded pensions by 3.3% and household expenditures by 7.5%. Higher government spending on final consumption played a key role in mitigating shocks of the inflationary wave, reducing tensions in the labor market and retaining social resilience of households. In 2024, growth in real disposable cash incomes accelerated to 7.3%, wages to 9.1% and had an incentive effect on increasing consumer and investment activity of the households. Household final consumption expenditures increased by 5.5% in 2024. Undoubtedly, the acceleration of dynamics of public consumption expenditures up to 104.5% vs. previous year had a positive impact on the social sector (*Table 3*).

Table 3

Growth rate and share of final consumption expenditures in gross domestic product

	% to the total, in current prices					% to the previous year, in comparable prices				
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
GDP	100	100	100	100	100	97.3	105.9	98.6	104.1	104.1
Including:										
Expenditures for final consumption	71.5	67.7	64.4	68.4	68.8	96.1	107.8	100.1	106.4	105.2
— households	50.8	49.8	47.1	49.6	49.7	94.1	109.8	99.4	107.5	105.5
— public administration	20.1	17.3	16.9	18.3	18.6	101.9	102.9	102.0	103.8	104.5
— non-commercial organizations, providing services to households	0.6	0.6	0.4	0.5	0.5	96.5	106.8	100.7	100.1	104.0

Source: Rosstat.

Changes in competitive environment in the domestic market, emergence of new niches for economic activity of domestic business of various institutional structures

1. Author: *Izryadnova O. I.*, Senior Researcher, Center for Real Sector, Gaidar Institute.

defined the increase in the contribution of household incomes from entrepreneurial activity to growth of monetary household incomes in 2024 up to 6.7% and from property up to 8.7%, while the increase in economic activity and employment, wages of hired workers up to 60.7%. With the outstripping growth of household labor incomes in 2023–2024, there was a relative decline in the contribution of social payments, in particular, real size of awarded pensions in 2024 amounted to 99.2% vs. previous year's level (*Table 4*).

Table 4

Structure of households' cash income in 2019–2024, % of the total

	Cash incomes, total	Including				
		Business revenues	Remuneration of employees	Social payments	Property income	Other cash receipts
2019	100	5.9	57.3	18.8	5.1	12.9
2020	100	5.2	57.2	21.4	5.8	10.4
2021	100	5.7	57.2	20.6	5.7	10.8
2022	100	5.7	57.5	20.0	7.8	9.0
2023	100	6.9	60.7	17.9	7.1	7.4
2024	100	6.7	60.7	16.8	8.7	7.2
Q1	100	5.9	63.9	16.8	8.7	4.7
Q2	100	7.5	61.2	17.0	7.8	6.5
Q3	100	7.2	59.4	16.9	10.0	6.5
Q4	100	6.2	59.0	16.6	8.3	9.9

Source: Rosstat.

Households' financial activity improved along with acceleration of cash income and savings dynamics. Households reacted to changes in the income rate and conditions of monetary regulation from Q2 2023 by restoring the savings model. In 2024, households' savings increased by 21.5%, while the volume of households' cash incomes grew by 17.6% compared to 2023. In the structure of households' expenditures, the share of funds for purchasing goods fell to 76.0% of total income. Households' investment potential has been forming while maintaining the trend towards higher share of deposits in households' incomes. According to results of 2024, the share in deposits of individuals increased to 52.9% of households' cash income and 28.8% of GDP and was driven by attractive interest rates of the banking system against high inflation.

Government measures for mortgage lending programs, including preferential mortgages for housing construction, supported households' investment activity in the credit market. In 2023, mortgage loans were at their peak, reaching 2.5% of GDP and 8.8% of household cash income. Growth of credit burden became a mat-

ter of the regulators' special attention. Targeted privileged programs, after the completion of mass subsidized mortgages in H2 2024, supported the demand for mortgage loans and mitigated the impact of a sharp decline in the provision of market mortgages as a result of growth of interest rates to prohibitive levels due to raising a key rate of the Bank of Russia, but could not compensate for cooling of households' investment behavior in the real estate market. In 2024, amid modifications to incentive programs, rising interest rates and tighter regulation, the number of mortgage loans declined by 36% and loan volume was 62.8% of the previous year's level (*Table 5*).

Table 5

Households' investment potential and investment activity in 2020–2024

	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024
	% GDP					Trillion rubles				
Deposits of individuals	30.5	25.6	23.6	27.2	28.8	32.8	34.7	36.6	44.9	57.5
Credits issued to individuals	18.6	18.5	17.7	19.6	18.5	20.0	25.1	27.4	33.7	37.0
including mortgage housing credits	4.2	4.2	3.1	4.5	2.4	4.4	5.7	4.8	7.8	4.9
In % to households' cash incomes										
Deposits of individuals	52.3	49.2	43.9	48.2	52.09					
Credits issued to individuals	31.9	35.5	32.9	36.2	33.4					
including mortgage housing credits	6.9	8.0	6.0	8.8	4.4					

Source: CBR, Rosstat.

Enhanced incentives for saving caused changes in the structure and dynamics of households' current consumption expenditures. Quarterly indicators of the structure of household expenditures showed a steady decline in the share of expenditures on current consumption, which amounted to 76.0% at the end of the year (*Table 6*).

Changes in the structure of consumer demand were recorded along with increasing household incomes. Growth in retail trade turnover by 7.2% in 2024 evidenced 8.3% for non-food products and 6.0% for foods. The consumer services sector demonstrated stable positive dynamics with the volume increase in 2024 by 3.3% vs. the previous year. Higher purchasing power of the average per capita cash household incomes had a significant pressure on the level and dynamics of prices. Front-loaded price growth in the consumer market resulted in a 9.5% rise in inflation in 2024, from 7.4% a year earlier, including food inflation of 11.1% vs. 8.2%, non-food inflation by 6.1% vs. 6.0% and services inflation by 11.3% vs. 8.5%.

Household differentiation by incomes has increased. Given the differences in the rate of change in household incomes by social groups and status, the coefficient

Table 6

**Structure of household income used for current expenditures and savings,
2019–2024, % to the total**

	2019	2020	2021	2022	2023	2024	Q1	Q2	Q3	Q4
Incomes, total	100	100	100	100	100	100	100	100	100	100
Consumer spending, including:	80.9	75.7	80.2	75.4	77.0	76.0	82.9	77.8	78.7	67.7
compulsory payments and contributions	15.2	15.2	15.5	15.1	14.8	15.4	12.7	14.0	16.4	17.7
growth / decline of household savings in deposits, securities, purchasing real estate, change in debt on loans and on accounts of individual entrepreneurs, cash in hands	3.9	9.1	4.3	8.6	8.2	8.6	4.4	8.2	4.9	14.6

Source: Rosstat.

of income concentration increased from 0.405 in 2023 to 0.408 in 2024 and the coefficient of funds, respectively, from 14.8 to 15.1 times.

The average size of awarded pensions was 23.8% of the average accrued wages of employees of organizations in 2024 vs. 26.0% in 2023.

Concurrent growth of labor remuneration and expansion of providing social guarantees and targeted support to low-income households defined conditions for reducing the number of people with cash incomes below the poverty line/living wage from 12.2 mln people in 2023 to 10.5 mln people in 2024 and reducing the share of households having cash incomes below poverty line in the total share of households from 8.3% to 7.2%, respectively. Poverty reduction is associated both with active social support and factors that stimulate economic growth and entrepreneurial activity, high employment of residents and a steady decline in the overall unemployment rate and a wider range of employment opportunities.

4.3. Vocational education¹

The growing personnel shortages in the Russian economy, although not directly brought about by the activities of the vocational education system, are increasingly associated in the public opinion and some studies with the inefficient structure of training highly skilled workers and specialists at secondary vocational and higher education establishments.

1. Author: *Klyachko T. L.*, Doctor of Economic Sciences, Director of the Center for Economics of Continuous Education, IAES RANEPa.

For example, in their work “Staffing the Economy: on the Most Substantial Structural Imbalances”¹ researchers at the Center for Macroeconomic Analysis and Short-Term Forecasting (CMASTF) have identified the groups of training lines/specialties² with a maximum shortage of higher education graduates (*Fig. 1*).

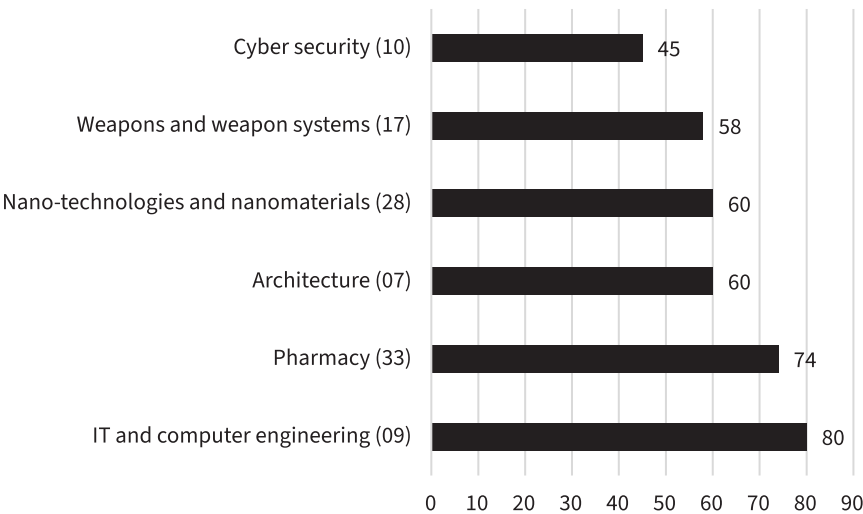


Fig. 1. The groups of training lines/specialties with a maximum shortage of higher education graduates (percentage of projected demand satisfaction, %, with ARCPE code³ specified in brackets)

Source: Notebook No. 12. Special Topic. Staffing the Economy: On the Most Substantial Structural Imbalances. CMASTE, URL: TT12_2024s.pdf.

At the same time, they allude to the overproduction of higher education graduates in the following training lines/specialties⁴ (*Fig. 2*).

In 2024, amid growing personnel shortages in the Russian economy CMASTF researchers were the first to relate them to the structure of training and, consequently, release of specialists from higher education establishments (HEE). At the same time, CMASTF, on one side, compares the “underproduction” of personnel with

1. Notebook No. 12. Special Topic. Staffing the Economy: On the Most Substantial Structural Imbalances. CMASTF, URL: TT12_2024s.pdf

2. CMASTF researchers write about “the groups of specialties” because they do not make a difference between bachelor’s and master’s degree programs (bachelor degree and master degree courses) and specialist training programs (specialist’s degree courses). Actually, it is about the groups of training lines and specialties.

3. ARCPE is the All-Russian Classifier of Professions by Education.

4. CMASTF researchers call them the groups of professions and specialties.

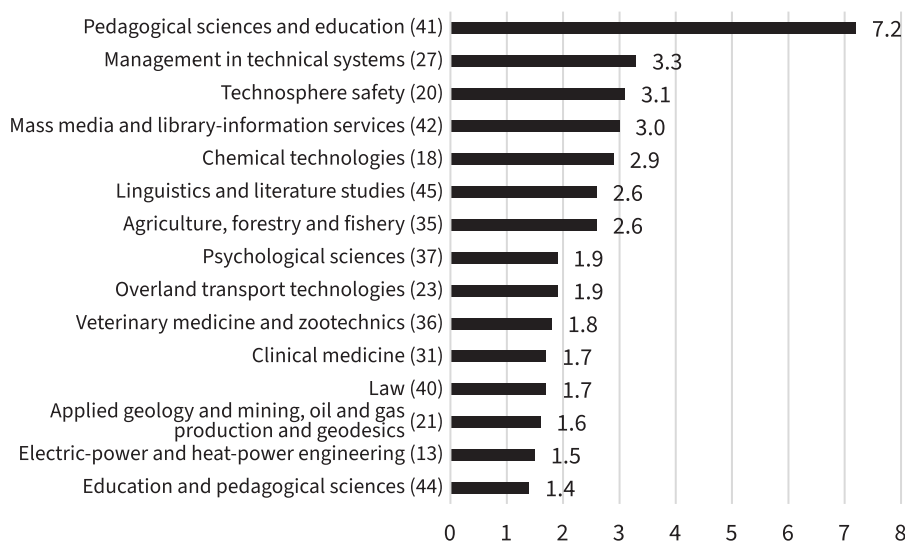


Fig. 2. The groups of training lines/specialties with maximum surplus of higher education graduates (number of graduates per job with ARCPE code specified in brackets)

Source: Notebook No. 12. Special Topic. Staffing the Economy: On the Most Substantial Structural Imbalances. CMASTE, URL: TT12_2024s.pdf.

the *projected need* (the adequacy of the forecast is not discussed) (Fig. 1), while, on the other side, they correlate the “overproduction” with the current need expressed as the number of graduates applying for one job/vacancy (Fig. 2). However, Rosstat data on the employment of the 2020–2022 higher education graduates¹ (actually, the percentage (share) of working higher education graduates of 2020–2022 in 2023–2024) give a slightly different picture, with Rosstat counting in employment related and unrelated to the specialty received at a higher education establishment (Fig. 3).

According to the data in Fig. 3, as regards the “Cyber Security” training line/specialty, in which CMASTF registers the highest projected need for specialists, 86% of the 2020–2022 higher education graduates are currently employed in their specialty, while 14% of graduates do not work in their specialty (nor that related to their education). CMASTF does not analyze what has caused this shortage of specialists in a situation where a considerable portion of specialists do not seek employment in their specialty. At the same time, this can be explained both by lack of decent working conditions for young people, including wages, and a poor level of training at higher education establishments, resulting in rejection by employers of a porti-

1. Rosstat provides information with a lag, taking into account graduates’ different rates of employment.

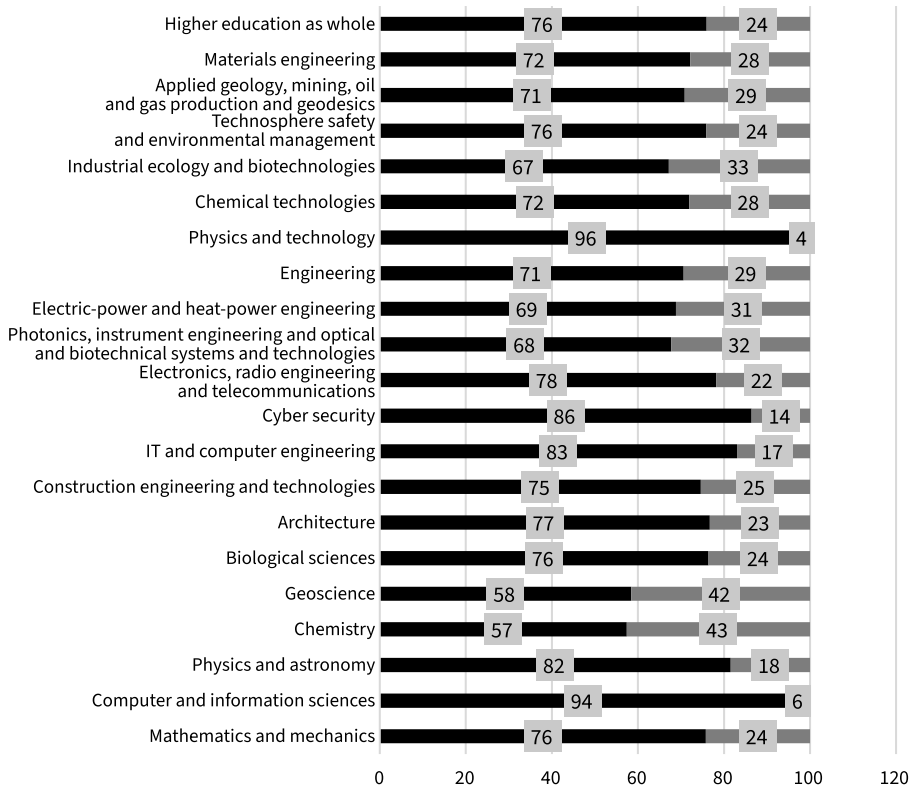


Fig. 3. Employment (work) in 2023–2024 related to specialty of the 2020–2022 higher education graduates, %

Source: Rosstat. Employment of graduates of SVE and higher education establishments. URL: https://rosstat.gov.ru/labour_force

on of job applicants. In addition, such a situation can be substantiated by the fact that there are currently few relevant jobs available in a particular region of Russia, while young people's labor mobility is limited for various reasons (family circumstances, illness, lack of funds for moving to another place, etc.). At the same time, it should be borne in mind that young people working in other fields of activity can apply their cyber security skills there and, thus, reduce the need for such personnel, including the projected need.

A similar situation can be found in the "IT and Computer Engineering" group, where 83% of graduates have a job related to their specialty vs. 17% of graduates who do not, or "Architecture" (77% and 23%, respectively). At the same time, it is noteworthy that in the "Computer and Information Sciences" group 94% of graduates

work in their specialty vs. only 6% of graduates who do not. It is likely that the need for specialists in cyber security, IT and computer engineering is partially met by specialists in computer and information sciences, as well as mathematics and mechanics who do not formally work in their specialty.

In 2023–2024, a very low level of employment among the 2020–2022 higher education graduates of (Fig. 3) is observed in “Earth Sciences” and “Chemistry” — only 58% and 57%, respectively, but CMASTF does not attribute these specialties to those with marked surplus of specialists.

According to CMASTF data, there is surplus of specialists both in clinical medicine in Russia (Fig. 2), i.e. doctors, and in “Education and Pedagogical Sciences”, i.e. teachers. However, according to Rosstat data, the employment of graduates of medical higher education establishments is considerably above the national average level: the demand for doctors in Russia is far from being met (Fig. 4).

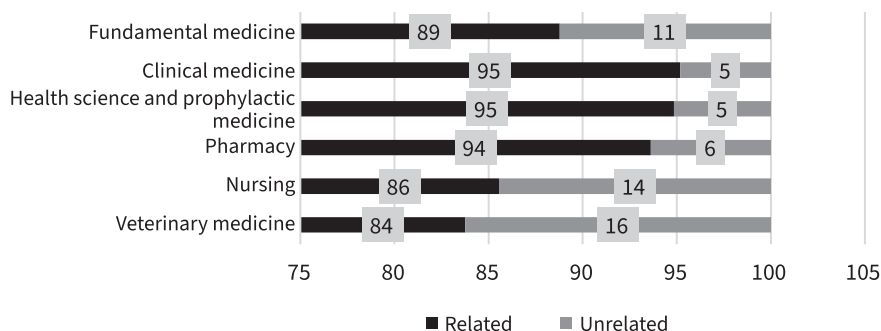


Fig. 4. Employment (work) in 2024 related to specialty of the 2020–2024 graduates of medical higher education establishments, %

Source: Rosstat. Employment of SVE and higher education graduates. URL: https://rosstat.gov.ru/labour_force

Employment of medical graduates from medical departments of higher education establishments in the “clinical medicine” specialty amounts to 95% vs. the mere 5% of such graduates not working in this specialty (Fig. 4). At the same time, these 5% of clinical physicians may, for example, work in companies manufacturing or selling medical equipment, care centers for seriously ill patients and other. It is noteworthy that even in pharmacy, in which CMASTF registers considerable projected personnel shortages, more graduates do not work in their specialty as compared to clinical medicine.

In the field of “Education and Pedagogical Sciences”, the employment of graduates of pedagogical higher education establishments and pedagogical departments of traditional universities in their specialty is somewhat lower than in the medical field (health care), but still quite high, too (Fig. 5).

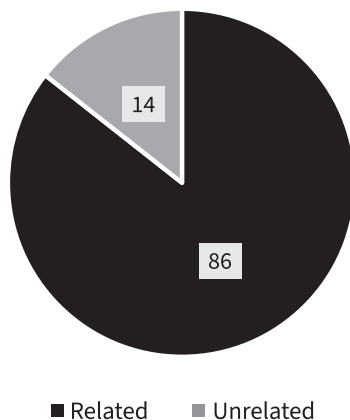


Fig. 5. Employment (work) in 2024 related to specialty of the 2020–2022 graduates of pedagogical higher education establishments, %

Source: Rosstat. Employment of vocational training and higher education graduates. URL: https://rosstat.gov.ru/labour_force

At present, 86% of the 2020–2022 graduates work either in a pedagogical specialty or that close to it, while 14% of graduates have jobs not related to pedagogical activities. For example, a computer science teacher can deal with information security or become a system administrator. At the same time, schools have been experiencing a considerable shortage of teaching staff in recent years, and the workload of most teachers is constantly growing, which cannot, but affect the quality of general education.¹

According to the *Rostrud's Work in Russia* platform, formal employment of higher education graduates has decreased considerably in the past few years (Fig. 6).

Higher education graduates' lower employment rate in 2023² compared to previous years can be substantiated by the fact that not all young professionals entered the labor market (after graduation, approximately 12%-16% of graduates do not enter the labor market in the year of graduation due to illness, further education, family circumstances and other). At the same time, a new phenomenon in the employment of young professionals is evident: strong growth in self-employment and sole proprietorship (Fig. 7). In addition, the registered dramatic decrease in the employment of medical graduates since 2022 may be a result of their engagement in the special military operation.

1. According to calculations by the Center for Economics of Continuous Education (CECE), IAES RANEPA, approximately 250,000 teachers will be needed in case they work 1.0 full-time employment (fte). Teachers work currently on average 1.4 fte.

2. The data on the employment of higher education graduates in 2024 is currently unavailable.

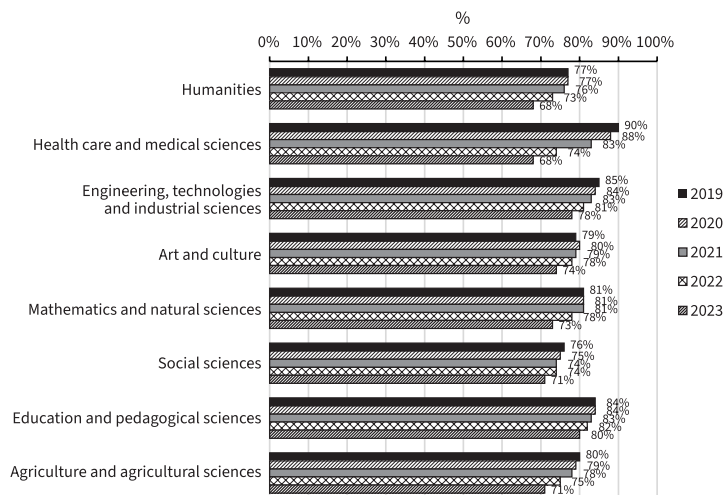


Fig. 6. Employment of higher education graduates in various fields of education¹ in 2019–2023, %

Source: Rostrud. The *Work in Russia* platform. URL: <https://trudvsem.ru/>

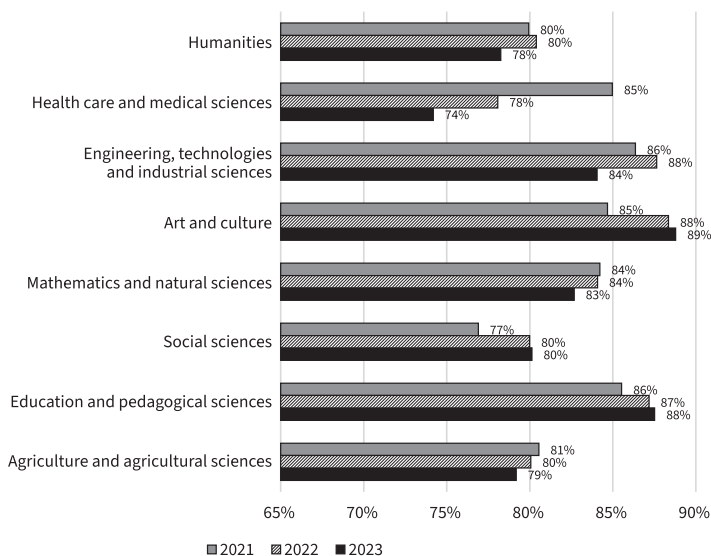


Fig. 7. Employment of higher education graduates in various fields of education with self-employment and sole proprietorship taken into account in 2021–2023, %

Source: Rostrud. The *Work in Russia* platform. URL: <https://trudvsem.ru/>

1. A “field of education” is a term used by the *Work in Russia* platform.

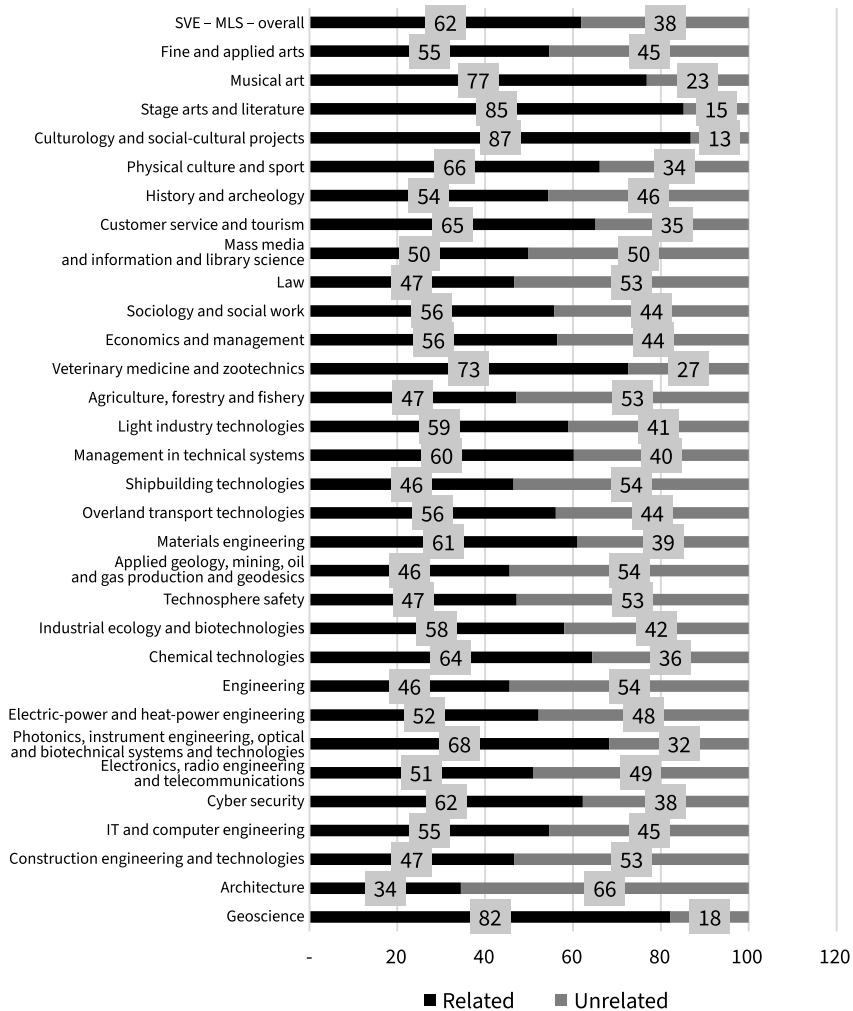


Fig. 8. Employment (work) in 2023–2024 related to specialty of the 2020–2022 SVE graduates in mid-level specialist (MLS) training programs, %

Source: Rosstat. Employment of SVE and higher education graduates. URL: https://rosstat.gov.ru/labour_force

With self-employment (freelancing) and sole proprietorship taken into account, employment of higher education graduates in the “Education and Pedagogical Sciences” field of education in 2023 was even higher than in 2021–2022 (Fig. 7). In the “Social Sciences” field of education, there was no decrease in employment as compared to 2022. A slight decline in the employment of higher education gra-

duates with their self-employment and sole proprietorship taken into account is observed only in the “Health Care and Medical Sciences” field of education, owing probably, as noted above, to their engagement in the special military operation.

Employment of higher education graduates in all fields of education as self-employed and sole proprietors has increased on average 2–3 times over since 2022. This change in youth employment appears to be related to a great extent to employers’ desire to reduce labor costs amid discernable rapid wage growth in a number of sectors of the Russian economy.

The CMASTF study notes that “in recent years the existing imbalance of the “upper level” (in terms of education levels) has begun to level out in the education system: over five years, the number of graduates of secondary vocational education (SVE) has increased by 17%, while that of graduates of higher vocational education (HVE) has decreased by 11% (it is noteworthy that the “exchange” process has become somewhat more active in the past three years).”¹ In other words, the increase in graduation from SVE institutions is regarded both as a positive phenomenon and higher efficiency of the vocational education system as a whole. However, according to Rosstat’s data, the imbalances in the employment of SVE graduates are considerably higher than those of higher education graduates (*Fig. 8*).

According to CMASTF, as regards such most sought-after specialties as “Cyber Security”, “IT and Computer Engineering” and “Architecture”, the employment of SVE graduates in their specialties is only 62%, 55% and 34%, respectively (*Fig. 8*). Overall, the employment in specialties received by SVE graduates in MLS training programs is 62% vs. 76% in case of higher education graduates. Even in education and health care, the share of SVE graduates — mid-level specialists working in their specialty — is lower than that of higher education graduates (*Fig. 9*).

In clinical medicine, 88% of SVE graduates of the relevant program work in their specialty vs. 95% of medical higher education graduates (clinicians). Similarly, only 76% of mid-level specialists trained in “Education and Pedagogical Sciences” have a job related to their education vs. 86% in case of higher education graduates.

SVE graduates who have completed training programs for skilled workers and employees face even more difficulties in finding a job (*Fig. 10*).

The employment (work) related to specialty of graduates — skilled workers and employees prepared by SVE institutions in the field of “IT and Computer Engineering” — covers only 56% (55% and 83% for mid-level specialists and higher education graduates, respectively).

Thus, the idea introduced by the mass media and governing bodies into the public consciousness and shared by CMASTF, that is, an increase in personnel training by SVE institutions normalizes imbalances in the release of specialists by the vocational education system, including higher education, does not correspond

1. Source: Notebook No. 12. Special Topic. Staffing the Economy: On the Most Substantial Structural Imbalances. CMASTE, p. 6. URL: TT12_2024s.pdf.

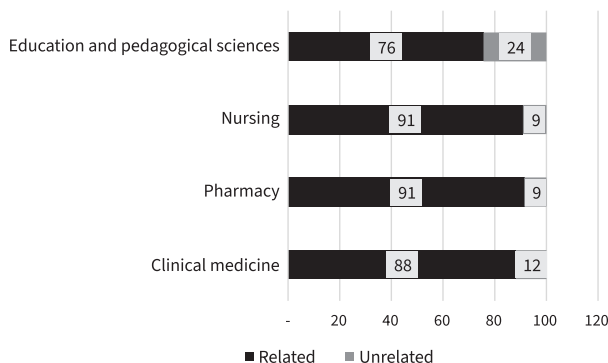


Fig. 9. Employment (work) in 2023–2024 related to specialty of the 2020–2022 SVE graduates — mid-level specialists in medical and pedagogical specialties, %

Source: Rosstat. Employment of SVE and higher education graduates. URL: https://rosstat.gov.ru/labour_force

to the real situation. This is largely due to the fact that the quality of training in the vocational education system is lower than in higher education establishments (despite all complaints about the quality of training at HEE) and, importantly, the ability of higher education graduates to respond more effectively to new challenges and tasks is in no way comparable with that of SVE graduates.

It is noteworthy that according to the latest studies high personnel shortages are observed not in the manufacturing sector, but in the services sector (although demand for blue-collar workers has been growing faster than that for white-collar workers in recent years).

For example, the HSE publication¹ notes that: “Since the early 2020s, we have ... registered an explosive, nationwide growth in pent-up demand for labor. Obviously, this could not but affect the nature of the industry variation. Firstly, there was a change of leader: with a fantastic result of 16.9%, the hotel and restaurant business came out on top apparently owing to a very high personnel turnover rate, low wages and unfavorable working conditions typical of this sector. Real estate operations (14.8%), administrative activities (14.4%) and public administration (12.1%) retained their positions in the group of leader-industries, where about one in ten jobs is currently “empty”, but several “newcomers” have been added: construction, trade, woodworking and publishing business. The group of outsider industries, where one out of every 20–40 jobs remains unfilled, includes mining (4.9%), tobacco industry (3%), coke production (3.8%), automotive industry (5.1%), as well

1. *Kapelyushnikov R. I.* Job Escalation in the Russian Labor Market (Dynamics, Structure, Triggers. Preprint WP3/2024/02/. National Research University “Higher School of Economics”. Moscow: Higher School of Economics Press, 2024. p. 28.

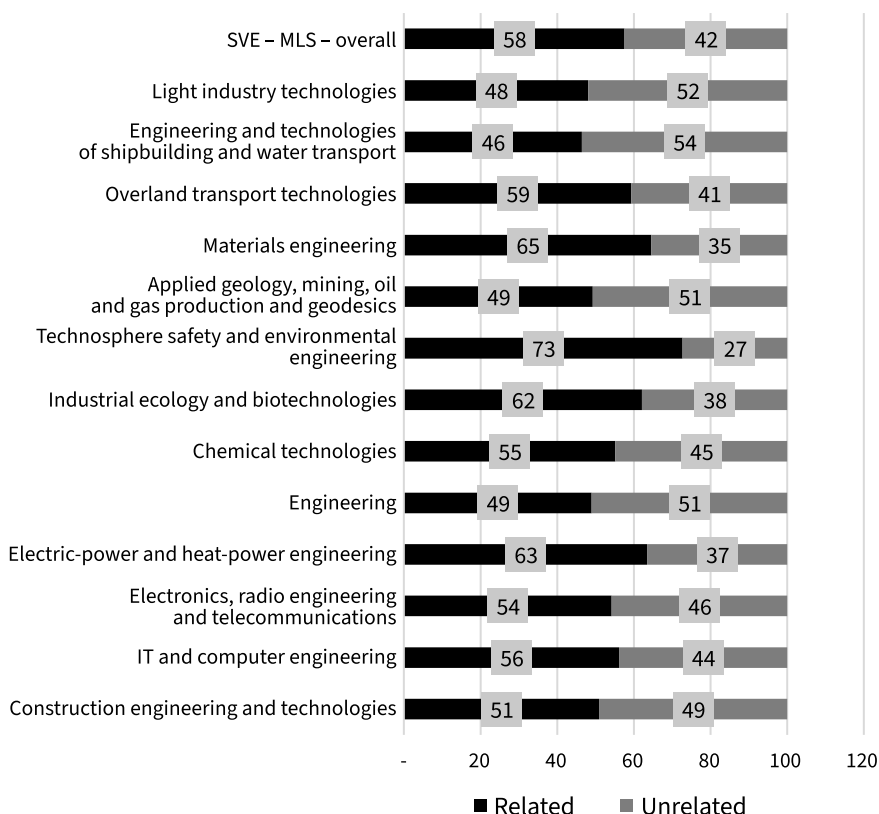


Fig. 10. Employment (work) in 2023–2024 related to specialty of the 2020–2022 SVE graduates in programs for training skilled workers and employees (SWE), %

Source: Rosstat. Employment of SVE and higher education graduates. URL: https://rosstat.gov.ru/labour_force.

as finance (4.2%) and education (2.6%). Oddly enough, this also includes computer manufacturing (5%) and science (5.1%).”

If we talk about the need for engineering personnel, “the idea that one of the main “disaster zones” in the Russian labor market is a huge shortage of engineering personnel (although it has, of course, worsened over time) *is not empirically confirmed*: as compared to other professional groups, this “shortage” does not look particularly dramatic.”¹

1. Kapelyushnikov R. I. Job Escalation in the Russian Labor Market (Dynamics, Structure, Triggers. Pre-print WP3/2024/02/. National Research University “Higher School of Economics”. Moscow: Higher School of Economics Press, 2024. p. 41.

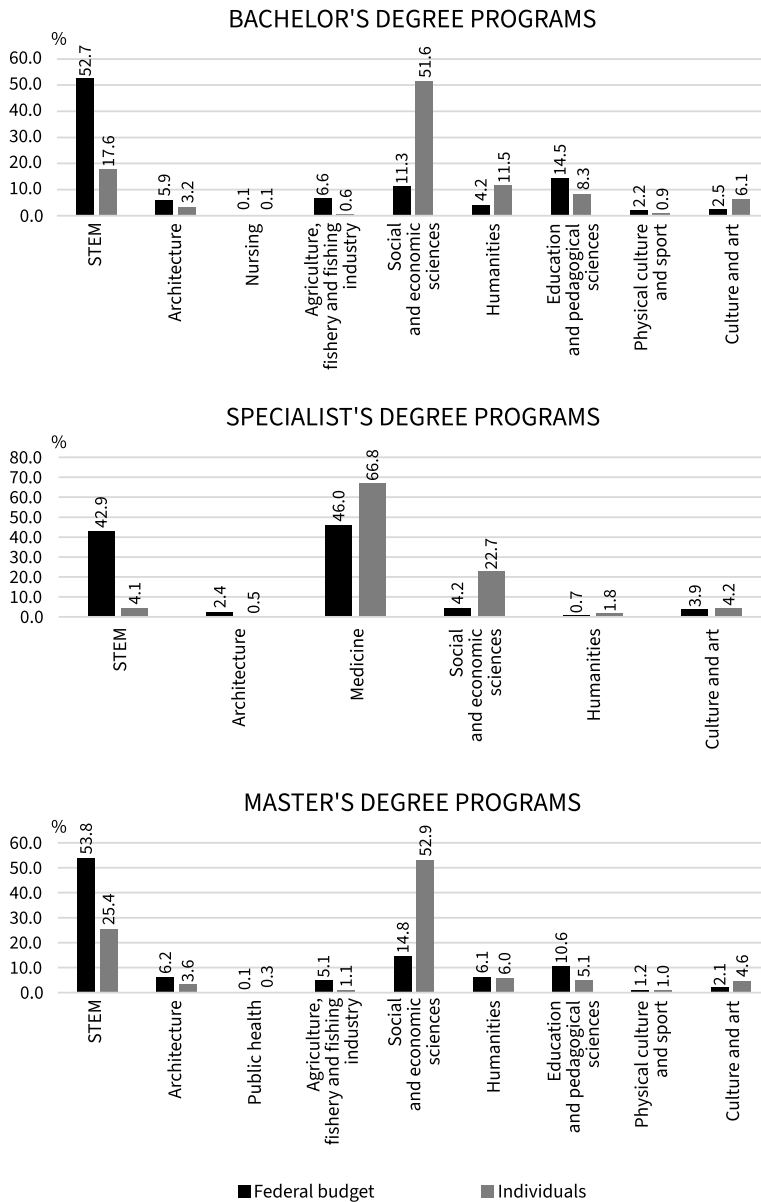


Fig. 11. Admission to full-time education in Russian higher education establishments at the expense of the federal budget funds and individuals' funds in 2024, %

Source: Form No. VPO-1 "Information on an entity engaging in educational activities in higher education programs: bachelor's degree programs, specialist's degree programs, master's degree programs." URL: Higher Education (minobrnauki.gov.ru); own calculations.

At the same time, in recent years the higher education system has seen a discernable shift towards budget-funded training in the STEM group (sciences, technology, engineering and mathematics). This is due precisely to the widespread perception that the Russian economy experiences an acute shortage of engineering personnel.

In 2024, as regards admission to full-time education at Russian higher education establishments, the priorities of the state in personnel training (admission financed from the federal budget — budget-funded places) and individuals (admission on a paid basis) are clearly traced (*Fig. 11*).

As regards admission to full-time education at the federal budget expense in bachelor's, specialist's and master's degree programs, the group of STEM training lines/specialties was explicitly in the lead, amounting to 52.7%, 42.9% and 53.8%, respectively, in 2024 (*Fig. 11*). In other words, STEM training has already surpassed half of the overall admission to full-time education in bachelor's and master's degree programs, and was equal to 40% in specialist's degree programs. As for fee-based admission to full-time education, individuals invest in STEM training much less, focusing primarily on information technology. Individuals prefer training in socio-economic sciences and medical specialties. In 2024, fee-based admission to full-time education in socio-economic sciences in the bachelor's degree programs and the master's degree programs accounted for 51.6% and 52.9%, respectively, that is, more than a half (actually, individuals “mirrored” the situation with budget-funded admission to full-time education in the STEM group), while admission paid by individuals to socio-economic sciences in specialist's degree programs was equal to 22.7%.

As regards the specialist's degree programs, individuals are more focused on training in medicine, veterinary medicine and pharmacy: in 2024 admission in these training lines exceeded 66.8% of the overall fee-based admission to full-time education in the specialist's degree programs of Russian higher education establishments.

One may believe that individuals' choice is not in harmony with the strategic choice of the state: the government considers it most important to train engineering personnel and specialists in ICT and mathematics, while individuals are more focused on socio-economic sciences, including economics, management and law. However, budget-funded places in the STEM group of training/specialties are occupied by the same population, which thereby supports the government's choice. At the same time, training in engineering areas/specialties (as well as in medicine) is the most “expensive” one, so, the government, firstly, increases it largely in regions where it is less expensive owing to lower per capita funding ratios, three-quarters of which represent the cost of salaries of academic staff (AS), with these costs calculations based on the basic standards for 3 groups of training lines /specialties and adjusted for territorial coefficients as the salary of HEE academic staff is linked to the average salary in the relevant region. Consequently, the training of an engineer, for example, at a Voronezh-based higher education establishment will cost twice less as compared to Moscow. Secondly, by increasing admission to full-time education in engineering areas, the government will save money in other areas as the fe-

deral budget for higher education purposes is limited. Naturally, it is most “convenient” to save funds on those training lines/specialties for which the population is willing to pay. And, actually, the population is prepared to pay, first of all, for training in socio-economic programs and medicine (*Fig. 11*). Thus, having divided the “spheres of responsibility”, the government and the population do not run counter to each other’s choice, but complement it. In addition, the government also allocates budgetary funds for training lines/specialties in economics, management and law, financing primarily the leading HEE in these areas/specialties. This is justified by the fact that the reindustrialization of the Russian economy (facilitation of technological sovereignty) and its turn eastward require high-quality management and economic solutions, as well as effective legal support for economic activities, particularly, amid increased sanctions pressure (due to sanctions, businesses have to build new logistics chains, apply various mechanisms of cross-border trade and payments, secure access to other markets/countries for exports of Russian products and other).

At the same time, it is noteworthy that the growing budget-funded admission to the STEM group has already led to serious negative implications. Thus, seeking to fill budget-funded places, HEE enroll more and more applicants with low average USE scores. For example, in 2024 the average minimum score, with counting in additional tests of those enrolled to budget-funded places (financed from the federal budget) in state universities’ bachelor’s degree programs, amounted to: 44.2 points in the “Radio Engineering” field of training, 49.2 points in “Applied Hydrometeorology”, 47.1 points in “Electric Power Engineering and Electrical Engineering”, 49.0 points in “Information and Communication Technologies of Special Communication Systems”, 41.5 points in “Chemical Technology of Energy-Saturated Materials and Products”, etc. This has already led to a change in the methodology for calculating the Unified State Exam scores in physics in order to show more acceptable results for budget-funded places, but, actually, there is an inflation of Unified State Exam scores in this subject. In addition, in their education process HEE should either “reach out” to those students whose knowledge is low or inflate their own exam grades to prevent a high dropout rate. However, weak students, as a rule, cannot withstand the academic load and leave HEE themselves: calculations show that in Russia the dropout rate in engineering fields of training/specialties is equal, on average, to about 30%. If a weak student graduates from a HEE, the economy receives a weak specialist. As a further increase in the budget-funded training of engineers seems only to exacerbate this situation, in order to enhance the prestige of the engineering profession it would be advisable not to increase, but, on the contrary, reduce budget-funded admission and raise the average USE score for budget-funded places.

In 2024, state universities’ bachelor’s degree programs accounted for 94.5% of the overall (both budget-funded and fee-based) admission to full-time education and 99.5% of budget-funded admission to full-time education; specialist’s degree programs, for 94.8 and 99.8%, respectively, and master’s degree programs for 96.3% and 99.5%, respectively. As stated above, since admission in the STEM

group of training/specialties plays a leading role in budget-funded admission, the admission control figures for STEM are increasingly transferred to regional universities. At the same time, despite the government's policy, overall (both budget-funded and fee-based) admission to full-time education at state higher education establishments is explicitly concentrated in a very limited number of subjects of the Russian Federation. Thus, in 2024, state higher education establishments of Moscow and St. Petersburg accounted for 30.4%, 25.5% and 41.3% of the overall admission to full-time education in bachelor's degree programs, specialist's degree programs and master's degree programs, respectively (*Table 7*).

Table 7

**Admission to full-time education in state higher education establishments
of Moscow and St. Petersburg, %**

	Moscow	St. Petersburg	Moscow + St. Petersburg
Bachelor's degree program			
Overall admission to full-time education	20.6	9.8	30.4
Admission to full-time education at federal budget expense	15.4	8.1	23.5
Fee-based admission to full-time education	29.7	12.9	42.6
Specialist's degree program			
Overall admission to full-time education	17.1	8.4	25.5
Admission to full-time education at federal budget expense	18.3	9.6	27.9
Fee-based admission to full-time education	15.8	7.2	23.0
Masters' degree program			
Overall admission to full-time education	29.1	12.2	41.3
Admission to full-time education at federal budget expense	22.7	13.0	35.7
Fee-based admission to full-time education	42.2	11.0	53.2

Source: Form No. VPO-1 "Information on an entity engaging in educational activities in higher education programs: bachelor's degree programs, specialist's degree programs, master's degree programs." URL: Higher Education (minobrnauki.gov.ru); own calculations.

Moderation of admission to full-time education at the federal budget expense in HEE of Moscow and St. Petersburg led to an increase in the unit weight of fee-based admission to full-time education, which in 2024 amounted to 29.7% and 12.9% in the bachelor's degree programs of Moscow-based HEE and St. Petersburg-based HEE, respectively (a total of 42.6%). As regards specialist's degree programs in HEE of Moscow and St. Petersburg, the unit weight of fee-based admission to full-time education was almost 2 times lower than in bachelor's degree programs (a total of 23.0%). At the same time, in 2024 fee-based admission to full-time educa-

tion in master's degree programs at state higher educational establishments of these two megacities amounted to 53.2%, i.e. more than half. Totally, in 2024 overall admission to full-time education in bachelor's, specialist's and master's degree programs in Moscow-based and St. Petersburg-based HEE amounted to 31.6%, closely approaching a third of the overall admission to full-time education in Russian HEE; in 2023 it was equal to 30.5%. Thus, over the year, the specified admission to HEE of Moscow and St. Petersburg increased by 1.1 p. p.

The unit weight of admission to full-time education in HEE in regions such as the Republic of Tatarstan or the Sverdlovsk Region (the 3rd and 4th places in terms of the unit weight of overall admission to full-time education (bachelor's degree + specialist's degree + master's degree) in HEE in 2023) is considerably lower as compared to HEE in Moscow and St. Petersburg. Thus, in 2024 the unit weight of overall admission to full-time education in to bachelor's, specialist's and master's degrees programs in HEE of the Republic of Tatarstan amounted to 3.6% of the overall admission to full-time education in Russian HEE (3.9% in 2023); in the Sverdlovsk Region it was equal to 3.2% and 3.1% in 2024 and 2023, respectively. In other words, the unit weight of overall admission to full-time education in state universities of the Republic of Tatarstan decreased slightly over the past year, while in the Sverdlovsk Region, on the contrary, increased a little.

In 2024, admission to full-time education at the federal budget expense in HEE in Moscow (bachelor's, specialist's and master's degree programs) accounted for 17.6% of the overall admission to budget-funded places in these levels of higher education funded from the federal budget; in St. Petersburg — 9.5% (a total of 27.1% for both capitals); in the Republic of Tatarstan — 4.0%; in the Sverdlovsk Region — 3.2%. In general, in 2024 the unit weight of admission to full-time education at the federal budget expense in bachelor's, specialist's and master's degrees programs in HEE of the four abovementioned regions amounted to 34.3%, that is, over one third of the total admission to full-time education funded from the federal budget at the specified levels of higher education.¹

As regards fee-based admission to full-time education, the situation was even more concentrated in this respect. In 2024, higher education establishments of Moscow and St. Petersburg accounted for 39.3% of the overall fee-based admission to full-time education in bachelor's, specialist's and master's degree programs, while HEE of four regions (Moscow, St. Petersburg, the Republic of Tatarstan and the Sverdlovsk Region) accounted for 45.6%. Thus, in 2024, the unit weight of fee-based admission to full-time education in HEE of only four subjects of the Russian Federation approached nearly a half of the overall fee-based admission to full-time education in Russian HEE. In 2024, state higher education establishments of the remaining 81 Russian regions (without the new territories taken into account) accounted on average for slight-

1. It is to be reminded that postgraduate studies are still regarded as a level of higher education, but we do not consider admission to postgraduate studies funded from the federal budget or by individuals.

ly more than 0.8% of admission to full-time education at the expense of the federal budget and for about 0.7% of fee-based admission to full-time education.

* * *

Personnel shortages in the Russian economy are actually unrelated to the structure of personnel training in the higher education system: on average, more than 75% of higher education graduates work in their specialty or their work is closely related to it. In other words, their education is in demand; a rare exception is the training of political scientists, only 60% of them have found a job in their specialty. The structure of personnel training at SVE institutions raises more questions, both in terms of training mid-level specialists and in terms of training skilled workers and employees (on average, 62% of MLS and 58% of SWE are employed in their profession, despite the fact that most SVE institutions receive state assignments from regional authorities and focus on training personnel for the needs of the relevant region's economy). The problem is that such a model is adequate only for a slow or stable economic development. As the pace of technological development speeds up, regional economies face the inertia of their education systems, which are also technologically weak, particularly, because of being underfunded for quite a long period. Consequently, the practice-oriented approach of the SVE system amid a sharp change in the vector of technological development is sooner a negative factor than a positive one. This is particularly evident when SVE students' general education base is narrowing, as it happens in specialist's degree programs (specialist's degree programs imply shorter training periods for quite a wide range of professions and specialties) which are meant to become a new level of vocational education. In principle, reduction of the training time for working professions, including those in the services sector (delivery, packaging, etc.) is a logical response to technological acceleration or drastic technological changes, but this measure should be based on other methodological approaches and educational technologies rather than those currently used. At the same time, it is necessary to envisage and ensure in advance for employees, who have received such a reduced education, a professional retraining to meet new requirements of a changing economy. This, in turn, suggests the formation of a strong general education foundation, that is, restructuring of not only vocational education, but also the general one. However, such changes in the education system have not been effective so far neither in Russia, nor in other countries, including the developed ones.

The transformation of the vocational education system should start with a different formulation of the task: technological sovereignty and import substitution require not only upgraded training of engineers and ICT specialists, but also higher labor productivity in the economy and the social sector as a whole. To achieve this goal, it is necessary to comprehend those (critical or advanced) technologies that the economy will be saturated with. Should these technologies be developed in Russia, it is necessary to start with training sectoral science personnel, but if technologies are

going to be borrowed, it is necessary to train teachers of higher education establishments and SVE institutions, as well as vocational training foremen in those countries from which these technologies are to be imported. Further, it is important to promote e-learning with engagement in the educational process educational institutions of those countries from which the relevant technologies arrive. At the same time, the entire chain should be built: secondary vocational education — higher education — professional retraining (rather than the development of additional vocational education programs which largely focus on skills upgrading in an existing profession/specialty). It is necessary to reduce admission to budget-funded places in STEM training lines/specialties. It is noteworthy that even in the USSR in the 1980s, the training of personnel in engineering and technical specialties did not exceed 30%-35%. In Russia, as it was noted, admission to budget-funded places has already exceeded half of the budget-funded admission in bachelor's and master's degree programs in the specified training lines/specialties, while the quality of this admission is increasing, if at all, due to a rather low starting level. At the same time, the dropout rate of students is picking up, as HEE do not have enough teachers for the growing contingent of students with insufficient training background.

In the past few years, there has been a growing concentration of general admission in a small number of regional higher education systems. At the same time, the transfer of additional budget-funded places to regional HEE has already led to discernable growth in fee-based admission to HEE of Moscow and St. Petersburg. In these two megacities, even strong students (with an average USE score of over 80 points or even 85 points) have to study in most cases on a paid basis, while in regions with average USE scores of 41–45 points they can study free of charge. Even if we assume that the flow of high-scoring students to Moscow will decline, with the socio-economic situation becoming more complicated in the country, and strong applicants will be more active in getting enrolled in regional HEE, including on a paid basis, such a change is likely to lead, on the one hand, to a decrease in the quality of training, and on the other hand, to a decline in the financial stability of major Moscow-based HEE, particularly the ones of socio-economic profile.

4.4. The housing market in Russian cities and housing construction¹

2024 marked the end of the active growth for the Russian real estate market and the transition to the phase of expected slowdown.

The well-established mechanism of state support for mortgages, which stimulated demand, was subjected to a double squeeze: the government's radical modification of preferential programs and the Bank of Russia's continued increase in the key

1. Author: *Malginov G. N.*, Candidate of Economic Sciences, Leading Researcher, IAES RANEPA.

rate. However, the retention of the general favorable background in the economy (GDP growth of 4.1% and real disposable income of the population of 7.3%) led to the fact that the downward trend manifested itself rather moderately.

4.4.1. Housing market prices

First of all, we should note that there are various sources of information on the dynamics of residential real estate prices. On the one hand, these are official reports of Rosstat, on the other hand — data from real estate agencies.

As indicated on the Rosstat website, price indices in the primary and secondary housing markets are calculated by experts of the agency on the basis of registered prices for newly built apartments and for apartments of the existing housing stock in ownership, if they are the objects of market transactions. Price indices in the primary and secondary housing markets are formed by apartment type by subjects of the Russian Federation (regions), federal districts and the Russian Federation as a whole. As weights are used data on the number of sold total area of a certain type of apartments for the previous year in the primary and secondary housing markets for a particular city in the region. Monitoring is conducted for a sample of organizations engaged in real estate transactions in territorial centers and individual cities of the subjects of the Russian Federation. When registering apartment prices, their quantitative and qualitative characteristics are taken into account. Average prices in Russia are calculated from average prices in the regions.¹

As the Rosstat data show, the increase in housing prices in 2024 for the country as a whole turned out to be the lowest for the entire 5-year period starting from 2020. This applies to both the secondary and primary segments of the market (*Table 8*).

Table 8

Price indexes in the housing market in 2020–2024 (at year-end in % to the end of the previous year, across all types of apartments)

Period	Secondary market	Primary market
2020	109.5	112.0
2021	117.2	126.0
2022	111.8	121.0
2023	108.5	109.7
2024	106.6	108.8

Sources: Price indices in the primary and secondary housing markets in the Russian Federation in 1998–2024, data on the primary market: URL: https://rosstat.gov.ru/storage/mediabank/dinamika_sred_1998-2024.xlsx

1. URL: https://rosstat.gov.ru/storage/mediabank/Opredeleniya_ind_cen_zhilya.pdf, https://rosstat.gov.ru/storage/mediabank/Opredeleniya_sred_ceny_zhilya.pdf

Let's now consider the data for the past year in more detail, starting with the Quarterly dynamics of prices in the housing market of Russia in 2024 is presented in *Table 9*.

Table 9

Price indices in the housing market in 2024 (at the end of the quarter as a % of the end of the previous quarter, for all types of apartments)

Period	Secondary market	Primary market
Q1	101.1	102.5
Q2	101.9	102.1
Q3	101.0	102.3
Q4	102.5	101.6

Source: Rosstat.

In the primary market, the highest price growth was observed in Q1, demonstrating a downward trend, which became most evident in Q4. And in the secondary market it was during this period that prices grew at the highest rate. Demand from the primary market began to redistribute in favor of this segment after the cancellation of preferential mortgages, and price growth exceeded the value of the primary market. During the previous 9 months, the opposite ratio was observed, although in Q2 there was a convergence of values in both segments (about 2%). However, the price dynamics of the closing quarter could not affect the results of the year as a whole, indicating a lower value of housing in the secondary market (*Table 10*).

Table 10

Price indices in the housing market and average prices of residential properties at the end of Q4 2024

Category	Secondary market		Primary market	
	in % to Q4 2023	Rb thousand per 1 m2 of floor area	in % to Q4 2023	Rb thousand per 1 m2 of floor area
All types of apartments	106.6	114.1	108.8	177.9
Low quality	106.1	87.6	–	–
Average quality (standard)	105.2	102.4	108.0	149.3
Better quality	108.1	125.7	108.6	182.2
Elite apartment	107.3	233.8	113.8	362.5

Source: Rosstat.

In general, at the end of 2024, price growth in the primary market (8.8%) was about one third higher than in the secondary market (6.6%). In the primary market, the ma-

ximum price growth was observed for elite housing (13.8%), and in the secondary market — for housing of improved quality (8.1%), which is comparable to the price dynamics for standard housing and housing of improved quality in the primary market. Higher price growth was observed in the primary segment, and for all categories of housing, but to the greatest extent (almost twice) — for elite housing (13.8% vs. 7.3%).

Price dynamic in the territorial breakdown confirms that the primary market is ahead of the secondary market in terms of price growth rates in the country as a whole. At the same time, the picture of price dynamics was mainly similar to that in 2023 (*Table 11*).

Table 11

**Price indices in the housing market in 2024 by federal districts
(at the end of Q4 as a % of Q4 2023, for all types of apartments)**

Federal Okrug (FO)	Secondary market	Primary market
Russia	106.6	108.8
Central	103.2	107.9
North-Western	110.0	105.6
Southern	108.1	108.4
North-Caucasus	107.4	120.6
Volga	108.9	112.5
Urals	102.8	111.1
Siberian	104.9	112.8
Far Eastern	104.1	108.8

Source: Rosstat.

In 6 Federal Okrugs (Central, North Caucasus, Volga, Urals, Siberian and Far Eastern) price growth in the primary segment exceeded the same value in the secondary one, to the maximum extent (almost fourfold) — in the Urals, minimally (by 40%) — in the Volga region, in other okrugs — more than twice. It should also be noted that in 5 out of 6 Federal Okrugs (except for the North Caucasus) the outperformance of the primary market in terms of price dynamics was observed a year earlier. In the North-Western Federal Okrug, as well as in 2023, on the contrary, the secondary market was ahead of the primary market in terms of price growth rate. The intermediate position was occupied by the Southern Federal Okrug, where price growth was approximately equal in both segments (more than 8%).

If we consider the price dynamics in more detail, at the level of RF subjects, the following picture emerges (*Table 12*).

In the primary market, the leaders in terms of price growth (over 20%) were the Omsk region (24.1%) and Stavropol krai (23.7%). In a large group of regions prices increased by 10–15%. It included Volgograd region (14.8%), Rostov region (14%),

Table 12

Price indices in the housing market by region (end of quarter, Q4 2024 vs. Q4 2023, in %, for all types of apartments)

Federal Okrug/ region	Secondary market	Primary market
Russia	106.6	108.8
Central FO	103.2	107.9
Moscow	99.2	107.9
Moscow region	100.8	100.8
Voronezh region	109.6	112.8
North-Western FO	110.0	105.6
St Petersburg	112.3	105.6
Leningrad region	114.5	102.8
Southern FO	108.1	108.4
Krasnodar krai	102.8	101.9
Volgograd region	110.5	114.8
Rostov region	108.7	114.0
North-Caucasus FO	107.4	120.6
Dagestan	100.8	111.9
Stavropol krai	103.2	123.7
Volga FO	108.9	112.5
Bashkortostan	107.6	112.5
Tatarstan	112.6	112.8
Perm krai	107.8	110.2
Nizhniy Novgorod region	109.6	111.5
Samara region	108.2	113.2
Urals FO	102.8	111.1
Sverdlovsk region	104.9	113.1
Tyumen region*	100.0	108.7
Chelyabinsk region	103.8	113.2
Siberian FO	104.9	112.8
Krasnoyarsk krai	103.5	111.3
Novosibirsk region	102.8	110.4
Omsk region	108.9	124.1
Far-Eastern FO	104.1	108.8
Primorsky krai	103.4	107.5
Khabarovsk krai	104.1	110.1

* including autonomous okrugs.

Source: Rosstat.

Samara and Chelyabinsk regions (13.2%), Sverdlovsk region (13.1%), Tatarstan and Voronezh region (12.8%), Bashkortostan (12.5%), Dagestan (11.9%), Nizhny Novgorod region (11.5%), Krasnoyarsk krai (11.3%), Novosibirsk region (10.4%), Perm krai (10.2%) and Khabarovsk krai (10.1%). There were twice as few regions with a growth rate of less than 10%, including Moscow (7.9%) and St. Petersburg (5.6%), and in the Moscow region prices rose by less than 1%.

In the secondary segment, the group of regions with growth rates exceeding 10% included the Leningrad region (14.5%), Tatarstan (12.6%), St. Petersburg (12.3%), and the Volgograd region (10.5%). Lower growth, but exceeding the Russian average, was observed in Voronezh and Nizhny Novgorod region (9.6%), Omsk region (8.9%), Rostov region (8.7%), Samara region (8.2%), Perm krai (7.8%), and Bashkortostan (7.6%). On the secondary market, Moscow stands out, where prices fell, though by less than 1%, and the Tyumen region, which showed price stagnation. In the Moscow region and Dagestan, the price growth amounted to less than 1%.

In the vast majority of regions, the primary market outpaced the secondary market in terms of price growth. Only in St. Petersburg, the Leningrad region and Krasnodar krai there was an opposite trend, and in the Moscow region there was equal growth in both segments. This situation differs significantly from 2023, when the groups of regions with different ratios in terms of price dynamics were approximately equal (12 vs. 11).

Absolute values of prices are also an important characteristic of the housing market. Taking into account the importance of large cities and agglomerations, it is advisable to consider them for regional capitals, supplemented with data for the Moscow and Leningrad regions (*Table 13*).

In both market segments, the most expensive housing was in Moscow (over Rb 300,000 per 1 sq. m.) and St. Petersburg (over Rb 200,000 per 1 sq. m.). They were followed in the primary market by the centers of Tatarstan and Primorsky krai, as well as Moscow region, and in the secondary market by the centers of Primorsky krai, Tatarstan and Nizhny Novgorod region. Apart from the capital cities, prices in the primary market exceeded Rb 200,000 per 1 sq. m. only in Tatarstan, and in the secondary market — Rb 150,000 per 1 sq. m. in Tatarstan and Primorye. On the other price pole were in the primary segment — Dagestan, in the secondary segment — Chelyabinsk region (less than Rb 90,000 per 1 sq. m.). In the secondary market — Volgograd region and Stavropol krai, where prices did not exceed Rb 90,000 per 1 sq. m.

In almost all centers of the subjects of the Russian Federation, prices in the primary segment at the end of 2024 were higher than in the secondary market. The highest excess over the prices of new buildings was observed in the Moscow region (by almost 74%) and the Chelyabinsk region (by about one and a half times), the lowest — in the city of Moscow (about 10%) and the Krasnodar krai (14.4%). In most regional capitals, prices in the primary market outpaced prices in the secondary segment by 15–30%. The only exception was Dagestan, where prices in the secondary market (in the center of this constituent entity of the Russian Federation) were 7% ahead of prices in the primary market.

Table 13

**Average prices in the housing market in 2024 by centers of the RF subjects
(as of the end of the fourth quarter)**

Federal Okrug/ region	Secondary market	Primary market	Price difference between markets
	Rb thousands/ sq. m.	Rb thousands/ sq. m.	
Central FO			
Moscow	320.3	352.7	by 32.4 thousand rubles (10.1%) higher on the primary market
Moscow region	112.9	196.1	by 83.2 thousand rubles (73.7%) higher on the primary market
Voronezh region	90.3	116.85	by 26.55 thousand rubles (29.4%) higher on the primary market
North-Western FO			
Faint Petersburg	221.0	276.3	by 55.3 thousand rubles (25.0%) higher on the primary market
Leningrad region	123.6	149.3	by 25.7 thousand rubles (20.8%) higher on the primary market
Southern FO			
Krasnodar krai	128.8	147.4	by 18.6 thousand rubles (14.4%) higher on the primary market
Volgograd region	86.0	113.3	by 27.3 thousand rubles (31.7%) higher on the primary market
Rostov region	109.5	130.5	by 21.0 thousand rubles (19.2%) higher on the primary market
North-Caucasus FO			
Dagestan	96.0	89.7	by 6.3 thousand rubles (7.0%) higher on the secondary market
Stavropol krai	86.9	120.5	by 33.6 thousand rubles (38.7%) higher on the primary market
Volga FO			
Bashkortostan	117.4	145.3	by 27.9 thousand rubles (23.8%) higher on the primary market
Tatarstan	154.1	213.8	by 59.7 thousand rubles (38.7%) higher on the primary market
Perm krai	113.5	134.5	by 21.0 thousand rubles (18.5%) higher on the primary market
Nizhny-Novgorod region	138.6	174.8	by 36.2 thousand rubles (26.1%) higher on the primary market
Samara region	114.8	138.4	by 23.6 thousand rubles (17.4%) higher on the primary market
Urals FO			
Sverdlovsk region	109.0	149.4	by 40.4 thousand rubles (37.1%) higher on the primary market
Tyumen region*	105.8	136.9	by 31.1 thousand rubles (29.4%) higher on the primary market
Chelyabinsk region	80.6	121.1	by 40.5 thousand rubles (50.2%) higher on the primary market
Siberian FO			
Krasnoyarsk krai	107.3	132.5	by 25.2 thousand rubles (23.5%) higher on the primary market
Novosibirsk region	120.0	155.4	by 35.4 thousand rubles (29.5%) higher on the primary market
Omsk region	102.5	136.5	by 34.0 thousand rubles (33.2%) higher on the primary market
Far Eastern FO			
Primorsk krai	155.8	186.4	by 30.6 thousand rubles (19.6%) higher on the primary market
Khabarovsk krai	115.7	153.2	by 37.5 thousand rubles (32.4%) higher on the primary market

* less autonomous okrugs.

Source: Rosstat.

To characterize the price level in absolute terms, let us consider the research data on the basis of exclusive information collected by the Committee for Analysis of the Russian Guild of Realtors (RGR), based on the survey of certified analysts and heads of real estate agencies, members of RGR (*Table 14*).¹

Table 14

Prices on apartment buildings in Russian cities in late 2024

City	Secondary market		Primary market		Change in prices between markets, %
	thousand Rb/m ²	year-on-year increase, %	thousand Rb/m ² **	year-on-year increase, %	
Moscow	296.36	1.3	397.0	3.8	by 34% higher on the primary market
Voronezh	102.1	12.7	106.6	11.9	by 4.5% higher on the primary market
Astrakhan	155.8	34.4	
Kirov	97.7	4.0	125.0**	...	by 27.9% higher on the primary market
Perm	105.7	7.1	150.1/152.2*	18.0/16.5*	by 42.4/44% higher on the primary market
Ekaterinburg	124.0	8.0	157.0/159.2*	12.0/12.7*	by 26.6/28.4% higher on the primary market
Tyumen	125.2	7.0	142.2/146.5*	12.5/15.9*	by 13.6/17% higher on the primary market
Chelyabinsk	143.7	5.4	
Novosibirsk	123.7	10.0	160.9	12.8	by 30% higher on the primary market
Omsk	109.9	9.0	145.1	33.4	by 32% higher on the primary market
Vladivostok	182.8	22.8	188.4	50.2	by 3.1% higher on the primary market
Khabarovsk	125.7	0.5	160.0	4.2	by 27.3% higher on the primary market

* data from various sources.

** mass segment (standard class).

Sources: RGR. Analytical note. Q4 2024: "Dynamics of indicators of the multifamily housing market in the cities of the Russian Federation". 12.02.2025, p. 14–30. URL: <https://rgr.ru/>, own calculations.

In all presented in *Table 14* cities at the end of last year prices in the primary segment remained higher than in the secondary market. The most noticeable price difference for new buildings was observed in Perm (by more than 40%). Next came Moscow, Omsk, Novosibirsk (30–34%), followed by Yekaterinburg, Kirov, Khaba-

1. RGR. Analytical note. Q4 2024: "Dynamics of indicators of the multifamily housing market in the cities of the Russian Federation". 12.02.2025, URL: <https://rgr.ru/>.

rovsk (27–28%). A small (less than 5%) excess of primary market prices took place in Voronezh and Vladivostok.

In terms of price growth over the year, Vladivostok (50%), Astrakhan and Omsk (33–34%) were the leaders in the primary market. In the secondary segment only in two cities prices increased by more than 10%: Vladivostok (22.8%) and Voronezh (12.7%). It was in them that the price difference in the primary market was minimal, and Voronezh turned out to be the only exception to the general trend of outpacing price growth in it.

In most cities of the sample, the supply in the secondary market decreased by the end of the year given the mortgage rates growth and the lack of preferential programs. This segment is predominantly focused on transactions with clients' own funds, preferably through cash settlement. Credit is used for additional payments in case of counter transactions. In the primary market, the supply grew due to the commissioning of new housing in previous years, when the mechanism of preferential mortgages was in full swing. Developers were striving to complete the previously launched projects.

As for demand, the situation looks ambiguous. Within the large sample of the RGR survey, the group of cities where there was a decrease in activity in the last quarter of 2024 was the most numerous. However, the number of cities where the number of transactions increased or remained at the level of the third quarter was approximately the same, with price stability in the main part of the sample.¹

The housing market of the capital can provide an appropriate understanding of the processes taking place in the housing market of large cities. In Moscow, the past year was characterized by a decrease in the number of transactions. According to the results of 2024 Rosreestr registered 146,200 transactions in the secondary market against about 175,000 a year earlier. Compared to 2023, the number of transactions decreased by 16.4%. In the primary market, the peak of sales activity was in the second quarter, when 27,071 transactions were registered, while the next quarter saw a sharp decline in sales. Since the beginning of July 2024, when the terms of preferential lending for new buildings were significantly tightened, the number of registered cost sharing construction contracts has expectedly decreased by 44%. In total, by the end of 2024, 87,100 cost sharing construction contracts were registered in Moscow by Rosreestr, while a year earlier there were 115,600 of such agreements. The drop amounted to 24.6%.

4.4.2. Commissioning new housing

Ita According to preliminary data of Rosstat, 107.8 mn. sq. m. of housing will be commissioned in Russia in 2024, which is 2.4% less than in 2023, when the all-time maximum was reached (*Table 15*).

1. Considering those where the changes were small (5–10%).

Table 15

Commissioning of new housing in Russia in 1999–2024

Year	Mn m ² of total area	Growth rates, %	
		Over the previous year	Over 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*
2021	92.6	112.7	305.6
2022	102.7	111.0	338.9
2023	110.4	107.5	364.3
2024	107.8	97.6	355.8

* excluding commissioning of houses on private plots, the volume of which is given according to the initial data of Rosstat (2019 — 1.0 mn sq. m, 2020 — 5.1 mn sq. m, for 2021–2024 such data are not available).

Sources: Rosstat, own calculations.

The decline was moderate, being comparable in its depth to the results of 2010 (2.5%), but twice as large as in 2017 (1.2%). However, at that time it was a question of the completion (continuation) of downward trends in the development cycles of the industry, which, due to its inertia, followed the economy

as a whole with a certain time lag, reacting to the financial and geopolitical shocks of 2008 and 2014.¹

If we consider the dynamic of housing construction in the regional context, the positive dynamic of commissioning was observed in about half of the territories, including the majority of regions with the total volume of housing commissioning of more than 1 mn sq.m. (*Table 16*).

Table 16

Dynamics of housing commissioning in Russian regions in 2023 (graded along commissioning rates)

RF subject	Housing commissioning rates, in % to 2023
Republic of Dagestan	179.4
Penza region	112.3
Chechen Republic	111.7
Volgograd region	108.9
Nizhny Novgorod region	108.1
Primorsky krai	108.1
Irkutsk region	107.7
Stavropol krai	105.5
Orenburg region	105.3
Tyumen region (with autonomous okrugs)	104.8
Samara region	103.8
Sverdlovsk region	102.7
Republic of Crimea	101.7
Republic of Bashkortostan	101.0
Udmurt Republic	100.8
Republic of Tatarstan	100.5
Kaliningrad region	100.3
Rostov region	99.6
Leningrad region	97.1
Voronezh region	95.9
Chelyabinsk region	94.9
Saratov region	91.7
Moscow region	91.3
Krasnoyarsk krai	91.3
Perm krai	91.0
Vladimir region	89.7
City of Moscow	89.2
Krasnodar krai	87.5
Novosibirsk region	87.2
City of St. Petersburg	76.6

Source: Rosstat.

1. *Sternik S. G., Malginov G. N., Lavrentiev M. A.* The impact of institutional reform of shared participation in construction in the primary market of multi-apartment housing. Property relations in the Russian Federation, 2020, N 5 (224), p. 26–28.

The maximum increase in housing delivery (more than 79%) was observed in Dagestan, 11–12% — in Penza region and Chechnya, from 5 to 9% — in Volgograd, Nizhny Novgorod, Irkutsk and Orenburg regions, Primorsky and Stavropol krais, in 8 more regions there was a positive dynamics of housing delivery, but less than 5% (*Table 16*).

And the reduction in commissioning occurred in 13 subjects of the Russian Federation, including all traditional leading regions, which caused some changes within this group compared to the previous year. Despite the second consecutive year-on-year decline (by 8.7%), the Moscow region nevertheless retained its leadership in terms of the absolute volume of housing delivery (about 11.4 mn sq. m.). The Krasnodar krai followed with a 12.5% drop (about 6.7 mn sq. m.). The city of Moscow with a decrease in commissioning volumes by about 11% closed the top three (more than 6.5 mn sq. m.). The share of the capital region in the total volume of housing construction in the country amounted to 16.7% (including the Moscow region — 10.6% and Moscow — 6.1%), having decreased by 1.2 p. p. compared to 2023. The top five leading regions also included the Leningrad region (about 4.1 mn sq. m, with a decline of almost 3%) and the Tyumen region (including autonomous districts) (3.9 mn sq. m with a 4.8% increase), which displaced St. Petersburg (about 2.7 mn sq. m).¹ Moreover, the northern capital was among the regions in terms of the depth of decline (23.4%) along with Sevastopol (about 28%)²

The total housing input, amounting to about 108 mn sq. m. in 2024, corresponded to the volume of housing construction envisaged in the certificate of the national project (NP) “Housing and Urban Environment” (in the current version) for 2028.³

The total data on housing delivery includes both multi-apartment housing built by professional developers and the results of individual housing construction (IHC, i. e. built by private individuals independently on their land plot) (*Table 17*).

In 2024, the share of housing built by the population at its own expense or with the help of borrowed funds reached a maximum (57.8%). According to Rosstat, the area of individual housing construction commissioned in Russia in 2024 amounted to 62.3 mn sq. m., which is 6.1% more than in the previous year. The group of leading regions in terms of the absolute value of housing completed by the population includes Moscow region (7.95 mn sq. m.), Krasnodar krai (3.8 mn sq. m.), Leningrad region (2.7 mn sq. m.), Dagestan and Tatarstan (2.35 mn sq. m. each).

If we consider all the regions with the aggregate volume of housing commissioning over 1 mn sq. m. in more detail, the following picture emerges (*Table 18*).

1. Also, more than 3 mn sq. m. were delivered in Tatarstan, Bashkortostan and the Sverdlovsk region during the year.
2. It is worth noting the increase in the volume of housing delivery in the Kursk and Bryansk regions with its reduction in the Belgorod region, although due to its absolute values (0.6–0.85 mn sq. m.) none of these regions was included in the *Table 16*.
3. URL: <https://minstroyrf.gov.ru/docs/221887/> publication date: February 7, 2024.

Table 17

Structure of housing delivery in the Russian Federation in 2010–2024

Year	Total, Mn sq. m	Apartment block construction		Private housing construction from own and borrowed funds	
		Mn sq. m.	Share in total delivery, %	Mn sq. m.	Share in total delivery, %
2010	58.4	32.9	56.3	25.5	43.7
2011	62.3	35.5	57.0	26.8	43.0
2012	65.7	37.3	56.8	28.4	43.2
2013	70.5	39.8	56.5	30.7	43.5
2014	84.2	48.0	57.0	36.2	43.0
2015	85.3	50.1	58.7	35.2	41.3
2016	80.2	48.4	60.3	31.8	39.7
2017	79.2	46.2	58.3	33.0	41.7
2018	75.7	43.3	57.2	32.4	42.8
2019	82.0	43.5	53.0	38.5	47.0
2020	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
2023	110.4	51.7	46.8	58.7	53.2
2024	107.8	45.5	42.2	62.3	57.8

Sources: Rosstat, own calculations.

Ita The most numerous was the group of territories where housing construction provided from 60% to 70% of total housing delivery (11 regions). Higher values (from 70% to 90%) were recorded in Chechnya, Dagestan, Crimea, Vladimir, Irkutsk and Orenburg regions, while lower values, but exceeding half (from 50% to 60%) — in Voronezh and Chelyabinsk regions and Krasnodar krai.

Moscow and St. Petersburg were expectedly at the other pole, where the contribution of housing and communal services amounted to 9.9% and 5.7%, respectively.¹ The intermediate position was occupied by the Volgograd region, Primorsky krai, Kaliningrad and Sverdlovsk regions, Krasnoyarsk krai and Penza region, where housing construction accounted for 40% to 50% of commissioning volumes, as well as Novosibirsk and Tyumen regions, where the contribution of housing construction amounted to 35% to 40%.

Construction of multi-apartment housing (MPH) looked much less optimistic against this background. Its share, which has been steadily declining since 2016,

1. For comparison: in one more city of federal significance, Sevastopol, the share of housing commissioned by the population amounted to 72.8% (with a cumulative volume of commissioning of about 0.35 mn sq. m.).

amounted to 42.2%, decreasing by more than 4.5 p.p. compared to 2023. MPH delivery fell by 12% to 2022 levels, outperforming 2018–2021. However, the double-digit decline was the deepest since 2010 (the previous anti-record for 2018 was 6.3%). More than half (55.3%) of the volume of housing commissioned (excluding housing

Table 18

**Share of housing commissioning by the population in Russian regions
with a total volume of housing commissioning over 1 mn sq. m in 2024**

RF subject	%
Chechen Republic*	86.4
Republic of Dagestan*	81.0
Vladimir region	79.8
Irkutsk region*	74.8
Republic of Crimea	73.4
Orenburg region	71.2
Moscow region*	69.7
Republic of Bashkortostan*	69.7
Republic of Tatarstan*	68.1
Perm krai*	66.8
Samara region*	66.7
Leningrad region*	66.4
Stavropol krai*	64.0
Nizhny Novgorod region*	62.7
Saratov region	62.4
Rostov region*	61.7
Udmurt Republic	61.4
Voronezh region*	60.0
Chelyabinsk region*	58.4
Krasnodar krai*	56.9
Volgograd region	50.0
Primorsky krai	49.4
Kaliningrad region	49.3
Sverdlovsk region*	48.4
Krasnoyarsk krai	44.5
Penza region	41.0
Tyumen region (with autonomous okrugs)*	39.4
Novosibirsk region	35.9
City of Moscow	9.9
City of St. Petersburg	5.7

* Regions where housing commissioning by the population exceeded 1 mln. sq. m.

Sources: Rosstat, own calculations.

built by the population)¹ accounted for 11 regions (with a value of commissioning of at least 1 mn sq. m. in each of them), while the share of the top five (city of Moscow and Moscow region, Krasnodar krai, St. Petersburg, Tyumen region with autonomous okrugs) accounted for 37.6% of the total volume of multi-apartment housing commissioned.²

4.4.3. Housing construction: state and challenges

So far, the prospects of the housing construction sector look relatively favorable. Despite the increase in the key interest rate and the resulting growth in lending costs, the mechanism of development using project financing tools was able to ensure an increase in construction volumes.

According to the data of the Unified Information System of Housing Construction (UISHC), the total area of housing under construction, taking into account all financing mechanisms, as of December 2024 amounted to 114.7 mn sq. m., which was about 8% more than a year earlier (106.1 mn sq. m.). Most of it (111.9 mn sq. m.) accounted for housing built in accordance with the Law No. 214-FZ, which implies the conclusion of share participation agreements (SPAs) by individuals. As of the end of 2024, 97.6% of multifamily housing under construction was built using escrow accounts versus 95.9% by the end of 2023.

There were no visible problems with the sale of housing. The share of sold housing in the total volume of housing under construction amounted to 34% against 32% a year earlier. According to the RGR research, the trend of predominance of small apartments in the housing under construction remained, with the share of one-room apartments increasing. The share of large apartments neither by number nor by area is increasing.³

The dynamics of housing commissioning, taken for certain time intervals, can serve as a signal of possible issues. In H2 2024, the cumulative volume of housing commissioning was higher than in the first 6 months, when the quarterly volumes of commissioning exceeded the figures for the same periods of 2023. In the third quarter, these values were approximately equal, but in October-December 2024, the commissioning was 13.3% less than in Q4 2023.

The consequences of the end of the “preferential mortgage” program have begun to be felt. In general, the volume of housing mortgage lending (HML) amount-

1. The official Rosstat reports do not contain such an indicator. However, it can be calculated as the difference between the total volume of housing delivery and housing commissioning by the population at the expense of own and borrowed funds.

2. Also, more than 1 mn sq. m was commissioned in Sverdlovsk, Novosibirsk, Leningrad, Rostov regions, Tatarstan and Bashkortostan over the year.

3. RGR. Analytical note. Q4 2024: “Dynamics of indicators of the multifamily housing market in the cities of the Russian Federation”. 12.02.2025, p. 3–4, 9. URL: <https://rgr.ru/>.

ted to about Rb4.9 trillion over the year. After the peak in 2023, it collapsed by more than 37% at a time, slightly exceeding, however, the level of 2022 (Rb4.8 trillion), when the amount of loans decreased by 15.5% compared to 2021. Nevertheless, the quarterly dynamics look pessimistic (*Table 19*).

Table 19

Amount of housing mortgage loans extended to individuals in 2024

Period	Amount, Rb bn	% over the same period of 2023
Q1	1051.9	82.6
Q2	1800.0	101.5
Q3	1103.9	45.0
Q4	932.6	40.9
January-December	4888.4	62.8

Sources: Rosstat, own calculations.

The volumes of MHL fell sharply after the excitement of the second quarter, when the factor of the imminent abolition of the standard preferential mortgage for housing in new buildings was in effect. In Q3, with a more than twofold drop compared to the same period of 2023, the volume of MHL still exceeded the figure of Q1 2024 in its absolute value, but in October-December fell below it, amounting to around 41% of the level of Q4 2023.

Against this backdrop, the dynamic of interest rates inspires some optimism for the recovery of the mortgage sector. Having reached its maximum in July (10.19%), the weighted average rate on housing mortgage loans was in a downward trend throughout the second half of the year, with the exception of October. In December, the value of this indicator (8.47%) approached the values of the beginning and spring of 2024 (about 8.4%).

It should be borne in mind that such a relatively low level is largely determined by the continued subsidies from the government under the soft lending programs. According to RGR experts, the share of mortgages on market terms remained relatively low in the second half of the year, amounting to 30–40% from month to month. In fact, after the abolition of preferential mortgages, it is still being replaced by other preferential programs, mainly family mortgages. As early as in 2023, it was ahead of the preferential mortgage, and with its abolition, even with some tightening of the terms of issuance after July 2024, it accounted for more than 45% of the total volume of MHL. Other programs (IT-mortgage, “Far Eastern and Arctic Mortgage”, “Rural Mortgage”) complement it.

Developers are trying to compensate for the failure of market mortgages in various ways, primarily by using the practice of selling a large volume of unsold housing in installments. In the final quarter of 2024, in large cities up to 15%

of transactions with installments for new buildings, and for some developers their share reached 40–60%. The so-called tranche mortgage, which provides for the issuance of mortgages in installments with staggered payment of the price of the cost sharing construction contracts,¹ is a support. However, the termination of cost sharing construction contracts on such deals has already been recorded. Another way is the provision of discounts. There are postponement of house delivery dates, delays in the construction of previously announced projects, sale of part of their land plots, and change of apartment floor plans of projects² in favor of increasing the number of rooms by reducing their area (including common areas, interior partitions).³

The total debt on housing mortgage loans extended to individuals amounted to Rb 19.2 trillion in early 2025, having increased by about Rb 1.2 trillion over the year. Sberbank accounted for 56.4% of all housing mortgage debt against 55.7% a year earlier. The volume of overdue debt on housing mortgage loans reached Rb 96.4 bn (0.5% of the total debt) and increased 1.6 times over the year. At the same time, the importance of mortgages for lending to the population as a whole has not decreased, but even slightly went up. By the beginning of 2025, its share in the total debt of individuals approached 55% against 54.3% a year earlier.⁴

* * *

In 2024, there was an expected slowdown in the real estate market. The amount of issued residential mortgage loans decreased by more than a third compared to 2023, and the annual growth of the mortgage portfolio was almost 5 times lower. Since the effect of the key rate increase itself was insufficient, it became possible to achieve this only due to the abolition of preferential mortgages.

As could be expected, price growth slowed down in both primary and secondary markets, not only compared to 2023, but to the entire period of the 2020s. We are not talking about any noticeable price reduction yet. The price dynamics in the primary market was almost everywhere ahead of the consumer inflation, although not everywhere it could compensate for it. The analysis of local markets shows that in general the situation in the second half of the year is determined by a downward trend.

-
1. Tranche mortgage is a form of housing loan, which implies its splitting into several parts (tranches): before commissioning of housing and after its commissioning. These different mortgages differ in the object of collateral: at the early stage — rights to the future object, after commissioning — completed housing.
 2. Apartment floor plan — share structure of volume-planning solutions used in the construction of the building. It takes into account how many types of apartments there will be in the complex, what floor space and planning. It also takes into account the class of housing, its location and cost.
 3. RGR. Analytical brief. Q4 2024: "Dynamics of indicators of the multifamily housing market in the cities of the Russian Federation". 12.02.2025, p. 6, 9, 15, 19, 20, 22, 25, 29–30. URL: <https://rgr.ru/>.
 4. Socio-economic situation in Russia. January 2025, p. 142, <http://rosstat.gov.ru/>, own calculations.

In the context of a significant increase in the key rate and commercial lending rates, housing construction has so far managed to avoid an obvious failure. The decline was one of the smallest in the 2000s (around 2.5%). Meanwhile, a serious reduction in the volume of commissioning took place in those regions that traditionally had been the leaders with a more significant role of developers. The slowdown in price dynamic in the primary market relative to other territories, as well as its own secondary market, agrees well with this. This was most evident in the North-Western Federal Okrug (at the expense of St. Petersburg and Leningrad region), and to a lesser extent — in the Moscow region and Kuban.

The role of the driver has finally shifted to individual housing construction. The households' demand is increasingly redistributed towards it, as a result of which the share of housing construction in the total volume of housing commissioned amounted to around 58%. In contrast, the reduction in the volume of multi-apartment buildings was very deep (more than 12%), although in the short term, based on the dynamics of the floor space under construction, a shortage of supply is not expected yet. There was a change of the entire portfolio of preferential housing lending programs, the intermediate result of which was the replacement of preferential mortgages with family mortgages.

In the current economic environment, the set of forecast characteristics given for the past year remains largely relevant. Deep stagnation is more likely in the secondary market. Prospects for the primary market largely depend on the level of mortgage interest rates, which are a derivative of macroeconomic dynamic, mainly further changes in the key rate by the Bank of Russia. In case of its reduction, the market mortgage may revive, and the primary segment may be covered by it. At the meantime, it should be considered that the issue of expediency of further cooling of the housing market is in the context of the entire socio-economic policy of the state.

Section 5

Institutional changes

5.1. Public sector and privatization¹

5.1.1. Scale of state ownership

Regular publication of the System of Indicators for Assessing the Efficiency of State Property Management approved by the RF Government Decree No. 72 dated 29.01.2015 has been performed since 2016. It contained data on the number of economic entities belonging to state property differentiated by main organizational and legal forms (business companies, unitary enterprises as well as institutions). Further, based on the RF Government Decree No. 1951 dated 22.11.2023, Rosstat stopped publishing relevant data from 2024.² The federal privatization program remains their main source, which after the changes introduced in 2021 in the Rules for development of forecast plans (programs) of privatization is annually revised due to regular shifting of time limits. This program contains data on the number of federal state unitary enterprises (FGUPs) and business entities involving a capital of the Russian Federation, whereas previously the System of Indicators for Assessing the Efficiency of State Property Management also included data on the number of federal state unitary enterprises (FSUEs) and federal treasure agencies (FTAs), as well as JSCs where Russia used a special right to participate in management (“golden share”).

A new edition of the Forecast Plan (Program) for privatization of federal property and main areas of privatization of federal property shifted its time boundaries from 2024–2026 to 2025–2027, making it possible to identify the processes that took

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2. According to the latest published data related to federal level, as of July 1, 2023, the Russian Federation owned property of 312 FSUEs, 39 federal state-owned enterprises (FSEs), 11678 federal state agencies (FSAs) and a shareholder of 488 JSCs.

With regard to the latter, the data were differentiated by size of the block of shares in federal ownership: over 50% (without singling out JSCs with full (100%) blocks of shares), from 25 to 50% and using special right “golden share” (without singling out JSCs where it was used without shares in the ownership of the Russian Federation).

Table 1

Federal property companies and organizations according to register of federal property, System of indicators for assessing efficiency of state property management, privatization programs in 2010–2024

Data	Federally owned business entities, units		Other owners of registered federal property, units		
	Shareholding (interest) in capital / of JSC's	Special right to participate in the management "golden share" without a stake ^a	FGUP	FSA	FSE
On January 1, 2010	3066/2950 ^b		3517 ^b		
On January 1, 2013	2356/2337 ^b		1800/1795 ^b	72	20458
On January 1, 2016	1557/1704 ^b	88/64 ^c	1488/1247 ^b	48	16194
On April 7, 2016 ^c		1683/1620 ^d	1236	48	16726
On July 1, 2016	1571	82	1378	47	16990
On January 1, 2017	1356/1416 ^e	81	1245/1108 ^e	48	16846
On July 1, 2017	1247	78	1058	53	16244
On January 1, 2018	1189	77	984	50	15985
On July 1, 2018	1060	77	868	50	15520
On January 1, 2019	1084/1130 ^b	76	792f/700 ^b	48 ^f	15140
July 1, July 2019	1059	73	712	48	14942
January 1, 2020	989	67	672	48	14576
July 1, 2020	948	67	640	46	13915
January 1, 2021	756	67	581	44	13681
July 1, 2021	678	29	539	40	13149
November 25, 2021	691 ^g		498 ^g		
January 1, 2022	646	25	409	41	12300
July 1, 2022	578	26	352	41	12197
September 5, 2022	591 ^h		295 ^h		
January, 2023	507	23	327	41	12010
June 1, 2023	561 ⁱ		278 ^h		
July 1, 2023	488	23	312	39	11678
June 1, 2024	723 ^j		269 ^j		

^a Special right is not an accounting entity in the registry, but is mentioned in various materials of Rosimushchestvo in the context of data on state participation in the capital.

^b Number of JSCs and FSUE according to privatization programs for the years 2010–2013, 2014–2016, 2017–2019 (data on distribution by OKVED refers to companies whose shares (interests) are in federal ownership) and 2020–2022 (number of business entities).

^c According to report on the activity of Rosimushchestvo for 2015.

^d In the numerator—the total number of legal entities, including CJSC and LLC, in the denominator—the number of blocks of shares and stakes (it can be assumed that difference represents the number of JSCs using "golden share", but there is no direct indication).

^e According to report on the implementation of the forecast plan (programs) of privatization of the federal property for 2017–2019 in 2017.

^f According to the System of indicators to assess effectiveness of state property management on the number of business entities owned by the state by organizational-legal forms (OLF) (792 companies on the right of economic management and 48 companies on the right of operational management (state-owned), while the distribution of economic activities (OKVED) and federal authorities in charge of FGUP (OKOGU), their total number is 821 units.

^g Number of business entities and FGUP according to privatization program for 2022–2024.

^h Number of business entities and FGUP according to privatization program for 2023–2025.

ⁱ Number of business entities and FGUP according to privatization program for 2024–2026.

^j Number of business entities and FSUE according to privatization program for 2024–2027.

Sources: Forecast plan (program) of the federal property privatization and main trends of privatization of the federal property for 2011–2013; 2014–2016; 2017–2019; 2020–2022; 2022–2024; 2023–2025; 2024–2026; 2025–2027; URL: www.economy.gov.ru, April 23, 2013; Report on Rosimushchestvo activity for 2015; statistics on the System of indicators to assess efficiency of the state property management; URL: <http://rosstat.gov.ru/> (March 20, 2016, September 5, 2016; March 20, 2017, September 5, 2017, March 20, 2018, September 5, 2018, March 20, 2019, September 5, 2019, March 20, 2020, September 7, 2020, March 22, 2021, September 6, 2021, March 21, 2022, September 5, 2022, March 20, 2023, September 5, 2023).

place in the previous year, though only within H1, just as it was in H1 of the 2000s and 2023 (*Table 1*).

As of June 1, 2024, Russia owned property of 269 FGUPs (excluding FSA) and was a shareholder (participant) in 723 business entities. Comparing these figures with data on June 1, 2023, given in the previous privatization program for 2024–2026, it can be stated that number of FGUPs fell by 3.2% over the year. Compared to January 1, 2019 (700 FGUPs), i.e. data of the initial version of the privatization program for 2020–2022, the reduction exceeded 61.5%.

In corporate sector, on the contrary, the government's involvement at the federal level not only did not shrink, but even expanded. Over the year, a number of state owned business entities grew by almost 29% (or 162 units), exceeding the level of the end of the fall of 2021. Growth will be even more impressive compared to the latest data of the System of indicators for assessing efficiency of state property management as of July 1, 2023 (488 AOs).

Then, we will address the most weighty category of economic entities in terms of importance in the economy with various degrees of public participation (*Table 2*).

Previously, this group of companies could be more fully described by reports on the management of federally owned shares in AOs and use of the special right of RF participation in the management of AOs ("golden share") based on results of another year published in 2012–2016 by Rosimushchestvo.

When comparing data in early June 2024 provided by privatization program for 2025–2027 with data for the same date in 2023, a sharp (by more than 20 p.p.), there is a sharp increase (by more than 20 p.p.) in the share of companies with a full (100%) federal shareholding, which exceeded 2/3 (68%). Percentage of companies where the size of the federal block of shares was controlling (from 50 to 100% of the capital) grew by about 1.5 p.p. (up to 7.6%). However, there was a rise in the absolute number of companies of both categories: the first by almost 1.9 times (or by 229 units), the second by more than 1.6 times (or by 21 units). The latter group is no longer the smallest. Its position was replaced by companies with a blocking (from 25 to 50% of the capital) public stake, which reduced by 2.0 p.p. to 5.5% (in early 2016 it was over 10%), while their absolute number remained almost unchanged. As a result, the total share of state owned companies could exercise complete corporate control, exceeding for the first time 3/4 (in early 2016, slightly more than 1/2).

The above-mentioned shifts were due to a more than twofold (or more than 20 p.p.) reduction in the share of economic companies with minority (less than 25% of the capital) state shareholdings. Their absolute number fell by more than 39% over the year, demonstrating an absolute minimum for the entire period under review.

It seems that such radical shifts in the structure of the federal portfolio in the corporate sector resulted from several different factors.

Table 2

Number and structure dynamics of business entities (“AO” and “LLC”) by size of public share in the capital (without AO using special right “golden share” when there is no share) in 2016–2024

Data and source	Business entities (AOs and LLCs) where the RF is a shareholder (participant)									
	Total, units	share, %	including those with the size of the state's share in the authorized capital							
			100%		50–100%		25–50%		Less than 25%	
			units	%	units	%	units	%	units	%
RF Government (forecast privatization plans, FPP)										
On January 1, 2016 (FPP for 2017–2019)	1704 ^a	100.0	765	44.9	93	5.4	172	10.1	674	39.6
On January 1, 2019 (FPP for 2020–2022)	1130 ^b	100.0	368	32.55	30	2.65	95	8.4	637	56.4
On November 25, 2021 (FPP for 2022–2024)	691 ^b	100.0	269	38.9	29	4.2	59	8.5	334	48.3
On September 5, 2022 (FPP for 2023–2025)	591 ^b	100.0	256	43.3	22	3.7	36	6.1	277	46.9
On June 1, 2023 (FPP for 2024–2026)	561 ^b	100.0	263	46.9	34	6.05	42	7.5	222	39.55
On June 1, 2024 (FPP for 2025–2027)	723 ^b	100.0	492	68.05	55	7.6	40	5.55	136	18.8
Rosstat (System of indicators for assessing the efficiency of state property management, AO only)										
On January 1, 2016	1557	100.0	816 ^c		52.4 ^c		174	11.2	567 ^d	36.4 ^d
On July 1, 2016	1571	100.0	711 ^c		45.3 ^c		189	12.0	671 ^d	42.7 ^d
On January 1, 2017	1356	100.0	575 ^c		42.4 ^c		128	9.4	653 ^d	48.2 ^d
On July 1, 2017	1247	100.0	514 ^c		41.2 ^c		108	8.7	625 ^d	50.1 ^d
On January 1, 2018	1189	100.0	488 ^c		41.0 ^c		102	8.6	599 ^d	50.4 ^d
On July 1, 2018	1060	100.0	448 ^c		42.3 ^c		87	8.2	525 ^d	49.5 ^d
On January 1, 2019	1084	100.0	442 ^c		40.8 ^c		85	7.8	557 ^d	51.4 ^d
On July 1, 2019	1059	100.0	429 ^c		40.5 ^c		85	8.0	545 ^d	51.5 ^d
On January 1, 2020	989	100.0	387 ^c		39.1 ^c		74	7.5	528 ^d	53.4 ^d
On July 1, 2020	948	100.0	362 ^c		38.2 ^c		66	7.0	520 ^d	54.9 ^d
On January 1, 2021	756	100.0	318 ^c		42.1 ^c		60	7.9	378 ^d	50.0 ^d
On July 1, 2021	678	100.0	289 ^c		42.6 ^c		1	9.0	328 ^d	48.4 ^d
On January 1, 2022	646	100.0	299 ^c		46.3 ^c		54	8.4	293 ^d	45.3 ^d
On July 1, 2022	578	100.0	273 ^c		47.2 ^c		47	8.1	258 ^d	44.6 ^d
On January 1, 2023	507	100.0	260 ^c		51.3 ^c		44	8.7	203 ^d	40.0 ^d
On July 1, 2023	488	100.0	253 ^c		51.85 ^c		42	8.6	193 ^d	39.55 ^d

^a Number of AOs according to the FPP for 2017–2019 (data on distribution by OKVED refers to number of companies, shares (stakes) owned by federal authorities).

^b Number of economic entities.

^c Total number of AOs with federal-owned shares exceeding 50% (without singling out AOs with full (100%) federal shareholdings) and their specific weight.

^d Estimated value based on data on total number of AOs with shares in federal ownership and number of such AOs in other categories, according to the share in the authorized capital.

Sources: Forecast plan (program) of privatization of federal property and main trends of privatization of federal property for 2017–2019; 2020–2022; 2022–2024; 2023–2025; 2024–2026; 2025–2027; statistics of the System of indicators for assessing efficiency of management of the state property; URL: <http://rosstat.gov.ru/> (March 20, 2016, September 5, 2016; March 20, 2017, September 5, 2017, March 20, 2018, September 5, 2018, March 20, 2019, September 5, 2019; March 20, 2020, September 7, 2020, March 22, 2021, September 6, 2021, March 21, 2022, September 5, 2022, March 20, 2023, September 5, 2023); own calculations.

The approaching deadline for transformation of unitary enterprises,¹ set in early 2020, should have resulted in a growth in number of business entities with a full (100%) federal shareholding. By early summer 2024, it turned out to be the maximum (492 units) for the preceding 5 years, hardly matching the dynamics of the number of FGUPs and progress in their corporatization.

The same circumstances also contributed to a sharp growth in the number of economic entities with a controlling (from 50 to 100%) federal shareholding. In relation to a minimum in the fall of 2022, it increased 2.5 times (up to 55 units), yielding only to the initial indicator of the entire time interval 2016–2024.

The reasons for sharp reduction in the number of state-owned business entities with capital less than 25% (minority stakes) are somewhat more definite. Common logic allows to judge about the effect of privatization program, which is basically confirmed by reports of Rosimushchestvo on fulfillment of forecasted privatization plans in 2023–2024. However, a detailed study of the annexes shows that it was mainly about the contribution of shares to authorized capitals of vertically integrated structures (VIS). 64 out of 81 AOs, for which relevant edicts were issued, were represented by minority stakes (in the overwhelming majority by single shares). In contrast, only 15 federal minority stakes were sold (9 units in 2023 and 6 units in 2024).

It should be emphasized that this is the federal level. Since Rosstat stopped publishing data on the System of indicators for assessing the effectiveness of state property management, information on the number of economic entities owned by the RF subjects by organizational and legal forms is no longer available. This information was not previously available for municipal and regional levels.

5.1.2. Privatization policy

In 2024, implementation of the Forecast Plan (Program) of privatization of the federal property and focal points of privatization of the federal property (FPP) for 2024–2026 started, approved by the RF Government Edict No. 2584-r of 27.09.2023.

As in the case of the previous privatization program, numerous amendments and additions were made to the current document. A total of 21 relevant normative legal acts (NLAs) were approved since FPP came into force, which is two times less than in the previous two years and can be compared with 2021 (2023 — 29 NLAs, 2022 — 27 NLAs, 2021 — 22 NLAs, 2020- 15 NLAs).

The most notable (until a new version of the FPP has been issued) is the inclusion in the privatization program in spring 2024 of the Kizlyarsky cognac factory, which a few years ago was already included in the program, in the section

1. Amendments to a specialized law on unitary enterprises of 2002 (No. 161-FZ) limited the scope of grounds for their establishment while establishing a 5-year period for bringing them into compliance with new legal norms for enterprises existing prior to the introduction of innovations

of companies to be implemented based on individual decisions of the RF President and the RF Government reducing the state's share to 50% plus 1 share (Section I of the FPP 2020–2022). This time, it (in the amount of a full 100% federal interest) was among the assets to be realized by standard methods (Section II of the FPP).¹

Inclusion in the privatization program of some assets that became the property of the state as a result of court proceedings in 2022–2024 is a remarkable point (AO Commercial Center, Transport and Forest (St. Petersburg), Uralbiofarm (Yekaterinburg), Yuzhgazenerji and Keytering South (both of them are from Adygea), PJSC Commercial Bank Vyatich (Ryazan), AO Ivanovo heavy machine-tool plant, Machine tools and instruments, IZTS (all of them located in Ivanovo)).

All these companies had full (100%) or majority (more than 80–90%) stakes in the capital.

It is also worth noting that in July, 9 facilities of cultural heritage (FCH) in unsatisfactory condition located in St. Petersburg, Altai Krai, Vladimir, Smolensk and Tver regions were added to FPP. Initial sale price for each of the facilities will be Rb1. Land plots underneath will also be leased to the winning bidders for Rb1 per year with the right to purchase them once the tender conditions are met, i.e. facilities are restored to satisfactory condition. Their privatization should become for Rosimushchestvo the first experience in sale at competitive bidding of FCH after introducing amendments to the law on privatization in summer 2023, concerning such property.²

In the context of practical implementation of the privatization program under Section I, it is worth noting the establishment of AO “NORTH-South” jointly with a strategic investor, whose authorized capital includes 100% of shares of AO “Makhachkala Commercial Sea Port” (MCSP), in pursuance of the Executive Order of the RF President No. 197 of 19.03.2024 and which for several years were transferred from one forecast plan to another.

The full federal stake in MCSP at a market value of Rb1.25 bn determined in accordance with Russian appraisal legislation aims to ensure that strategic investors (after making a monetary contribution) and the state will share 51% and 49%, respectively, of the authorized capital of AO “NORTH-South.”

Establishment of a new company should be accompanied by a shareholder agreement between the Russian Federation and a strategic investor determined by the Russian government, providing for:

- Strategic investor's obligations and measures necessary for fulfilling these obligations, as well as responsibility for their non-fulfillment.

- Procedure for control over fulfillment of these obligations and measures necessary for their fulfillment.

1. Herewith, with regard to some facilities there are clarifications about their inclusion in the authorized capital of different integrated structures and the possibility of privatization after their transfer to the treasury (indicating in some cases the status of a cultural heritage site).

2. URL: <http://rosim.gov.ru>, 25.07.2024.

— Repurchase by a strategic investor at a cost of Rb 1.25 bn. of the federally owned share in the authorized capital of joint-stock company “SEVER-YUG” (49%) not later than 5 years from the date of conclusion of the shareholders’ agreement in case of proper fulfillment of obligations.

— A ban on the alienation of shares in AO MCSP to foreigners, as well as legal entities directly or indirectly controlled by foreigners.

In this regard, the RF Government was instructed to ensure that lease agreements for federal property objects leased by JSC Makhachkala commercial sea port include a clause on their termination in the event of a decrease in the capacity (throughput) of the terminals of the said AO, required for cargo transshipment at the Makhachkala seaport falls below 9 mn tons per year after 4.5 years from the date of the Shareholders’ Agreement, except in cases of capacity reduction through no fault of MCSP and (or) for reasons beyond its control.

Predominance of sales beyond the forecast privatization plan became the most important difference in privatization in the previous year. According to separate RF Government Edicts, shareholdings (stakes in the capital) in 97 out of 132 business entities (or almost 3/4) were sold. As part of the implementation of a privatization program, blocks of shares (stakes in authorized capitals) of only 35 economic entities were sold. A decision was also made on terms of privatization of the only FGUP (3 units in 2023) (*Table 3*).

Total number of sold blocks of shares (stakes in authorized capitals) of economic entities increased 3.3 times compared to 2023 due to their sale under individual decisions. Meanwhile, it remained almost unchanged as amid privatization program implementation (35 units vs. 37).

However, financial results exceeded the planned ones manifold. Total revenues to budget system from the sale of shares and other forms of participation in the capital owned by the federal government by the end of 2024 amounted to Rb 129.11bn, while the expected value specified in the privatization program (excluding the value of shares of the largest companies occupying a leading position in the relevant sectors of the economy) amounted to Rb 1.2bn, which means a difference of more than 100 times (or twice as much). The target for revenues from the sale of shares and other forms of participation in the capital owned by the federal government in the amount of Rb 3.9bn, approved by Rosimushchestvo Decree No. 116 of 01.08.2024, was exceeded more than 33 times. Finally, compared to 2023, total budget revenues from sale of shares (stakes) increased 4.7 times (or by Rb 101.8 bn).

Change in the structure of sales of business entities caused diversification of the sources of relevant revenues to the federal budget:

— Receipts from sale of shares and other forms of participation in capital owned by the federal government (KBK 167 0 10 60100 01 0000 630) — Rb 13.47 bn.

— Receipts from the disposal and sale of confiscated and other property repossessed by the Russian Federation, subject to enrollment in the federal budget (as part of sale of confiscated shares and other financial instruments) (cash proceeds from

Table 3

Comparative data on dynamics of privatization of federal state unitary enterprises, federal blocks of shares and facilities of the RF treasury in 2008–2024

Period	Number of privatized enterprises (facilities) of federal property (according to Rosimushchestvo)		
	Privatized FGUPs, ^a units	blocks of shares (stakes in the authorized capital) of AOs (business entities) sold, units	Treasury facilities sold, units
2008	213	209 ^b	...
2009	316+256 ^c	52 ^b	...
2010	62	134 ^b	...
2008–2010	591+256 ^c	395 ^b	... ^f
2011	143	317 ^e /359 ^b	3
2012	47 ^f	265 ^e	40
2013	26	148 ^e	22
2011–2013	216	730 ^e	65
2014	33	107 ^e	12
2015	35 ^g	103 ^e	38
2016	60 ^g	179 ^e	282
2014–2016	125 ^g	389 ^e	332
2017	69	47	77
2018	4	46	173
2019	8	51	171
2017–2019	81	144	421
2020	16	23 ^h	312 ^h
2021	64	55	393
2022	11 ⁱ	54	223
2020–2022	91 ⁱ	132	928
2023	3	39/2 ^j	208+386 ^k
2024	1	129/97 ^j	53+691 ^k

^a All preparatory activities have been completed and decisions on terms of privatization adopted.

^b Including shareholdings announced for sale in the previous year.

^c Number of FGUPs for which the decision to corporatize was made by the RF Ministry of Defense to supplement those where a similar decision was made by Rosimushchestvo.

^d Available information on sale of other property facilities during this period is limited to the sale of 4 items of released immovable military property from October 2008 to January 2009, as well as making decisions on privatization conditions and publication of information on sale of facilities at the end of 2010, for which the results of the auction were summarized already in 2011.

^e Excluding sales of shares made with the aid of investment advisors.

^f Estimated value based on the Rosimushchestvo report on implementation of the forecast plan (program) for privatization of federal property in 2011–2013 on the total number of FGUPs, for which edicts were issued in 2011–2013 on the terms of privatization through transformation into AO (216 units) and data on the results of 2011 and 2013;

^g With regard to certain enterprises decisions on privatization conditions were cancelled in 2015–2016 and adopted again, therefore, total number of FGUPs, on privatization of which decisions were taken for 3 years separately, is slightly higher than the table data for 2014–2016 (125 units).

^h Including AO packages and treasury facilities realized amid implementation of the previous privatization program.

ⁱ Number of FGUPs in respect of which decisions on privatization terms were made in 2022 differs from figures contained in: Russian Economy in 2022. Trends and Prospects. (Vol. 44), p. 372 (Table 4). The latter reflect the number of FGUPs in respect of which decisions on privatization terms have been made (62 units) of the total number of FGUPs included in the privatization program as of 01.01.2022, but not for 2022. Wrong interpretation of data has also affected overall figures for 2020–2022 as a whole.

^j The denominator shows the number of business entities sold under separate RF Government edicts.

^k Number of facilities privatized without FPP according to a list approved by RF Ministry of Finance.

Sources: Report on the Rosimushchestvo activities in 2008; Report on implementation of the forecast plan (program) of federal property privatization for 2009, M., 2010; Report of the RF Ministry of Economic Development on results of federal property privatization in 2010; Report of the RF Ministry of Economic Development on results of federal property privatization in 2011; Report on implementation of the forecast plan (program) of federal property privatization 2011–2013; Reports of Rosimushchestvo on implementation of the forecast plan (program) of правительственным federal property privatization 2014–2016 in 2014, in 2015, in 2016; Reports of Rosimushchestvo on implementation of the forecast plan (program) of federal property privatization 2017–2019 in 2017, in 2018, in 2019; Rosimushchestvo's

report on implementation of the forecast plan (program) for privatization of federal property for 2020–2022 in 2020; Rosimushchestvo's report on implementation of the forecast plan (program) for privatization of federal property for 2020–2022 in 2021; Rosimushchestvo's report on implementation of the forecast plan (program) for privatization of federal property for 2022–2024 in 2022; Rosimushchestvo's report on implementation of the forecast plan (program) for privatization of federal property for 2023–2025 in 2023; Rosimushchestvo's report on results of privatization of federal property included in the list of federal property, whose privatization is performed without inclusion in the forecast plan (program) for privatization of federal property for the planned period, for 2023; Rosimushchestvo's report on implementation of the forecast plan (program) for privatization of federal property for 2024–2026 in 2024, including Appendix 16 (Rosimushchestvo's report on results of privatization of federal property included in the list of federal property, privatization of which is performed without inclusion in the forecast plan (program) for privatization of federal property for the planned period, for 2024); URL: <http://rosim.gov.ru>.

sale of confiscated shares and other financial instruments, except for those received as a result of corruption offenses) (KBK 167 11 14 14010 01 6020 630) — Rb 37.94 bn).

— Receipts deposited to the account of the Federal Bailiff Service (FBS) from privatization of RF-owned property (KBK 322 1 14 14 14010 01 6010 630) — Rb 76.5 bn.

— Receipts to the budget of the RF Pension and Social Insurance Fund from privatization of federally owned property, in terms of non-financial assets of the treasury, and funds from sale of shares and from other forms of participation in capital owned by the federal government, at the end of reporting period (in accordance with paragraph 3, item 17, Article 46 of the RF Budget Code) — Rb 1.2 bn.¹

Thus, the most significant source in the structure of budget revenues from sale of shares (stakes) was the income received by the Federal Bailiff Service (59.3%). They are followed by funds from sale of confiscated shares and other financial instruments, except for those received as a result of corruption offenses (29.4%). Ordinary proceeds from sale of shares and other forms of participation in the capital owned by the federal government, which traditionally served as a measure of privatization efficiency (10.4%), completed the top three sources.

The largest privatization deal was the sale of the alcohol holding Rosspirtprom (12 enterprises owned by Rosspirtprom with at least a blocking stake). At the end of 2023, full (100%) stake in the company was presented for auction, which was canceled due to lack of bids. During the repeated sale in April 2024, there was an intense conflict situation. The winner (Business Alliance LLC) filed a complaint with FAS for violation of the bidding procedure, arguing that it had not actually received information about its maximum price (about Rb 8.3 bn) during the electronic bidding process. Given the initial price of the asset of Rb 10.6 bn, the bidder intended to ac-

1. In accordance with amendments to Articles 46 and 146 of the Budget Code, introduced by Law No. 177-FZ of 13.07.2024 “On amendments to RF Budget Code and Certain Legislative Acts of the Russian Federation”, monetary funds received by court decision to convert property into state income, for which there is no evidence of its acquisition on legitimate income in accordance with the RF anti-corruption legislation, are not subject to distribution to the budget of the RF Pension and social insurance fund from July 13, 2024.

Now, funds repossessed by the state pursuant to conviction verdicts and court rulings issued in criminal proceedings are subject to crediting to federal budget at the rate of 100%, except for cases established by the RF Budget Code.

quire it for only Rb 6 bn. However, following a FAS refusal, the deal was nevertheless realized, and in early summer Rosspirtprom shares were written off from the balance sheet of Rosimushchestvo.¹

The largest (over Rb 800 mn) sales, along with Rosspirtprom (Rb 8289.1 mn), also included AO Rosrazmeschenie (100%, Rb 1299.25 mn), Energosetproekt (100%, Rb 930.6 mn) and Remenergomechanization (100%, Rb 820 mn). All 4 assets were sold by the central office of Rosimushchestvo: 3 of them were sold through a public offering, and Remenergomechanization via electronic auction.

Examples of transactions from another price pattern include sales through public offer of full (100%) stakes in AO VNIPIIstromsyrye (Rb 117.6 mn) and Research Center for Innovations and Energy Efficiency (Rb 29.441 mn)². However, there were deals marked by a noticeable rise in the initial price in the group of business entities, which were sold relatively inexpensively. Thus, regarding sale of a minority stake in AO Elektroagregat (4.6%) it increased more than 6 times to Rb 200.1 mn, and the full stake (100%) in AO Samara Disinfection Center, Samara grew more than 10 times to Rb 55 mn.³

Rosimushchestvo kept control over fulfillment of investment conditions of transactions concluded earlier based on particular RF Government edicts on alienation of federal stakes in AO “Adler breeding trout farm” (2020), “Electronic Trading and Security” and “Order of October Revolution, Order of Labor Red Banner ‘First Exemplary Printing House’ (AO ‘POT’) (2022).

Results of sales of RF state treasury property appear to be more modest.

The number of sold objects amounted to 53 units, having reduced more than fourfold compared to 2023 (208 units in 2023, 223 units in 2022).

However, planned target for revenues from privatization of property owned by the Russian Federation in terms of privatization of non-financial assets of the treasury, approved by Rosimushchestvo Order No. 116 of 01.08.2024 in amount of Rb 1.65 bn, was exceeded by almost 1.5 times.

Total proceeds from sale of state treasury property at the end of 2024 amounted to Rb 2.41 bn, including:

— Proceeds from privatization of property owned by the Russian Federation in terms of non-financial assets of the Treasury (federal state bodies, Bank of Russia, authorities of state non-budgetary funds of the Russian Federation) (KBK 167 114 13010 01 6000 410) — Rb 1.83 bn, including from privatization of property included in Section II of the privatization program: Rb 0.35 bn.

— Revenues from privatization of property owned by the Russian Federation (CPC 322 1 14 14010 01 6010 410) to the account of the Federal Bailiff Service (FBS) — Rb 0.01 bn.

1. URL: <https://www.rbc.ru/business/10/07/2024/668d2d8c9a7947ed4ebcf9a1>, July 17, 2024

2. URL: <http://rosim.gov.ru>, 26.03.2024, 07.06.2024.

3. URL: <http://rosim.gov.ru>, 24.01.2024, 11.10.2024.

— revenues to the budget of the Pension and Social Insurance Fund (Social Fund) of the Russian Federation from privatization of property owned by federal authorities, in terms of non-financial assets of the Treasury, at the end of the reporting period (in accordance with subparagraph 3, paragraph 17, Article 46 of the RF Budget Code) — Rb 0.57 bn, including from privatization of property included in Section II of the privatization program — Rb 0.2 bn.

In contrast to the sale of shares (stakes) in business entities, revenues received by FBS were barely noticeable (0.4%) in the structure of budget revenues from sale of treasury property. The most significant were the revenues from privatization of property owned by the Russian Federation in terms of privatization of non-financial assets of the treasury (about 76%). Another 23.6% were revenues from the same source to the budget of the Pension and Social Insurance Fund of the Russian Federation. However, revenues from privatization of property included in the privatization program (Rb 0.55bn from the last two sources in the aggregate) accounted for only 22.8% of all revenues from sales of treasury property.

For three years in a row, Rosimushchestvo actively conducted privatization activities in respect of confiscated property resulting from corruption offenses and returned to federal ownership in accordance with judicial decisions (hereinafter referred to as corruption property). In 2024, 10 out of 14 lots of such property were sold at open auctions. Proceeds from sales of corrupt property in 2024 amounted to Rb 431.24 mn, while Rb 203.9 mn was transferred to the budget of the Social Fund of Russia.

Privatization activities will be continued in 2025 with respect to 57 items of the Russian Treasury property included in the privatization program.

For the second year in a row, Rosimushchestvo publishes the Report on results of privatization of federal property included in the list of federal property, which is privatized but is not included in the FPP for the planned period.

The document, approved by Order of the Ministry of Finance of Russia No. 553 of 15.12.2022 (in numerous subsequent editions), included 1302 facilities as of December 31, 2024. Of the 1.038 units subject to tenders, 691 units were privatized, and budget revenues (Rb 1479.2 mn) accounted for about 61% of the funds from sales of treasury property under privatization program. Compared to 2023, the number of sold facilities increased almost 1.8 times, and budget revenues grew by 86%.

The key methods of realization were sales at the minimum allowed price¹ (278 units or 40.2%) and at auction (255 units or 36.9%). They were supplemented by sales through public offer (151 units or 21.9%) and at the realization of preemptive rights, including by small and medium-sized enterprises (SMEs) (7 units or 1.0%). Compared to 2023, the weight of facilities sold through public offer increased in the structure of sales, while shares of other methods reduced, most notably the auction (by 3.5 p. p.).

1. A new method of privatization replacing sale without price announcement. It started to be applied in H2 2024. See subsection 5.1.3. Improvement of privatization legislation.

As it could be expected, the auction became the most competitive way of privatization. The sum of sale prices exceeded the sum of initial prices by more than 1.4 times, while at sale by public offer, on the contrary, it was about 1.6 times less. This gap was even more significant when selling at the minimum acceptable price (3.4 times in favor of the initial price).¹

As in previous years, only a part of the privatized federal property was interesting for potential investors. At the same time, the success rate of privatization, calculated as the ratio of the number of sold assets and conducted tenders², increased under privatization program compared to the previous year, amounting to 22.70% for blocks of shares (stakes) and 50% for treasury facilities vs. 20% for blocks of shares (stakes) and 25.4% for treasury facilities in 2023. For comparison, in 2022 these indicators amounted to 28.6% and 30.1%, respectively. However, the success rate of property privatization without inclusion in the FPP was much higher, remaining approximately at the level of 2023 (66.6% vs. 68.9%).

With a view to improving the efficiency of privatization procedures to ensure their transparency and inform potential buyers (investors), Rosimushchestvo continued to post information on announced sales of state treasury property on the Avito, CIAN and Domklik websites, as well as practices “investment hours” on the property under sale, including corporate assets.

In 2024, as part of the implementation of 7 Executive Orders of the President of the Russian Federation and 15 Edicts (Decrees) of the Government of the Russian Federation on creating/expanding vertically integrated structures (VIS), Rosimushchestvo took measures to establish Almaz-Antey Air and Space Defense Concern, United Shipbuilding Corporation (USC), Russian Railways, Russian Post, Kavkaz.RF, Russian Newspapers and Rostec State Corporation. Relevant decisions on privatization terms were made in respect of 1 FGUP, 2 AOs and 32 treasury objects.

The RF Government Edict No. 2954-r dated 21.10.2024 approved a new version of the forecast privatization plan (program) (FPP). In fact, it is about a new privatization program for 2025–2027.

Compared to a similar document for 2024–2025, the text has not practically undergone any adjustments, except for indicating a new term of validity of this document.

In terms of quantity, *in 2025–2027 it is planned to complete the privatization of 20 FGUPs, including 12 state-owned enterprises, 71 business entities (including shares in 7 LLCs), as well as 27.863 facilities of other property of the RF treasury.* Compared

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1. The Report on results of privatization of federal property included in the inventory of federal property, which is privatized not being included in the FPP for the planned period, the data on sale at the minimum permissible price includes the number and sum of prices at sale without announcement of the price applied in H1 2024, but without singling them out.
 2. It is calculated as the sum of sales and failed tenders according to the data of the Rosimushchestvo report on implementation of the forecast plan (program) of privatization of federal property for 2024–2026 in 2024. The number of conducted tenders was indicated in similar documents for previous years.

to figures in the privatization program for 2024–2026, the most significant change was in the number of business entities included in the program: it more than halved (by 59%), while the number of unitary enterprises fell by only 13%, and the number of privatized property of the RF treasury remained almost unchanged (0.1% increase). As in the previous program, among FGUPs to be privatized, treasury enterprises are identified, unlike in previous similar documents. Moreover, their number exceeds the number of unitary enterprises to be privatized under the right of economic management by 1.5 times, and the number of LLCs almost twice. Unlike the FPP 2024–2026, for the first time in many years the possibility of privatization of the largest companies holding a leading position in the relevant industries according to individual decisions of the President and the Government of the Russian Federation is not mentioned.

As for the federal budget revenues from privatization of federal property excluding the value of shares of the largest companies holding a leading position in relevant sectors of the economy, they will amount to Rb 2.3bn annually in 2025–2027.

5.1.3. Improvement of privatization legislation

Referring to basic privatization law of 2001 (No. 178-FZ), it is necessary to first point out the legal innovations coming into force as early as the end of 2023.¹

The initial (minimum) selling price for river port facilities in unsatisfactory condition is set at Rb1 with a deposit for participation in the amount of 20% of the cadastral value of such facility. Part of the deposit in the amount exceeding the acquisition price of such property is returned to the winner. Moreover, the information notice on sales of such facility, besides the information stipulated by norms on information support of privatization, should indicate the amount of raising of the initial price (“bid step”).

The contract of sale and purchase of a river port facility that is in unsatisfactory condition must contain essential provisions on the obligation of a new owner to bring the facility into proper condition within a specified period of time (not more than 5 years) and on the termination of the contract in case the new owner violates the specified term. In this case, the river port facility shall be returned to the ownership of the public-law entity that privatized it, without reimbursement to the owner of the cost of such facility, including integral improvements, and without reimbursement of expenses related to the execution of the contract of sale.

However, the criterion of its purpose is also used in the regulation of privatization of this property as a whole. Regardless of the condition, river port facilities that are not used as inland water transport infrastructure due to recent legal innovations, can be privatized by procedure and methods established by the law

1. The relevant law dated 27.11.2023 No. 557-FZ came into force 180 days later, i.e. in May 2024.

on privatization, without taking into account the existing encumbrances.¹ Approval of the criteria for classifying river port facilities as being in unsatisfactory condition and not required as water transport infrastructure facilities by the Russian Federation Government Edict No. 1246-r dated 23.05.2024 makes these norms applicable.

As a result of amendments to the law on privatization adopted in April 2024 (No. 76-FZ), sales of state and municipal property at the minimum permissible price were introduced in the range of privatization methods instead of selling property without announcing the price, if it was not sold through a public offer (Art. 24).

The innovations provide for:

- Minimum allowable sale price of property in the amount of 5 or 10% of the initial offer price specified in a sale by means of a public offer².
- Payment of a deposit in the amount of 1% of the initial offer price.
- Deadline for submission of bids for sales is not less than 50 days.
- Possibility to submit several price bids from a bidder and transparency of current price bids from other participants³.
- a penalty if the buyer refuses to sign the sales contract.

If only one party is allowed to participate in the sale or if only one party from among those admitted is allowed to submit an application, such a party shall be recognized as the only participant in the sale at the minimum acceptable price. Purchase and sale contract shall be concluded at the bid price of such participant. In case of refusal or evasion, the buyer must within 10 calendar days from the date of expiry of the term set for conclusion of the contract of sale, pay to the seller a fine in the amount of the minimum price, set as a percentage of the price of the initial offer, indicated in the information notice on sale by public offer (less the amount of the deposit). The same rule applies to any other buyer. In this case, the sale is recognized as failed.

The new method of privatization has been applied since July 1, 2024. According to Rosimushchestvo, due to high transparency of the procedure, the new method of privatization will raise interest of buyers to the facilities of the state treasury to be sold, while the accepted terms of participation in the bidding will improve competition, helping to exclude dishonest bidders and buyers.

The minimum lease term of state and municipal property required for the realization by small and medium-sized enterprises (SMEs) of their pre-emptive

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1. Basic norm assumes that decision on privatization conditions and sale and purchase agreement of a river port facility should contain as an essential condition an encumbrance with the obligation to use it for passenger and ship service, loading, unloading, acceptance, storage and delivery of cargo, interaction with other modes of transport.
 2. A value of 10% is set if the initial offer price specified in the information notice on sale by public offer exceeds Rb 20mn.
 3. One party is entitled to submit only one bid, as well as one or more price offers. When summarizing results of the sale received from one party, the offer which was submitted the last shall be taken into account. No bid shall be submitted where the price at the time of submission will be less than or equal to the highest price contained in the bids received from other bidders.

purchase right is reduced to 1 year in accordance with provisions of the 2008 law (No. 159-FZ) concerning specifics of alienation of movable and immovable state or municipally owned property leased by the above-mentioned business entities, which should become an effective measure to support small and medium-sized businesses.

Much more significant changes concerning the privatization process arose apart from basic privatization law.

The RF Government Decree No. 208 of 22.02.2024 approved the Rules of alienation of federal property to create conditions for attracting investment, stimulating development of the stock market, modernization and technological development of the economy. In this regard, it should be recalled that back in 2010, as part of a large-scale update of privatization legislation, the above-mentioned category of property was removed from the privatization law. However, since then there has been no regulation of its alienation.

According to new Rules, decisions of the RF Government on alienation of federal property are prepared on the grounds of instructions or directives of the RF President, instructions of the Chairman of the RF Government, as well as of his deputy coordinating work of federal executive authorities on state property management in accordance with the procedure stipulated by the document in terms of preparation of decisions and control.

There are 4 ways of alienating relevant federal property:

— At auctions held electronically in a manner similar to that established by law on privatization. In terms of participants, the auction may be open or closed (with the introduction of qualification and (or) other requirements to potential buyers (if necessary)). The contract of sale and purchase of federal property concluded based on results of the auction (hereinafter referred to as sale and purchase contract) should specify conditions providing for obligations of the winner of the auction to implement measures (activities) to achieve the specified goals (hereinafter referred to as investment conditions), terms of their fulfillment, as well as consequences of non-fulfillment or improper fulfillment of sale and purchase contract.

— Without bidding under conditions determined by instructions or directives of the above-mentioned senior officials.

— By making a contribution of federal property to the AO authorized capital resulting in the government's share in its authorized capital being less than 25% plus one share with the option to enter into a shareholder agreement according to the joint-stock company law

— Via public offering of federally owned AO shares in accordance with Russian securities market legislation.

To consider preparation of a decision of the RF Government, a proposal for alienation of (FEA) specified in the order of the RF Government Edict of 30.08.2017 No. 1870-r, which is used by Rosimushchestvo to exercise the rights of the state

as a shareholder on behalf of the Russian Federation in respect of federally owned AO shares included in the special list¹, or (2) RF Ministry of Finance in respect of other federally owned AO shares and real estate facilities that are federally owned and not assigned in economic or operational management.

A proposal to alienate federal property should present a set of information (10 items), including justification of expediency of its alienation beyond the law on privatization, including proposed method and its compliance with the goals of creating conditions for attracting investments, stimulating development of the stock market, modernization and technological development of the economy, forecast indicators of revenues and expenditures of the relevant budgets in the RF budget system, indicators describing the impact of the proposed solution on development of the relevant sector of the economy (sphere of activity) in the short and long term, including changes in the volume of output of products (services), increased investment in the development of the economy, introduction of innovative technologies, creation of new jobs, alienation conditions, including target indicators (“performance criteria”) for achieving investment conditions (for property alienation under such conditions, specifying the Federal Executive Body responsible for monitoring their fulfillment), procedure for determining qualification and (or) other requirements for potential buyers (if necessary) with a justification for their establishment.

The initiator shall send a proposal for alienation of federal property to the Ministry of Finance, Rosimushchestvo and FAS for consideration. If the initiator is the Ministry of Finance of the Russian Federation, it shall send it to Rosimushchestvo and FAS.

The Ministry of Finance² and FAS not later than 30 days from the date of receipt of a proposal for alienation of federal property from the initiator, shall prepare and send to the initiator views of the departments on results of consideration of such proposal. They should contain conclusions on supporting such a proposal or a reasoned opinion on the inexpediency of the initiator’s proposed method of alienation of federal property and (or) other conditions thereof, taking into ac-

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1. The most significant AOs in respect of which Rosimushchestvo exercises shareholder rights on behalf of the state in coordination with federal sectoral bodies depending on the supervising agency. By the RF Government Edict No. 1870-r dated 30.08.2017 (in the current version), they include the Ministry of Energy (9 units), Ministry of Finance (8 units), Ministry of Industry and Trade (6 units), Ministry of Transport (6 units), Ministry of Agriculture (5 units.), Ministry for Digital Development (5 units), Ministry of Construction (3 units), Ministry of Economic Development (1 unit), Ministry of Natural Resources and Ecology (1 unit), Ministry of Labor (1 unit), Directorial Board for the Special Programs of the President of the Russian Federation (GUSP) (1 unit) (total — 46 AOs). The document also mentions Federal State Reserve Agency (Rosrezerv) and Russian Registration Agency (Rosreestr), although by the end of 2024 there are no AOs in relation to which Rosimushchestvo exercises shareholder rights in coordination with these agencies.
 2. The opinion of the Ministry of Finance is subject to agreement with Rosimushchestvo, including cases where the RF Ministry of Finance is the initiator of a proposal to alienate federal property.

count requirements and restrictions established by the Russian legislation on protection of competition (by FAS).¹

The RF Ministry of Finance, after receiving the opinions of Rosimushchestvo and FAS supporting the proposal to alienate federal property, prepares and submits a report to the Deputy Prime Minister of the Russian Federation, coordinating the work of FEB on state property management.

This report should contain:

- A set of information stipulated by requirements to a proposal for the alienation of federal property.

- Opinions of the Ministry of Finance, Rosimushchestvo and FAS.

- A proposal to instruct the RF Ministry of Finance jointly with the relevant FEBs to prepare and submit to the RF Government a draft decision providing for the alienation of federal property.

- A proposal to instruct Rosimushchestvo to select a legal entity to organize the sale of privatized federal property on behalf of the Russian Federation and (or) perform functions of a seller.²

Following a relevant instruction from the Deputy Chairman of the Government of the Russian Federation, coordinating FEBs activities on state property management, the Ministry of Finance shall submit in accordance with the established procedure a draft decision of the Government of the Russian Federation on alienation of the relevant federal property agreed with Rosimushchestvo, FAS and relevant FEBs.

The decision of the RF Government to alienate federal property should stipulate its method and terms, procedure for determining the alienation price, payment by crediting money to the Federal Treasury (FT) account specified in the sale and purchase contract in rubles (except for federal property as a contribution to the AO authorized capital and public offering of federally owned shares), transfer of the property to the buyer after payment and crediting of the relevant amount to the FT account, as well as other conditions of alienation of federal property (if necessary).

For transactions involving investment conditions, the decision must additionally contain target indicators (indicators) of their achievement, the form and frequency of reporting on the progress of implementation of investment conditions, procedure for control over their fulfillment indicating FEBs ensuring such control. The latter shall annually submit a report containing information and documents on the fulfillment of relevant indicators to the federal executive body appointed by the decision of the Government of the Russian Federation on alienation of federal property, which shall annually submit a report to the Government of the Russian Federation on fulfillment of target indicators (indicators) for achieving investment conditions.

1. FAS, in addition to the initiator, also forwards the opinion to the Ministry of Finance.

2. The initiator justifies the rationale of involvement in the prepared proposal on alienation of federal property. Only 7 of 23 organizations remained in the list of relevant legal entities approved in 2010 after excluding organizations with prevailing share of direct or indirect foreign participation in spring 2022.

Implications of non-fulfillment or improper fulfillment of the decision of the RF Government on alienation of the relevant federal property, including breach of the deadline for investment conditions, if they are specified in the sale and purchase contract, may include the obligation to pay fines (penalties, fees), termination of the contract according to procedure provided for by RF legislation, returning of the alienated property or its seizure by the court.¹

5.1.4. Government property policy and its role in the economy

Overall approaches of the government property policy from the end of 2020 are attributed to the State Program (SP) “Public Finance Management and Regulation of Financial Markets” supervised by the Ministry of Finance of Russia, which includes a line (subprogram) “Management of Federal Property.” The stated set of SP results (in current version) consists of 6 aspects.

One of them was replaced in 2024. Instead of specific weight (in %) of agricultural lands involved in economic turnover, being in federal ownership, there appeared a share of lands of the RF state treasury involved in economic turnover out of the total number of federal treasury lands that can be involved (77% by 2030). Therefore, the other indicator has been refined. At least 2-fold growth of the share (in %) of the RF state treasury property involved in economic turnover from the total number of federal treasury facilities at the end of the reporting year (vs. 2021) now refers only to treasury facilities (excluding lands).

The inventory of federal property performed by Rosimushchestvo together with local public authorities to identify objects in unsatisfactory condition was an important step. The results of the event were reported by the agency director at a meeting of the upper house of parliament.²

Using initial analysis of all buildings listed in the federal property register, a sample of facilities requiring on-site physical inspections was generated. New technologies were used in the course of inspection. Rosimushchestvo’s territorial bodies were provided with mobile devices (tablets) to access the “Checks” service developed and implemented in 2023 at the request of the agency and supported by the RF Government on the Unified Digital Platform “GosTech”. This allowed to significantly reduce paperwork and increase efficiency of the audit (data quality).

In total, during the inventory, the condition of over 300.000 facilities were reviewed, of which 12.471 units (or 4.2%) were inspected by on-site commissions. Nearly half of them (6.116 units, or 49%) are in unsatisfactory condition. Most of such facilities are located in Ingushetia, Moscow, Moscow and Tver regions, Krasnodar krai.

1. *Malginov G. N.* Basic trends of privatization process in 2023 –H1 2024. Ref.: Economic development of Russia, 2024, No. 8, p. 40–47.

2. URL: <https://rosim.gov.ru/press/news/493068>, December 9, 2024.

A goal has been defined for each of them, which by beginning of December was achieved in respect of 547 facilities (less than 9%), among which 211 units were transferred to the ownership of regions and municipalities, 83 units were transferred to AO “DOM.RF” for further sale, and 17 units were privatized. All the goals have been fully achieved in the Yaroslavl region, where the pilot project was implemented, as well as in Chechnya and Tatarstan. The remaining buildings and facilities are scheduled for fulfillment of target functions with completion for the majority of facilities by the end of 2025. The above data show that sale and privatization still play an auxiliary role in the range of possible options for utilizing problematic property.

According to the interim inventory results, more than 650 facilities in unsatisfactory condition are proposed to be preserved for further use by federal executive authorities (FRBs) and their subordinate organizations. The right holders of such facilities will take measures to bring them into proper condition.¹

Cultural heritage facilities (CHF) are a special case. The inventory revealed 1818 CHF in unsatisfactory condition (about 30% of the total number of facilities identified in the course of the inventory), for which particular proposals were developed regarding target functions, including 386 facilities for religious purposes that are restricted in turnover. The report sent by Rosimushchestvo and the Ministry of Finance to the Government of the Russian Federation based on results of this action proposes to instruct the Ministry of Culture to include the predominant part of CHF in unsatisfactory condition that are not subject to economic turnover (1.279 units or more than 70%) into program of saving CHF, the legacy of the peoples of the Russian Federation for their further restoration. . The document also reflects the need to ensure that FEBs and their subordinate organizations renovate cultural monuments or take measures for their decommissioning (disposal).

Changes in the list of strategic organizations were minimal for the entire 20-year period of the Executive Order No. 1009 of 04.08.2004 of the RF President on its approval. Only 1 company was excluded from the list during the previous year. Due to increase of the authorized capital of the United Shipbuilding Corporation (USC), almost all shares (100% — minus 1) of a large integrated structure, AO Marine Instrumentation Corporation (St. Petersburg), established in 2020, shall be added to it.

Major changes were made to the list of property for which temporary management was introduced in response to unfriendly actions of foreign states pursuant to Executive Order No. 302 of the President of the Russian Federation dated 25.04.2023.

By early 2025, it included securities (shares) of 24 companies. Most of them are somehow related to ensuring fuel production, including production and servicing of equipment, customized services, R&D, etc. (HMS Holding, HMS Group, GIDRO-MASHSERVICE, Nizhnevartovskremsservice, “Livensky plant of submersible pumps” (Orel region), “HMS Livgidromash”, “HMS Processing Technologies”, “HMS Neftemash”, “Engineering and production company ‘Sibnefteavtomatika’, ‘Sibneftemash’,

1. URL: <https://rosim.gov.ru/press/news/487501>, September 25, 2024

‘Research & development and design institute of centrifugal and rotary compressors named after V. B. Shnepp’, ‘Kazan compressor engineering plant’, “Dimitrovgrad chemical machine building plant” (Ulyanovsk region), “Tyumen design and research institute of oil and gas industry named after V. I. Muravlenko”), adding to the list of property under temporary management at the very end of 2024, as well as AB InBev Efes (brewery). Besides, this section included PJSC Unipro and Fortum (energy), 4 printing houses (Moscow, Yekaterinburg, Novosibirsk, Chelyabinsk), AO Glavprodukt, Orelprodukt and Verkhovsky dairy canning plant (Orel region) (food industry).

The division of stakes in authorized (joint stock) capitals of Russian legal entities included 17 companies (LLC Prime Print Voronezh, Ulyanovsk Machine-Tool Plant, Kapital Agrofinance, AgroTerra, AgroSystem-Regions, AgroSystem (agro-industrial complex), Ariston Thermo Rus and BSH Household Appliances (production of household appliances), “Silgan Metal Packaging Stupino and Silgan Metal Packaging Enem (production of metall packaging), Baltic canning plant (Kalinigrad region), Glavprodukt, Glavprodukt Patent, United Industrial Company, United Canning Plants, Promselkhozinvest (food industry), HMS Group management company LLC).¹

In most cases, Rosimushchestvo has been appointed as interim manager. Furthermore, this function is performed for Ariston Thermo Rus and BSH Household Appliances by AO Gazprom household systems, and for AB InBev Efes by AO Together Group, and the government of Moscow with regard to 5 printing houses², though initially the Rosimushchestvo was approved for them. The list also includes immovable property (two aircrafts), for which Gazincom LLC acts as temporary manager. Mostly companies from the EU countries act as a party with restricted realization of the property right. The most famous of them are German Uniper and Bosch, Finnish Fortum, Italian Ariston, etc.

The list of assets placed under temporary management was obviously expanding, covering a wide variety of activities, mostly very distant from strategic industries. During 2024, among the above-mentioned shares in the authorized capitals of Russian legal entities, it was supplemented by almost all of the aforesaid companies (except Prime Print Voronezh) and 4/5 of the companies represented by securities, as well as by aircrafts. So far, all assets of the French company Danone (AO Danone Russia) and Danish Carlsberg (LLC Baltika Brewery Company), as well as a major Russian car dealer Rolf Group, which came under temporary management back in 2023, were few precedents for exclusion from the list. Lifting temporary management should be viewed as preparation for the anticipated sale of assets to Russian businesses, which in the current realities requires a lot of time and careful preparation, including channeling payments related to sale of assets by foreign companies to the federal budget. They are accounted in the budget state-

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1. Number of legal entities differs from numbering in the list, because for most of them there are shares forming the entire capital, but belonging to different owners.
 2. Owner is Norwegian Amedia Eastern Europe AS.

ments as gratuitous receipts from non-state organizations, but are not identified in any way.

It should be taken into account that temporary management is a palliative option compared to transfer of foreign assets into the ownership of the government or domestic companies. Meanwhile, the Executive Order of the President of the Russian Federation of 23.05.2024 No. 442 allows termination of rights to property of the USA or the USA individuals with subsequent transfer of these rights to Russian right holder to compensate the damage in case of unreasonable deprivation of Russian right holders of their rights to property. The Russian right holder is entitled to apply to the court under the rules of sub-jurisdiction established by procedural legislation of the Russian Federation with a petition to establish the fact of unjustified deprivation of his rights to property due to a decision of a state or judicial body of the USA and to compensate for the damage, specifying its assessment.

If the mentioned application is accepted for consideration and if there is evidence allowing to make a reasonable assumption that there are no sufficient grounds for depriving the Russian right holder of rights to property due to a decision of a state or judicial body of the USA, the court shall send a request to the Government commission for control over foreign investments in the Russian Federation (hereinafter Commission) to provide a list of US property (or) foreign individuals related to the US¹ and individuals under their control, regardless of where they are registered, which may be used for compensation purposes.

To prepare a response to the request, the Commission shall organize the identification of property which, taking into account the principle of proportionality, can be used for the purpose of compensation for damage. The Commission shall submit a list of such property to the court. Such property includes: (1) movable and immovable property of the United States or US individuals located in the territory of Russia, (2) securities owned by the United States or US individuals, shares in the authorized (joint stock) capitals of the Russian legal entities, (3) property rights belonging to the USA or to US individuals.

A series of court cases related to seizure of assets in favor of the state continued. Numerous enterprises that were part of the Etalon business group (including Chelyabinsk Electrometallurgical Plant (CEMK), Serov Ferroalloy Plant (Sverdlovsk Region) and Kuznetsk Ferroalloy Plant (Kemerovo Region)), Ariant (main specialization is winemaking, with Kuban-Vino LLC as its core asset) were transferred into the state ownership, Agromakfa (main specialization is food production, base asset — JSC Makfa, the largest pasta producer)², Konti (main specialization is confectionery, base asset — confectionery factory in Kursk), Temak Limited (main specialia-

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1. Including if such foreign individuals are citizens or residents of this state, their place of registration, place of primary business activity or this state is their place of priority gain from their activity.
 2. Apart from assets defined by the core specialization, the business group around Makfa included other assets (e.g. Chelyabinskoblغاز and media).

lization is production of brake, friction and sealing materials, base asset — Ural-ATI PJSC in the Sverdlovsk region), Roshen (main specialization is confectionery, base asset — confectionery factory in Lipetsk), Global Spirits (main specialization is alcohol, base asset — distilleries in Vologda and Moscow region), SP Group Spirits (main specialization is alcohol, base asset — distillery in Tambov), as well as Ivanovo Heavy Machine-Tool Plant (with affiliated companies), 8 Far Eastern fishing companies (Primorsky Krai and Sakhalin region).¹ Compared to 2023, when litigation mainly affected the energy, chemical industries and ports, it can be stated that there is a shift in the sectoral breakdown towards metallurgy, machine building, food industry, while the Chelyabinsk region (Chelyabinsk Metallurgical Plant and Makfa) clearly stands out in the regional aspect. As in the previous year, transfer of shares to the state ownership resulted in a change in companies' management. Thus, the new General Director of AO CEMK was appointed for a term of 5 years in accordance with the Edict of Rosimushchestvo dated August 7, 2024.²

Overall scale of renationalization is not easy to estimate. For two years from February 2022, the General prosecutor's office of Russia has initiated 55 cases on reclamation from private ownership of large assets (shares or real estate with the size of more than 5 ha for land plots or 300 sq.m. for non-residential premises).³ Obviously, not all cases involve a completed transfer in favor of the state. Meanwhile, according to figures announced by the Head of the Prosecutor General's Office at the extended board of supervisory authority on 2023 results and tasks for 2024, the Prosecutor General's Office has achieved the return of assets of strategic enterprises to the state for more than Rb1 trillion. In an interview with the Kommersant newspaper, I. Krasnov specified that since 2023, 15 strategic enterprises with a total value of over Rb333bn have been returned to federal ownership only in the military-industrial complex.⁴ The Prosecutor General said in an interview with Interfax at the St. Petersburg International Economic Forum (SPIEF) early summer that since 2022, more than 100 companies with assets estimated at Rb1.3 trillion have been returned to the state following lawsuits filed by prosecutors. Since the beginning of 2023, 20 strategic enterprises that were illegally withdrawn from the possession of the Russian Federation in favor of foreign residents and used to the detriment of Russia's interests have been returned to the state following lawsuits filed by pro-

1. Which private companies the prosecutor's office wants to hand over to the state — RBC, October 15, 2024, URL: <https://www.kommersant.ru/doc/6396215>, December 12, 2023, URL: <https://www.kommersant.ru/doc/6524367>, February 19, 2024, URL: <https://www.kommersant.ru/doc/6693533>, May 16, 2024, URL: <https://www.kommersant.ru/doc/6746005>, June 4, 2024, URL: <https://www.kommersant.ru/doc/6851636>, July 24, 2024. Enterprises that were part of the Konti, Temak Limited, Roshen, Global Spirits, SP Group Spirits business groups were transferred to the state due to recognizing their beneficiaries as extremists.

2. URL: <http://rosim.gov.ru>, 12.08.2024.

3. How large could renationalization turn in Russia? February 14, 2024

4. URL: <https://tass.ru/ekonomika/20361147>, URL: <https://www.kommersant.ru/doc/6595064>, March 26, 2024

secutors in relation to enterprises privatized in violation of the law. Their assets are estimated at more than Rb370bn in total.¹

As follows from the above data, privatization breaches are not the main reason for litigation resulting in the transfer of assets into state ownership. Further developments will be determined by a decision on the statute of limitations for certain cases. The position expressed by the Constitutional Court of Russia is that there is no such limitation period for corruption violations, but perpetuity does not apply to privatization violations. The President of the Russian Federation instructed the Government together with the Russian union of industrialists and entrepreneurs (RUIE) to consider the “procedure for calculating the statute of limitations” for challenging privatization transactions.²

Construction of integrated structures and participation in mergers and acquisitions remained the usual ways of strengthening the public sector.

Thus, the State unitary enterprise “Fuel & Energy Company of St.Petersburg” acquired a 60.5% stake in AO “Teploset of St.Petersburg” from TGK-1, controlled by Gazprom. Taking into account the already existing share (21.4%) and the share owned by the City property relations committee (18%), it can be said that full urban control over this company has been established. The transaction price amounted to Rb6bn (with 5-year installment). In 2014. “Gazprom Energoholding failed to sell the company’s shares to the city for Rb6bn with a 20-year installment due to objections of the Finnish energy concern Fortum, one of TGC-1’s shareholders.³

Activity of the second most important bank in the domestic economy is quite indicative. In 2024, VTB (PJSC), being one of the shareholders of Pochta Bank, became its sole owner, having bought out almost half of its capital from another shareholder, JSC Russian Post for Rb36 bn.⁴ Such a deal could help financial recovery of the all-Russian postal operator. A much more solid acquisition was the First Freight Company (FFC), which changed owners twice. The largest freight operator, created during the reform of railway transport, first passed from NLMK structures to Aurora Invest AO, and then for Rb200 bn to VTB, which announced its possible imminent sale.⁵

It should also be reminded that based on the Presidential Executive Order of 2023, full (100%) federal stake of the United Shipbuilding Corporation (USC) was to be transferred to VTB Bank (PAO) for a 5-year trust management period without a tender for the right to conclude a trust management agreement (TMA) without remuneration. The RF Government Edict No. 94-r dated 19.01.2024 defines the terms of the contract.

The DDU does not grant the trustee the rights to manage shares, nor does it provide for payment of remuneration or reimbursement of expenses incurred.

1. URL: <https://www.interfax.ru/interview/965549>, June 7, 2024

2. Putin instructed to consider the statute of limitations for deprivatization — RBC, January 15, 2025

3. St. Petersburg received 100% of shares in the city heating network — RBC, January 19, 2024

4. VTB bought Pochta Bank for Rb36 bn — RBC, December 10, 2024 December

5. VTB will sell the First Freight Company until the end of the year — RBC, 2024

The government's position on proposals to nominate candidates for election to the company's Board of Directors (BoD) is determined by a decision of the RF Government, while proposals in this regard are formed pursuant to proposals by the RF Ministry of Industry and Trade and the trustee. Candidates nominated based on proposals of the RF Ministry of Industry and Trade should be no more than half of the approved number of members of the company's BoD. The remaining candidates shall be nominated by Rosimushchestvo according to proposals of the trustee. Representatives of the state's interests should not exceed half of the approved number of members of the Board of Directors, and otherwise is possible if the trustee submits relevant proposals. The chairman of the Board of Directors shall also be nominated on his/her proposal.

The trustee shall ensure achievement of the key performance indicators (KPI) of the trust management of the shares of OSK stipulated in the annex to the contract, formed in agreement with the trustee upon proposals of the RF Ministry of Industry and Trade and Rosimushchestvo. He has the right to send to the trustee a list of objective reasons for failure to achieve KPIs if circumstances beyond the trustee's control arise 30 days before the due date for submission of his report stipulated by the contract.

The contract must include the following conditions for its early termination: (1) the trustee or the management founder's refusal to perform trust management due to the trustee's inability to personally conduct it, (2) non-compliance with the procedure for decision-making by the company's management bodies (General Meeting of Shareholders, Board of Directors) established by the contract, as well as violation by the trustee of corporate procedures provided for by the AO Law, (3) failure to achieve KPIs, (4) actions by the trustee that entail the risk of harm to the interests of the founder.

Meanwhile, the structure of OSK expanded. In addition to the previously mentioned Marine Instrumentation Corporation, all shares of AO Commercial Center, Transport and Forest (St. Petersburg), which were transferred into state ownership during recent court proceedings (former assets of Severnaya Verf, withdrawn during the establishment of the holding group in the 90s), were among other assets to be contributed. The main activity of the organization was to provide a range of services for transshipment and storage of a wide range of cargoes transported by sea, rail and road.¹

As for this sector, it is also worth mentioning the decision to transfer shares of AO Zhatai Shipyard (Sakha (Yakutia)) from federal to republican ownership. According to the Executive Order of the RF President dated 05.01.2024, the condition for this is the adoption by the Russian government together with regional executive authorities of measures aimed at the completion in 2024 of the first stage of implementation of the investment project to build a high-tech Zhatai shipyard. The federal government was instructed to ensure coordination of the terms of agreement bet-

1. URL: <http://rosim.gov.ru>, 05.02.2025.

ween the Russian Federation, the Republic of Sakha (Yakutia) and AO Zhatai Shipyard on its development, providing in this document measures to ensure control over the attraction of extrabudgetary funds and implementation of the investment project, maintaining core activities and the integrity of the property facility of the specified AO, developing research and production potential, concentrating intellectual, production and financial resources in the implementation of ship and vessel construction projects, modernizing the AO's production facilities, and concluding this agreement.

5.1.5. Administration of public sector economic agents

Ita The minimum of changes in the list of strategic organizations can be interpreted with some caution as the completion of the formation of the core of the public sector. Therefore, it is logical to shift the emphasis of the state property policy towards fine-tuning the mechanism of management of economic entities belonging to it. Last year, many important innovations appeared in it.

Primarily, the RF Government Order No. 2199-r dated 15.08.2024 approved methodological recommendations for *the development and confirmation of development strategies* of joint-stock companies (JSCs), the shares of which are owned by the Russian Federation, and federal state unitary enterprises (FSUEs).

The development strategy consists of 8 sections: (I) general provisions, (II) role and place of the organization in the strategic development of the country and industry, (III) markets and consumers, (IV) competitive analysis, (V) strategic objectives of the organization's development, (VI) forecast of development, (VII) key indicators, (VIII) program of priority activities. In the event that at the end of 3 full years preceding the period of strategic planning the organization's revenue averaged less than Rb 1 bn annually and at the same time the book value of assets at the end of the year averaged less than Rb 10 bn, sections II, III and IV may not be formed or may be formed without taking into account the requirements of these methodological recommendations.

Without going into the content of any particular section in detail, we will only note the most important points.

Firstly, the text of the document refers to the strategic planning documents established by the Federal Law of 28.06.2014 No. 172-FZ "On Strategic Planning in the Russian Federation". It is on their basis that the section devoted to the role and place of the organization in the development of the country and the industry should be developed.

Secondly, the section "markets and consumers" includes a forecast of changes in the market where the organization operates in terms of demand, structure, competition, composition and structure of consumers of products, their ability to pay, as well as a plan of product sales by nomenclature groups (units, if grouping is im-

possible) with an indication of its significant groups (units) with a share in the total sales of the organization that is more than 5%.

Thirdly, the section “competitive analysis” should contain the results of the analysis of the organization’s performance outcomes in comparison with the performance outcomes of at least 3 companies comparable to it in terms of scale and objectives of financial and economic activity (FEA), composition of products, capital structure, market and territorial affiliation.¹

Fourthly, the forecast of the organization’s development should contain a financial model based on modern tools, principles and methods of mathematical forecasting, financial modeling for the entire period of strategic planning (recommended duration — at least 5 years).² When planning and implementing the model, it is necessary to take into account its interrelation with the main characteristics of the organization and factors affecting its activities.³

It is worth to focus in more detail on the process of development and approval of the organization’s development strategy.

Development of the draft document and its preparation for approval (adjustment (update)) by the organization’s governance body (hereinafter referred to as the MB) is ensured by the organization’s executive board (hereinafter referred to as the EB). Before submitting the draft to the MB for consideration, the EB ensures that the MB Strategy Committee (hereinafter referred to as the SGBC)⁴ discusses several draft options based on the following:

— Version with minimum risk, characterized by guaranteed (no-risk) stability of the organization’s activity, where the financial model assumes a positive discounted financial performance of the period under the probable realization of all significant risks.

— Neutral version, characterized by moderate risk of the organization’s activity, should meet the average rates of development of the world and (or) national economy, as well as where the financial model takes into account the average industry values of profitability indicators and the average level of industry risks, relevant at the time of approval of the development strategy.

— Risky version characterized by the adoption of increased risks in the formation of the financial model and has a greater economic effect for the organization than

1. Not required for organizations that are subjects of natural monopolies.

For organizations operating mainly outside the country, competitive analysis is conducted if peer companies are available.

2. With the possibility of increase or reduction, but not less than 3 years by the decision of the MB.

3. In accordance with the forms of consolidated or accounting reports depending on the organization’s use of International Financial Reporting Standards (IFRS).

4. Since the majority of economic agents subject to the application of the recommendations are JSCs, we are talking about interaction in the triangle “director (general director/directorate (management board) — Board of Directors (Supervisory Board) (BoD (SB)) — Strategy Committee of the Board of Directors (BoD (SB))”. For Federal State Unitary Enterprises (FSUEs), the MB is a federal executive body (FEB), state corporation or other organization exercising the ownership powers.

other variants of the development strategy project. Unlike the first two, it is not associated with the basic variant of the forecast of social and economic development of the Russian Federation during the entire period of strategic planning.

When considering variants of the draft development strategy by the SGBC, it is necessary to:

- avoid approval of the risky variant of the draft development strategy if the organization has signs of insolvency (bankruptcy) or its net assets are less than the authorized capital.

- avoid approval of the neutral and risky variants of the draft development strategy, if the full implementation of all risks provided for by the financial model may result in the formation of signs of insolvency (bankruptcy) and liquidation of the organization.

The management board (MB) of the organization, taking into account the SGBC decision, decides on the choice of a single variant of the project and the inexpediency or necessity to supplement it with the section “program of priority activities”.¹

The MB of the special-list entity,² considering the EB decisions, ensures that the draft development strategy³ is sent to the interested federal executive bodies (FEBs):

- Sectoral body, if the organization of the special list is a JSC.
- Federal agency of executive authority exercising on behalf of the Russian Federation the rights of a shareholder of the organization from the special list, if this body is not at the same time a sectoral body.
- Ministry of Finance of the Russian Federation.
- Ministry of Economic Development of the Russian Federation.
- Ministry of the Russian Federation for the Development of the Far East and the Arctic.⁴

The financial authority of a subject of the Russian Federation or a local self-government body should receive a position on individual measures of the development strategy financed from the regional or local budget on the absence of comments.

The interested federal executive bodies shall ensure consideration of the draft development strategy and, no later than 30 calendar days from the date of its re-

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1. May not be formed or may be formed without considering the requirements of the methodological recommendations. Prepared by analogy with the draft strategy.
 2. Includes 58 organizations, comprising 49 JSCs and 9 FSUEs. Once approved, their development strategies are subject to submission to the Government of the Russian Federation.
 3. Together with the activity financial model, compiled in the form of spreadsheets in xls orxlsx format that allows searching, copying and editing of any text fragment, and other materials necessary for consideration of the draft development strategy.
 4. If the development strategy is implemented in the Far Eastern Federal Okrug (FEFO) and the organization is included in the annex to the Rules for coordination of investment programs and development plans of state corporations, state-owned companies and other organizations with state participation by the Ministry for the Development of the Far Eastern Federal Okrug (approved by the Government of the Russian Federation of 27.12.2016 No. 1502).

ceipt, send one of the positions to the organization of the special list in the form of a letter from the interested body signed by its head or deputy head:

- Possibility to support the project without comments and suggestions.
- Possibility to support the project taking into account comments and suggestions.
- Inability to support the project.

The MB of a special-list organization considers positions of the interested federal executive bodies and, if necessary, takes them into account when drafting the final text of the development strategy.¹ If the position of an interested federal executive body, as well as a financial authority of a subject of the Russian Federation or a local government body, has not been received by the organization within 40 calendar days from the date of receipt of materials by the relevant authority, the draft development strategy is considered to be supported.²

If there is an instruction from the Government of the Russian Federation providing for the approval of the organization's draft development strategy of a special list by Deputy Chairmen of the Government of the Russian Federation, the MB of such organization prepares the final draft document and sends it to the Government of the Russian Federation with copies of the positions of the interested federal executive bodies, as well as with background information on the results of their consideration in the preparation of the final draft document by the EB.

The EB of the organization within the terms determined by the decision of the MB, but not earlier than 10 working days from the date of sending the information to the interested federal executive bodies, submits to EB the final draft of the development strategy for its approval in accordance with the established procedure with a set of materials.³

1. If the positions of interested bodies are not taken into account or are partially taken into account, the EB of the special-list entity informs interested federal executive bodies about it, attaching information on the composition of comments not taken into account (partially taken into account) and justifications for not taking them into account (partially taking them into account).
2. And in the case of funding individual activities from regional or local budgets, the final draft of the organization's development strategy is considered by its EB without taking into account such a position of the local financial authorities.
3. Including copies of (1) decisions of the MA made after consideration of the issue of selecting the only options of the draft development strategy and the "program of priority measures" section or in expediency of including this section in the document, (2) positions of interested federal executive bodies with information on the results of their consideration when preparing the final draft of the development strategy (if a special list is organized), (3) positions of financial authorities of the constituent entity of the Russian Federation or local self-government bodies on support of certain measures of the development strategy (if a special list is organized), (3) positions of financial authorities of the constituent entity of the Russian Federation or local self-government bodies on support of certain measures of the development strategy (if regional and local budgets are the source of their funding), (4) decisions of the Deputy Chairmen of the Government of the Russian Federation (if there is an instruction from the Government of the Russian Federation), as well as methodological recommendations, other reference materials necessary for the MB of the organization to make a balanced and objective decision when considering and approving the development strategy.

The development strategy for the strategic planning period is approved by the EB of the organization not later than March 31 of the first year of the strategic planning period in accordance with the procedure established by the methodological recommendations, and not later than 5 working days is posted in accordance with the established procedure by the organization on the interdepartmental portal for state property management in the information and telecommunications network “Internet” (hereinafter— MV-portal),¹ as well as submitted to:

- In respect of all organizations— to the sectoral body.
- In respect of all organizations of the special list— to the Government of the Russian Federation and interested federal executive bodies.

The MB ensures control over the implementation of the development strategy when reviewing quarterly reports of the EB, if the preparation of such reports is stipulated by the organization’s founding document or its other internal regulatory document, and when approving (including preliminary) the organization’s annual reports (reports on financial performance of the enterprise).

Adjustment (update) of the approved development strategies during the strategic planning period is carried out by the MB of the organization on a mandatory basis in case of amendments to the adopted methodological recommendations and (or) in order to implement the instructions and (or) directives of the Government of the Russian Federation providing for the adjustment (update) of documents, and in other cases— if needed.

Adjustment (updating) of the development strategies of MB of special-list organizations is possible during the entire period of strategic planning without obtaining the positions of interested federal executive bodies in the following cases:

- In order to execute instructions and (or) directives of the Government of the Russian Federation, which provide for the adjustment (update) of documents.²
- To bring the development strategy into compliance with the Russian legislation.
- When making changes to the document that are not related to the adjustment (update) of the organization’s strategic development goals, the procedure, amounts and terms of financing of the development strategy, the organization’s investment program, its digital transformation strategy (program), the composition, weight and target values of key performance indicators (KPIs).

In other cases, the adjustment (update) of the development strategy of organizations of the special list is possible taking into account the need to obtain the po-

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1. If the development strategy contains restricted information (it is a state, official, commercial or other secret protected by law or contains a “for official use” label), only a copy of the decision of the MB of the organization on approval (correction (update)) of the document shall be placed on the MV-portal, taking into account the requirements of the Russian legislation.
 2. Except for cases when such instructions and (or) directives provide for obtaining positions of state authorities and (or) local self-government bodies with regard to the draft adjusted (updated) development strategy.

sitions of interested federal executive bodies with regard to the draft adjusted (updated) development strategy in accordance with the established procedure.

The development strategy of the organization's subsidiary is approved by MB not later than March 31 of the first year of the first year of the strategic planning period. The procedure for developing and approving (adjusting, updating) the development strategy of a subsidiary, disclosing information about it and ensuring control over the document execution is established by the organization independently.

If the organization is a JSC, the implementation of the organization's development strategy and KPIs in the document are subject to annual assessment:

- By the RF Government-authorized federal executive body (if the organization is included in the list of relevant organizations approved by the RF Ministry of Finance).

- By an audit organization (individual auditor) engaged (engaged) based on the results of competitive procurement procedures through the conclusion of a relevant contract, on the basis of the terms of reference approved by the MB of the organization and prepared in accordance with the typical standard of such assessment, approved by the instruction of the Chairman of the Government of the Russian Federation or Deputy Chairman of the Government of the Russian Federation in charge of state policy in the field of corporate governance (in other cases).

The same applies to FSUEs, which have a special procedure for decision-making on certain issues of their activities. For other enterprises, the procedure, necessity and frequency of assessment of the implementation of their development strategies and KPIs in these documents are determined by the organization's MB.

For practical implementation of the methodological recommendations on the development and approval of development strategies, federal executive bodies were instructed to ensure compliance with them (development, updating) of internal documents of organizations regulating the procedure for the development and approval of their development strategies and (or) other documents defining priority areas of activity, providing for the application of such internal documents from November 1, 2024 for the purpose of formation of development strategies of organizations with the beginning of the period of their validity from 2025 (or any subsequent year if the current development strategies, long-term development programs (LDPs) and (or) other documents defining their priority areas of activity are completed after 2025).

This should apply not only to FSUEs and JSCs whose shares are in federal ownership,¹ but also to companies that are subsidiaries and dependent compa-

1. Except for those included in the projected privatization plan (program) or in respect of which decisions on liquidation have been taken in accordance with the established procedure, as well as JSCs mentioned in the RF Government Edict No. 91-r of 23.01.2003 (as amended) but not mentioned in the appendix to the methodological recommendations. It should be reminded that this order contains lists of JSCs in respect of which the position of the state as a shareholder on the most important issues of corporate management is determined by the Government of the Russian Federation, the Chairman of the Government and his deputies.

nies (SDCs) of organizations and more than 50% of shares of which are under direct or indirect control of the Russian Federation. State corporations (SCs), state companies and public-law companies (PLCs) are recommended to be guided by the new normative document in the part concerning the composition, structure and terms of approval of documents determining the priority directions of their activities (development strategies, DPRs, activity programs and (or) other documents), and extend them to subsidiaries and affiliates with more than 50% of shares under direct or indirect control of the Russian Federation and (or) SCs, state-owned companies and CCPs, as well as to FSUEs, in respect of which property ownership rights are exercised by SCs on behalf of the state, taking into account the specifics of their activities.

The emergence of the above methodological recommendations resulted in amendments to several existing documents.

Government Resolution No. 739 of 2004, which regulates the powers of federal executive bodies to exercise the rights of the FSUE property owner, no longer refers to the validity period of approved programs of the enterprise's activities (from 3 to 5 years), as did Government Resolution No. 228 of 2002, which regulates the procedure for their approval. The latter document now refers to the approval of the enterprise development strategy by the Federal Executive Body in accordance with the methodology approved by the Government of the Russian Federation.

Mention of the main activities of the company's development strategy appeared in the sample structure of the annual report of a JSC whose shares are in federal ownership approved by Decree No. 1214 of the Government of the Russian Federation of 2010. At the same time, the document ceased to mention the long-term development program (LDP) of the company in all aspects. Regarding information on the implementation of the development strategy of a JSC, along with the opinion of an auditing organization, it is allowed to present the opinion of the federal executive body authorized by the Government of the Russian Federation, which is also extended to the implementation of KPIs as part of the development strategy.

Instead of approving development strategies and LDPs, the federal executive bodies should review draft development strategies of JSCs and submit positions on them within no more than 30 calendar days from the date of receipt of the relevant documents from JSCs in respect of JSCs included in the special list and the list of strategic JSCs.¹ For the approval of KPIs, it cannot exceed 15 working days from the date of receipt of the relevant documents from AOs. Previously, a single shorter term (10 days) was in effect for the approval of development strategies, LDP and KPI.

Instead of approving development strategies and LDPs, the federal executive bodies should consider JSCs draft development strategies and submit positions

1. Accordingly, the companies in respect of which Rosimushchestvo exercises shareholder rights on behalf of the state in coordination with federal sectoral bodies depending on the supervising agency (according to the Edict of the Government of the Russian Federation dated 30.08.2017) and included in the list according to Presidential Executive Order No. 1009 of 04.08.08 (in effective editions).

on them within no more than 30 calendar days from the date of receipt of the relevant documents from JSCs in respect of JSCs included in the special list and the list of strategic JSCs. For coordination of KPIs, it cannot exceed 15 working days from the date of receipt of the relevant documents from the JSC. Previously, a single shorter term (10 days) applied to the approval of development strategies, LDPs and KPIs.

The reference to the development strategy as a program-target document of a JSC or subsidiary, which is its internal document and defines strategic goals of activity and ways to achieve them, appeared in the methodological recommendations on identification and alienation of non-core assets in 2017 (in the wording approved by the RF Government Edict No. 985-r of 19.04.2023). The previous version referred only to program-targeted documents of JSCs or subsidiaries.

Personnel policy was another main aspect of improving the mechanism of management of public sector economic agents.

Order of the Ministry of Finance of Russia No. 95n of 25.06.2024 abolished the application of most of the criteria in respect of applicants to the management bodies of JSCs, the shares of which are in federal ownership, in case of their election in fulfillment of orders or instructions of the President of the Russian Federation, orders of the Chairman of the Government of the Russian Federation and his deputies. The exceptions made from the general rules concern applicants to the Boards of Directors (Supervisory Boards) (BoD (SB)) and Audit Commissions (AC) of companies, as well as individuals and legal entities in case of their election as chief executive officer (CEO) of JSCs.

In this regard, it should be noted that the criteria approved in 2021 for each of the above-mentioned categories of top management, partially overlapping, are divided into two groups: (I) general, which are applied for the preliminary verification of the applicants' eligibility, and (II) additional, which are applied for the purpose of selecting applicants when several applicants meet all the general criteria.

The following criteria are no longer applicable to applicants to both the Board of Directors (BoD) and the Internal Audit Commission (IAC): (1) higher education corresponding to the objectives of the company's activities as stipulated (specified) in its constituent document or in the LDP, and (or) in a number of specialties and (or) areas of training,¹ and (2) approval of the candidate by the federal executive body, in consultation with which Rosimushchestvo exercises the rights of a shareholder (if the company is included in the special list). The criteria of (3) length of service, state civil service of the Russian Federation or municipal service,² and (4) absence, as of the date of election to the company's Board of Directors (BoD), of labor relations with a business entity that is a competitor of the company are no longer applicable to candidates to the company's BoD, including as a member of its collegial executive body,

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1. Included in the enlarged groups of specialties and (or) areas of higher education "Economics and Management", "Law", "Mathematical and Natural Sciences" or "Engineering, Technology and Technical Sciences".
 2. Differentiated depending on the company's income from the regular types of activities for the previous reporting period.

(5) no information in the license registers on the revocation of licenses granted to legal entities during the period when the applicant exercised the powers of their CEO and (or) member of their governing bodies in the three years preceding the selection.

The application of criteria for selecting applicants when several candidates meet all general criteria for both the Board of Directors (BoD)¹ and the IAC² has been entirely abolished.

The selection of applicants as sole chief executive officers of JSCs, which can be both individuals and legal entities, is more difficult to regulate. However, for the latter, differentiation is introduced depending on whether the sole executive body of a JSC is an individual or a legal entity.

The following criteria are no longer applicable to applicants who are individuals in the event of their election as CEO of a JSC from the set of preliminary verification criteria: (1) length of service, state civil service of the Russian Federation or municipal service,³ (2) absence in the license registers of information on annulment of licenses granted to legal entities during the period when the applicant exercised the powers of their EIO and (or) member of their governing bodies for the 10 years

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1. Including: for persons who exercised the powers of a member of the Board of Directors (SB) of the company in the reporting year preceding the selection, (1) availability of a report on the activities of representatives of the interests of the Russian Federation in the management bodies of JSCs whose shares are in federal ownership for the reporting year preceding the selection, prepared and posted in accordance with Decree of the Government of the Russian Federation No. 1214 dated 31.12.2010 in the company's personal account (PA) on the interdepartmental portal for state property management in the information and telecommunication network "Internet" (hereinafter — MV-portal) report on the activities of representatives of the Russian Federation's interests in the governing bodies of federally owned JSCs for the reporting year preceding the selection, (2) monitoring the placement of information on the MV-portal in accordance with the above-mentioned governmental decree of 2010 on the implementation of directives of the Government of the Russian Federation and Rosimushchestvo on the fulfillment of instructions of the President of the Russian Federation, the Government of the Russian Federation and on subsidiary economic agents in whose authorized capital more than 50% of shares are owned by JSCs with the aggregate share of the Russian Federation in the authorized capitals of the JSCs of over 50% for the reporting year prior to selection as well as (3) work (service) experience corresponding to the types of activities specified in the company's constituent document or in the company's DPR or the company's core activities specified in the Unified State Register of Legal Entities (hereinafter referred to as "activities"), (4) additional professional education (advanced training and (or) professional retraining) (hereinafter referred to as "APR") in the area of corporate management and (or) corresponding to the company's activities, (5) an academic degree, (6) compliance of the applicant's experience and skills with the personnel needs of the BoD (SB) specified in the company's documents regulating the policy of ensuring the succession of the BoD (SB) (if any), (7) professional property liability insurance.
 2. Including the existence of (1) work (service) experience that corresponds to the types of activities specified in the company's constituent document or in its DPR or the company's main type of activities specified in the Unified State Register of Legal Entities (hereinafter — types of activities), including as a member of the Audit Commission, (2) a diploma in corporate management and (or) finance, and (or) accounting, and (or) auditing, and (or) relevant to the company's activities, (3) an auditor's qualification certificate, (4) an academic degree.
 3. Differentiated depending on the company's income from ordinary activities for the previous reporting period.

preceding the selection. The following preliminary criteria are no longer applicable to applicants — legal entities (in terms of compliance with the CEO — applicant of a legal entity that is a natural person): (1) absence of administrative penalty in the form of disqualification, (2) absence of the applicant — an individual within 10 years preceding the selection, the fact of bringing to administrative responsibility for committing administrative offenses under Art. 14.12 and (or) 14.13 of the Code of the Russian Federation on Administrative Offenses (COAP), (3) absence of the fact of bringing to administrative responsibility for committing administrative offenses provided for by Chapters 14 and 15 of the Code of the Russian Federation on Administrative Offenses (except for administrative offenses provided for by Articles 14.12 and 14.13 of the COAP). In addition, for both categories, the criterion of higher education corresponding to the objectives of activity, stipulated (specified) in its constituent document or in the DPR and (or) for a number of specializations and (or) areas of training is now irrelevant.¹

The following preliminary criteria are no longer applicable to applicants of legal entities (if the CEO of the applicant-legal entity is a legal entity): (1) performance of activity on JSC management as CEO for more than three years preceding the selection, (2) availability of net profit according to the annual accounting (financial) statements during two reporting years preceding the selection, (3) absence of signs of insolvency (bankruptcy) in accordance with the legislation on insolvency (bankruptcy), (4) absence of the fact that the legal entity is in the liquidation or reorganization process (except for reorganization in the form of joining another legal entity to the applicant — legal entity) in accordance with the civil legislation, (5) absence of unfulfilled obligation to pay taxes, fees, insurance fees, penalties, fines, interest payable in accordance with the legislation on taxes and levies, (6) availability in the Unified State Register of Legal Entities of information on the legal entity's economic activity according to the All-Russian Classifier of Economic Activities (OKVED), which allows it to exercise the CEO powers, (7) absence in the license registers of information on annulment of licenses granted to legal entities during the period when the applicant — legal entity exercised the powers of their EIO for three years preceding the selection, (8) lack of applicant-legal entity more than three times within one year preceding the selection, the fact of bringing to administrative responsibility for administrative offenses under Chapters 14 and 16 of the Code of the Russian Federation on Administrative Offences.

The application of criteria for selecting applicants when several candidates meet all general criteria, both for individuals and legal entities, which overlapped in many respects, has been completely abolished.²

1. Included in the enlarged groups of specialties and (or) areas of higher education "Economics and Management", "Law", "Mathematical and Natural Sciences" or "Engineering, Technology and Technical Sciences".

2. Including: for persons who exercised the powers of the CEO in the reporting year preceding the selection: (1) ensuring that information on the execution of directives of the RF Government and Rosimus-

The most important component of the HR policy is the regulation of top management remuneration.

In 2023, a new Regulation on the terms of remuneration of labor of CEOs, their deputies, chief accountants and members of collegial executive bodies of state corporations, state-owned companies and economic agents whose shares are owned by the Russian Federation was introduced. Incentive payments to executive officers were made contingent on the achievement of annual target values of key performance indicators (KPIs) on the basis of the methodological recommendations on the formation and application of key performance indicators for the activities of federally owned JSCs and certain non-profit organizations (NPOs) for the purpose of determining the amount of remuneration of their executive officers approved by the RF Government Edict No. 3579-r of 28.12.2020, methodological recommendations on the formation and application of key performance indicators for JSCs whose shares are in federal ownership and certain non-profit organizations (NPOs) for the purpose of determining the amount of remuneration for their management staff. Since then, the document has been amended several times. The most significant amendments and additions to the part concerning the regulation of top management remuneration were those adopted at the end of 2023.¹

They have been continued. The current version of the document, which appeared as a result of the RF Government Edict No. 2991-r of 24.10.2024, specified the mechanism of depreciation.

Unless otherwise provided for by the decision of the interdepartmental working group, the following indicators are established for responsible officials of the management and sole executive bodies of the organization.²

hchestvo on the execution of instructions of the RF President, the RF Government and on subsidiary economic companies in whose authorized capital more than half of the shares are owned by JSCs with an aggregate share of the RF in the authorized capitals of more than 50%, for the reporting year preceding the selection, (2) achievement by more than 85% of the target KPI values of the company's activities during the period when the applicant exercises the powers of its CEO, and if the applicant exercises the powers of its CEO, (3) ensuring that the company's KPI values are more than 85% of the target values during the period when the applicant exercises the powers of its CEO, and if the applicant exercises the powers of its CEO, (4) ensuring that the company's KPI values are more than 85% of the target values during the reporting year preceding the selection, (3) professional property liability insurance, (4) the applicant's proposals for the development of the company (draft program of the company's activities) for a period of at least one year. In addition, the CEO of the applicant — a legal entity, if he/she is a natural person, and (or) members of its collegial executive body should have met the criteria of having (5) work experience corresponding to the types of activities specified in the founding document of the company or in the company's DPR, or the main type of the company's activities specified in the Unified State Register of Legal Entities, (6) a diploma in the field of corporate management and (or) corresponding to the types of the company's activities, (7) an academic degree, (8) insurance of professional property liability.

1. Russian Economy in 2023. Trends and Outlooks (Issue 45). Gaidar Institute. — Moscow: Gaidar Institute Press, 2023, p. 312–314.
2. Effective for bonuses payable for achieving annual KPI targets by exactly 100%.

For the former, the disqualification for bonus amounts to: (1) 20% of the performance bonus for the year in case of untimely, incomplete or unreliable posting of information necessary for monitoring the achievement of KPIs¹ and functional KPIs,² (2) 10% of the performance bonus for the year in case of untimely or incomplete submission of materials necessary for consideration of the issue of approval of KPIs and functional KPIs at the meetings of the interdepartmental working group.

For the CEO, the disqualification for bonus shall be as follows: (1) 20% of the annual performance bonus in case of failure to achieve the results of the approved digital transformation strategy (program), (2) 20% of the annual performance bonus in case of non-compliance with the recommendations of the working group on improving the efficiency of the activities of organizations with state participation, including increasing the efficiency of budget expenditures and monitoring the debt load of such organizations, the Government Commission on Optimization and Increasing the Efficiency of Budget Expenditures related to the level of their operating expenses, and the Government Commission on Optimization and Increasing the Efficiency of Budget Expenditures.

Disqualification for bonus in the amount of 20% of the annual performance bonus in case of non-compliance with the requirements of the regulatory legal acts of the Russian Federation on the content of activity programs and reports on their implementation shall apply to the executive officer of a state corporation (SC), state company or public-law company (PLC) responsible for the preparation and monitoring of the implementation of the activity program of the SC (PLC), or the CEO of such organization.

The indicators of disqualification for bonus of the management staff established at the end of 2023 are now only additional, except for sanctions for untimely, incomplete or unreliable posting of information required for monitoring KPIs and functional KPIs (in the previous version — in the amount of at least 20% of the percent of incentive payments established for the reporting year).

To make decisions on payment of remuneration to officials of the organization's management staff, the following structure of incentive payments for the reporting year is established in its internal documents, unless otherwise agreed by the working group on budget sustainability.

In case of assessment of indicators achievement at the level of their limit values, the amount of annual performance bonus related to the achievement of annual target values of KPIs should be from 50 to 85% of incentive payments established for the reporting year, and the amount of annual bonus related to the achievement of annual target values of functional KPIs — from 15 to 50% of these payments.

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1. An indicator related to the strategic documents of the Russian Federation, as well as the strategic documents of the organization itself, on the basis of which its performance is assessed in order to determine the amount of remuneration of the management staff based on annual or quarterly results.
 2. An individual indicator established for the officers of the management staff personally and taking into account the specifics of the organization's activities supervised by them, characterizing the performance of the officers themselves or the implementation of individual significant projects.

A different structure of incentive payments requires approval by the working group on budget sustainability. Previously, the proportions (from 15 to 50% of incentive payments) related only to functional KPIs, being of a guideline nature.

In addition to the mechanism of management disqualification for bonus, the following changes and additions were made to the above-mentioned methodological recommendations for the end of 2020.

The wording of the national goals has been amended. Instead of referring to Presidential Executive Order No. 474 of 21.07.2020, they now include, in addition to the national development goals themselves, their target indicators defined by the President.

With regard to the bearing by an executive officer of an organization of responsibility for the achievement of a functional KPI, the range of grounds for its transfer to another employee performing his duties or to another official has been supplemented by a case where a decision has been made in accordance with the established procedure to change the official (service) duties of such persons, as a result of which duties, the performance of which directly affects the achievement of a functional KPI not related to the implementation of special significant projects, have been transferred to the official. The term of fulfillment of a duty should now be explicitly stated in calendar days.

For all categories of organizations covered by the methodological recommendations,¹ with regard to the financial, economic and sectoral KPIs to be established (while maintaining their previous number), a proviso has been introduced that otherwise may be stipulated by the decision of the interdepartmental working group.

In addition, a priority was introduced for posting information on actually achieved interim quarterly KPIs and functional KPIs on the MV-portal and in the state automated information system (SAIS) "Management", respectively, in cases when the basis for approval by the organization's management body of their composition, specific weight and annual target values provides for their establishment later than the standard deadlines. Reserve deadlines have also been introduced for the organization's annual submission of information on functional KPIs to the supervising federal executive body and its placement in the SAIS "Management".

In the new wording, not only when forming, but also when approving KPIs and functional KPIs, disqualification for bonus indicators, it should be impossible to adjust their composition, specific weight, target values for the past and current calendar years. The same applies to the calculation procedure.

Concluding the review of changes in the regulatory and legal framework for the governance of economic entities of the public sector, it is also worth noting the adjustment of the potential forms of borrowings by unitary enterprises. The amendment to the specialized law of 2002 (No. 161-FZ) deprives these organizations of the possibility to borrow by placing bonds or issuing promissory notes.

1. Including: (1) those operating in a competitive market, (2) natural monopoly entities and infrastructure organizations, (3) development institutions, (4) financial companies.

5.1.6. Budgetary efficiency of the government's property policy

In 2024, in contrast to the previous year, the federal budget revenues related in one way or another to state property demonstrated a marked growth, especially in terms of revenues from privatization and sale of state property (from non-renewable sources). The main reason was the emergence of a new source, namely, funds from the sale of confiscated property in the part of confiscated shares and other financial instruments.¹ Their substantial amount allowed to compensate for some decline in income from renewable sources, primarily, the decrease in dividend payments by companies with state participation.

Tables 4 and 5 present data on revenues contained in the reports on the execution of the federal budget in terms of the use of state property and its sale only for a certain range of material objects.²

1. Funds from the sale of confiscated property in terms of fixed assets and tangible stocks have for many years been included in the set of budget items from the sale of tangible assets. However, they did not allocate funds from the sale of property obtained in the course of corruption offenses, and funds from the sale of shares and other financial instruments as a source of income were absent at all. Its emergence should probably be attributed to a new trend in government policy in recent years (expansion of the practice of property confiscation as part of anti-corruption efforts, transfer of assets of a number of companies to the state as a result of court proceedings).
2. Out of consideration are left the following revenues: federal budget revenues received as payments for natural resources (including aquatic biological resources, revenues from the use of the forest fund and subsoil use), compensation for agricultural production losses associated with the withdrawal of agricultural land, as a result of financial transactions (revenues from the placement of budget funds (revenues from the balances of federal budget funds and from their placement, since 2006 also income from the management of the RF Stabilization Fund (since 2009 — the Reserve Fund and the National Welfare Fund), income from the placement of amounts accumulated in the course of auctions for the sale of shares owned by the Russian Federation), interest received from the granting of budget credits within the country at the expense of the federal budget, interest on state credits (receipts from foreign governments and their legal entities in payment of interest on credits granted to the Russian Federation), interest on state credits (receipts from the governments of foreign states and their legal entities in payment of interest on credits granted to the Russian Federation, receipts from legal entities (enterprises and organizations), constituent entities of the Russian Federation, municipalities to pay interest and guarantees on loans received by the Russian Federation from foreign governments and international financial organizations)), from the provision of paid services or compensation of state expenses, transfer of profits to the Central Bank of the Russian Federation, some payments from state and municipal enterprises and organizations (patent fees and registration fees for official registration of computer programs, databases and integrated circuit topologies and other receipts, which up to 2004 inclusive were a part of payments from state-owned organizations (except for income from the Vietsovpetro joint venture since 2001 and transfer of a part of profits of FGUEs since 2002)), income from the implementation of production sharing agreements (PSAs), income from the disposal and realization of confiscated and other property converted to state property (including property transferred to state property by inheritance or gift, or treasure), income from lotteries, other income from the use of property and rights owned by the federal government (income from the disposal of rights to the results of intellectual activity (R&D and technological works), military, special and dual-purpose, revenues from the disposal of rights to the results of scientific and technical activities owned by the Russian Federation, revenues from the operation and use of the property of highways, collection from the passage of motor vehicles registered in other countries, disposal of the exclusive right

In 2024, total revenues from renewable sources decreased by 8.6% year-on-year to Rb341.55 bn. This was mainly due to the payment of dividends to the budget (Rb307.8 bn), which decreased by more than 9% against the 2023 figure (Rb339.1bn), being lower than the 2018 level (Rb312.6 bn). At the same time, transfers of part of the profit by unitary enterprises increased by more than 1.7 times. Their absolute value—Rb11.4 bn. They renewed the previous maximum of 2016 (Rb9.5 bn).

Total revenues from federal property more than halved (to Rb5.9 bn).¹ This was mainly due to a radical decrease in revenues from the lease of property under operational management of federal government bodies and institutions created by them (excluding budgetary and autonomous ones) by almost 7-fold (down to Rb1.3 bn). Revenues from the lease of property constituting the treasury of the Russian Federation (excluding land plots) increased by 9.3% (to more than Rb4.3 bn). Revenues from this source were the maximum for the entire period since 2013, when revenues from the lease of treasury property were allocated. Their share in the total revenues from federal property exceeded 73%, which is comparable to 2021. The value of budget revenues from the use of land increased by 7.7% (around Rb15.9 bn).²

of the Russian Federation to the results of intellectual property in the field of geodesy and cartography, payment for the use of spatial data and materials that are not objects of copyright, contained in the federal fund of spatial data and other receipts from the use of property owned by the Russian Federation), as well as from authorized activities of organizations, credited to the federal budget, receipts from the sale of state reserves of precious metals and precious stones.

1. Including payment of amounts of unjust enrichment for the use of property (except for plots of land) owned by the federal government, the right to dispose of which in accordance with Russian legislation is granted to federal government agencies.
2. Along with revenues from land rent, as in the previous year, they include revenues received in the form of rent for land plots located in the right-of-way of federally owned public highways of federal significance (Rb13.3 mn), payment from the implementation of agreements on establishing easements in respect of land plots within the boundaries of the right-of-way of public roads of federal significance for the purposes of construction (reconstruction), capital repair and operation of road service facilities, laying, relocation, rearrangement and operation of utilities, installation and operation of advertising structures (Rb105 mn), payment under agreements on establishing easements concluded by federal executive authorities, state enterprises or institutions in respect of federally owned land plots (Rb300.6 mn), allocated from 2021 payment for public easements stipulated by the decision of the authorized body on establishing public easements in respect of federally owned plots of land (except for the plots that are in federal ownership and the exercise of the powers of the Russian Federation to manage and dispose of which are delegated to state authorities of the constituent entities of the Russian Federation) and not provided to citizens and legal entities (except for state authorities (state authorities), local government (municipal authorities), state extra-budgetary fund management authorities, and government agencies) (Rb5.2 mn), as well as the amount of unjust enrichment for the use of federally owned land plots, the right to dispose of which is granted to federal state bodies in accordance with Russian legislation (Rb366.8 mn), as of 2020, and, as of 2022, the payment received under a contract for granting the right to place and operate a non-stationary trade facility, install and operate advertising structures on federally owned land or land plots, and on federally owned land or land plots (Rb366.8mn).

Table 4

**Federal budget revenues from the state property use (renewable sources)
in 2000–2024, Rb mn**

Year	Total	Dividends on shares (2000–2023) and income from other forms of capital participation (2005–2023)	Rent payment for state-owned lands	Income from lease of state-owned property	Income from transfer of part of profit remaining after taxes and other obligatory payments by FSUEs	Revenues from other sources (2000–2007 and 2011– from activities of Vietsovpetro joint venture and 2018–2023 — from transfer of property into pledge, trust management)
2000	23244.5	5676.5	–	5880.7	–	11687.3 ^a
2001	29241.9	6478.0	3916.7 ^b	5015.7 ^c	209.6 ^d	13621.9
2002	36362.4	10402.3	3588.1	8073.2	910.0	13388.8
2003	41261.1	12395.8	10276.8 ^e		2387.6	16200.9
2004	50249.9	17228.2	908.1 ^f	12374.5 ^g	2539.6	17199.5
2005	56103.2	19291.9	1769.2 ^h	14521.2 ⁱ	2445.9	18075.0
2006	69173.4	25181.8	3508.0 ^h	16809.9 ^j	2556.0	21117.7
2007	80331.85	43542.7	4841.4 ^h	18195.2 ⁱ	3231.7	10520.85
2008	76266.7	53155.9	6042.8 ^h	14587.7 ⁱ	2480.3	–
2009	31849.6	10114.2	6470.5 ^h	13507.6 ⁱ	1757.3	–
2010	69728.8	45163.8	7451.7 ^h	12349.2 ⁱ	4764.1	–
2011	104304.0	79441.0	8210.5 ^h	11241.25 ^j	4637.85	773.4
2012	228964.5	212571.5	7660.7 ^k	3730.3 ^j	5002.0	–
2013	153826.25	134832.0	7739.7 ^k	4042.7 ^j + + 1015.75 ^m	6196.1	–
2014	241170.6	220204.8	7838.7 ^k	3961.6 ^j + + 1348.5 ^m	7817.0	–
2015	285371.1	259772.0	9032.3 ^k	5593.8 ^j + + 1687.8 ^m	9285.2	–
2016	946723.35/ 254328.3 ^o	918969.1/ 226574.1 ^o	9412.4 ^k	5843.25 ^o + + 3026.7 ^m	9471.9	–
2017	275168.2	251327.0	9825.1 ^k	5318.4 ^o + + 2857.7 ^m	5840.0	–
2018	333396.13	312565.8	9783.0 ^k	1988.6 ^o + + 2922.6 ^m	6136.0	0.13
2019	465974.25	441620.4	12051.65 ^k	1290.4 ^o + + 3239.2 ^m	7616.9	155.7
2020	451764.45	422667.6	10498.7 ^k	7655.3 ^o + + 2509.2 ^m + + 28.8 ^p	8404.7	0.145
2021	364634.8	339493.2	12719.5 ^k	1207.7 ^o + + 3615.4 ^m + + 24.1 ^p	7572.4	2.481
2022	777989.3	753471.6	13827.9 ^k	1209.2 ^o + + 3494.8 ^m + + 876.4 ^p	5078.0	31.4
2023	373699.95	339056.9	14756.9 ^k	9016.1 ^o + + 3965.5 ^m + + 224.2 ^p	6564.25	116.1
2024	341550.3	307783.2	15894.3 ^k	1303.7 ^o + + 4334.5 ^m + + 272.0 ^p	11367.5	595.1

^a According to the data of Rosimushchestvo, the law on the federal budget execution for 2000 did not include a separate line, but indicated the amount of payments from state enterprises (Rb 9887.1 mn) (without specific components).

^b The amount of rent paid (1) for agricultural land and (2) for land of cities and towns.

^c The amount of income from renting out property assigned to (1) scientific organizations, (2) educational institutions, (3) health care institutions, (4) state museums, state cultural and art institutions, (5) archival institutions,

- (6) the Ministry of Defense of the Russian Federation, (7) organizations of the Ministry of Railways of the Russian Federation, (8) scientific service organizations of academies of sciences with state status and (9) other income from renting out state-owned property.
- ^d According to Rosimushchestvo, in the law on execution of the federal budget for 2001 they were not allocated as a separate line, the value coincided with the value of other income in payments from state and municipal organizations.
- ^e Total income from leasing out state-owned property (without land rent).
- ^f The amount of rent payment (1) for lands of cities and settlements and (2) for lands owned by the federal government after delimitation of state ownership of land.
- ^g The amount of income from renting out property assigned to (1) scientific organizations, (2) educational institutions, (3) health care institutions, (4) state institutions of culture and art, (5) state archival institutions, (6) postal institutions of the federal postal service of the Ministry of Communications and Informatization of the Russian Federation, (7) scientific service organizations of academies of sciences with state status and (8) other income from renting out property owned by the federal government.
- ^h Rent after delimitation of state ownership of land and funds from the sale of the right to conclude lease agreements for federally owned land (except for land plots of federal autonomous (2008–2011) and budgetary (2011) institutions).
- ⁱ Income from the lease of property under operational management of federal government bodies and institutions created by them and under the economic management of federal state unitary enterprises: property transferred under operational management to (1) state-owned scientific institutions, (2) scientific service institutions of the Russian Academy of Sciences and branch academies of sciences, (3) educational institutions, (4) health care institutions, (5) federal postal service institutions of the Federal Communications Agency, (6) state cultural and art institutions, (7) to state archival institutions and (8) other income from leasing out property under operational management of federal government bodies and institutions created by them and under economic management of FSUEs¹ (for 2006–2009 without income from authorized activities and use of federal property located outside the territory of the Russian Federation, received abroad, which was not allocated at all in previous years²).
- ^j Income from the lease of property under operational management of federal government bodies and institutions created by them (except for autonomous and budgetary institutions): transferred for operational management to (1) scientific institutions having state status, (2) scientific service institutions of the Russian Academy of Sciences and branch academies of sciences, (3) educational institutions, (4) health care institutions, (5) state institutions of culture and art, (6) state archival institutions, (7) property under operational management of the Ministry of Defense and its subordinate agencies (2010), (8) federally owned property managed by the Presidential Property Management Directorate (2010), and (9) other income from leasing out property under operational management of federal government bodies and agencies created by them (without income from authorized activities and use of federal property located outside the territory of the Russian Federation received abroad).
- ^k rent payment after delimitation of state ownership of land and funds from the sale of the right to conclude lease agreements for federally owned land (except for land plots of federal budgetary and autonomous institutions), as well as (1) rent payment for land plots located in the right-of-way of federally owned public highways of federal significance (2012–2024), (2) payment from the implementation of agreements on the establishment of easements over the land plots within the boundaries of the right-of-way of public roads of federal significance for the construction (reconstruction), capital repair and operation of road service facilities, laying, relocation, rearrangement and operation of engineering communications, installation and operation of advertising structures (2012 and 2014–2024), (3) payment under agreements to establish easements over the land parcels owned by the federal government (2015–2024), (4) payment for a public easement provided for by a decision of an authorized body to establish a public easement over land parcels owned by the federal government (2021–2024), (5) the amount of unjust enrichment for the use of federally owned land plots, the right to dispose of which in accordance with Russian legislation is granted to federal government agencies (2020–2024), (6) payment received under the contract for granting the right to place and operate a non-stationary trade facility, installation and operation of advertising structures on federally owned lands or land plots and on lands or land plots whose state ownership is not delimited (2022–2024).
- ^l Income from leasing out property under operational management of federal government bodies and institutions created by them (except for budgetary and autonomous institutions): property transferred to operational manage-

1. In 2008–2009, the Federal State Unitary Enterprises (FSUEs) as a source of income from renting out property under their economic management was not mentioned, and leasing out property under the operational management of federal government bodies and institutions created by them excludes property of federal autonomous institutions.
2. According to the Rosimushchestvo, revenues from the use of federal property located abroad (in addition to revenues from the share of the Russian participant in the Vietsovpetro JV) amounted to Rb315 mn in 1999 and Rb440 mn in 2000. Subsequently, the main role in organizing the commercial use of federal property abroad was played by the Federal State Unitary Enterprise “Enterprise for Management of Property Abroad”.

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ment of state-owned (1) scientific institutions, (2) educational institutions, (3) health care institutions, (4) state cultural and art institutions, (5) state archival institutions, (6) other income from leasing out property under operational management of federal government agencies, (7) federal government agencies, the Bank of Russia and state non-budgetary fund management agencies of the Russian Federation, (8) federal government agencies (2015 only) (without income from the use of federal property located outside the territory of the Russian Federation received abroad).

^m Income from leasing out property constituting the treasury of the Russian Federation (except for the land plots).

ⁿ Excluding funds received from sale of Rosneft shares (Rb 692.395 bn) (excluding payment of interim dividends).

^o The data for 2016–2024 are given in aggregated form without distinguishing groups of institutions by industry. The generalized classification includes only 2 categories of income depending on the recipient of rental income (federal state bodies, the Bank of Russia and bodies managing state non-budgetary funds of the Russian Federation and federal treasury institutions).

^p Amount of unjust enrichment for the use of federally owned property (except for land plots), the right to dispose of which is granted to federal government bodies in accordance with Russian legislation.

Sources: Federal Budget Execution laws for 2000–2014; Federal Budget Execution reports as of January 1, 2016, January 1, 2017, January 1, 2018, January 1, 2019, January 1, 2020, January 1, 2021, January 1, 2022, January 1, 2023, January 1, 2024 (annual); Federal Budget Execution Report as of January 1, 2025 (monthly), URL: <http://roskazna.gov.ru>; Own calculations.

Table 5

Federal budget revenues from privatization and sale of property (non-renewable sources) in 2000–2024, Rb mn.

Year	Total	Sale of shares owned by the federal government (2000–2022) and other forms of participation in the capital (2005–2023) ^a	Sale of plots of land	Sale of various property (excluding movable property of budgetary and autonomous institutions, as well as property of state unitary enterprises, including state-owned enterprises)
2000	27167.8	26983.5	–	184.3 ^b
2001	10307.9	9583.9	119.6 ^c	217.5 + 386.5 + 0.4 (IAs) ^d
2002	10448.9	8255.9 ^e	1967.0 ^f	226.0 ^g
2003	94077.6	89758.6	3992.3 ^h	316.2 + 10.5 ⁱ
2004	70548.1	65726.9	3259.3 ^j	197.3 + 1364.6 + 0.04 (IAs) ^k
2005	41254.2	34987.6	5285.7 ^l	980.9 ^m
2006	24726.4	17567.9	5874.2 ^l	1284.3 ⁿ
2007	25429.4	19274.3	959.6 ^o	5195.5 ^p
2008	12395.0	6665.2+29.6	1202.0 ^q	4498.2 + 0.025 (IAs) ^r
2009	4544.1	1952.9	1152.5 ^q	1438.7 ^r
2010	18677.6	14914.4	1376.2 ^q	2387.0 + 0.039 (IAs) ^r
2011	136660.1	126207.5	2425.2 ^q	8027.4 ^r
2012	80978.7	43862.9	16443.8 ^q	20671.7 + 0.338 (IAs) ^r
2013	55288.6	41633.3	1212.75 ^q	12442.2 + 0.310 (IAs) ^r
2014	41155.35	29724.0	1912.6 ^q	9517.7 + 1.048 (IAs) ^r
2015	18604.1	6304.0	1634.55 ^q	10665.5 + 0.062 (IAs) ^r
2016	416470.5	406795.2	2112.7 ^q	7562.6 + 0.012 (IAs) ^r
2017	21906.7	14284.5	1199.6 ^q	6421.3 + 1.3 (IAs) ^r
2018	28252.0	12787.5	1660.6 ^q	13803.7 + 0.2 (IAs) ^r
2019	20129.3	11527.5	1647.5 ^q	6954.3 ^r
2020	27961.5	12570.7	3235.5 ^q	11247.2 + 1.9 (IAs) ^r + 906.2 ^s
2021	20234.05	5272.0	2455.6 ^q	11460.6 ^r + 1045.85 ^s
2022	20636.0	7792.5	1733.9 ^q	10175.2 ^r + 934.4 ^s
2023	43090.6	27278.5	3022.5 ^q	11112.8 ^r + 1676.8 ^s
2024	36396.2/ 151057.1 ^t	16425.4 + 114430.2 ^u	5693.3 ^q	12448.0 ^r + 1829.5 ^s + 230.7 ^v

^a Referred to the sources of internal funding of the federal budget deficit, the amount of Rb 29.6 mn for 2008 (according to the Federal Budget Execution Report as of January 1, 2009) is referred to the federal budget revenues, but it is absent in the Law on the Execution of the Federal Budget for 2008.

^b Proceeds from privatization of state-owned organizations, attributable to sources of internal financing of the federal budget deficit.

^c Income from the sale of plots of land and leasehold rights to state-owned plots of land (including those on which privatized enterprises are located), attributable to federal budget revenues.

- ^d The amount of proceeds from (1) the sale of federal property attributable to sources of internal funding of the federal budget deficit, (2) proceeds (i) from the sale of apartments, (ii) from the sale of state production and non-production funds, vehicles, other equipment and other tangible assets, as well as (3) proceeds from the sale of intangible assets (IA) attributable to federal budget revenues.
- ^e Including Rb 6 mn from sale of shares owned by subjects of the Russian Federation.
- ^f Income from the sale of land and intangible assets, the amount of proceeds from which was not separately identified, attributable to the revenues of the federal budget.
- ^g Proceeds from the sale of state-owned property (including Rb 1.5 mn from the sale of property owned by the subjects of the Russian Federation) attributable to sources of internal funding of the federal budget deficit.
- ^h Includes proceeds: (1) from the sale of plots of land on which real estate objects that were in federal ownership before alienation are located, which are credited to the federal budget, (2) from the sale of other plots of land, as well as from the sale of the right to conclude lease agreements, (3) from the sale of plots of land after delimitation of land ownership, as well as from the sale of the right to conclude lease agreements, which are credited to the federal budget and are classified as sources of internal financing of the federal budget deficit.
- ⁱ The sum of (1) proceeds from the sale of property owned by the federal government, which are classified as sources of internal funding of the federal budget deficit, and (2) proceeds from the sale of intangible assets, which are classified as federal budget revenues.
- ^j Includes receipts: (1) from the sale of plots of land prior to the delimitation of state ownership of land on which real estate objects that were in federal ownership prior to alienation are located, which are credited to the federal budget, (2) from the sale of other land plots, as well as from the sale of the right to conclude lease agreements, (3) from the sale of plots of land after the delimitation of state ownership of land, as well as from the sale of the right to conclude lease agreements, which are credited to the federal budget, attributed to the sources of internal funding of the federal budget deficit.
- ^k The amount of (1) proceeds from the sale of property owned by the federal budget, which are classified as sources of internal funding of the federal budget deficit, (2) proceeds (i) from the sale of apartments, (ii) from the sale of equipment, vehicles and other tangible assets, which are credited to the federal budget, (iii) from the sale of ship recycling products, (iiii) from the sale of property of state-owned enterprises, institutions and military property, (iiiii) from the sale of recycling products of armaments, military equipment and ammunition, (3) income from the sale of intangible assets (IA) attributable to federal budget revenues.
- ^l includes proceeds: (1) from the sale of plots of land prior to the delimitation of state ownership of land on which real estate objects that were in federal ownership prior to alienation are located, (2) from the sale of plots of land after the delimitation of state ownership of land, which are transferred to the federal budget, (3) from the sale of other plots of land owned by the state prior to the delimitation of state ownership of land and not intended for housing construction (the latter clarification concerns 2006 only) attributable to the sources of funding of the federal budget deficit.
- ^m Income from the sale of tangible and intangible assets (net of federal budget funds from the disposal and sale of confiscated and other property turned to state income), includes income (i) from the sale of apartments, (ii) from the sale of property of FSUEs, (iii) from the sale of property under the operational management of federal institutions, (iiii) from the sale of military property, (iiiii) from the sale of products for the utilization of weapons, military equipment and ammunition, (iiiii) from the sale of other property owned by the federal government, and (iiiii) from the sale of intangible assets attributable to federal budget revenues.
- ⁿ Income from the sale of tangible and intangible assets (without income in the form of the government's share of profitable production under production sharing agreements (PSAs) and federal budget funds from the disposal and sale of escheated, confiscated and other property converted to state income), includes income (i) from the sale of apartments, (ii) from the sale of property of Federal State Unitary Enterprises, (iii) from the sale of property under the operational management of federal institutions, (iiii) sale of military property, (iiiii) sale of products from the utilization of armaments, military equipment and ammunition, (iiiii) revenues from the sale of other property owned by the federal budget, attributable to federal budget revenues.
- ^o Proceeds from the sale of plots of land after delimitation of land ownership, which were in federal ownership, attributed to the sources of funding of the federal budget deficit.
- ^p income from the sale of tangible and intangible assets (without income in the form of the government's share of profitable production under production sharing agreements (PSAs) and federal budget funds from the disposal and sale of escheated, confiscated and other property converted to government revenue, funds from the sale of sequestered timber), includes income (i) from the sale of apartments, (ii) from the sale of property of FSUEs, (iii) from the sale of property under the operational management of federal institutions, (iiii) from the sale of released movable and immovable military and other property of federal executive authorities, which provide for military and equivalent service, (iiiii) from the sale of military products from the availability of federal executive authorities within the framework of military-technical cooperation, (iiiii) revenues from the sale of other property owned by the federal government, attributable to federal budget revenues.
- ^q Income from the sale of federally owned plots of land (excluding plots of land used by federal budgetary and autonomous institutions) (except for 2019–2024), attributable to federal budget revenues, and for 2015 and 2021–2024 also payment for the increase in the area of privately owned plots of land as a result of redistribution of such plots of land and federally owned plots of land.
- ^r income from the sale of tangible and intangible assets (without income in the form of the state's share of profitable production under production sharing agreements (PSA), federal budget funds from the disposal and sale

of escheat, confiscated and other property turned to state income, funds from the sale of sequestered timber (2008–2011), income from the release of tangible assets from the state stock of special raw materials and fissile materials, (in terms of revenues from sales, temporary borrowing and other use), as well as for 2012–2024, without funds from the sale of timber obtained during the implementation of measures for the protection, conservation, reproduction of forests when placing a state order for their implementation without the sale of forest plantations for timber harvesting, as well as timber obtained during the use of forests located on forest lands, in accordance with Articles 43–46 of the Forest Code of the Russian Federation, income from the sale of seeds of forest plants from their insurance funds (2024), from commodity interventions from the stocks of the federal intervention fund of agricultural products, raw materials and foodstuffs, from the release of material assets from the state reserve, from the involvement of convicts in paid labor (in terms of the sale of finished products), from the sale of products of special storage) include income: (i) from the sale of apartments (except for 2024),¹ (ii) from the sale of property under operational management of federal institutions (except for autonomous and budgetary ones (2011–2024), minus funds received from activities carried out by foreign institutions (2015–2024), (iii) from the sale of released movable and immovable military and other property of federal executive authorities, which provide for military and equivalent service, (iiii) from the sale of products for the utilization of weapons, military equipment and ammunition, (iiiii) from the sale of military products from the availability of federal executive bodies within the framework of military-technical cooperation (2008 and 2010–2023), (iiiii) from the sale of products for the utilization of weapons and military equipment within the framework of the federal target program “Industrial utilization of weapons and military equipment (2005–2010)” (up to and including 2017), (iiiii) income from the sale of the real estate of budgetary and autonomous institutions (2014–2018 and 2020–2024), (iiiii) income from the sale of other federally owned property, as well as income from the sale of intangible assets (IA) attributable to the federal budget revenues.

^s Income from privatization of property owned by the Russian Federation in terms of non-financial assets of the treasury property.

^t In the denominator, taking into account funds from the sale of confiscated assets.

^u From the sale of confiscated shares and other financial instruments, including those obtained in the course of corruption offenses.

^v From the sale of confiscated property (in terms of fixed assets and inventories) obtained as a result of corruption offenses and from the sale of property converted by court decision to the income of the Russian Federation, in respect of which no evidence of its acquisition on legitimate income was provided in accordance with the legislation of the Russian Federation on combating corruption.

Sources: Laws on the execution of the federal budget for 2000–2014; Reports on the execution of the federal budget as of January 1, 2016, January 1, 2017, January 1, 2018, January 1, 2019, January 1, 2020, January 1, 2021, January 1, 2022, January 1, 2023, January 1, 2024 (annual); Report on the execution of the federal budget as of January 1, 2025 (monthly). URL: <http://roskazna.gov.ru>; own calculations.

In the overall structure of federal budget revenues generated from renewable sources, as a year earlier, dividends prevailed (about 90%), remaining approximately at the level of 2023 (90.7%). Among other sources, it is worth noting a halving of the share of property payments from 3.5% to 1.7%, with a slight increase in the share of land payments to 4.7% (3.9% a year earlier) and profits transferred by FGUPs to 3.3% (about 1.8% a year earlier).²

Turning to the analysis of the federal budget revenues from privatization and sale of state property (*Table 5*), it should be noted that since 1999 the revenues

1. Unlike many previous years, the 2024 preliminary reporting does not allocate funds from apartment sales.

2. For several years now, in the classification of federal budget revenues generated by the use of property, there has been another source — funds received from the transfer of federally owned property (except for the property of federal budgetary and autonomous institutions, as well as the property of federal state unitary enterprises, including state-owned ones), in pledge, in trust management. Its role in the structure of revenues generated by the renewable sources remains insignificant, although by its absolute value (Rb 595.1 mn) it is quite comparable to the amounts of unjust enrichment for the use of federally owned property, including land plots.

from the sale of the main part of such assets (shares, and in 2003–2007 also plots of land¹) have been referred to the sources of financing its deficit.

Proceeds from the sale of shares fell by 40% (to Rb16.4 bn), which in the entire time interval after 2017 is second only to the value for 2023. Proceeds from the sale of plots of land increased almost 1.9 times, amounting to about Rb5.7 bn.² This value became the maximum for the entire period after 2012, being comparable to the level of 2005–2006. Revenues from the sale of various property also increased (by 11.6%), and their absolute value amounted to about Rb14.3 bn, including revenues from the privatization of property owned by the Russian Federation in terms of non-financial assets of the Treasury (Rb1,829.5 mn).

As a result, the absolute value of federal budget revenues of property nature for a comparable range of non-renewable sources in 2024 decreased by 15.5%, amounting to about 36.4 bn. rubles. The most significant item of revenues was the sale of shares—about 45% (in 2023—more than 63%), the sale of property accounted for more than 39%³ (in 2023—about 30%), and the sale of land—15.6% (in 2023—7%).

However, the picture of budget revenues changes radically when funds from the sale of confiscated property are taken into account. As regards confiscated shares and other financial instruments, they amounted to Rb114.4 bn, including Rb76.5 bn from the sale of shares and other financial instruments obtained in the course of corruption offenses (or 2/3) and Rb37.9 bn from the sale of shares and other financial instruments, except for those obtained in the course of corruption offenses (or 1/3). A small amount (Rb230.7 mn) is added by the sale of confiscated property obtained as a result of corruption offenses and the sale of property converted by court decision to the income of the Russian Federation, in respect of which no evidence of its acquisition on legitimate income was presented in accordance with the Russian anti-corruption legislation as regards the sale of fixed assets and inventories.⁴

Taking into account these revenues, the aggregate value of the federal budget revenues of a property nature from non-renewable sources reaches about Rb151.1 bn. The sale of shares together with other financial instruments unambiguously dominates in the aggregate structure of revenues (86.6%). The share of revenues from other sources becomes insignificant: from the sale of property—9.6%, land—3.8%.

1. In 2003–2004, considering the sale of leasehold rights.

2. Including revenues from the sale of federally owned plots of land used by budgetary and autonomous institutions (Rb33.4 mn). In 2023 they amounted to Rb19.6 mn, in 2022—Rb4.4 mn, in 2021—Rb76.4 mn, 2020—Rb298.3 n.

3. Including income from privatization of property owned by the Russian Federation in terms of non-financial assets of the treasury (5%).

4. It should be noted that a broader definition is used in budget reporting in relation to their realization. It includes not only property obtained as a result of corruption offenses (as in the case of shares and other financial instruments), but also property for which no evidence of its acquisition with legitimate income has been presented.

As a result, the total amount of federal budget revenues from privatization (sale) and use of state property in 2024 (*Table 6*) compared to the previous year increased by more than 18% (up to Rb 492.6 bn), exceeding the level of 2019–2020.

Table 6

**Structure of federal budget revenues of property nature from various sources
in 2000–2024**

Year	Total revenues from privatization (sale) and use of state property		Proceeds from privatization and sale of property (non-renewable sources)		Revenues from the use of state property (renewable sources)	
	Rb mn	As % of total	Rb mn	As % of total	Rb mn	As % of total
2000	50412.3	100.0	27167.8	53.9	23244.5	46.1
2001	39549.8	100.0	10307.9	26.1	29241.9	73.9
2002	46811.3	100.0	10448.9	22.3	36362.4	77.7
2003	135338.7	100.0	94077.6	69.5	41261.1	30.5
2004	120798.0	100.0	70548.1	58.4	50249.9	41.6
2005	97357.4	100.0	41254.2	42.4	56103.2	57.6
2006	93899.8	100.0	24726.4	26.3	69173.4	73.7
2007	105761.25	100.0	25429.4	24.0	80331.85	76.0
2008	88661.7	100.0	12395.0	14.0	76266.7	86.0
2009	36393.7	100.0	4544.1	12.5	31849.6	87.5
2010	88406.4	100.0	18677.6	21.1	69728.8	78.9
2011	240964.1	100.0	136660.1	56.7	104304.0	43.3
2012	309943.2/ 469243.2 ^a	100.0	80978.7/ 240278.7 ^a	26.1/ 51.2 ^a	228964.5	73.9/ 48.8 ^a
2013	209114.85	100.0	55288.6	26.4	153826.25	73.6
2014	282325.95	100.0	41155.35	14.6	241170.6	85.4
2015	303975.2	100.0	18604.1	6.1	285371.1	93.9
2016	1363193.85/ 670798.85 ^b	100.0	416470.5	30.6/ 62.1 ^b	946723.35/ 254328.35	69.4/ 37.9 ^b
2017	297074.9	100.0	21906.7	7.4	275168.2	92.6
2018	361648.13	100.0	28252.0	7.8	333396.13	92.2
2019	486103.55	100.0	20129.3	4.1	465974.25	95.9
2020	479725.95	100.0	27961.5	5.8	451764.45	94.2
2021	384868.85	100.0	20234.05	5.3	364634.8	94.7
2022	798625.3	100.0	20636.0	2.6	777989.3	97.4
2023	416790.55	100.0	43090.6	10.3	373699.95	89.7
2024	492607.4	100.0	151057.1	30.7	341550.3	69.3

^a Taking into account the funds received by the Central Bank of the Russian Federation from the sale of Sberbank shares (Rb 159.3 bn), which probably slightly overestimates the aggregate share of non-renewable sources due to the fact that the budget did not receive these funds in full, but minus their book value and the amount of expenses related to the sale of these shares. Accordingly, the share of renewable sources is probably slightly underestimated.

^b excluding funds received from sale of Rosneft shares (Rb 692.395 bn) (net of interim dividends paid).

Sources: Laws on the execution of the federal budget for 2000–2014; Reports on the execution of the federal budget as of January 1, 2016, January 1, 2017, January 1, 2018, January 1, 2019, January 1, 2020, January 1, 2021, January 1, 2022, January 1, 2023, January 1, 2024 (annual); Report on the execution of the federal budget as of January 1, 2025 (monthly). URL: <http://roskazna.gov.ru>; own calculations.

The structure of total revenues from privatization (sale) and use of state property for the second year in a row shifted noticeably towards the former. Their share almost tripled (up to 30.7%), which is comparable to the level of 2016, when a deal was concluded on the sale of Rosneft shares, the proceeds from which went to the federal budget in the form of dividends from Rosneftegaz.

The share of revenues from the use of state property fell below 70%. In terms of absolute value, they fell below the 2021 level, slightly exceeding the 2018 indicator. Revenues from privatization and sale of property for the entire period since the early 2000s were second in absolute value only to the figures of 2012 and 2016, when the sale of Sberbank and Rosneft shares took place, respectively.

* * *

In the past year, the situation in the sphere of property relations was characterized by a pronounced re-distributional trend, which affected both the privatization and the management of state property, including financial results.

The Projected Plan (Program) of Privatization (PPP) of federal property, supplemented by some assets transferred into the ownership of the state as a result of court proceedings in 2022–2024, for the first time lost the role of the main instrument of privatization policy. It accounted for only 1/4 of all sold packages of shares (stakes) in economic agents. The rest were realized by separate governmental decisions. Taking into account this circumstance, the total number of sold blocks of shares (stakes) increased more than threefold compared to 2023 and turned out to be comparable to what was realized in three years (2020–2022). At the same time, the number of sold objects of the Treasury within the framework of the privatization program decreased fourfold. However, taking into account the privatization of property without its inclusion in the PPP (according to the list approved by the Ministry of Finance), it increased by about a quarter.

Under an individual scheme (Section I of the PPP), a full block of shares in MMTP was contributed to the authorized capital of a new company, where the state's share is less than half, with the prospect of its purchase by a strategic investor under a number of conditions. Among other transactions, the sale of Rosspirtprom Holding stands out, which, although not one of the largest privatizations in the forecast plan, was among the three most expensive assets sold since 2020 (about Rb 8.3 bn).

The quantitative parameters of the current version of the privatization program, which appeared after the next extension of the start and end dates of implementation by 1 year, do not differ much from the previous forecast plan, except for a more than halving of the number of economic agents included in the program. At the same time, for the first time in many years there is no mention of the possibility of privatization of the largest companies occupying a leading position in the relevant industries on the basis of individual decisions of the President of the Russian Federation and the Government of the Russian Federation.

The basic law on privatization replaced one method of privatization with another. Instead of the previous sale of property without price announcement, the sale of state and municipal property at the minimum permissible price was introduced in case its realization through public offering failed.

The advantages of the new method are in setting the minimum price depending on the price of the initial offer established during the failed sale by means of public offer, in strengthening the competition due to the appearance of elements of auction bidding, in the introduction of penalties in case of refusal or evasion of the buyer to conclude a purchase and sale agreement. It is also obvious that this innovation is aimed at increasing budgetary efficiency in the typical sale of low-liquid assets.

Much more significant changes concerning privatization appeared with the approval of the Rules of alienation of federal property in order to create an environment for attracting investments, stimulating the development of the stock market, modernization and technological development of the economy. This category of assets has been excluded from the law on privatization since 2010. Now the procedure of their alienation is regulated in detail, which, however, does not provide a proper guarantee of transparency in making specific decisions.

The dynamics of the number of economic entities belonging to the federal property was contradictory and multidirectional.

Despite the actual freezing of FSUEs corporatization in the past calendar year, a comparison of June 2023 and June 2024 values from the projected privatization plans demonstrates that their number has decreased by about 3% over this period. This clearly contrasts with the approach of the normatively established deadline for the transformation of all unitary enterprises and a sharp increase in the number of economic companies, the entire capital of which is in federal ownership, which can be interpreted as the effect of intensive corporatization of unitary enterprises in previous years.

In the corporate sector, on the contrary, the presence of the state at the federal level for the first time seriously expanded. Over the year, the total number of economic agents with state participation increased by almost 29%, exceeding the level of the end of the fall of 2021.

The analysis of the federal portfolio shows that the total share of companies where the state as a shareholder could exercise full-fledged corporate control exceeded 3/4 for the first time after 2016, mainly due to the increase in the number of economic agents with a full federal shareholding. By the early summer of 2024, it turned out to be the maximum for the previous 5-year period, amounting to about 500 units. At the same time, the number of economic agents with a controlling (from 50 to 100% of the capital) federal shareholding has also increased, which, being inferior by almost an order of magnitude to the number of companies with a full state shareholding, has almost doubled compared to the beginning of 2019.

The latter is probably a consequence of a wave of lawsuits in recent years, which resulted in the transfer of assets of a number of companies to the state. In the sec-

toral context, court proceedings have shifted towards metallurgy, machine-building, and food industry.

The practice of temporary management of assets of a number of foreign companies associated with unfriendly states was significantly expanded. During the year the number of legal entities on the relevant list more than tripled, exceeding 40 units. So far, there have been only a few cases of removal from the list.

With minimum changes in the list of strategic organizations during the entire period of its 20-year existence, important innovations in the management of economic agents of the public sector continued.

Methodological recommendations for the development and approval of development strategies for joint-stock companies (JSCs) whose shares are owned by the Russian Federation and FSUEs have been approved. The structure of these documents is described in detail. The procedure of their approval is based on the interaction between the management bodies of the organizations themselves and the executive authorities involved in the implementation of the rights of the owner on the part of the state, is set in time frames and is differentiated in a certain way depending on the characteristics of the organizations that are the objects of managerial influence.

With regard to the personnel policy, most of the criteria approved in 2021 were abolished with respect to candidates to the management bodies of JSCs, the shares of which are in federal ownership, in case of their election in fulfillment of orders or instructions of the President of the Russian Federation, orders of the Chairman of the Government of the Russian Federation and his deputies. Exceptions to the general rules concern candidates to the Boards of Directors (Supervisory Boards) and Audit Commissions (AC) of companies, as well as individuals and legal entities in case of their election as chief executive officers (CEOs) of JSCs.

Amendments to the Methodological Recommendations on the Formation and Application of Key Performance Indicators (KPIs) for JSCs with state participation and individual NPOs, which appeared at the end of 2020, among other changes, specified the mechanism for the disqualification for bonus responsible officials of the management staff (10 or 20% of the annual performance bonus depending on the nature of the violation).

In the structure of federal budget revenues generated by privatization (sale) and use of state property, as a year earlier, revenues from renewable sources prevailed. However, their share decreased to less than 70% against approximately 90% in 2023, mainly due to the sale of confiscated property in terms of shares and other financial instruments. This made it possible to compensate for a 40% drop in revenues from the ordinary sale of shares (stakes) in economic agents. The main part of property income continued to be dividends transferred to the budget, the volume of which decreased by 9%, falling below the level of 2018. Revenue from most other sources showed growth. The revenues from the sale of plots of land and transfer of part of the profit by unitary enterprises increased especially noticeably.

5.2. Main changes in legislation on bankruptcy of legal entities in 2022–2024¹

Over the past three years the businesses bankruptcy regulation has not experienced any systemic changes. Russia's bankruptcy legislation continues to retain its basically pro-creditor approach, which is not focused on saving business. However, interests of creditors are not sufficiently protected, as the level of satisfaction of creditors' claims resulting from a company's bankruptcy is 5–6% of the amount included in the register of claims.

Planned systemic measures aimed at transforming the legislation in the interests of debtor and expanding opportunities for retaining businesses (introduction of restructuring) were mentioned as early as 2021.² Although these initiatives have not been implemented yet, in 2022–2024 certain steps were taken towards balancing positions of the creditor on the one hand and the debtor and its supervisor on the other. These include a significant increase in the size of claims against the debtor to initiate bankruptcy proceedings and allowing the supervisor to participate in the action before being held subsidiary liable.

Meanwhile, along with strengthening of the supervisor's position, the level of his liability to creditors continues to increase in terms of fixing the latter's right to change the method of disposing the right of claim for bringing the supervisor to subsidiary liability. Innovations stimulate owners of a financial organization, trying to protect its property, to repay the organization's debts to creditors faster using their own funds.

A large number of changes in the period under review are aimed at improving the bankruptcy procedure as a whole. Thus, in order to relieve the burden on arbitration courts, the judge was granted the right to consider certain isolated disputes in a simplified procedure (on inclusion of creditors' claims in the register, on remuneration of arbitration managers, etc.). Without prior application to the court, manager is authorized to request necessary information on an expanded range of parties.

*Raising the size of claims against the debtor to initiate bankruptcy proceedings.*³ From May 29, 2024, the size of claims necessary for the arbitral tribunal to initiate bankruptcy proceedings has been increased:

— from Rb300.000 to Rb2 mn against the debtor, legal entity (p. 2 Article 6 hereinafter Bankruptcy Act);

1. Author: *Polezhaeva N. A.*, Candidate of Legal Sciences, Senior Researcher, Laboratory for institutions and financial markets analytics, IAES RANEPA.

2. *E. A. Apevalova, N. A. Polezhaeva.* Businesses bankruptcy: actual trends // Russian economy in 2021. Trends and prospects. (Ed. 43) / [Under academic supervision of A. L. Kudrin, Doctor of Economic Sciences, V. A. Mau, Doctor of Economic Sciences, A. D. Radygin, Doctor of Economic Sciences, S. G. Synelnikov-Murylev, Doctor of Economic Sciences]; Gaidar Institute—Moscow: Gaidar Institute Publishing House, 2022. — p. 443–460.

3. FZ of 29.05.2024 No. 107-FZ "On Amending the Federal Law "On Insolvency (Bankruptcy)" and Article 223 of the Arbitration Procedural Code of the Russian Federation" // RG, No. 120, 04.06.2024

- from Rb 500,000 to Rb 3 mn against the debtor, the agricultural enterprise (p. 5 Article 177);
- from Rb 1 mn to Rb 3 mn against the debtor, strategic enterprise (p. 4 Article 190);
- from Rb 1 mn to Rb 3 mn against the debtor, natural monopolist (p. 3 Article 197).

At first, the size of claims for initiating bankruptcy proceedings was set depending on the scale of the debtor's economic activity and the importance of this activity for the state. Thus, to initiate bankruptcy proceedings against an individual, the amount of his debt had to be at least Rb 10,000, for an organization Rb 100,000, and for special entities (e.g., a strategic enterprise) Rb 500,000. However, over time, this reasoning became irrelevant, and the amount of debt required for bankruptcy of an individual (Rb 500,000), whose economic activity is usually less extensive, became higher than the amount of debt required for bankruptcy of organization (Rb 300,000). Moreover, in case of large enterprises, bankruptcy due to a debt of Rb 300,000 seemed to be a disproportionate measure.¹

In establishing new claim amounts, previous figures used as a basis were indexed to the accumulated inflation rate and the consumer price index and rounded upwards, since the minimum amount of debt required to initiate bankruptcy proceedings should remain relevant for at least a few more years.²

However, the RF Government believes with good reason that a significant rise in the amount of debt required to initiate bankruptcy proceedings against a legal entity contradicts the interests of its employees and other creditors, since they are deprived of the opportunity to initiate bankruptcy proceedings if the debtor owes them a substantial amount of debt. It was correct to note that an increase in the period of accumulation of arrears can exacerbate the default crisis.³

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1. Minimum size of creditors' claims required to initiate bankruptcy proceedings against a legal entity, established by the 1992 and 1998 Bankruptcy Acts, was equal to 500 minimum monthly wage (MMW), which by 2002 equaled Rb 50,000. The small size of this amount together with other flaws in legislation allowed bankruptcy to be used as a way to redistribute property. The Bankruptcy Act of 2002 defined the minimum amount of debt in a fixed amount of Rb 100,000. While legislator mentioned violation of debtor's rights by initiating bankruptcy proceedings for an insignificant amount of debt as one of the most urgent problems, but did not explain why the new amount was also set small. The next increase in the minimum size of claims to Rb 300,000 happened only in 2015. Although the legislator explained this increase by a need to protect businesses from unjustified claims, experts consider this amount to be extremely low. Bankruptcy continued to be frequently used not for financial recovery of the company, but for solving problems with creditors, who received only a small percentage of their claims. Ref.: From rehabilitation to "funerals": how bankruptcy changed in Russia. URL: <https://abkazakov.ru/comments/ot-reabilitatsii-k-pohoronam-kak-menyalos-bankrotstvo-v-rossii/>
 2. Explanatory Note to Draft Federal Law No. 516699-8 "On Amending the Federal Law 'On Insolvency (Bankruptcy)' and the Arbitration Procedural Code of the Russian Federation." URL: <https://sozd.duma.gov.ru/>
 3. Official review of the RF Government "On Draft Federal Law No. 516699-8 'On Amending the Federal Law 'On Insolvency (Bankruptcy)' and the Arbitration Procedural Code of the Russian Federation'" // SPS ConsultantPlus

Meanwhile, economic inexpediency of the bankruptcy procedure in cases when the cost of this procedure exceeded the previously established Rb 300,000 supports the increase of the threshold value under consideration.

Moreover, many creditors used bankruptcy as a tool to put pressure on debtors with no real purpose of causing bankruptcy. As a result, arbitration courts were overcrowded with insolvency cases that ended up with termination of insolvency proceedings.¹ Furthermore, affiliated creditors acting in the interests of the debtor, initiated bankruptcy proceedings pursuant to an enforceable court act in summary or writ proceedings to nominate an arbitration manager and control the case to the detriment of independent creditors.

Thus, despite possible violation of rights of such category of creditors, like, for example, debtor's employees, the increase in the size of claims required for the arbitration court to initiate bankruptcy proceedings against a debtor, a legal entity, is generally a positive change aimed at improving insolvency proceedings, relieving the burden on the courts and protecting organizations from abuse by unfair creditors.

It should also be noted that the amount of the state duty for filing a petition to declare a debtor bankrupt was significantly increased for organizations: from Rb 6,000 to Rb 100,000, for an individual from Rb 300 to Rb 10,000 (when a debtor files a petition to declare his/her own bankruptcy, the duty is not charged).² This increase is aimed to improve efficiency of judicial system and replenish municipal budgets. The amount of the previously existing fee was practically static for more than 10 years, resulting in loss of its economic and regulatory sense. The increase does not affect large bankruptcies, as in such cases the total cost to the creditor often far exceeds the fee. However, it can be a significant burden for a small business.³

The supervisor has the opportunity to obtain relevant status prior to filing an application for subsidiary liability and to participate in isolated disputes,⁴ related to subsidiary liability of the debtor.⁵ Norms that did not allow such participation were declared unconstitutional.⁶ Previously, a supervisor could be recognized as controlling only after filing an application to bring it to subsidiary liability.

1. What has changed in Bankruptcy Act: 2024 innovations. URL: <https://companies.rbc.ru/news/HwFCYamnjS/chto-izmenilos-v-zakone-o-bankrotstve-novovvedeniya-2024-goda/>

2. FZ of 08.08.2024 No. 259-FZ "On Amending Parts I and II of the RF Tax Code and certain legislative acts of the Russian Federation on taxes and levies" // RG, No. 179, 14.08.2024

3. The State Duma will discuss rising court fees and exemptions. URL: <https://www.rbc.ru/economics/22/07/2024/669e3b519a7947f3a12a54b2#:~:text=Draft%20increases%20size%20levies%20,%20charged%2C%20yclarified%20in%20document>

4. Consideration of disputes, applications, petitions, complaints, etc. by the arbitration court involving certain participants of the bankruptcy case and an autonomous fact in proof related to the main case.

5. FZ of 21.11.2022 No. 452-FZ "On Amending the Federal Law "On Insolvency (bankruptcy)" // RG, No. 266, 24.11.2022

6. Decree of the RF Constitutional Court of 16.11.2021 No. 49-P "Regarding Verification of Constitutionality of Article 42 of the RF Arbitration Procedural Code and Article 34 of the Federal Law "On Insolvency (Bankruptcy)" in connection with the complaint of N. E. Akimov" // URL: <http://pravo.gov.ru>

Expanding the rights of a supervisor is aimed at balancing creditors and controlling parties' positions. Involvement in a bankruptcy case is not a ground for recognizing the guilt of a supervisor in the debtor's insolvency and for bringing him/her to subsidiary liability, but gives him/her the right to participate in isolated disputes that may affect bringing the supervisor to subsidiary liability, as well as the size of liability (p. 4 Article 34 Bankruptcy Act).

Actually, implementation of the considered changes may be associated with some adverse aspects, for example:

- a supervisor that became a participant in a bankruptcy case prior to filing an application for bringing him/her to subsidiary liability loses the opportunity to defense by referring to lack of “controlling” status in case of bringing to subsidiary liability;

- there are some difficulties in proving “supervisor’s controlling status” in a petition, including determining whether and when a debtor is actually bankrupt, which can be used by unfair controlling supervisors against independent creditors;

- dishonest parties may file an obviously doomed to be rejected petition to join the bankruptcy case and later rely on the lack of this status when trying to bring them to subsidiary liability.¹

Besides, specifics of bringing to subsidiary liability have been defined with regard to an insurance company, credit organization or non-state pension fund controlling the debtor in the context of expanding the rights of this controlling party; the decision on bankruptcy prevention measures involving the Bank of Russia or the Deposit Insurance Agency has been taken with regard to these organizations (maximum size of subsidiary liability; priority of satisfaction of claims of a bankrupt creditor being a credit organization, for which the above decision was taken, etc.²).

*Changes in the method for disposing a claim for bringing a party controlling a debtor to subsidiary liability have become more accessible to a creditor.*³ A creditor for whose benefit a party controlling the debtor is brought to subsidiary liability may choose how to dispose the right to claim liability:

- collection on this claim;

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1. A. S. Antonov, N. S. Chernyshenko. Law allowed parties controlling a debtor to participate in a bankruptcy case // *Vestnik Arbitrazhnoy Praktiki*. 2022. No. 6. p. 49–59.
 2. For example, in respect of the debtor's obligations arising prior to adoption of the above decision, claims on bringing the controlling organization to subsidiary liability may be brought against its controlling party at that time (p. 15 Article 184.3-3, p.1 3.1 Article 186.1-5, p. 13 Article 189.23). some lawyers refer to the “instructional” nature of this norm, its excessive descriptive manner, since the right to appeal to the court follows from general regularities of the mentioned right. Nevertheless amendments provide more clarity in the procedure of bringing to subsidiary liability, thus better informing the interested parties of their rights. Ref: T. V. Sakhnova. Bankruptcy as a metaprocedural substance // *Herald of civil procedure*. 2024. No. 1. p. 48–64.
 3. FZ of 22.07.2024 No. 208-FZ “On Amending Articles 61.17 and 189.96 of the Federal Law ‘On Insolvency (Bankruptcy)’ and Articles 19 and 39 of the Federal Law ‘On Insuring Deposits in Banks of the Russian Federation’ // RG, No. 167, 31.07.2024.

— sale of this claim at auction (undecided creditor is deemed to have chosen this method);

— assignment to a creditor a part of that claim in the amount of the creditor's claim.

Previously, the Bankruptcy Act did not permit a creditor to further change the way of disposing of the above-mentioned right of claim, but did not expressly prohibit such a change either. However, courts indicated that creditors did not have this option because it was not directly provided for in the Act. Therefore, interests of creditors were affected. Changing the method for disposing a claim for subsidiary liability to assignment was allowed from 2021 by Supreme Court provided that creditors first chose debt collection or sale of the claim at auction and reimburse losses to those who incurred costs for these procedures.¹

Since August 2, 2024, it is possible to change the method of disposing the right of claim for bringing the supervisor controlling the debtor to subsidiary liability to an assignment if this right could not be realized at auction (p. 6.1, 6.2 Article 61.17). Amendments also establish specifics of application of this rule in bankruptcy of financial and credit organizations (p. 7 Article 61.17, p. 37 Article 189.96). It should be noted that in the Bankruptcy Act, in contrast to the definition of the Supreme Court of the Russian Federation, there is no indication on the need to reimburse losses to those who spent on earlier procedures.

Thus, legal provision of creditor's right to change the way of disposing the right of claim for bringing the supervisor controlling the debtor to subsidiary liability and regulation of the relevant procedure fits the trend of recent years, i.e. increase the level of responsibility of parties controlling the debtor, which is one of the few valid and, according to practice, demanded tools for protection of creditors' rights.

*Amendment of the procedure for repayment of creditors' claims of a credit organization at the expense of its founders (participants) or a third party in bankruptcy proceedings (Art. 189.93) and, similarly to the regulation for credit organizations, establishment of specifics of repayment of creditors' claims of an insurance organization and NPF by their founders, shareholders or third parties (Article 183.27).*² Innovations encourage owners of a financial organization or a third party seeking to retain or acquire the organization's property, to repay its debts to creditors faster, thus accelerating satisfaction of their claims.³

1. Ref.: Review of judicial practice of the Supreme Court of the Russian Federation No. 2 (2021) (approved by the Presidium of the Supreme Court of the Russian Federation on 30.06.2021) // Bulletin of the Supreme Court of the Russian Federation, No. 10, October, 2021.

2. FZ of 08.08.2024 No. 243-FZ "On Amending Article 23.4 of the Federal Law 'On Banks and Banking Activities' and the Federal Law on Insolvency (Bankruptcy)" // RG, No. 178, 13.08.2024.

3. Report of the RF State Duma Committee on Property, Land and Property Relations "On Draft Federal Law No. 214674-8 'On Amending Article 23.4 of the Federal Law 'On Banks and Banking Activity' and the Federal Law "On Insolvency (Bankruptcy)" (first reading) // SPS ConsultantPlus

Thus, if liquid assets of a financial organization are insufficient to meet the claims of its creditors, a founder, a shareholder or a third party is entitled to provide funds sufficient to meet the organization's obligations to creditors, which transfer term may not exceed one year.

Effective from the date of the arbitration court's ruling on termination of bankruptcy proceedings, all rights and obligations of the financial organization are transferred to the provider of funds. If the provider of funds is a third party, the founders and shareholders of the financial organization have a pre-emptive right to buy out the property of the organization from the third party.

To prevent this instrument from being used to delay bankruptcy proceedings, certain measures are applied to parties who have volunteered to provide funds to meet obligations of a financial institution, but violated terms of timing or amount of transfer:

- funds transferred by such party shall be included in the bankruptcy estate of the financial organization;
- the party's claims in the amount of transferred funds shall be satisfied after satisfying claims of all other creditors;
- the party volunteering to provide funds is obliged to reimburse the financial organization and creditors for losses caused by the suspension of bankruptcy proceedings and pay a fine of Rb 10 mn to the organization;
- repeated declaration of intent to grant funds is accepted only by judicial decision.

Judges have been granted the right to consider certain isolated disputes on their own without holding a court session and summoning persons participating in a bankruptcy case.¹ The arbitral judge is entitled on its own initiative and in the absence of a motivated motion to schedule a court hearing summoning persons participating in the bankruptcy case to consider some isolated disputes on their own without holding a court hearing and summoning persons participating in the bankruptcy case.

The following isolated disputes are considered under the simplified procedure (Article 60.2):

- on splitting of court expenses and costs of remuneration of arbitration managers;
- on extension of external management and bankruptcy proceedings;
- on completion of bankruptcy proceedings;
- on claiming debtor's documents and valuables;
- on releasing arbitration manager from his duties;
- on engagement of managers to ensure fulfillment of duties at the expense of the bankruptcy estate in excess of the established limits;

1. FZ of 29.05.2024 No. 107-FZ "On Amending Federal Law 'On Insolvency (Bankruptcy)' and Article 223 of the RF Arbitration Procedural Code" // RG, No. 120, 04.06.2024.

- on urging owners of the debtors' property, i.e. unitary enterprises, to accept debtor's unsold property;

- on inclusion of creditors' claims in the register.¹

A simplified procedure was introduced to relieve the courts of their workload, so that they could focus on cases that actually involve a legal conflict. Thus, in 2022, 1.954.876 isolated disputes were considered in bankruptcy cases. In H1 2023, there were 1.211.541 such disputes. The overwhelming majority of disputes relate to claims for inclusion in the register and extension of bankruptcy proceedings. Their number is increasing annually, while the percentage of appeals remains insignificant (1–5%), i.e. the majority of cases are uncontroversial. Nevertheless, the arbitral tribunal was obliged to hold court hearings on all isolated disputes in compliance with all formalities: receiving the application and issuing relevant ruling, scheduling a trial and notifying parties of time and place of the proceedings, etc.²

*Expanding arbitration manager's rights to receive information and remuneration.*³ Starting from May 29, 2024, arbitration manager is entitled to request required information (including information being official, commercial and banking secrets) not only about the debtor, his controlling supervisors and members of its management bodies, but also about other parties having interest in the debtor. In all cases, preliminary application to the arbitral tribunal is no longer required (p. 1 Article 20.3).

Expanding the number of parties whose information may be requested by the arbitration manager and canceling the requirement to apply to the court in advance to obtain the required information are aimed at accelerating collection of information and, thus, reducing time for bankruptcy case consideration.

Meanwhile, transparent list of parties whose information may be requested by arbitration manager and relaxed control by the judge may result in abuses by arbitration managers, violations of their rights and new court disputes related to illegal obtaining of information. Thus, in case of abuse on the part of an arbitration manager, provision of information about its client by credit organization may be regarded as a violation of banking secrecy.⁴ If practice shows that such abuses will be committed, preliminary application to the court to seek information should be returned.

It should be noted that now arbitration manager has the right to obtain information about the debtor and his spouse (but not about other relatives) in a personal bankruptcy case without prior application to the court (p. 7 Article 213.9).

With regard to remuneration to arbitration manager, it is stated that manager shall on his own calculate and pay the amount of interest on his remuneration, if this

1. Review: "The Act on significant changes in bankruptcy is effective as of May 29, 2024"// SPS ConsultantPlus.

2. Explanatory note to Draft Law No. 516699-8 "On Amending the Federal Law 'On Insolvency (Bankruptcy)' and RF Arbitration Procedural Code."// <https://sozd.duma.gov.ru/>

3. FZ of 29.05.2024 No. 107-FZ "On Amending the Federal Law 'On Insolvency (Bankruptcy)' and Article 223 of RF Arbitration Procedural Code"// RG, No. 120, 04.06.2024.

4. Major changes in the Bankruptcy Act// <https://www.urso.ru/01.01.09.01/2020>.

amount is less than Rb100,000. If such amount ranges from Rb100,000 to Rb1 mn, it has to be approved by the arbitration judge in a simplified manner, i.e. solely without a court hearing and without summoning parties participating in the bankruptcy case (unless there is a motivated motion to schedule a court hearing (p.2 Article 60)). The amount exceeding Rb1 mn is subject to approval at a meeting of the arbitration court (p. 9 Article 20.6).¹ These innovations are aimed at reducing the burden on courts hearing bankruptcy cases, as previously any amount of interest was determined by the court in a judicial act issued at the conclusion of the relevant procedure (except for bankruptcy proceedings, where the amount was determined by a separate judicial act).

Other changes include (a) a ban on challenging certain transactions² in order to protect owners of mortgage bonds from risks associated with bankruptcy of credit institutions, to increase attractiveness of investments in mortgage-backed bonds³ and (b) changes aimed at reducing terms of settlements with creditors of a credit organization by granting an indemnity, allowing to accelerate bankruptcy proceedings⁴.

5.3. The state of science and innovation⁵

In 2024, active lawmaking activities were carried out in the science and technology (S&T) studies, a set of long-term documents was adopted, including the Strategy for Scientific and Technological Development of the Russian Federation, and a list of priority areas and key knowledge-intensive technologies was approved. Changes were introduced in the system of S&T development governance, including the assignment of new functions to the Russian Academy of Sciences

1. In exceptional cases, the amount of interest on remuneration of an arbitration manager may be reduced by the court at the request of a party to the case, if it is clearly disproportionate to manager's contribution to achieve results of bankruptcy proceedings (p. 18 Article 20.6). This norm enshrines in the Bankruptcy Act the already existing legal opinion of the RF Supreme Court, whereby a decision on reduction of such amount shall be made by the arbitration court, if the court finds that the manager demonstrated negligence performing his duties or if the work was only partially performed. Thus, granting the arbitration manager the right to calculate the amount of interest on his own remuneration is subject to control. Refer, for example: Review of judicial practice on participation of an arbitration manager in a bankruptcy case (approved by Presidium of the RF Supreme Court on 11.10.2023) // Bulletin of the RF Supreme Court, No. 12, December, 2023.
2. Federal Law No. 409-FZ of 20.10.2022 "On Amendments to the Federal Law 'On Mortgage-Backed Securities' and Certain Legislative Acts of the Russian Federation" // RG, No. 240, 24.10.2022.
3. Explanatory Note to Draft Federal Law No. 1262116-7 "On Amending the Federal Law 'On Mortgage-Backed Securities' and Certain Legislative Acts of the Russian Federation" // SPS ConsultantPlus.
4. Federal Law of 22.07.2024 No. 208-FZ "On Amending Articles 61.17 and 189.96 of the Federal Law 'On Insolvency (Bankruptcy)' and Articles 19 and 39 of the Federal Law 'On Insuring Deposits in Banks of the Russian Federation' // RG, No. 167, 31.07.2024.
5. Author: *Dezhina I. G.*, Doctor of Economic Sciences, Leading Researcher, Gaidar Institute; Head of the Analytical Department on Science and Technology Development, Skolkovo Institute of Science and Technology.

concerning expertise, information support of research and training of highly qualified personnel. In accordance with the new goals and objectives, the structure of budget financing of research and development was changed, and the emphasis on support for young scholars was strengthened. This took place against the background of issues caused by sanction restrictions and their consequences, such as “brain drain” and reduction of international cooperation with traditional academic partners.

In the innovation sector, companies’ R&D expenditures began to grow, and their cooperation with Russian research institutes and universities started to expand. In general, difficult geopolitical conditions have had a more negative impact on the science sector than on the activities of high-tech companies in terms of their R&D investments.

5.3.1. New outlines of S&T policy: mobilization mode of science and technological sovereignty

The approval of several key documents, including those of a strategic nature, defining the goals, priorities and principles of functioning of the sphere of science, became a peculiarity of 2024.

In February, an updated Strategy for Scientific and Technological Development of the Russian Federation¹ (hereinafter — the Strategy) was adopted. It enshrined the concept of technological sovereignty as the state’s ability to create and apply critical knowledge-intensive technologies and to be able to organize production in strategically important industries on their basis. The focus of the policy changes from the creation of technologies, goods and services that meet national interests and are in demand in the world to the priority provision of Russia’s domestic needs.

The Strategy sets out several key positions concerning the science governance system, namely:

- 1) It is stated that from 2022 the phase of “mobilization development of the scientific-technological sphere in the context of sanction pressure” has begun (p.10 b) of the Strategy). In this context, science serves as “the basis for the sovereign development of the state” (p.11 of the Strategy).
- 2) Accordingly, it is necessary to consolidate the efforts of all state and regional authorities in order to create a favorable environment for using the fruits of science (p.5 of the Strategy).
- 3) It is stated that in the coming 10 years the priority areas are to create domestic knowledge-intensive technologies (p. 21 of the Strategy), and at the same

1. Executive Order of the President of the Russian Federation No. 145 of 28.02.2024 “On the Strategy of Scientific and Technological Development of the Russian Federation”. URL: <https://www.garant.ru/products/ipo/prime/doc/408518353/>

time it is emphasized that the value of basic science, which provides the generation of new knowledge, relying “on the internal logic of its development” (p. 19 of the Strategy), is preserved. At the same time, in comparison with the last Strategy (2016), there is no longer a clause on freedom of scientific and technical creativity, which generally corresponds to the mobilization mode of scientific activity.

- 4) It is decided that by 2030 the governance system in the field of science, technology and technological entrepreneurship should be restructured in the context of mobilization mode (p. 47 of the Strategy).
- 5) The parameters of international scientific cooperation are specified where the emphasis is now placed on the protection of national interests under external pressure. Priority is given to cooperation “with the member states of the Commonwealth of Independent States (taking into account the potential and specifics of each country) and friendly foreign countries, primarily within the BRICS interstate association, Shanghai Cooperation Organization, Eurasian Economic Union, while maintaining openness for mutually beneficial equal cooperation with all countries” (paragraph 32 of the Strategy).

The Strategy also outlines the main challenges of socio-economic development and identifies the technologies that are needed to solve the existing problems. Compared to the previous Strategy, two new technological directions have been added. The first is the assessment of emissions and absorption of climate hazardous substances and the second is the transition to the development of “*nature-like technologies*”. The development of the latter is driven by the Kurchatov Institute.¹ These technologies have become one of the most discussed, since the concept of “nature-like” is rather vague. According to experts’ estimates, methodology, criteria and principles of designing such production systems are required² that have not been explicitly described yet.

However, the main focus of the Strategy is not the list of directions, but rather the new principles of domestic and international functioning of the scientific sphere. These principles are repeated in varying degrees of detail in subsequent decrees and instructions.

The extent to which S&T has been able to meet its objectives will be assessed on the basis of several key indicators. Some of them were also present in previous strategic documents (for example, such as the share of young scholars in the total number of researchers or growth in the volume of domestic expenditure on R&D and increase in the share of extra-budgetary funding in such expenditures). The Strategy also introduces a new indicator oriented at assessing the degree

1. Bykova N. Science targets have been adjusted to 2035 // Monocle, No. 13, 25.03.2024. URL: <https://monocle.ru/monocle/2024/13/nauke-skorrektirovali-tseli-do-2035-goda/>
2. Kulikov A. Will we be able to emulate Nature? // Stimul online, 01.03.2024. URL: <https://stimul.online/articles/tekhnosfera/sumeem-li-my-podrazhat-prirode/>

of achievement of technological sovereignty — “the ratio of sales of domestic knowledge-intensive products to the volume of purchases of similar foreign products, primarily originating from unfriendly foreign countries (including without the consent of the right holders)” (paragraph 59 c) of the Strategy).

The main quantitative benchmark is the resource indicator: by 2035, it is planned to increase total R&D expenditure to at least 2% of GDP, with the share of extra-budgetary sources to be no lower than public investment. It should be noted that the target of 2% by 2035 is a very low benchmark if we compare it with the current R&D expenditures in countries that are successfully developing new technologies. For example, in China they amount to 2.56% of GDP, in Germany — 3.13%, in Japan — 3.41%, in the USA — 3.59%, in South Korea — 5.21%.¹ At the same time, in Russia, according to data for 2023, expenditure on research and development have fallen to 0.96% of GDP, and thus the set target implies their doubling.

The Strategy’s provisions are developed in the President’s Address to the Federal Assembly² (hereinafter — the Address). It speaks about the importance of the technological base of development, repeats the strategic goal of doubling investments in R&D, as well as the argument about the permanent relevance of solving fundamental problems. In this context, the need to develop mega science facilities is emphasized. An important part of the Address is the development of the issue of priorities: it is announced that *national projects of technological sovereignty* will appear in the country. Their implementation should accelerate the modernization of industry and contribute to the economy reaching a new level of efficiency and competitiveness. Finally, the Address introduces a quantitative benchmark for assessing the degree of achievement of technological sovereignty: the share of domestic high-tech goods and services in the domestic market should increase by 1.5-fold over the next six years.

In early May, the Presidential Executive Order “On the National Development Goals of the Russian Federation for the period up to 2030 and in the perspective up to 2036”³ was released. One of the goals is to achieve *technological leadership*. In addition to increasing R&D expenditures to 2% of GDP and increasing the share of domestic high-tech goods and services by 1.5-fold, leadership will be determined by such parameters as Russia’s entry into the top ten countries in the world in terms of research and development and a seven-fold increase in the revenue of small technology companies compared to the 2023 level.

In late May, a meeting of the Council for Strategic Development and National Projects and the State Council commissions on areas of socio-economic develop-

1. Science. Technologies. Innovation: 2025: statistical summary. M.: ISSEK HSE, 2025. P.41.

2. Address of the President to the Federal Assembly. 29.02.2024. URL: <http://kremlin.ru/events/president/news/73585>

3. Executive Order of the President of the Russia Federation of 07.05.2024 No. 309 “On the National Development Goals of the Russian Federation for the period up to 2030 and in the perspective up to 2036”. URL: <http://www.kremlin.ru/acts/bank/50542>

ment¹ was held. At the meeting, the President of the Russian Federation stressed that a mobilization mode of development is being implemented, when “*everyone should work as on the front line, everyone should feel mobilized*”. And the results of national projects will be evaluated not by resource and process indicators (such as the amount of money invested and the number of activities carried out), but by “*how people’s lives are actually changing and, of course, how citizens themselves evaluate these changes*”. In fact, this means that it is necessary to develop a complex system of quantitative and qualitative assessment of the changes taking place.

In June, the meeting of the Council on Science and Education continued to discuss the topic of mobilization mode of science, including such aspects as the development of fundamental research, selection of priority areas and critical technologies.² The President of the Russian Federation noted the need to gather scientific, technological, educational and industrial potential “in a single fist” to solve current problems. However, science should prepare the basis for the creation of future promising technologies, and therefore fundamental research should be conducted on a *broad front*.

The Council meeting resulted in the Executive Order of the President of the Russian Federation “On Approving Priority Areas of Scientific and Technological Development and the List of Major Knowledge-Intensive Technologies”.³ It lists 7 priority areas and 28 most important high-tech technologies, including 21 critical technologies and 7 cross-cutting technologies. The latter included nature-like technologies. By the end of the year, the government had formed 8 *national projects of technological leadership* to develop the selected areas, each of them envisaging the creation of new and recreation of existing critical technologies. For example, the national project “New Materials and Chemistry” is supposed to recreate 55 critical technological chains.⁴ Since the level of technological independence differs in each area, the quantitative goals of each national project are different. For example, under the national project “New Nuclear and Energy Technologies” the level of technological sovereignty is estimated at 72% and the goal is to raise it to 90% by 2030, while under the national project “Unmanned Aviation Systems” it is planned to achieve 70% technological independence.⁵

1. Meeting of the Council for Strategic Development and National Projects and the State Council commissions on areas of socioeconomic development of the Russian Federation. 29.05.2024. URL: <http://kremlin.ru/events/president/news/74162>

2. Council for science and education meeting. 13.06.2024. URL: <http://kremlin.ru/events/president/news/74277>

3. Executive Order of the President of the Russian Federation of 18.06.2024. No. 529 “On Approval of Priority Areas of Scientific and Technological Development and the List of Major Knowledge-Intensive Technologies”. URL: <https://www.garant.ru/products/ipo/prime/doc/409113212/>

4. Meeting with the First Deputy Prime Minister Denis Manturov 20.11.2024. URL: <http://kremlin.ru/events/president/news/75604>

5. Ibid.

Table 7

**Main strategic documents and activities for 2024 in the field
of science and technology**

Document and event	Date of approval ("holding")	Main subjects
Strategy for Scientific and Technological Development of the Russian Federation	28.02	Science mobilization, technological sovereignty, place of basic science, parameters for international cooperation, priority technological areas, key indicators for achieving goals
Address of the President to the Federal Assembly	29.02	Repeating key provisions of the Strategy, announcing the development of national technological sovereignty projects, introducing an indicator for assessing the achievement of technological sovereignty
Executive Order of the President of the Russia Federation "On the National Development Goals of the Russian Federation for the period up to 2030 and in the perspective up to 2036"	07.05	The goal of achieving technological leadership is introduced, and a list of indicators for assessing its achievement is provided
Meeting of the Council for Strategic Development and National Projects and the State Council commissions on areas of socioeconomic development of the Russian Federation	29.05	Mobilization mode of science, evaluation of the outcome of national projects
Council for science and education meeting	13.06	Mobilization mode of science, development of fundamental research, selection of priority areas and critical technologies
Executive Order of the President of the Russian Federation "On Approving Priority Areas of Scientific and Technological Development and the List of Major Knowledge-Intensive Technologies"	18.06	List of 7 priority areas and 28 most important knowledge-intensive technologies

Source: Own compilation.

Finally, in September, the Ministry of Science and Higher Education of the Russian Federation specified the system for assessing the degree of progress towards technological sovereignty, having developed a draft that contains 14 criteria¹ divided into four groups. The first group includes two main target indicators of the Strategy for Scientific and Technological Development: the share of domestic R&D ex-

1. Petrova V. A report card for science and technology // Kommersant, No. 159, 03.09.2024, p. 2. URL: <https://www.kommersant.ru/doc/6932881>

penditure in GDP and the share of extra-budgetary sources. The second group of indicators assesses the competitiveness and efficiency of science according to four parameters: Russia's place in the world in terms of R&D, the ratio of sales of domestic and foreign knowledge-intensive products, the number of patent applications and publications in top "White List" journals.¹ The third group can be considered key in the context of ensuring technological sovereignty, since the subject of assessment is the impact of scientific achievements and developed technologies on the development of economic sectors. It comprises six indicators, including such indicators as the number of domestic technologies used by organizations of the real sector of the economy, the revenue of small technology companies, and the share of products of high-tech and knowledge-intensive industries in GDP. The fourth group of indicators should give some idea of the human and material support of science. It includes two indicators: the share of young scholars in the total number of researchers and the book value of machinery and equipment per researcher. Thus, the methodology takes into account all the indicators mentioned both in the Strategy and in other documents of scientific and technological development adopted in 2024.

Schematically, the strategic decisions taken in 2024 concerning S&T policy are presented in *Table 7*.

Thus, the main provisions of the new S&T policy in the context of technological sovereignty include the transition to a mobilization mode of science development while maintaining a broad front of basic research, new principles of international scientific cooperation, a plan to double R&D expenditure in GDP by 2035, approval of a new list of priority areas, critical and cross-cutting technologies, as well as the general framework of the system for assessing the achievement of not only technological sovereignty, but also technological leadership.

5.3.2. Budget financing of R&D

Budget financing of R&D in 2024 reflected the previous trends and priorities, and only from 2025 changes in the structure of R&D expenditure are introduced. An important event was the completion in 2024 of the National Project "Science and Universities", which is key for the sphere of science. Dmitry Chernyshenko, Deputy Prime Minister of the Russian Government, stated that the National Project was 100% implemented.² Since 2025, some programs and projects of the National Project "Science and Universities" will be funded under the new National Pro-

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1. For more information on the White List of journals, see. State of Science and Innovation//Russian Economy in 2023. Trends and Prospects. (Issue 45). Moscow, Gaidar Institute Press, 2024. P. 356–357.
 2. Petrova E. National project "Science and Universities" is fully implemented // Rossiyskaya Gazeta, 19.06.2024. URL: <https://rg.ru/2024/06/19/programma-maksimum.html>

ject “Youth and Children”. Science-related areas are mainly grouped in the Federal Project “Universities for the Leaders’ Generation”, where the emphasis is shifted towards supporting young scholars. The budget of the project for 2025 is approved at the amount of 44.1 billion rubles. For comparison, the funding, although not completely identical federal projects within the National Project “Science and Universities” amounted in 2024 Rb 41.8 bn. From the National Project “Science and Universities” the new program comprises the program to support universities “Priority-2030”; training of engineering personnel on the basis of advanced engineering schools; creation of a network of modern campuses, as well as measures to involve young people in science (youth laboratories, Congress of Young Scholars, personnel management reserve in the field of science, etc.).

In 2025, the Federal Project “Creation of Large Infrastructure Facilities for Science and Education”, which was previously part of the National Project “Science and Universities”, will be continued, with significantly more funding. In 2024 it amounted to Rb 23.1 bn, while in 2025 it is planned to come to Rb 36.5 bn, with further growth of expenditure up to Rb 78.6 bn in 2026 and Rb 73.7 bn in 2027. The significant increase is probably due to the fact that strategic documents point to the importance of developing mega science infrastructure, and in the context of shrinking international cooperation such projects have become more expensive.

In general, the funding of many science projects is becoming more part of the youth agenda than science itself as an independent sphere of the economy, and the number of measures and activities for young people is increasing.

In the area of support for basic research, a substantial increase¹ was announced compared to the actual allocations for 2024. At the same time, expenditures are decreasing when compared to the figures of the 2023 Budget Law No. 540-FZ² (Table 8). Taking into account inflation, expenditures on fundamental research become even less, which is also reflected in the parameters of financing of the Russian Science Foundation (RSF).

Compared to the Law of 27.11.2023 No. 540-FZ, the funding of the RSF for 2025 remains as planned, while in 2026 it slightly decreases (Rb 33.7 bn vs. the previously planned Rb 35.5 bn). In 2024, the RSF funding was cut by Rb 3.5 bn.³ Therefore, it was necessary to refuse to extend the projects of individual scientific groups. The number of new projects that received support dropped by 35% compared to 2023.⁴

1. In 2025, expenditure on science will grow by // TASS, 07.11.2024. URL: <https://tass.ru/ekonomika/22338541>

2. Federal Law “On the Federal Budget for 2024 and for the Planned Period of 2025 and 2026” of 27.11.2023 No. 540-FZ.

3. Waited in vain. RSF did not receive additional funding this year // Poisk, No. 39, 27.09.2024. P. 6.

4. *Volchkova N.* You’ve had enough! According to the trade union, the Ministry of Finance is not going to execute the instruction of the President of the Russian Federation // Poisk, No. 21, 24.05.2024. P.4. URL: <https://poisknews.ru/science-politic/s-vas-hvatit-po-mneniyu-profsoyuz-a-minfin-ne-sobi-raetsya-vypolnyat-poruchenie-prezidenta-rf/>

Table 8

Budget allocations of fundamental research (Rb bn)

	2024	2025	2026	2027
Law No. 540-FZ (2023)	260.8	234.5	277.0	–
Law No. 419-FZ (2024)	188.1 (actual)	226.5	218.2	225.3

Sources: Federal Law “On the Federal Budget for 2024 and for the Planned Period of 2025 and 2026” of 27.11.2023 No. 540-FZ; Federal Law of 30.11.2024 No. 419-FZ “On the Federal Budget for 2025 and for the Planned Period of 2026 and 2027.

Table 9

Budget allocations to support the Russian Science Foundation, Rb bn.

Type of spending	2025	2026	2027
Asset contribution of the Russian Federation for the performance of fundamental scientific research	35.2	33.7	33.7
<i>Funding of applied and targeted projects by area:</i>			
Radio electronics	3.0	–	–
Transportation mobility	0.608	–	–
New materials and chemistry	0.5	0.5	0.5
Means of production and automation	0.19	0.38	0.64
Total on applied projects	4.298	0.88	1.14

Source: Federal Law No. 419-FZ dated 30.11.2024 “On the Federal Budget for 2025 and for the planning period of 2026 and 2027”.

The RNF’s functionality was clarified in the Presidential Executive Order “On the Strategic Goals and Objectives of the Russian Science Foundation for the Period until 2030”.¹ The Executive Order establishes a new function of the Foundation to finance applied projects in the interests of external customers and technological partners. Such projects are called “scientific, scientific-technical programs and projects of the full scientific-technological cycle, which are characterized by an end-to-end system of planning, financing and management, in order to develop and use in sectors of the economy of priority knowledge-intensive technologies” (paragraph 7 c) of the Decree). In this case, according to the terms of RSF competitions, the customer is obliged to implement the development at his enterprise.² The sources of funding for these projects will be both the federal budget and extra-budgetary funds attracted by the Fund.

1. Executive Order of the President of the Russian Federation of 28.02.2024 No. 146 “On strategic goals and objectives of the development of the Russian Science Foundation for the period up to 2030”. URL: https://www.consultant.ru/document/cons_doc_LAW_470976/
2. Ponarina E. Bring that, I know what. Or how science and business achieve their goals today// Poisk, No. 40, 4.10.2024. P. 6–7.

In the next three years, the RSF budget will be replenished by state co-financing of applied research for the radio-electronic industry, creation of production and automation equipment, transportation mobile systems, new materials and chemistry in the amount of Rb 4.3 bn rubles in 2025, Rb 0.88 bn in 2026 and Rb 1.14 bn in 2027 (*Table 9*).

Thus, the structure of budget allocations indicates that expenditures on fundamental research will increase in current prices compared to the level of 2024, as well as investments in the development of scientific infrastructure. Expenditure on applied research, on the contrary, are slightly decreasing, apparently in anticipation of increased funding from industry and businesses. Despite the fact that youth issues are not mentioned as fundamental in strategic documents, support for young researchers is becoming one of the priorities of budget financing.

5.3.3. Changes in the system of science governance

In line with the new goals and priorities, the system of research and development management began to change in the direction of increasing centralization, coordination and strengthening the role of RAS, which is beginning to play a significant role not only in the expertise of projects, but also in the field of information support of research, as well as the system of thesis defense. In general, these changes correspond to the objectives of mobilization mode of science.

Firstly, the government expanded the powers¹ of the Commission for Scientific and Technological Development (hereinafter referred to as the Commission) in connection with the task of forming technological sovereignty. The Commission was established in 2021 to coordinate the activities of different levels of government, state academies of sciences, and scientific support funds. Now it will also coordinate the activities of federal and regional executive authorities and scientific organizations in the preparation of lists of priority areas of scientific and technological development and the most important high-tech technologies. It is assumed that this expansion of the Commission's powers will allow to strengthen the interrelations between the main state actors involved in the implementation of S&T policy.²

By the beginning of 2025, the Commission was granted additional powers, which significantly expanded its functionality: now it will be in charge of coordinating the allocation and redistribution of budgetary funds for civil R&D, as well as assessing the effectiveness of measures and instruments of state policy in the field of scientific and technological development.³

1. Government Decree of 22.07.2024. No. 995 "On Amendments to the Decree of the Government of the Russian Federation of 30.04.2021 No. 689". URL: <http://government.ru/docs/all/154423/>

2. Petrova V. Scientific and technological project office // Kommersant, No. 132 of 26.07.2024, P. 2. URL: https://www.kommersant.ru/doc/6852588?from=doc_vrez

3. Executive Order of the President of the Russian Federation of 16.01.2025 No. 30 "On Amendments to Executive Order of the President of the Russian Federation of 15.03.2021 No. 143 'On Measures

However, experts from VEB.RF, the Institute of National Economic Forecasting of the Russian Academy of Sciences, St. Petersburg Polytechnic University (SPbPU) and the Kurchatov Institute have proposed to further strengthen the centralization of governance through the creation of the Bureau for Science and Technology, which will act as an apparatus of the Government Commission for Scientific and Technological Development. The Bureau proposed to be organized on the model of the USSR State Committee on Science and Technology (GKNT USSR).¹ According to the experts, the purpose of recreating the Soviet element of science governance is to establish a partnership between the civilian and defense sectors of the economy.

Secondly, the role of RAS in the system of goal setting, organization of research and evaluation of the results obtained has increased. In February, the celebration of the 300th anniversary of the RAS took place, following the results of which the President of the Russian Federation approved a list of instructions.² Among them, it is determined that RAS will provide general supervision of the activities of the Higher Attestation Commission (HAC). The first step was the appointment of RAS Vice-President Academician V. Panchenko as the head of the HAC.³ Then the Government Decree was adopted,⁴ which stipulates that the composition of the HAC is formed by the Ministry of Science and Higher Education on the recommendation of RAS.⁵ Thus, now it is mainly the Academy of Sciences that determines who will become a member of the Commission.

In addition, the role of RAS in regulating the information support of scientific research is increasing. For this purpose, the Russian Center for Scientific Information was transferred to the subordination of RAS.

The transfer of HAC under the leadership of RAS raised many questions. For such management, the Academy should have a sufficient number of experts in all major areas of thesis preparation. Today the situation is as follows. For example, a significant number of theses are defended in the field of economics, and the corresponding section of RAS is relatively small. In some areas, such as architectu-

to Increase the Effectiveness of the State Science and Technology Policy', Executive Order of the President of the Russian Federation of 15.03.2021 No. 144 'On Certain Issues of the Presidential Council for Science and Education' and to the Regulations Approved by this Executive Order". URL: <http://publication.pravo.gov.ru/document/0001202501160041>

1. Glazycheva A., Vinogradova E. Experts have proposed creating a science governance body in Russia, as in the USSR // RBC, 23.04.2024. URL: https://www.rbc.ru/economics/23/04/2024/662622be9a79471728714a8e?from=share_footer
2. List of instructions on the results of the event dedicated to the 300th anniversary of the Russian Academy of Sciences. 06.05.2024. URL: <http://www.kremlin.ru/acts/assignments/orders/73987>
3. Yachmennikova P. Dissertations have come closer to science // Kommersant, 17.06.2024. URL: <https://www.kommersant.ru/doc/6773425>
4. Decree of the Government of the Russian Federation of 17.01.2025 No. 8 "On Amendments to the Decree of the Government of the Russian Federation of 26.03.2016 No. 237". URL: https://www.consultant.ru/document/cons_doc_LAW_496319/
5. Previously, the Ministry of Education and Science independently determined the composition of the HAC.

re and construction, RAS has no experts at all. In addition, universities account for almost 80% of all thesis defenses, which means that it will be necessary to develop the principles of work between RAS and universities. The number of universities that have the right to independently award academic degrees has been increasing in recent years, so the question is also whether they will continue to be granted this right.

RAS expanded the area of expertise by strengthening its participation in the development of defense topics and in the formation of the list of civilian priority areas and knowledge-intensive technologies. The President of RAS was included in the Security Council, and now the Academy should more closely participate in the work to ensure the country's defense capability.¹ On the importance of the expert work carried out by RAS, the President of RAS said the following: we "want the expertise of RAS to be final and not subject to revision by other agencies."² In essence, this means promoting the idea of centralization and monopolization of scientific expertise.

Along with compiling the list of priority directions, RAS assessed the current topics on which scientific institutes work. It was concluded that the profile of institutes is blurred, and adjustment is required.³ The changes are planned to be carried out through a new procedure for approving state assignments. The main goal is to ensure that research is carried out on a broad front (now they are fragmented) and at the same time to eliminate duplication. If duplicate subjects are found, it is planned to allocate those institutes that will continue to deal with them, and the rest will have to change their activity profile. At the same time, a "data bank of sought after scientific works"⁴ will be formed with the participation of departments, scientific councils of the Russian Academy of Sciences and high-tech companies. Apparently, this is the realization of the long-discussed problem of "qualified customer". A part of institutes will have to switch to the topics from this "bank".

In order to choose those who will continue their research, and who should be retrained, the President of the Russian Academy of Sciences proposed to introduce rating of scientific institutions.⁵ Assessment to determine the place in the rating

1. *Mischenko E.* "We want the expertise of RAS to be final and not subject to revision": Gennady Krasnikov at the General Meeting of RAS // Indicator, 28.05.2024. URL: <https://indicator.ru/humanitarian-science/my-khotim-chtoby-ekspertiza-ran-by-la-okonchatelnoi-i-ne-podlezhalo-peresmotru-gennadii-krasnikov-na-obshem-sobranii-ran.htm>

2. Ibid.

3. Council of Science and Education meeting, 13.06.2024. URL: <http://kremlin.ru/events/president/news/74277>

4. *Khimshiashvili G., Sirotkin K.* Head of RAS — RBC: "Competencies and technological chains have been lost" // RBC, 03.06.2024. URL: <https://www.rbc.ru/interview/society/03/06/2024/6654ab5f9a7947b005c73c7b>

5. *Plamenev I.* The head of the Russian Academy of Sciences proposed to limit access to priority scientific works // RBC, 11.04.2024. URL: <https://www.rbc.ru/rbcfreenews/6618ff269a79475bdfc58dec>

will be carried out not only by bibliometric indicators, but also taking into account the level of readiness of the findings for practical use. For this purpose it is planned to conduct field inspections of institutes once in 3–5 years.¹

In the logic of this approach, it turns out that the transition to new subjects from the “databank” will have to be made by the weaker institutes, which will also have to master new areas of work. At the same time, the monopolization of topics by individual scientific institutions will begin, which will lead to a decrease in competition and, consequently, in scientific performance. It is still unknown how to deal with possible negative effects. Pilot testing of this approach will begin in 2025 in four scientific areas where it is possible to quickly obtain applied results: Arctic research, aerospace research, development of the mineral resource base and low-tonnage chemistry.²

Last year RAS could strengthen its influence on former academic institutes through scientific and methodological management of National Research Center the “Kurchatov Institute”. National Research Center (NRC) already comprises 30 institutes, but the president of NRC has requested from the President of the Russian Federation 7 more institutes³ for ownership, explaining it by the necessity “to close technological chains created in NRC”.⁴ The administrations of the institutes scheduled to join the SIC promptly held Scientific Councils, at which they unanimously decided to refuse to move to the Kurchatov Institute. There were cited convincing arguments, such as NRC being under sanctions, which in case of accession will mean the spread of sanctions on these institutes as well; reduction of the possibility to receive grant funding for research in case of accession; risks of social tension development in the teams, which will entail the outflow of highly qualified personnel.⁵ In view of the wide negative resonance in the scientific community, the RAS leadership did not support the NRC request, making a statement that there are no

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1. *Volchkova N.* How to tune an instrument? The RAS discussed methods for assessing scientific results // Poisk, No. 24–25, 21.06.2024. P. 6–7. URL: <https://poisknews.ru/science-politic/kak-nastroit-instrument-v-ran-obsudili-metody-ocenki-nauchnyh-rezultatov/>
 2. *Volchkova N.* For now, it's on our own. State assignment 2.0 will be financed within the allocated limits // Poisk, No. 52, 27.12.2024. P. 4–5. URL: <https://poisknews.ru/releases/poka-za-svoi/>
 3. The request was received for an affiliation of the Institute of Nuclear Research RAS (Troitsk), the Gorbatov Federal Scientific Center of Food Systems RAS, the Shirshov Institute of Oceanology RAS. Gorbatov RAS, the Shirshov Institute of Oceanology RAS, the Crimean VNI of Viticulture and Winemaking “Magarach” RAS, the North Caucasus Federal Scientific Center of Horticulture Viticulture and Winemaking, the Federal Rostov Agrarian National Center and the Institute of Microelectronics Technology Problems and Highly Pure Materials RAS.
 4. *Vedeneva N.* Kovalchuk asked Putin for ownership of seven more scientific organizations // MKRU, 08.07.2024. URL: <https://www.mk.ru/science/2024/07/08/kovalchuk-zaprosil-u-putina-v-sobstvennost-eshhe-sem-nauchnykh-organizatsiy.html>
 5. *Vedeneva N.* An emergency Scientific Council was held at the Institute of Oceanology: Researchers are against the transition to Kovalchuk // MKRU, 10.07.2024. URL: <https://www.mk.ru/science/2024/07/10/v-institute-okeanologii-sostoyalsya-ekstrennyy-uchenny-sovet-sotrudniki-protiv-perekhoda-k-kovalchuku.html>

plans to re-subordinate the institutes.¹ It may well turn out that the plan of joining is only postponed.

The main organizational change in the RAS structure, which is at the approval stage, is related to the formation of the Board of Trustees, which the academicians suggested to be headed by the President of Russia. According to the RAS leaders, such a Board will “facilitate the resolution of many issues” and will “contribute to faster decision-making”.² In November 2024, the President of the Russian Federation submitted to the State Duma a draft federal law “On Amendments to the Federal Law ‘On the Russian Academy of Sciences, Reorganization of State Academies of Sciences and Amendments to Certain Legislative Acts of the Russian Federation’”³ for consideration and the draft law was adopted in the first reading in December.⁴

The main innovations introduced into the Law on RAS concern the creation of the Board of Trustees of the Russian Academy of Sciences (Art. 11). It is specified that the Board is headed by the President of Russia. One of the members of the Board will be the President of the Academy. The other members will be chosen by the head of state taking into account the wishes of the Presidium of RAS. Part of the decisions of the general meeting of RAS and the Presidium will be coordinated in the Board of Trustees. Among other things, the Council will deal with issues related to priority directions of RAS activities, creation, reorganization and liquidation of its regional branches of the Academy, the maximum number of its members.

Thus, in the general logic of mobilization mode of science, RAS is built into the main decision-making processes and expands the scope of its responsibility by acquiring new functions and forming the Board of Trustees, which can really contribute to a faster promotion of the ideas of the Academy leadership.

5.3.4. Staffing situation in science and technology

The structure of budget allocations indicates a growing emphasis on supporting young researchers, although their share of the total scientific workforce has already reached the critical value of almost 44%. This means that the number of middle-

1. RAS denied the transfer of the Academy’s institutes to the jurisdiction of NRS the “Kurchatov Institute” // Nauka. TASS. 11.07.2024. URL: <https://nauka.tass.ru/nauka/21337825>

2. *Grosheva M., Martynova P.* Academicians suggested that Putin should head a new body of the Russian Academy of Sciences // RBC, 28.05.2024. URL: <https://www.rbc.ru/politics/28/05/2024/6655981d9a794728022e877b>

3. Feedback on Draft Federal Law No. 775386-8 “On Amendments to the Federal Law ‘On the Russian Academy of Sciences, Reorganization of State Academies of Sciences and Amendments to Certain Legislative Acts of the Russian Federation’”. 04.12.2024. URL: <http://budget.council.gov.ru/activity/legislation/review/162669/>

4. *Tiazhlov I.* The State Duma approved the creation of the RAS Board of Trustees // Kommersant, 11.12.2024. URL: <https://www.kommersant.ru/doc/7365019>

generation scientists is relatively modest (indeed, those aged 40–59 is only 33%¹), which disturbs the intergenerational balance and complicates knowledge transfer. Apparently, some young researchers leave the field of science after the end of specific “youth” support, as well as after the defense of a thesis. At the same time, the outflow occurs both within the country and abroad. Domestically, the competitors to the sphere of civil science are the enterprises of the military-industrial complex, which offer young specialists salaries much higher than those that can be obtained in an academic research institute or university.²

As for the outflow of scientific personnel abroad, according to surveys, emigration sentiments are strongest among those under 39 years of age. However, in 2024, a decrease in the number of young scholars who are ready to leave was noted. Only 6% of the surveyed young scientists (the sample amounted to 831 people)³ have concrete plans to emigrate, and another 55% admit the possibility of leaving, but do not yet have a clear idea of where they will go. Thus, the actual potential for emigration is not critical, and this can be partly explained by the reduction in international contacts with countries that have been Russia’s main scientific partners for many years. Indeed, 81% of young scholars stated that they had no experience of studying or working abroad.

Comparison with the results of surveys of previous years shows that in the previous two years emigration sentiments were stronger. In 2022, 52% of young scientists had an increased emigration sentiment,⁴ and in 2023 48.3% of scientists⁵ had emigration sentiments of varying degree against the backdrop of the collapse of foreign contacts.⁶ Thus, a generation of young researchers has begun to form for whom international cooperation is not an integral component of their scientific work. This being said, contacts were reduced at the initiative of foreign partners (organizations) in 79% of cases and only 21% noted that the initiative came from the Russian side (the share of answers “due to the ban of the Russian organization” was 68.9%).⁷

1. Science. Technologies. Innovation: 2025: statistical summary. M.: ISSEK HSE, 2025. P.32.
2. *Volchkova N.* You’ve had enough! According to the trade union, the Ministry of Finance is not going to execute the instruction of the President of the Russian Federation // *Poisk*, No. 21, 24.05.2024. P.4. URL: <https://poisknews.ru/science-politic/s-vas-hvatit-po-mneniyu-profsoyuza-minfin-ne-sobi-raetsya-vypolnyat-poruchenie-prezidenta-rf/>
3. *Rozmirovich S.* Is it easy to be a young scholar? // *Stimul online*, 06.12.2024. URL: <https://stimul.online/articles/sreda/legko-li-byt-molodym-uchenym/>
4. *Gusev A. B., Yurevich M. A.* Science Policy of Russia — 2022: Profession is not dearer than motherland. M.: Pero Publishers, 2022. P.10.
5. In this survey the data were not presented by age of respondents, but usually emigration sentiments are higher in the youth group. Therefore, the given data can be considered as the lower boundary of the estimation. Source: *Gusev A. B., Yurevich M. A.* Science Policy of Russia — 2022: Profession is not dearer than motherland. M.: Pero Publishers, 2022. P.14.
6. For 55% of scientists, overseas collaborations have declined, and 13.9% said they had no one left to keep in contact with. Source: *Gusev A. B., Yurevich M. A.* Science Policy of Russia — 2022: Profession is not dearer than motherland. M.: Pero Publishers, 2022. P.16.
7. *Ibid*, p. 17.

It should be noted that the surveys were conducted on different samples, so the results are not directly comparable, and we can only assess some trends.

Estimates of the number of those who left differ by order of magnitude, as different calculation methods are used. For example, the figure of 2,500 scientists who left in the last three years, which was obtained by analyzing the metadata of authors of scientific articles (ORCID), allowing to trace the change of affiliation, is widespread.¹ The estimate of 2500 people in this case shows not the actual number of emigrated scientists, but the number of those who left and managed to find a scientific job abroad. Finally, the President of RAS noted that he did not see a problem of “brain drain”, arguing that only 4 people out of 1900 members of RAS have emigrated.²

A more noticeable feature of 2024 was not a decrease in emigration, but the beginning of the process of return of a number of specialists who left. Those whose skills are in demand in Russia and those who have been offered good working conditions, often better than they were before leaving, have started to return.³ In addition to scientists, this includes IT specialists of whom an estimated 16% of those who left in 2022 have returned.⁴ Scientists who worked at CERN and had to stop working at the facility as of November 30, 2024, when the contract with Russia ended, have also returned. It is estimated that this is about 400 people.⁵ Of course, this is not in the full sense of a return, since the scientists worked in Russian scientific institutions, but they stopped long-term travel to work on the unique scientific infrastructure.

The head of the Ministry of Education and Science said that foreign specialists⁶ have also shown interest in working in Russia, which can be seen from the results of the mega grants competition, summarized in 2024. The terms of the competition have been enhanced in regard to the time that a foreign specialist must spend in Russia: during the first year of the project, he or she must stay in the country for at least 3 months, in the second year — for at least six months, and in subsequent years work in Russia on a permanent basis. At the same time, the funding is generous and for a long period of time: grants of up to Rb500 mn for a period of up to five years with the possibility of extension for another three years. As a result, the com-

1. Robinson J. Estimates suggest at least 2500 scientists have left Russia since the beginning of the war // Chemistry World. 29.02.2024. URL: <https://www.chemistryworld.com/news/estimates-suggest-at-least-2500-scientists-have-left-russia-since-the-beginning-of-the-war/4019068.article>

2. Khimiashvili G., Sirotkin K. Head of RAS — RBC: “Competencies and technological chains have been lost” // RBC, 03.06.2024. URL: <https://www.rbc.ru/interview/society/03/06/2024/6654ab5f9a7947b005c73c7b>

3. Russians Who Fled Abroad Return in Boost for Putin’s War Economy // Bloomberg News, May 1, 2024. URL: <https://www.bloomberg.com/news/articles/2024-05-02/russians-who-fled-war-return-in-boost-for-putin-s-war-economy>

4. Kuzmenko K. Relocation of IT professionals after 2022. // NewHR, May 2024. URL: <https://newhr.org/data/it relocation22-24>

5. Scientists from Russian institutes have lost access to CERN // RIA Novosti, 01.12.2024. URL: https://ria.ru/20241201/tsern-1986675556.html?rcmd_alg=slotter

6. There is growing interest among scientists to move to Russia — the head of the Ministry of Education and Science // IA Krasnaya Vesna, 01.11.2024. URL: <https://rossaprimavera.ru/news/0994d398>

petition received 102 applications from 36 countries; only 8 projects were supported, and among the winners there are representatives of such countries as Great Britain, Germany, Italy, the Netherlands, France, Sweden, Switzerland and Japan.¹

5.3.5. International scientific cooperation

In the field of international scientific cooperation, the reorientation towards new partners, primarily from the BRICS countries, continued, i.e. the actual situation was generally in line with the priorities of the Strategy for Scientific and Technological Development of the Russian Federation. Officials emphasized the openness of Russian science, which also corresponds to the ideology of the new Strategy. Thus, at the St. Petersburg International Economic Forum, Andrey Fursenko, Assistant to the President of the Russian Federation for Science, noted that international cooperation in science should continue despite geopolitical differences and that Russia demonstrates openness and readiness for cooperation.² In practice, these words are confirmed by Russia's position on cooperation in mega science.

A high-profile event of the past year was CERN's decision to terminate the work of Russian researchers at the Large Hadron Collider (LHC). The agreement on access of Russian scientific institutions to the LHC was due to expire on November 30. About 500 scientists from Russian scientific institutions were working at the facility.³ CERN has stopped receiving funding from Russia and previously the Russian side contributed about 4.5% to the total budget of experiments at the LHC.⁴ In addition, unique Russian-made equipment was installed there. Since December 1, the access of Russian institutes to the facility has been closed.⁵

The termination of cooperation has negative consequences for all parties. The replacement of such a large number of people cannot go unnoticed by CERN, and only Russian specialists are familiar with the specifics of the equipment supplied there. In turn, Russian scientists who worked at the LHC have no opportunity to continue their research, since Russian mega science facilities do not replace but supplement what can be done at CERN. As a result, Russian research in these areas will either cease or lag behind.

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1. The winners of the tenth competition of the mega grants program were chosen. 15.05.2024. URL: <https://megagrant.ru/media/news/opredeleny-pobediteli-desyatogo-konkursa-programmy-megagrantov/>
 2. New horizons of science diplomacy discussed at SPIEF // Challenge Foundation. 07.06.2024. URL: https://fondvyzov.ru/novosti/na_pmef_obsudili_novye_gorizonty_nauchnoi_diplomatii
 3. CERN to terminate nearly 500 specialists linked to Russia. RIA Novosti. 19.03.2024. URL: <https://ria.ru/20240319/tsern-1934136457.html>
 4. Gibney E. CERN prepares to expel Russian scientists—but won't completely cut ties // Nature, September 18, 2024. DOI: <https://doi.org/10.1038/d41586-024-02982-6>
 5. Scientists from Russian institutes have lost access to CERN // RIA Novosti, 01.12.2024. URL: https://ria.ru/20241201/tsern-1986675556.html?rcmd_alg=slotter

One channel of communication remains: in late June, CERN decided to continue its cooperation with the Joint Institute for Nuclear Research (JINR) in Dubna. This means that some 270 JINR-affiliated scientists will be working at the mega-installation.¹ In this case, the CERN leadership stated that JINR is an international organization similar to CERN and conducts only peaceful research, ignoring the fact that representatives of other Russian institutes working at the LHC were also engaged in peaceful fundamental research.² Russian scientists who worked at the LHC and were not related to JINR were offered to find an opportunity to move to the jurisdiction of other countries, which would allow them to continue their research. It is estimated that about 100 scientists did so.³

The CERN precedent with respect to JINR is not an isolated case of double standards, when simultaneously with the termination of cooperation, exceptions important for the foreign party are made. First of all, this applies to mega science facilities. For example, Russia continues to participate in the work of ITER, the world's largest nuclear fusion facility located in France, because the country's contribution to its creation is significant and cannot be replaced by other institutions, at least operationally. The European X-ray free-electron laser XFEL in Germany has temporarily banned the use of the facility by Russian scientists but has maintained an official partnership with Russia.

In this situation, the Russian government has not resorted to a “symmetric response” and international access to Russian mega science facilities, both operating and under construction, is open.⁴ Support for mega science facilities remains a priority, as can be seen from the structure of budget expenditures on R&D. However, the commissioning of new facilities is delayed: the commissioning of the Siberian Ring Photon Source (SKIF) center under construction, as well as the modernization of the Kurchatov Specialized Synchrotron Radiation Source (KISR) and nine more stations (out of 20) of the International Center for Neutron Research based on the PIK high-flow reactor (Gatchina) is postponed for 1–2 years.⁵ The reason is that the construction of infrastructure facilities began before the sanctions were imposed, and critical elements for the facilities were planned to be purchased abroad. Now components are either developed in-house or analogs are sought in friendly countries.

1. Scientists from Russian institutes have lost access to CERN // RIA Novosti, 01.12.2024. URL: https://ria.ru/20241201/tsern-1986675556.html?rcmd_alg=slotter

2. CERN continues cooperation with the Joint Institute for Nuclear Research // Atomic Energy, 16.06.2024. URL: <https://www.atomic-energy.ru/news/2024/07/16/147672>

3. Gibney E. CERN prepares to expel Russian scientists — but won't completely cut ties // Nature, September 18, 2024. DOI: <https://doi.org/10.1038/d41586-024-02982-6>

4. Bykova N. CERN on the path of disintegration // Monocle, No. 49, 02.12.2024. URL: <https://monocle.ru/monocle/2024/49/tsern-na-puti-raspada/>

5. Kryukov V. Ministry of Education and Science asks to extend the construction of three mega science projects // Vedomosti, 15.10.2024. URL: <https://www.vedomosti.ru/society/articles/2024/10/15/1068706-minobrnauki-prosit-prodlit-stroitelstvo-treh-proektov>

In terms of changes in country priorities, the past year was notable for Russia's presidency of BRICS and the simultaneous entry of four new members — Egypt, Iran, UAE and Ethiopia. All this gave rise to a discussion on new priorities and forms of Russia's scientific and technological cooperation with the enlarged BRICS.

In terms of the prospects for S&T cooperation, the alliance is limited by the weak capacity of the new BRICS countries. In all countries, science complexes rely mainly on public funding, while the contribution of the business sector ranges from 4% (Egypt) to 30% (Iran) of total R&D expenditures.¹ In terms of the number of researchers per 10,000 employed in the economy, Iran is the leader among the new BRICS countries (49 full-time equivalents), which is close to Russia's figure of 55,² but in absolute terms the new BRICS countries are not comparable to Russia.

In recent years, the new BRICS countries have significantly increased their publication activity, but the dramatic growth is due to a low initial base. It is worth noting that these countries actively use international cooperation to increase the number of publications, sometimes to the detriment of scientific ethics. Russia and Iran significantly outnumber the new group of countries, but the gap is narrowing amid a decline in the number of Russian publications in the last two years.

The attempt to diversify partners for S&T development is understandable, but it is more profitable to cooperate with equal or superior partners, or with those who have complementary expertise. Scientific cooperation is a partnership, not a relationship of helping and receiving help. This configuration of relations is certainly possible, but is unlikely to be able to significantly strengthen the S&T studies of the donor country.

Among the traditional BRICS countries, China and India have strengthened their positions as Russia's main partners in international scientific cooperation.³ The gradual weakening of ties with unfriendly jurisdictions continued. The "abolition" of cooperation inflicts clear damage to certain areas of research not only in Russia, but also in world science. Arctic research is a convincing example. The exchange of data between Western and Russian scientists has slowed to a trickle, interrupting work on many projects. Western scientists' understanding of changes in the Arctic has become skewed toward North America and Europe, which means that there is no realistic view of the processes taking place. As foreign scientists themselves note, this situation has already led to a crisis in climate science.⁴

1. For Ethiopia and the UAE, data by sources of R&D funding are not available. Source: Science Indicators: 2024: Statistical Collection. MOSCOW: ISSEK HSE., 2024. C.366.

2. Science Indicators: 2024: Statistical Collection. M ISSEK HSE, 2024. P. 379.

3. *Matthews D.* China becomes Russia's biggest collaborator after war decimates science ties with the west. *Science | Business*, 22 February 2024. URL: <https://sciencebusiness.net/news/international-news/china-becomes-russias-biggest-collaborator-after-war-decimates-science-ties>

4. *Judah J.* Russia's Warming Arctic Is a Climate Threat. War Has Shut Scientists Out of It// *New York Times*, October 22, 2024. URL: <https://www.nytimes.com/2024/10/22/climate/russia-alaska-arctic-global-warming.html>

In a number of areas, Russian scientists are being replaced, but it is a complex process. For example, a survey of French scientists showed that they were willing to look for circumventing ways, for example, to communicate with Russian colleagues when they leave Russia for other countries.¹ However, all this creates additional difficulties and barriers. Over time, Russian colleagues began to be replaced by scientists from other countries. It is likely that the need for renewed cooperation may subsequently diminish.

The data on international cooperation of Russian scientists in 2024 confirm these fears. The number of international co-authored papers involving Russian researchers published in the first half of 2024 was about half the number published two years earlier.² The number of joint articles with scientists from the USA, Germany and the UK has halved at leading universities.³ But large collaborations, which usually result from work at large research facilities, were the hardest hit. In light of CERN and other constraints, this is only natural.

The parameters of publication activity can be influenced by the policy of foreign publishers. The precedent of Elsevier publishing house, which started to notify about the transfer of funds paid by Russian authors for publication in the “golden” open access to support Ukraine, became noteworthy. The logical decision in this situation was the recommendation of the Interdepartmental Working Group of the Ministry of Education and Science not to publish in the journals of this publishing house. In addition, the journals of the “golden” open access publishing house Elsevier were excluded from the Russian “White List”.

The main obstacle for Russian authors to publish in “gold” open access journals is the need to pay for the article. Firstly, this implies substantial additional resources in the budgets of organizations or grant funds. Both would be difficult even in the absence of restrictions. Secondly, due to sanctions, there are technical difficulties in transferring funds abroad. One of the solutions may be the development of homegrown journals, primarily peer-reviewed journals, whose publications are available to a wider range of researchers.

Thus, several movements coexisted in the sphere of international cooperation. On the one hand, the position of the country’s leadership demonstrated readiness for broad cooperation with representatives of any country. On the other hand, the agenda of priority partnership with the BRICS countries was being implemen-

1. *Ruffini P.-B.* Guerre en Ukraine, sanctions académiques et diplomatie scientifique // HAL Open Science. URL: <https://hal.science/hal-04110773>

2. *Zhang L., Cao Z., Sivertsen G., Kochetkov D.* Is collaboration with Russia really declining? Our analysis suggests not // Times Higher Education, September 15, 2024. URL: <https://www.timeshighereducation.com/blog/collaboration-russia-really-declining-our-analysis-suggests-not>

3. *Panova A., Matveeva N., Slepikh V., Sterligov I.* The scientific mission of universities: has the gap with the research sector been bridged? // Scientific Seminar of the Institute of Education of the National Research University Higher School of Economics of 26.03.2024. URL: <https://yandex.ru/video/preview/1237997766253120122>

ted. Finally, at the level of individual institutions, including publishing houses, their own restrictive measures were applied, which in general led to a reduction in international scientific cooperation of Russian scientists.

5.3.6. Effectiveness of scientific and technological activities

According to the Global Innovation Index, in 2024, Russia slipped several positions to 59th place in the world (for comparison, in 2023 the country was in 51st place, and in 2021 — in 45th place). The indicators of resources invested in innovation have sharply declined (the country has moved from 58th to 76th place), while the drop in performance was only three points in the rating (from 53rd to 56th place).¹

First of all, such an indicator of resource provision as investments in research and development declined. Among the performance indicators, the number of scientific publications and the number of patent applications decreased, mainly due to non-residents. This is understandable: the top 5 countries that patented their developments in Russia are the USA, China, Switzerland, Germany and South Korea, i.e. all countries (except China) that imposed sanctions on Russia's technological development.

The weakest components of the Russian innovation system are the work of institutions (126th place) and the state of research infrastructure (76th place).

According to preliminary estimates for 2024, academic productivity, which is assessed mainly by the number of publications and citations, has decreased primarily due to articles in reputable international journals.² In addition, the practice of publication citation fraud has spread, and therefore the number of retracted articles has increased.³

In general, the emphasis is gradually shifting to publications in Russian journals, which makes academic results less accessible to the international academic community and may reduce the overall impact of Russian research over time. The “White List” of journals has become a key factor in assessing performance. In November, the Russian Government adopted Resolution that stipulates that in government acts, where there are references to articles in journals from the Web of Science and Scopus databases, they should be replaced by references to “arti-

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1. Russian Federation ranking in the Global Innovation Index 2024 // WIPO. URL: <https://www.wipo.int/gii-ranking/en/russian-federation>
 2. *Panova A., Matveeva N., Slepikh V., Sterligov I.* The scientific mission of universities: has the gap with the research sector been bridged? // Scientific Seminar of the Institute of Education of the National Research University Higher School of Economics 26.03.2024. URL: <https://yandex.ru/video/preview/1237997766253120122>
 3. *Chawla D. S.* The citation black market: schemes selling fake references alarm scientists // Nature, August 20, 2024. Doi: <https://doi.org/10.1038/d41586-024-01672-7>

cles from the White List of journals”.¹ The “White List” should be used for a variety of purposes and levels of evaluation: in competitions for grant funding, in the selection of objects of the National Electronic Library, for access to centers for collective use of scientific equipment and unique research facilities.

So far, the “White List” is dominated by foreign publications,² including open access. Among the open access journals, more and more Russian articles are published by publishing houses of mixed reputation,³ such as MDPI, which has an easier peer-review procedure.

According to Clarivate estimates, among the G20 countries, Russia is characterized by co-shrinking international academic cooperation, continued specialization in physics and mathematics, a fairly high level of citations in medical patents, with low citation rates in general. Moreover, 25% of Russian articles indexed in the Scopus database have never been cited (*Table 10*).

In the field of technological innovation, according to a survey of 66 high-tech companies conducted in August 2024 by the National Research University Higher School of Economics in cooperation with the Russian Union of Industrialists and Entrepreneurs,⁴ the absolute majority of companies (91%) invest their own funds in innovation and perform the work in-house. Almost half of the companies (44%) cooperate with state universities and research institutes, which is a good indicator, and 33% cooperate with private research organizations.

Significantly, expenditures on innovation have been growing: this was noted by 38% of respondents. The main factors restraining the growth of companies’ R&D expenditures are the shortage of own funds (48% of respondents), uncertain economic situation (32%) and insufficient state support for R&D (28%). The problems, according to qualitative assessments, are also related to the lack of technical engineers.⁵ In this regard, the federal project “Advanced Engineering Schools”,⁶ initiated

1. Decree of the Government of the Russian Federation of 06.11.2024 No. 1494 “On Amendments to Certain Acts of the Government of the Russian Federation”. URL: <http://publication.pravo.gov.ru/document/0001202411070053>
2. Now the list includes 29.1 thousand publications, of which about 1 thousand are Russian language. Source: Petrova V. Science is added sovereignty. *Kommersant*, 26.08.2024. C. 2. URL: <https://www.kommersant.ru/doc/6917983>
3. Panova A., Matveeva N., Slepykh V., Sterligov I. The scientific mission of universities: has the gap with the research sector been bridged? // Scientific Seminar of the Institute of Education of the National Research University Higher School of Economics of 26.03.2024. URL: <https://yandex.ru/video/preview/1237997766253120122>
4. Gershman M., Evseeva M., Kameneva E., Glukhova M., Yakovleva L. Business plans to boost investments in R&D. Science. Technologies. Innovations. Express information. HSE, 24.09.2024. URL: <https://issek.hse.ru/news/965772399.html>
5. Kibernovich A. Alevey Khokhlov: Technologists and inventors are almost extinct in the country // Expert, 06.03.2024. URL: <https://expert.ru/mnenie/aleksey-khokhlov-v-strane-pochti-vymerli-tekhnologii-izobretateli/>
6. Advanced engineering schools // Ministry of education and science of Russia. URL: <https://engineers2030.ru/>

Table 10

**Key parameters of Russia's research performance
among G20 countries, for 2024**

Parameter	Outcome
Cooperation	Below average, decline in 2022–2023 and loss of the most productive collaborations, which were with the U. S. and Germany; main partner is China
Citation level	High citation index in medical patents, 1.7 above the world average, due to international cooperation
Focus	Focus on math and physics, about 1.7 times the average for G20 countries
Influence	Around 25% of Russian articles were not cited even once

Source: Rogers G. The annual G20 scorecard — Research and innovation performance 2024. Executive summary. ISI, Clarivate, 2024. DOI: 10.14322/isi.grr.annual.g20.scorecard.2024

by the Ministry of Education and Science of the Russian Federation. The federal project “Advanced Engineering Schools” initiated by the Ministry of Education and Science, which involves 50 universities and more than 150 high-tech companies, may contribute to a faster solution of this problem.

Among the government initiatives, it is also worth noting the resumption of the competition to award high-tech companies the status of “national champions”. In 2024, 19 companies received this status, and the total number of “national champions” increased to 125.¹ Such companies contribute to the growth of high-tech exports, and transnational companies based in Russia should be formed on their basis. To participate in the competition for the status, companies must demonstrate at least 10% growth in average annual revenue over the last three years, and R&D expenditures of at least 5% of total revenue

Thus, while the efficiency of scientific activity has declined and a number of specific problems related to sanctions restrictions have emerged, in the field of technological development sanctions, on the contrary, have pushed companies to increase investment in R&D and expand cooperation with universities and research institutes.

* * *

In 2024, the legislative framework was being formed and the practical reorientation of the S&T studies into the mobilization model of development began. In accordance with this, the management system in the field of science and technology was

1. Mekhanik A. National champions — 2024 // Stimul online, 31.05.2024. URL: <https://stimul.online/articles/sreda/natsionalnye-chempiony-2024/>

restructured. Priority directions and the most important science-intensive technologies were defined, and the first 8 national projects were formed for their development. The goal of ensuring technological sovereignty through the implementation of such projects was gradually transformed into the goal of achieving technological leadership, including through cooperation with friendly countries.

Meanwhile, all strategic documents emphasized the importance of fundamental science, the need for research on a broad front, which should provide new knowledge and, therefore, the basis for breakthrough technologies. In fundamental research it is important to have a modern infrastructure, including expensive mega science facilities. Expenditure for these purposes will increase in the structure of budget expenditures on R&D. In addition, growing attention is being paid to the support of young scientists. There are reasons for this — the average generation of scientists remains small, hence, not enough young people pursue scientific careers, and, in addition, emigration sentiments among young people are the strongest.

The role of RAS has grown in the logic of the policy for the development of fundamental research and, at the same time, the realization of priority scientific and technological studies. Most likely, the RAS position will become even stronger after the adoption of the law on the creation of the Board of Trustees, which will be headed by the President of the Russian Federation. The Academy leadership has proposed a new mechanism of selection and financing of scientific projects, which should ensure the implementation of research on a broad front and at the same time eliminate duplication. This approach has risks, as it may stimulate the growth of monopolization of topics by individual scientific institutes, which will lead to a decrease in competition and, consequently, in scientific performance.

In the field of international scientific cooperation, the reorientation towards new partners, primarily from the BRICS countries, continued, in other words, the actual situation was generally in line with the priorities of the adopted Strategy for Scientific and Technological Development. The termination of the work of Russian institutes at the CERN facilities did not entail a symmetrical response from Russia, and Russian mega science facilities are open for international cooperation.

The efficiency of science, expressed in the number of articles and their citation rate, fell, including as a result of restrictions on the part of individual journals and publishing houses. In the field of technological development, on the contrary, there was a positive dynamic of growth of investments in R&D. This process is indirectly confirmed by the structure of patenting, which was characterized by an increase in the share of domestic applicants. Cooperation of companies with scientific organizations and universities has also expanded. Thus, there is an opportunity to develop prospective and applied scientific research at the expense of private investments.

5.4. Russia in key international institutions¹

In 2024, the main trends in the system of international institutions are related to the consolidation of two multidirectional vectors of influence. On the one side, Russia and the leading developing countries — China, India, Brazil, Indonesia and South Africa — are playing an increasingly important role and stepping up cooperation to reform the system of international relations in the interests of the global majority states. On the other side, the United States and its partners are seeking to maintain supremacy and control over the processes and institutions of global and regional governance. The G7 countries are forming an ideological basis² to change rules of international trade and climate governance and promote their norms and standards as the basis for the emerging international regulation of the digital economy and artificial intelligence (AI) governance. The participants' conflicting interests make the transformation of the global governance architecture more painful and limit the effectiveness of institutions and their ability to cope with key challenges, such as growing inequality, debt vulnerability, climate change, energy poverty, food security and other. This section deals primarily with the outcomes of Russia's work in the key informal multilateral institutions — the G20 and the BRICS — in terms of adaptation of the global economic governance system. Also, it analyzes the issues of reforming the IMF and multilateral development banks. Special attention is paid to cooperation within the UN system, the differences on the main provisions of the 2024 Pact for the Future and the decisions of the 29th Conference of the Parties to the United Nations Framework Convention on Climate Change. Also discussed in this section are the main breakthroughs and challenges related with the harmonization of approaches of the members of the regional organizations: the SCO and the EAEU. Russia's participation in the WTO is analyzed in Section 5.5.

5.4.1. G20

Brazil, which held the G20 presidency in 2024, took full advantage of the opportunity to set the agenda and guide the negotiation process to promote national interests and those of developing countries in the G20's decisions and assign-

1. Authors: *Ignatov A. A.*, Candidate of Political Sciences, Senior Researcher at the Center for International Institutions Research (CIIR), IAES RANEPA; *Larionova M. V.*, Doctor of Political Sciences, Researcher at the Center for International Institutions Research (CIIR), IAES RANEPA; *Popova I. M.*, Researcher at the Center for International Institutions Research (CIIR), IAES RANEPA; *Sakharov A. G.*, Researcher at the Center for International Institutions Research (CIIR), IAES RANEPA; *Shelepov A. V.*, Candidate of Economic Sciences, Senior Researcher at the Center for International Institutions Research (CIIR), IAES RANEPA. This section was prepared within the RANEPA state assignment.
2. Economic and climate security arguments are actually used primarily to justify building different rules for themselves and their rivals in the logic of the “democratic/authoritarian states” (“like-minded / opponents”) distinction.

ments to the G20's key international partner institutions. Russia shares and supports the priorities put forward by Brazil for G20 cooperation: social integration; fighting hunger and poverty; combating climate change; promoting energy transition and sustainable development; reforming the global governance institutions. The common interests and goals are reflected in the mottos proposed by Brazil and Russia for the 2024 G20 ("Building a Just World and a Sustainable Planet") and BRICS ("Strengthening Multilateralism for Equitable Global Development and Security") summits, respectively.

Another considerable achievement was a step towards depoliticizing the G20 documents and returning to economic cooperation issues. Although the representatives of the G7 countries still sought to use the forum to condemn Russia in connection with the situation in Ukraine, all the documents focused on specific issues of cooperation, and references to differences in positions on Ukraine and Gaza were withdrawn from substantive communiqués to separate presidential statements, the text of which invariably emphasized the need to implement the Delhi Commitment to strengthen the G20 as an effective consensus-based platform for economic cooperation. As a result of the negotiations, which lasted for several months, the final declaration noted the negative effects of "the war on global food and energy security, supply chains, macro-financial stability, inflation and economic growth" and declared support for all constructive initiatives aimed at achieving a "comprehensive, just and lasting peace", while respecting all the purposes and principles of the "UN Charter for promoting peaceful, friendly and good-neighborly relations between the countries."¹ For Russia, it was important that Western countries' responsibility for the consequences of the conflict in Ukraine was implied in the statement and emphasis was made on the constructive nature of peace initiatives and all the principles of the UN Charter, including the principle of self-determination of peoples, along with the principles of territorial integrity and sovereign equality.²

The G20 has succeeded in the creation of the Global Alliance Against Hunger and Poverty for achieving the key SDG2 (Hunger Eradication) (SDG is Sustainable Development Goals). By the UN Food and Agriculture Organization's (FAO) estimates, in 2023 about 28.9% of the global population, that is 2.33 bn people, experienced moderate food shortages and 10.7% of the population (or more than 864 mn people), acute food shortages; it is believed that with the existing system and scope of financing it is infeasible to eliminate hunger by 2030.³ In November 2024, the Alliance was established. It has already brought together 86 countries, 26 internatio-

1. The G20 Rio Leaders Declaration. Cl.9. URL: <http://static.kremlin.ru/media/events/files/ru/7wxub88OyzBLZO8HYhQV456fUtOkfqFA.doc>

2. RF Foreign Minister Sergey Lavrov's speech and answers to the mass media's questions following the G20 summit, Rio de Janeiro, November 19, 2024. URL: https://www.mid.ru/ru/press_service/vizity-ministra/1982450/

3. The State of Food Security and Nutrition in the World –2024. URL: <https://openknowledge.fao.org/server/api/core/bitstreams/1c940464-8571-474b-b028-4ddcb385ac48/content/cd1254en.html#gsc.tab=0>

nal organizations and 9 financial institutions and it will be operating with the support of FAO.¹ The mechanism should facilitate networking, increase the efficiency of using international organizations' resources and mobilize participants' new domestic and international resources to support such areas as 1) school meals; 2) remittances; 3) support programs for small farmers and family farms; 4) socio-economic integration programs; 5) comprehensive support for maternal and young child health care; 6) solutions facilitating access to water. Russia joined the initiative and identified as its obligations a policy of support for small farmers and the implementation of a social contract and a school nutrition program.²

However, the achievements in the fight against climate change and the energy transition are modest. As in previous years, all G20 members reaffirmed the Paris Agreement's goal of keeping global average temperature growth well below 2°C above pre-industrial levels and making efforts to achieve carbon neutrality by the middle or around the middle of the century. An essential aspect of this commitment is always the reflection of developing countries' position regarding consideration of different national circumstances, trajectories and approaches, as well as facilitation of higher accessibility of technological innovations and climate finance and investments for developing countries. These statements are also formulated in the Rio Declaration. By conservative estimates, developing countries need \$2 trillion worth of investments per year to achieve zero emissions by 2050.³ The decision of the 2015 Paris Conference of the Parties stipulated the implementation of the goals of the Paris Agreement by setting a new target till 2025, exceeding the developed countries' commitment of 2009 to allocate \$100 bn per year for adaptation and reduction of emissions. At the same time, the provision of government concessional financing should become the core of the new goal.

Like India in 2023, Brazil acted on behalf of and in the interests of the countries of the Global South. The establishment of a Task Force on Global Mobilization of Efforts to Combat Climate Change was initiated to combine the work of the Sherpas and the financial track to integrate climate change issues and the global financial and economic agenda and set a new goal ahead of the Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in Baku. However, developed countries, which for the first time fulfilled the promise of 2009 in 2022⁴, did not seek to make new commitments. The G7 countries

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1. Members. URL: <https://globalallianceagainsthungerandpoverty.org/members/>
 2. The Russian Federation. Statements of Commitment to the Global Alliance Against Hunger and Poverty. URL: <https://globalallianceagainsthungerandpoverty.org/wp-content/uploads/2024/11/Russia-SoC-Approved.pdf>
 3. World Needs More Policy Ambition, Private Funds, and Innovation to Meet Climate Goals. URL: <https://www.imf.org/en/Blogs/Articles/2023/11/27/world-needs-more-policy-ambition-private-funds-and-innovation-to-meet-climate-goals>
 4. Finance and investment for climate goals. URL: <https://www.oecd.org/en/topics/finance-and-investment-for-climate-goals.html>

did not demonstrate their declared leadership in speeding up the transition to zero emissions. A new specific funding target failed to be identified. The Declaration only recognized “the need to step up and increase investments from all financial sources and channels to bridge the gap in financing energy transitions on a global scale, particularly in developing countries.”¹ Shortly after the G20 summit, a new funding target of \$300 bn per year² was agreed at the 29th Conference of the Parties to the UNFCCC. However, the lack of agreement within the G20 raises doubts about the prospects for the new goal to be achieved by developed countries, despite the fact that it is far from the required level of climate finance.

Considering the fact that the provision of finance and technology is a key factor in implementing the principle of common, but differentiated, responsibility and ensuring climate equity and equitable energy transitions, progress was limited in negotiating approaches to achieving clean, sustainable, equitable and inclusive energy transitions in conformity with SDG7. The G20 adopted broadly based voluntary Principles for just and inclusive energy transitions for its members to use with taking into account national circumstances when developing and implementing domestic energy transition policies.³

There were no breakthroughs in the reform of global governance institutions, either. The declared intentions are, to a large extent, in line with the actions formulated in the Pact for the Future adopted at the UN Summit of the Future in September 2024.⁴ As part of the UN reform, the G20 members pledged to strengthen the General Assembly and the Economic and Social Council, reform and expand the Security Council in order to increase the representation of regions, such as Africa, Asia-Pacific, Latin America and the Caribbean, and promote the representation of the UN Secretariat.

As regards enhancing the role of developing countries in decision-making in international economic and financial institutions in order to raise their efficiency, reliability, accountability and legitimacy, the G20 reaffirmed the urgency and importance of reviewing quotas and willingness to facilitate the development of a new calculation formula within the framework of the 17th general review of IMF quotas. No new approaches were formulated to address debt vulnerability in low- and middle-income countries and increase concessional financing.

In terms of the reform of the international financial architecture, the most significant result was the G20 Roadmap Towards Better, Bigger and More Effecti-

1. The G20 Rio Leaders Declaration. Cl.49. URL: <http://static.kremlin.ru/media/events/files/ru/7wxub88OyzBLZO8HYhQV456fUtOkfqFA.doc>

2. <https://cop29.az/en/media-hub/news/breakthrough-in-baku-delivers-13tn-baku-finance-goal>

3. The principles include energy planning for just and inclusive energy transitions; overcoming energy poverty; social dialogue; social protection; inclusivity; respect for rights; investment in affordable and reliable solutions; implementation of safe and sustainable solutions; sustainable and inclusive economic growth for all; quality jobs and workforce development.

4. Resolution adopted by the General Assembly on September 22, 2024 URL: <https://documents.un.org/doc/undoc/gen/n24/272/24/pdf/n2427224.pdf>

ve Multilateral Development Banks (MDBs)¹ to increase their lending capacity by \$300 bn–\$400 bn over the next decade. The proposed synergetic approach is meant to optimize the strengths of each institution, eliminate operational redundancy and enhance collective impact. The main focus is made on bringing the activities of the MDBs in harmony with the objectives of the Paris Agreement. However, the roadmap does not formulate recommendations regarding strategies for attracting additional capital or using innovative financing techniques, reforming the management structure and ensuring debt sustainability², although these issues are crucially important for expanding and implementing the potential of MDBs.³

As regards international trade issues, the commitment, repeated from summit to summit, remained unchanged regarding facilitation of a “rule-based, non-discriminatory, fair, open, inclusive, equitable, sustainable and transparent multilateral trading system with a central role of the WTO” and provision of equal conditions and fair competition and support to WTO reform efforts, including a revival by the end of 2024 of a comprehensive and reliable dispute settlement system accessible to all participants. However, the gap between the rhetoric and reality is widening from year to year as demonstrated by the data on the implementation of a similar commitment of 2023.

Artificial intelligence governance is included in the section on the reform of global governance institutions, which fact can be explained by the need to modernize and update multilateral organizations, taking into account the integration of AI into work processes and the agenda of cooperation, as well as the rapid formation of international AI governance and competition for influence and control over regulation. In the context of the G7’s efforts to build AI regulation and management regimes based on approaches and mechanisms agreed upon by the group members, the significant result was that the G7 was unable to advance its mechanisms and norms which they consistently projected through international institutions into the G20’s decisions. The leaders’ declaration reflects the intention of the G20 developing countries to rely on their own UN mechanisms and structures, avoid ideologizing AI cooperation and the risks of creating regulatory instruments and technical standards that do not take into account development needs, widen digital gaps and create new dependencies. A high-level Task Force on Artificial Intelligence initiated by South Africa can play a significant role in this regard. It is important for Russia and the BRICS countries to promote consolidated approaches to AI governance in the group.

In 2024, significant achievements included the full-fledged joining of the African Union Forum, the integration of the Sherpas track and the financial track to mobi-

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1. G20 Roadmap towards Better, Bigger, and More Effective MDBs. URL: https://coebank.org/documents/1577/G20_Roadmap_towards_better_bigger_and_more_effective_MDBs.pdf
 2. Taking into account the mandate and management structure, the MDBs will implement the recommendations of the G20 Roadmap and provide regular progress reports.
 3. Beyond the Billions: Problems with the G20’s Plan for Multilateral Development Banks. URL: <https://orfamerica.org/orf-america-comments/g20-multilateral-development-banks>

lize resources on hunger and climate change priorities, the convening of the first meeting of foreign ministers on the sidelines of the 79th session of the UN General Assembly open to all Members of the Organization and the holding of a Social Summit, which became a kind of G20 people's summit that brought together representatives of all groups of cooperation.

Overall, Brazil's presidency has helped consolidate the influence of developing countries in the G20 and strengthen the G20 as a key platform for economic cooperation for sustainable, stable and inclusive global growth. Through the G20 system of institutions and cooperation with G20 partner organizations, the forum provides Russia with opportunities to influence a wide range of international cooperation issues: from climate and energy to regulation of digital markets and AI. As not all the goals have been implemented, Ronaldo Lamola, Minister of International Relations and Cooperation announced at the Sherpas December meeting that the continuity of the agenda within the framework of the 2025 South African presidency was important.¹

5.4.2. BRICS

Under Russia's presidency, a new stage of BRICS institutional development began in 2024: Egypt, Iran, the United Arab Emirates and Ethiopia² joined the BRICS, the modality of partner countries' participation was determined and a decision was made regarding 13 countries' joining the work of the organization in this status from January 1, 2025.³ It is noteworthy that around 250 events were held. At the newly expanded Kazan summit, participants endorsed over 135 substantive solutions and identified common positions on key global and regional issues. At the meeting in the "outreach" / "BRICS plus" format with the participation of the leaders of the CIS countries and delegations from Asia, Africa, the Middle East and Latin America, the priorities of sustainable development, poverty eradication, transition to a low-carbon economy, adaptation to climate change, regional and global security, as well as global governance reform were discussed.⁴

1. Welcome Remarks by the Minister of the Department of International Relations and Cooperation, Mr. Ronald O. Lamola, on the Occasion of the First G20 Sherpas Meeting. URL: <https://dirco.gov.za/wp-content/uploads/2024/12/Opening-Remarks-At-South-Africas-First-Sherpa-G20-Meeting-Delivered-By-Minister-Ronald-Lamola-in-Joh.pdf>

2. As of the end of 2024, the Kingdom of Saudi Arabia has not joined the BRICS, nor has it refused to join, either. There are no official statements on this issue. The KSA participated in most of the BRICS events, but was not represented at the leaders' meeting, nor is a party to the decisions stated in the Kazan Declaration.

3. Turkey, Kazakhstan, Uzbekistan, Algeria, Belarus, Bolivia, Cuba, Indonesia, Malaysia, Nigeria, Thailand, Uganda and Vietnam.

4. The plenary session of the 17th BRICS Summit in the "outreach" / "BRICS plus" format. URL: <http://www.kremlin.ru/events/president/news/75384>

The BRICS countries have consistently called for the reform of the WTO and the restoration of the WTO's effective work, including dispute settlement mechanisms. In 2024, the members of the association agreed to promote the dialogue and create a mechanism for informal consultations on WTO issues within the BRICS framework. The participants expressed consolidated positions on the illegitimacy of unilateral coercive measures and sanctions, their negative impact on the global economy, international trade and achievement of Sustainable Development Goals, and condemned attempts to use discriminatory and politically motivated practices and various kinds of political conditions in respect of development.

The reform of the international monetary and financial system (IMFS) was in the focus of the Presidency. The BRICS members reaffirmed their commitment to all aspects of the IMF reform, including the redistribution of quota shares from advanced economies to emerging market and developing countries, including through the review of the quota formula. At the same time, the implementation of the decision to strengthen financial cooperation and correspondent banking networks between the BRICS countries to ensure settlements in national currencies within the framework of the voluntary BRICS Cross-Border Payments Initiative (BRICS Cross-Border Payments Initiative), as well as the initiative to create an independent cross-border settlement and depository infrastructure (BRICS Clear) and the BRICS independent reinsurance mechanism, including BRICS (Re)Insurance, will play a more important role in future. The initiative to create a new investment platform based on the NDB's existing institutional infrastructure should facilitate further cooperation between the members and the influx of investments into the BRICS and Global South countries.

No decisions have been formulated to decouple the operation of the Contingent Currency Reserve Pool from the agreement with the IMF¹, although this could have created a basis for supporting Ethiopia and Egypt which face a debt trap. Helping BRICS members overcome the liquidity crisis will not resolve structural problems of the international monetary and financial system², but it can demonstrate the effectiveness of the BRICS mechanisms and lay another brick in the foundation of the emerging multilateral world order. Work on the IMFS reform will continue, and the relevant instructions have been formulated by the BRICS leaders for their finance ministers and governors of central and national banks.

In terms of the accelerated formation of artificial intelligence governance, the BRICS common approach to key parameters of future AI governance will undoubtedly be important. The BRICS members announced their intention to promote a dialogue on AI issues with the central role of the United Nations in global AI governance in order to create an effective, development-oriented and inclusive global governance

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1. The BRICS Contingent Reserve Agreement. URL: <https://docs.cntd.ru/document/564476469>
 2. *M. Fernandez*. The BRICS and the IMF's "debt traps." What can the BRICS Contingent Reserve Agreement do for the countries of the Global South? URL: <https://ru.valdaiclub.com/a/highlights/briks-i-dolgovye-lovushki-mvf/>

system to stimulate national economies, reduce the risks of malicious use, disinformation, personal data breaches, biased attitudes and discrimination.¹ It is important for the countries to implement their decisions on coordination within the framework of the UN negotiations on practical cooperation between members, as well as the promise of assistance to developing countries in building AI capacity in the near future.

The BRICS statements on climate issues reflect a common approach to a policy of equitable transition to low-carbon development: it is necessary to take into account national conditions, the structure of national economies and energy consumption, and the specific circumstances of developing countries whose economies depend on the sale or consumption of fossil fuels; effectively use all available fuels, energy sources and technologies to reduce greenhouse gas emissions. For Russia, the BRICS collective position on the unacceptability of unilateral measures imposed under the pretext of combating climate change and protecting the environment, such as border carbon adjustments, taxes and unilateral trade measures, is important. The establishment of several climate policy mechanisms has been agreed: the BRICS Contact Group on Climate Change and Sustainable Development; the Framework Program on Climate Change and Sustainable Development; the BRICS Carbon Markets Partnership as a platform for sharing know-how and conducting case studies and cooperation between BRICS countries on carbon markets, including that provided for in Article 6 of the Paris Agreement. It is also planned to create a BRICS Climate Research Platform to promote scientific and expert exchange of opinions, expertise and best practices.

A number of sectoral initiatives proposed by Russia under its presidency will be of practical importance for strengthening cooperation among BRICS members and networking with the countries of the Global South. The launch of the BRICS Geological Platform was the first step in the development of practical cooperation in the field of geology and the rational use of mineral resources.² The initiative to create the BRICS Grain Exchange with a subsequent covering of other agricultural sectors is expected to facilitate trade in agricultural products and fertilizers, minimize disruptions and protect producers and suppliers from unlawful restrictive measures.³ The creation of an informal BRICS cooperation platform with the participation of African diamond-mining countries is designed to promote free trade in rough diamonds and the sustainable development of the global diamond industry in full compliance with the standards of the Kimberley process.⁴

1. The 16th BRICS Summit. The Kazan Declaration. Cl. 77 and Cl. 78. URL: <http://static.kremlin.ru/media/events/files/ru/MUCfWDg0QRs3xfMUiCAmF3LEh02OL3Hk.pdf>

2. Ibid. Cl. 88. URL: <http://static.kremlin.ru/media/events/files/ru/MUCfWDg0QRs3xfMUiCAmF3LEh02OL3Hk.pdf>

3. Ibid. Cl. 73. URL: <http://static.kremlin.ru/media/events/files/ru/MUCfWDg0QRs3xfMUiCAmF3LEh02OL3Hk.pdf>

4. Ibid. Cl. 91. URL: <http://static.kremlin.ru/media/events/files/ru/MUCfWDg0QRs3xfMUiCAmF3LEh02OL3Hk.pdf>

It is important that the concrete decisions taken during the presidency are transformed into collective actions. Consistent work on building institutions of global and regional governance in the interests of the global majority will consolidate the influence of the BRICS and allow the group “to become eventually one of the key regulatory institutions of the multipolar world order.”¹

5.4.3. The International Monetary Fund

In 2024, Russia retained the status of a full member of the IMF, continuing to implement its financial obligations and facilitate the formation of the Fund’s credit resources. Despite the limitations on cooperation with the IMF, the difficulties in using its resources and the termination of contacts with the IMF through consultations and expertise, Russian officials have consistently pointed to the need to maintain a dialogue in a multilateral format and support the priorities of the IMF’s work.² The IMF’s activities are still affected by member countries’ geopolitical differences that go beyond the IMF mandate. So, the International Monetary and Financial Committee (IMFC) (along with the Development Committee, one of the main bodies advising the boards of governors of the IMF and the World Bank Group) has failed once again (since 2022) to agree on a joint communique reflecting the strategic vision of the future work of the main global international financial institutions amid disagreements in economic assessments of the consequences and the parties’ actions in the context of the conflict in Ukraine.

The problem in relations of Russia and other global majority countries with the IMF is still the lack of progress in capital and governance reforms, particularly, regarding an increase in the share of quotas and votes of “underrepresented” members and the review of quota calculation. As far back as December 2023, within the scope of the 16th General Review of Quotas, a proposal was made to increase them by 50% in proportion to current values³, which idea does not suggest a redistribution of quotas from developed countries in favor of the countries which are most in need of financing. This decision will become effective if member countries ratify quota increases at the national level. They pledged to complete the national ratification procedures by mid-November 2024, but as of December 2024 it was not done,

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1. Speech by Vladimir Putin, President of the Russian Federation at the meeting with top-ranking officials of the RF Ministry of Foreign Affairs, Moscow, June 14, 2024. URL: https://www.mid.ru/ru/foreign_policy/news/1957107/
 2. On the results of the Plenary Session of the International Monetary and Financial Committee. URL: https://minfin.gov.ru/ru/press-center/?id_4=38970-ob_itogakh_plenarnogo_zasedaniya_mezhdunarodnogo_valyutno-finansovogo_komiteta
 3. IMF Board of Governors Approves Quota Increase Under 16th General Review Quotas. URL: <https://www.imf.org/en/News/Articles/2023/12/18/pr23459-imf-board-governors-approves-quota-increase-under-16th-general-review-quotas>

nor is there any information available on ratification by Russia. Although an increase in quotas is expected to make financing more stable and constant, it will not increase the IMF's overall lending capacity, since it is to be accompanied by a proportional reduction in New Arrangements to Borrow (NAB) and a gradual phasing out of Bilateral Borrowing Agreements (the so-called second and third lines of defense in comparison with the first line, that is, quotas themselves). A more controversial decision on the redistribution of quota shares between member countries, suggesting their reduction and, consequently, a decrease in voting shares for "overrepresented" developed countries, was postponed to the 17th Review of Quotas. By June 2025, the IMF is expected to develop¹ potential approaches in terms of the guidelines for further quota redistribution, including through a new quota calculating formula.² Another delay in the quota reform leaves governance imbalances unchanged, undermines the legitimacy and credibility of the IMF, while the new review dates give rise to doubt, as the deadlines of previous revisions have been repeatedly postponed.³

The Russian authorities attach great importance to the IMF's efforts to reduce government debt levels that hinder sustainable economic growth. In April 2024, the Executive Board approved a package of reforms aimed at changing some of the elements of debt restructuring processes.⁴ In compliance with its policy, the IMF cannot lend to countries that have debts to official creditors or international financial institutions. However, with the consent of other creditors, the IMF can activate its "Lending into Official Delays" (LIOA) policy.⁵ Within the framework of the reform, the IMF was given an opportunity to implement the LIOA policy even without consent from a major creditor(s) to whom a country's debt is overdue.⁶ Formally, the change in the policy is explained by the growing attention to the problem of sovereign debt of poor countries, striving for a "proper restructuring" of debt, but in practice even the IMF's representatives associate the reform, in particular, with the need to lend funds to Ukraine, which owes an overdue bilateral debt to Russia.

In addition, the Global Sovereign Debt Roundtable (GSDR) was established as a multilateral forum for discussing debt settlement issues. The Round Table mee-

1. Chair's Statement: Forty-Eighth Meeting of the IMFC. URL: <https://www.imf.org/en/News/Articles/2023/10/14/pr23353-chairs-statement-forty-eighth-meeting-of-the-imfc>

2. IMF Quotas. URL: <https://www.imf.org/en/About/Factsheets/Sheets/2022/IMF-Quotas>

3. *Kring W. N., M. Uy, R. Mohan and H. Gao.* Quote Reform is an Opportunity for the IMF to Restore its Legitimacy. URL: <https://oecd-development-matters.org/2023/10/30/quota-reform-is-an-opportunity-for-the-imf-to-restore-its-legitimacy>

4. IMF Executive Board Endorses Reforms to Promote the IMF's Capacity to Support Countries Undertaking Debt Restructurings. URL: <https://www.imf.org/en/News/Articles/2024/04/16/pr24119-imf-exec-board-endorses-refm-imf-cap-countries-debt-restruct>

5. The IMF's Policies on Sovereign Arrears. URL: <https://www.imf.org/en/About/FAQ/imf-policies-on-sovereign-arrears>

6. Policy Reform Proposals to Promote the Fund's Capacity to Support Countries Undertaking Debt Restructuring. URL: <https://www.elibrary.imf.org/downloadpdf/journals/007/2024/017/007.2024.issue-017-en.pdf>

tings¹ at the executive level will take place during the spring meeting and annual meetings of the IMF and the World Bank.

Also, reforming the policy of the IMF's so-called additional fees is important for Russia's partners from among developing countries. In March 2024, the Fund's Executive Board decided to extend the temporary increase in the "normal access limits" in respect of nonconcessional lending operations till the end of 2024.² The "normal access" of IMF member countries to loans under the General Resource Account (GRA) is subject to two restrictions: 1) the annual limit of 145% of the country's quota and 2) the cumulative limit of 435% of the quota. Beyond these restrictions, countries are subject to the "exceptional access" policy adopted in 2002 in order to allow higher limits in case of "high uncertainty and difficult economic conditions."³ In March 2023, as part of the "exceptional access" policy, the "normal access limits" were increased to 200% and 600%, respectively, for a period of 12 months. In 2024, this temporary increase was extended till the end of the year. The IMF also applies surcharges to outstanding debt payments to prevent excessive borrowing and encourage early repayment. These surcharges affect, in particular, countries such as Argentina and Ukraine, which have a large number of outstanding loans. In October 2024, the IMF completed a review of the policy of such surcharges.⁴ By the Fund's estimates, the new approach to the calculation will reduce the cost of borrowing by a total of 36% for all member countries (about \$1.2 bn per year)⁵, and the number of countries affected by the levy of additional fees will decrease from 19 to 11.⁶

Thus, Russia and the IMF still have problems in their bilateral relations and there is a lack of progress in implementing reforms that meet the interests of the Russian Federation and its partner countries. Western countries are constantly trying to politicize the Fund's activities, particularly, in the context of financial support for Ukraine. In 2023, to finance the Ukrainian budget deficit the IMF approved a \$15.5 bn

1. With the participation of the Managing Director of the IMF, the President of the World Bank, the Minister of Finance of the G20 host country, representatives of official bilateral creditors, members and non-members of the Paris Club, private sector creditors and borrowing countries.
2. IMF Executive Board Extends Temporary Increase in Access Limits Under the General Resources Account. URL: <https://www.imf.org/en/News/Articles/2024/03/11/pr-2482-imf-extends-temporary-increase-in-access-limits-under-the-general-resources-account#:~:text=The%20annual%20access%20limit%20in,at%20600%20percent%20of%20quota>.
3. IMF Exceptional Access and Reform Legislation: Do Not Link the Two Issues. URL: <https://www.piie.com/blogs/realtime-economic-issues-watch/imf-exceptional-access-and-reform-legislation-do-not-link-two>
4. IMF Managing Director Kristalina Georgieva's Statement on the Review of Charges and the Surcharge Policy. URL: <https://www.imf.org/en/News/Articles/2024/10/11/pr-24368-imf-md-kristalina-georgieva-statement-on-the-review-of-charges-and-surcharge-policy>
5. Q1. What was the outcome of the Review? URL: <https://www.imf.org/en/About/FAQ/charges-and-surcharge-policy#Q1>
6. Q7. How many countries pay surcharges? URL: <https://www.imf.org/en/About/FAQ/charges-and-surcharge-policy#Q7>

financing package, of which \$9.8 bn was allocated in December 2024.¹ In February 2024, the Ukrainian Capacity Development Trust Fund (UCDF) was established to provide technical assistance under the economic reform program; the USDF received \$16.5 mn from the Netherlands, Slovakia, Japan, Latvia and Lithuania.²

5.4.4. Multilateral Development Banks

Cooperation is still on a halt between Russia and large multilateral development banks (MDBs), including the World Bank Group (WBG) which announced the suspension of all types of work in Russia in March 2022.³ The moratorium on approval of new projects in Russia, introduced by the International Bank for Reconstruction and Development (IBRD) and other institutions of the WBG in 2014, is in effect; all previously approved projects in Russia have been completed or cancelled.⁴ Russia's cooperation with the World Bank in the expert and analytical field, including the implementation of a Financial Sector Assessment Program and the issuing of regular reports on the Russian economy, has also been terminated.

As in the case of the IMF, along with restrictions on financial and expert-analytical cooperation, there is no progress in the implementation of equity capital and governance reforms promoted by Russia and global majority states for the benefit of “underrepresented” states. A review of the IBRD's equity capital structure is to be conducted in 2025; such a review is carried out every five years. The review is not expected to lead to a significant shift in the allocation of the bank's capital. Thus, according to the results of the last review, Russia's actual share in the subscribed capital exceeded the “fair” one (determined in terms of the relative role of the country in the global economy).⁵ No decisions have been made over the past years to significantly change the shares even for largely “underrepresented” partner countries (for example, China was underrepresented by more than 100%).⁶

In October 2024, the WBG announced a package of measures to increase its lending facility and credit availability. The package includes a reduction in the mini-

1. IMF Executive Board Completes the Sixth Review of the Extended Arrangement under the Extended Fund Facility for Ukraine. URL: <https://www.imf.org/en/News/Articles/2024/12/20/pr-24493-ukraine-imf-completes-6th-rev-of-extended-arrangement-under-eff>

2. Ukraine Capacity Development Fund Launches Operations. URL: <https://www.imf.org/en/News/Articles/2024/02/12/pr2444-ukraine-capacity-development-fund-launches-operations>

3. World Bank Group Statement on Russia and Belarus. URL: <https://www.worldbank.org/en/news/statement/2022/03/02/world-bank-group-statement-on-russia-and-belarus>

4. Projects. URL: https://projects.worldbank.org/en/projects-operations/projects-list?os=0&countryshort-name_exact=Russian%20Federation

5. 2020 Shareholding Review: Concluding Report to Governors at the Annual Meetings 2021. URL: <https://www.devcommittee.org/content/dam/sites/devcommittee/doc/documents/mgr/DC2021-0008%20Final%20Shareholding%20paper.pdf>

6. IBRD Subscriptions and Voting Power of Member Countries. URL: <https://financesone.worldbank.org/ibrd-subscriptions-and-voting-power-of-member-countries/DS00051>

mun equity-to-loans ratio from 19% to 18%, thus facilitating an additional credit capacity of \$30 bn, as well as the cancellation and postponement of a number of fees for borrowers.¹ Given the existing financing needs of poor countries, these measures seem insufficient.

The activities of other MDBs, including those which Russia is a member of (the European Bank for Reconstruction and Development (EBRD), the New Development Bank (NDB), the Asian Infrastructure Investment Bank (AIIB)), have also shrunk to the minimum amid the current geopolitical situation and the sanctions in the financial sector.

The EBRD has not invested in Russia since 2014. In April 2022, the EBRD Board of Governors decided to suspend Russia's access to its resources and closed down its offices in Moscow. At the same time, Russia continues to be a shareholder of the EBRD.² The EBRD's representatives make regularly politicized statements about the situation in Ukraine. Since February 2022, Ukraine has received over \$5.4 bn from the EBRD and this sum is steadily growing.³

Despite the fact that the NDB and the AIIB are controlled by countries friendly to Russia, these banks are building their policies taking into account the risks of secondary sanctions and are not yet considering financing new projects in Russia; the implementation of the already approved projects has been suspended.⁴ However, Russia attaches great importance to cooperation with the NDB and AIIB "for the future." Thus, Vladimir Putin held his first meeting at the BRICS Kazan summit with Dilma Rousseff, President of the New Development Bank, noting that the NDB is a "good developing" financial institution that has financed about 100 projects totaling \$35 bn since 2018 and making it feasible to "reduce debt service fees, promote financial independence of the BRICS member countries, minimize geopolitical risks and detach as much as possible economic development from politics in today's world."⁵ In turn, Dilma Rousseff said that "the dollar is being used as a weapon to change the living conditions of the population", and the bank has set a goal to provide at least "30% of financing in national monetary units." The NDB is also holding negotiations with other countries on their joining the bank.⁶

After reducing Russia's share in the paid-up authorized capital from 66.0% to 44.8% in 2023 to minimize the risks of sanctions, the Eurasian Development

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1. World Bank Group Announces New Financing, Adjusts Pricing Terms. URL: <https://www.worldbank.org/en/news/press-release/2024/10/15/world-bank-group-announces-new-financing-adjusts-pricing-terms>
 2. The EBRD in Russia. URL: <https://www.ebrd.com/russia.html>
 3. Ukraine data. URL: <https://ria.ru/20231023/ukraina-1904646556.html>
 4. Our Projects. URL: https://www.aiib.org/en/projects/list/year/All/member/Russian%20Federation/sector/All/financing_type/All/status/All; Russia Projects. URL: https://www.ndb.int/projects/all-projects/?country=russia&key_area_focus=&project_status=&type_category=&pyearval=#paginated-list
 5. The meeting with Dilma Rousseff, President of the New Development Bank. URL: <http://kremlin.ru/events/president/news/75367>
 6. The expanded BRICS summit. URL: <http://kremlin.ru/events/president/transcripts/75375>

Bank (EDB) continued its activities in Russia, although the share of Russian projects in the bank's portfolio decreased. As of January 1, 2024, the bank's current investment portfolio in Russia amounted to \$1.481 bn and included 22 projects in 7 industries.¹

Thus, the sanctions led to the main MDBs' suspension of projects in Russia. At the same time, Russia continues to fulfill all obligations to these institutions, while in those banks where Russia and friendly countries are key shareholders, the networking is underway in the expert and analytical field and the dialogue on the expanded use of national currencies, protection of borrowers' interests and other lines of reform of the international financial system is going on.

5.4.5. The United Nations

In 2024, the key event in the United Nations' work was the Summit of the Future, which took place within the framework of the 79th Session of the UN General Assembly. The summit was aimed at boosting progress towards achieving the Sustainable Development Goals (SDGs) amid growing global challenges and slow progress in achieving the goals by 2030. During the summit, the Pact for the Future and the Global Digital Compact as an annex were agreed upon and endorsed by Resolution 79/1.²

The Pact for the Future outlined key areas of joint efforts and identified 56 actions in 5 thematic areas: financing sustainable development; peace and international security; science, technology, innovation and digital cooperation; development of youth and future generations; transformation of global governance.

To facilitate sustainable development, it is planned to mobilize "significant and sufficient resources and investments from all sources", as well as fulfill developed countries' obligations to provide official development assistance in the amount of 0.7% of gross national income. According to the provisions of the Pact, these funds should be used to eliminate poverty, hunger and inequality. Thus, the document outlines the tasks of ensuring universal health coverage, expanding access to high-quality and inclusive education, as well as providing clean and safe water, sanitation and hygiene opportunities for all on a sustainable basis. The United Nations Framework Convention on Climate Change (UNFCCC) estimates that developing countries will need almost \$6 trillion of financing by 2030 only for the implementation of national climate plans and this determines the need to adjust the financial goals for development after 2025.³

1. The 2023 Annual Report of the Board of the Eurasian Development Bank. URL: https://eabr.org/upload/iblock/a8b/EDB_Annual_Report_2023_RU_web_2024_06_18.cleaned.pdf

2. The Resolution adopted by the UN General Assembly on September 22, 2024. URL: <https://documents.un.org/doc/undoc/gen/n24/272/24/pdf/n2427224.pdf>

3. The Sustainable Development Goals Report 2024. URL: <https://unstats.un.org/sdgs/report/2024/The-Sustainable-Development-Goals-Report-2024.pdf>

The Pact reaffirmed commitments under the UNFCCC and the Paris Agreement, including goals to keep the global average temperature rise below 2°C and make efforts to limit temperature increases to 1.5°C above pre-industrial levels. Efforts are also envisaged to develop carbon capture and storage technologies and to build energy systems with a net zero emissions balance based on the use of carbon-free and low-carbon fuels. The Pact provides for the elimination of inefficient fuel subsidies and suggests a solution with the interests of developing countries taken into account, namely, the phasing out of inefficient subsidies for fossil fuels that “do not solving the problem of energy poverty or a fair transition.” The emphasis on the phased nature and social orientation of energy transformation is fully consistent with the position of Russia, BRICS and most developing countries.

In terms of the global governance development, the document envisages the reform of the UN Security Council, taking into account the need to “make it a more representative, inclusive, transparent, productive, effective, democratic and accountable body.” The intentions were declared to reform and consolidate the entire system of UN institutions and speed up the transformation of the international financial architecture (IFA). These provisions do not appear to be sufficiently concrete, elaborated and agreed upon with all participants in the negotiation process (which is largely of concern to the Russian side) and are declarative in nature. The implementation of the actions in the field of reforms of international institutions and global governance depends on the balance of interests of major international actors and groups of states and does not look feasible in the foreseeable future. Specifically, it is unlikely that actions will be taken to accelerate the IFA reform and expand the representation, influence and participation of developing countries in the governing bodies of the World Bank. By 2024, developing countries accounted for only 39% of the votes, well below their 75% share in the bank’s membership. Russia consistently and in various formats adheres to the position that it is necessary to expand the role of developing countries in global governance, including the IFA. In particular, within the framework of the BRICS presidency in 2024 Russia prepared a report on upgrading the international monetary and financial system and expanding the representation of developing economies in the governing bodies of the IMF, the World Bank and other international financial institutions.¹

The most important component of the Digital Package is the Global Digital Compact (GDC), which includes key objectives for cooperation for building an open, sustainable, fair, secure and reliable digital future for all. By 2030, it is planned to eliminate all digital gaps and speed up the achievement of the Sustainable Development Goals; expand participation for all in the digital economy; create an inclusive, open, secure and protected digital space in which human rights are respected, protected and promoted; facilitate progress in the development of responsible, fair and inte-

1. Improvement of the International Monetary and Financial System. URL: https://cdn.brics-russia2024.ru/upload/docs/BRICS_Research_on_IMFS_20241008.pdf?17285842411564413

roperable approaches to data management; strengthen international regulation of artificial intelligence for the benefit of humanity. The GDC establishes universal principles of cooperation and defines obligations and specific actions for implementation thereof.

The development and adoption of the GDC was accompanied by criticism because of disagreements on the principles laid down in it.

Firstly, the GDC equalizes the position of states, representatives of the private sector and the civil society in “drafting and implementing norms, guidelines and principles related to the responsible use of digital technologies.”¹ This raises concerns about the feasibility of implementing the digital sovereignty of the state and protecting the interests of consumers; this situation runs counter to the position of Russia and China, which defend the primacy of the state in addressing the issues of digital regulation, as well as the interests of developing countries to whom the GDC proposes to solve the issues of interaction between users and digital platforms in accordance with user agreements developed by platforms without establishing general rules governing the activities of large digital companies.² This approach is beneficial primarily to the United States, which actively stands for the multistakeholder approach³, since the US jurisdiction includes the largest international digital platforms.⁴

Secondly, the GDC focuses on respect for human rights issues and gender equality as interpreted by Western countries. The United States and the EU are bringing the right to freedom of speech to the forefront, saying that it should be protected in the digital space, as well. Russia, China and Iran believe that such an approach creates prerequisites for interference in the internal affairs of other states via large platforms run by Western companies. Conservative countries such as Saudi Arabia and Iran regard the West’s close attention to ensuring digital equality for women, minorities and vulnerable groups as a challenge to traditional society. Developing countries in Africa and Latin America believe that the primary task is to implement the right to access digital services and technologies and eliminate the digital divide, rather than support freedom of speech and information dissemination in the digital space.

1. Concept Note 5 for “Our Common Agenda”: The Global Digital Compact: an open, free and secure digital future for all. URL: https://digitallibrary.un.org/record/4011891/files/%5EEOSG_2023_5%5E--EOSG_2023_5-RU.pdf

2. The Ministry of Foreign Affairs of the Russian Federation: Guterres’ global digital compact does not meet the interests of developing countries. URL: <https://tass.ru/politika/20493507>

3. The multistakeholder approach, by contrast to the multilateral one, implies the involvement of non-governmental actors in the rule-making process, primarily business representatives, as well as civil society organizations, representatives of the academic community and local communities. The multilateral approach is based on the leading role of states and excludes the active participation of non-state actors in the negotiation process.

4. Pact for the Future, Global Digital Compact and Declaration on Future Generations Key Deliverables and U.S. Explanation of Position. URL: <https://usun.usmission.gov/pact-for-the-future-global-digital-compact-and-declaration-on-future-generations-key-deliverables-and-u-s-explanation-of-position/>

Russia criticized the provisions of the GDC and proposed to postpone the vote and discuss an amendment supported by Belarus, North Korea, Iran, Nicaragua, Sudan and Syria to the Treaty's controversial provisions. However, the UN General Assembly voted on the original text of the GDC, thus violating the principle of making decisions on the GDC only on the basis of consensus. It is noteworthy that 15 countries (Algeria, Bolivia, Iraq, Kazakhstan, Kiribati, China, Cuba, Laos, Malaysia, the Maldives, Oman, Pakistan, Saudi Arabia, Sri Lanka and Thailand) abstained from voting.¹

The Russian Federation did not support the adoption of the Pact for the Future and the GDC. Sergei Vershinin, Russian Deputy Foreign Minister declared that the final text of the resolution included “non-consensual elements.” According to Sergei Vershinin, no intergovernmental consultations or expert meetings were held during the work on the adopted documents and therefore the Pact reflects only the positions of a narrow range of countries.² The Russian side is concerned about the “selective quoting of generally recognized principles of international law,” particularly, the lack of references to the principle of non-interference in the internal affairs of sovereign states and the principle of cooperation. Further, the chosen approach could lead to a lack of focus and fragmentation of global efforts to facilitate transition to a sustainable growth model.

The weak side of the Pact for the Future in terms of its contribution to revitalizing the SDGs is also the lack of ambition and structural transformation of 17 Sustainable Development Goals which are necessary for intensifying the activities of states. In fact, the Pact only confirms a large part of the goals and objectives outlined in the agenda on sustainable development till 2030 (Agenda 2030) adopted in 2015. The decision to create a “framework for indicators for assessing progress in sustainable development that complement and go beyond gross domestic product” can be regarded as a positive step within the framework of the Pact. It is expected that an independent expert group will be established to make recommendations on the development of universally applicable sustainable development indicators in close consultation with member states and with taking into account the Statistical Commission's work based on the system of global SDG indicators. The findings of the expert group's work are to be presented in 2025 at the 80th session of the UN General Assembly. Also, it is planned to “initiate the UN-led intergovernmental process in consultation with relevant interested parties, including the Statistical Commission, international financial institutions, multilateral development banks and regional commissions.” Taking into account Russia's negative assessment of the Pact and the process of its development, Russia's participation in the plans to monitor and develop a new system for assessing progress in the field of sustainable de-

1. Nothing lasts forever under the UN. URL: <https://www.kommersant.ru/doc/7180538>

2. Statement by Deputy Foreign Minister Sergey Vershinin on amending the draft Pact for the future. URL: <https://russiaun.ru/en/news/pactforthefuture2209>

velopment is questionable. However, in order to ensure the objectivity of the system and achieve maximum consideration of the interests of Russia and developing countries, Russian experts should participate in the work of the expert group in 2025–2030.

In 2024, significant progress was made on the UN platform in unifying approaches to cybersecurity risk management. In August 2024, the UN Special Committee finalized the draft Convention against Cybercrime initiated by Russia in 2017.¹ This document is aimed at promoting international cooperation against crimes committed with a use of information and communication technologies (ICT). The Convention criminalizes ten types of offenses, including illegal access to ICT systems, illegal data interception, impact on electronic data and systems, misuse of digital devices, as well as crimes related to the dissemination of intimate content on the Internet. The document provides for the establishment of a network of national contact centers working 24 hours a day to assist investigations and the exchange of electronic evidence. Russia has achieved that the Convention enshrines the principle of non-interference in the internal affairs of states, thus making it as an alternative to the 2001 Budapest Convention on Computer Crimes criticized by Russia for provisions allowing foreign interference in cybercrime investigations.² However, during the negotiations, provisions that included acts related to terrorism and extremism in the list of the main types of cybercrime were excluded from the final text; this can be explained by insufficient definition of the concepts of “terrorism” and “extremism”, which are interpreted differently in various countries, and concerns that the inclusion of such provisions may lead to abuses and suppression of dissent under the pretext of fighting terrorism.³ It is expected that the final text of the Convention will be approved during the 79th session of the UN General Assembly and after that states will proceed with its signing and ratification.

5.4.6. The United Nations Framework Convention on Climate Change

Russia is taking an active part in the development of a global climate governance regime. The presence of the Russian delegation, which included for the first time in a long while Prime Minister Mikhail Mishustin, at the 29th Conference of the Parties (COP29) to the United Nations Framework Convention on Climate Change (UNFCCC) in Baku is evidence of Russia’s readiness to promote its vision of a fair climate policy. The Russian delegation highlighted several priority topics of the Con-

1. The UN has approved Russia-proposed draft treaty to fight cybercrime. URL: <https://digital.gov.ru/ru/events/52056/>

2. Updated draft text of the convention against cybercrime (crimes committed through the use of information and communications systems). URL: <https://ifap.ru/pr/2024/n240729a.pdf>

3. Cyberterrorism. URL: <https://www.unodc.org/e4j/ru/cybercrime/module-14/key-issues/cyberterrorism.html?>

ference, particularly: negotiation of a new goal for climate finance; fair energy transition; creation of international carbon markets under the auspices of the United Nations.¹ At COP29, the Russian delegation reaffirmed the goal of achieving carbon neutrality by 2060 based on higher energy efficiency, promotion of electric transportation, and the introduction of modern solutions in agriculture and forestry. In general, COP29 in Azerbaijan can be considered a success for Russia as positive results were achieved on all the issues.

Firstly, it became feasible to avoid the demonization of hydrocarbons, which strengthens the principle of technological neutrality in reducing emissions and also ensures that the interests of energy exporting countries are taken into account. This reflects Russia's understanding of a fair transition to low-carbon development. Many countries, especially EU countries and small island states, sought to ensure that the goal set out in the 2023 COP28 Global Stocktake Agreement was reaffirmed; the agreement called on all countries to contribute to a "gradual transition away from fossil fuels" and make climate commitments consistent with the goal of limiting temperature increases to 1.5°C above pre-industrial levels. However, this was not achieved, and the abandonment of hydrocarbons was not mentioned at all in the final documents of the conference largely owing to the position of the group of Arab states led by Saudi Arabia with the support of Russia and Azerbaijan, the host of COP29.

Secondly, the remaining provisions of Article 6 of the Paris Agreement dealing with carbon markets were finally agreed. In the first few days of the Conference, the participating countries approved regulatory documents and guidelines for trade in carbon units between countries in accordance with Article 6.2² and Article 6.4³ of the Paris Agreement within the framework of Paris Agreement Crediting Mechanism (PACM), which allows companies to sell carbon units to foreign counterparties and replaces the Clean Development Mechanism (CDM) of the Kyoto Protocol.⁴ The adopted guidelines and standards for the development and evaluation of climate project methodologies, CO₂ absorption requirements and social and environmental safeguards will allow countries to begin trading in carbon units under Article 6 in the near future. The development of carbon markets and the implementation of climate projects are Russia's key priorities in international cooperation on climate issues.

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1. There is an ecology: the Russian Federation will become carbon neutral by 2060. URL: <https://iz.ru/1790317/ekaterina-khamova/est-ekologika-rf-vyidet-na-uglerodnuiu-neitralnost-k-2060-mu>
 2. Article 6.2 allows countries to trade emissions reductions and removals with each other through bilateral or multilateral agreements. These tradable credits are called internationally transferred climate change mitigation results. They can be measured in carbon dioxide (CO₂) equivalent or using other metrics, such as kilowatt-hours (kWh) of renewable energy.
 3. Article 6.4 provides for the creation of a global carbon market under the supervision of the UN structure and the development of rules, conditions and procedures for the implementation of joint international projects.
 4. Key Outcomes from COP29: Article 6 of the Paris Agreement. URL: <https://unfccc.int/documents/644797>

Thirdly, despite the opposition of European countries and the United States, the so-called response measures were discussed at the Conference.¹ At the UN climate talks, the “response measures” are a forum for discussing the cross-border impacts of carbon reduction policies, especially for developing countries’ economies. At COP29 in Baku, the countries agreed to develop a four-year work plan to discuss response measures for 2026–2030. This means that trade-related climate measures, such as the EU’s Cross-border Carbon Adjustment Mechanism (CBAM), now have a formal space where their impact can be discussed and assessed at the UN climate talks. Thus, the implications and negative impact of trade and industrial policy measures in the field of carbon neutrality will be discussed within both the WTO and the UNFCCC. By some estimates, the future of climate policy will be determined, to a large extent, by trade policy measures.²

Unfortunately, COP29 ended without a fair transition program -- another priority of Russia and its BRICS partners — being agreed. High hopes for progress in this area of cooperation are pinned on Brazil’s presidency in 2025 as fair transition issues are a priority for Brazil.

The adoption of a new collective goal on climate finance was less of a priority for Russia due to its status³, but a key one for the entire Baku COP. COP29 was initially called a “financial” conference because the countries had to agree on a new collective quantitative goal for climate finance. The goal set in 2009 called for the annual allocation of \$100 bn until 2030. A new global goal on climate finance announced at the Baku conference stipulates that developed countries will “take the lead” in raising \$300 bn per year for developing countries by 2035.⁴ Developing countries insisted that they needed \$1.3 trillion per year exclusively from developed countries. Instead, the document calls on “all participants” to increase funds from “all public and private sources” to “at least \$1.3 trillion” by 2035. Unlike the wording of the previous goal, the new one also leaves the door open for “voluntary” contributions from developing countries that have not previously provided official funding to combat climate change.

Though some delegations welcomed the agreement⁵, many representatives of developing countries expressed their great disappointment with the “offensively low” funding target, and the representative of India strongly condemned the new target,

1. Policies, programs and actions to mitigate the effects of climate change, “under jurisdiction” and “beyond jurisdiction” or transboundary impacts by the Parties under the Convention, the Kyoto Protocol and the Paris Agreement to combat climate change.

2. The Future of Climate Action Is Trade Policy. URL: <https://time.com/7178427/climate-trade-policy-baku-cop29/>

3. Russia is neither a donor, nor a recipient of climate finance.

4. COP29 UN Climate Conference Agrees to Triple Finance to Developing Countries, Protecting Lives and Livelihoods. URL: <https://unfccc.int/news/cop29-un-climate-conference-agrees-to-triple-finance-to-developing-countries-protecting-lives-and>

5. What was decided at the COP29 climate summit in Baku? URL: <https://www.climatechangenews.com/2024/11/27/explainer-what-was-decided-at-the-cop29-climate-talks-in-baku-outcomes/>

calling it a “meager amount.”¹ The situation is complicated by the fact that funding of climate action support programs in the United States is likely to decrease in the coming years. Many European countries have cut their aid budgets, and the likely consolidation of right-wing forces in elections from Germany to Canada in 2025 may further weaken countries’ readiness for climate actions abroad. This situation does not suggest a positive forecast for the achievement of the financial target. In the field of financing, COP29’s success can be seen in the decision to fully operationalize the Loss and Damage Fund which developing countries, including small island states, the least developed countries and African states have been waiting for a long time.² The Fund’s total amount of funding has not been fixed; as of the end of last year the amount of promised financial support exceeded \$730 mn.

The results of the US presidential election had a significant impact on the conference. Just a few days before the start of COP29, Donald Trump won the election, promising to roll back climate regulation measures and withdraw the world’s largest emitter from the Paris Agreement. The potential impact of his re-election on the talks within the framework of the summit, as well as on the multilateral approach in general, became immediately the main focus of the negotiations and significantly affected the general mood of delegations. With the expected US withdrawal from the Paris Agreement, many are hoping that China will play a more active role in developing further climate policy to fill the vacuum.³ China, as the main producer and supplier of green technologies, is generally ready to take this role, but its position will certainly differ from that of developed countries.⁴

Overall, most COP29 participants were unsatisfied with the results, and the discussions highlighted once again the growing differences between developed and developing countries. Simon Stiell, UNFCCC Executive Secretary, recognized that the Baku agreement did not meet the expectations of all parties, noting that “no country got everything it wanted.”⁵ Discussions on climate finance highlighted deep inequalities in climate program financing. Developing countries stood for non-debt financing mechanisms, arguing that an additional debt burden would make it difficult for them to invest in climate resilience and adaptation. However, developed countries resisted these demands, insisting on the expansion of the donor base at the expense

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1. COP29 climate talks end with \$300 billion annual pledge, Guterres calls deal a ‘base to build on’. URL: <https://news.un.org/en/story/2024/11/1157416>
 2. Historic Decision in Baku: The Loss and Damage Fund fully operationalized. URL: <https://cop29.az/en/media-hub/news/-1732385682>
 3. China’s influence grows at COP29 climate talks as US leadership fades. URL: <https://theconversation.com/chinas-influence-grows-at-cop29-climate-talks-as-us-leadership-fades-243239>
 4. China Briefing 28 November 2024: How China approached COP29; Xi cuts energy deals in South America; Solar’s ‘disorderly’ expansion. URL: <https://www.carbonbrief.org/china-briefing-28-november-2024-how-china-approached-cop29-xi-cuts-energy-deals-in-south-america-solars-disorderly-expansion/>
 5. The United Nations Climate Conference COP-29 agreed on a threefold increase in climate finance for developing countries. This will protect lives and livelihoods. URL: <https://unfccc.int/ru/news/konferenciya-oon-po-klimatu-ks-29-soglasovala-troekratnyy-rost-klimaticheskogo-gosfinansirovaniya>

of middle-income countries, while seeking tougher measures to reduce emissions. As a result, the talks were characterized by high tension, which further undermined the spirit of cooperation needed for achieving substantial results. Calls for reform of the COP process are gaining momentum, and prominent figures, such as former UN Secretary-General Ban Ki-Moon, stand for more compact, problem-solving meetings that prioritize implementation over negotiation.¹ This reflects widespread dissatisfaction with too slow progress within the existing structure.²

High hopes are pinned on Brazil, the host country of the next COP Conference, which is able to facilitate compromise and progress on key issues of climate cooperation: mobilizing financing for developing countries and updating contributions determined on the national level to bring closer approaches to determining an equitable transition. Russia should use Brazil's BRICS and UNFCCC presidencies in 2025 as a platform for promoting its vision of technological neutrality, facilitating growth and balanced implementation of social, economic and environmental goals and preventing unjustified discrimination in taking measures to combat climate change that affect international trade.

5.4.7. The World Health Organization

In 2024, Russia continued its full-fledged participation in the World Health Organization (WHO). Despite the ongoing international tensions and a reduced level of public participation in events, negotiation tracks still exist and Russian experts continue to participate in the WHO's work.

According to Mikhail Vujnovich, WHO Special Representative in Russia, Russia participates in all WHO decisions in the formats of the World Health Assembly, the WHO Executive Committee, expert groups on the adaptation of international health regulations and agreements on pandemic protection, as well as the regional committee.³

The 77th session of the World Health Assembly was held in Geneva on May 27 – June 1, 2024.⁴ The outcomes of the session included the approval of the global health strategy for 2025–2028, which priority topics were as follows: a response to the increasing health threats associated with climate change; preventive impact on the underlying causes of health disorders; development of primary health care

1. Open Letter on COP reform to All States that are Parties to the Convention Mr. Simon Stiell, Executive Secretary of the UNFCCC Secretariat and UN Secretary-General António Guterres. URL: <https://www.clubofrome.org/cop-reform-2024/>

2. COP29 in Baku: A Post-Conference Analysis of Climate Action Commitments and Challenges. URL: <https://horninstitute.org/cop29-in-baku-a-post-conference-analysis-of-climate-action-commitments-and-challenges/>

3. The WHO declared that Russia participated in all decisions of the organization. URL: <https://tass.ru/obschestvo/19684891>

4. The 77th session of the World Health Assembly. URL: <https://www.who.int/ru/about/governance/world-health-assembly/seventy-seventh#>

and the capacity of health care systems to ensure universal health coverage; raising of the level of financial protection to address inequality; reduction of health risks and facilitation of preparedness to such risks; prompt identification of health emergencies and effective response to them.

The Resolution on Health and Climate Change¹ adopted at the WHO session deals with the correlation between climate change threats and human health risks and calls on member countries to ensure periodic review of vulnerabilities and adaptation measures in the context of climate change for the development of national plans for the adaptation of health systems, as well as the development and implementation of national plans aimed at decarbonization and environmental sustainability.

The most important result of the 77th session of the World Health Assembly was the approval of amendments to the International Health Regulations (IHR) (2005) and the commitment to conclude a global agreement to combat pandemics.² The adopted amendments to the IHR include: the definition of a pandemic emergency, the introduction of a declaration of commitment to the principles of solidarity and equality, the introduction of the concept of a “national IHR authority”, as well as the establishment of a Committee to facilitate the effective implementation of the amended Rules. According to WHO Director General Tedros Ghebreyesus, the amendments made to the IHR are meant to strengthen the ability of countries to detect future outbreaks of diseases and pandemics, as well as to respond to them jointly and in a coordinated manner.³ At the same time, it is noted that countries retain full sovereignty over the implementation of the IHR and any other WHO decisions.⁴

Overall, the Russian Federation supported the documents adopted at the 77th session of the World Health Assembly. However, at the plenary session on June 1, 2024, the Russian side emphasized its sovereign right to consider amendments to the IHR in terms of national legislation and, if necessary, make reservations or reject the amendments “as provided for by the WHO Constitution, as well as Article 61 and Article 62 of the IHR.”⁵

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1. Health and Climate Change. URL: https://apps.who.int/gb/ebwha/pdf_files/WHA77/A77_ACONF7-ru.pdf
 2. At the session of the World Health Assembly, an agreement was reached on a broad and decisive package of amendments aimed at improving International Health Regulations. URL: <https://www.who.int/ru/news/item/01-06-2024-world-health-assembly-agreement-reached-on-wide-ranging--decisive-package-of-amendments-to-improve-the-international-health-regulations--and-sets-date-for-finalizing-negotiations-on-a-proposed-pandemic-agreement>
 3. World Health Assembly agreement reached on wide-ranging, decisive package of amendments to improve the International Health Regulations. URL: <https://www.who.int/news/item/01-06-2024-world-health-assembly-agreement-reached-on-wide-ranging--decisive-package-of-amendments-to-improve-the-international-health-regulations--and-sets-date-for-finalizing-negotiations-on-a-proposed-pandemic-agreement>
 4. The WHO chief called on the mass media to dispel myths over the global pandemic accord. URL: <https://tass.ru/obschestvo/17917199>
 5. The 77th session of the World Health Assembly. URL: <https://www.who.int/ru/about/governance/world-health-assembly/seventy-seventh>

In April 2024, the latest version of the Pandemic Agreement was presented.¹ The document describes the measures that countries can take during pandemics and inter-pandemic periods (including operational readiness, purchasing of vaccines, routine immunization and introduction of preventive measures) and recognizes the principle of the sovereign right of states to determine national policies in this area. Negotiations on the Pandemic Agreement approved at the 77th session of the WHO are expected to be completed before the World Health Assembly in 2025.

In 2024, the WHO continued to focus on pandemic response and preparedness for future global disease outbreaks. Topical health issues were also considered in connection with other global agenda issues, such as climate change and facilitation of equal and universal access to basic services. Russia remains an important participant in all WHO processes and continues to ensure that national interests are taken into account in the WHO's decisions.

5.4.8. The Shanghai Cooperation Organization

Along with BRICS, the Shanghai Cooperation Organization (SCO) is considered by Russia an important engine of global development and promotion of multipolarity.² Indeed, the SCO has significant potential: over 3 bn people (42.2% of the global population and 20% of the world's total workforce), a quarter of global GDP and over 60% of the territory of the Eurasian continent.³ In 2024, Kazakhstan's SCO presidency ended in July with the Astana Summit of Heads of State. Kassym-Jomart Tokayev, President of Kazakhstan put forward a number of significant initiatives aimed at harnessing the organization's potential to ensure sustainable and inclusive growth in the region and create conditions for promoting universal peace, security and stability and building a new democratic, just, international political and economic order. Specific projects include the creation of a Financial Support Mechanism for project activities based on the Astana International Financial Center and the establishment of a partner network of strategic ports and logistics centers within the SCO to strengthen transport connectivity.⁴ The goals set by the presidency meet the interests of Russia and all SCO members. The outcome of the work has become an undeniable success; almost 60 joint documents have been agreed. The Republic of Belarus joined the SCO.

1. The proposed WHO Pandemic Agreement. URL: https://apps.who.int/gb/inb/pdf_files/inb9/A_inb9_3Rev1-ru.pdf

2. The meeting of the Council of Heads of SCO Member States. URL: <http://www.kremlin.ru/events/president/news/74464>

3. The SCO countries' GDP amounted to \$24.5 trillion, which is almost a quarter of global GDP. URL: <https://cronos.asia/ekonomika/vvp-stran-shos-sostavil-24-5-trln-eto-pochti-chetvert-ot-mirovogo-vvp>

4. President Kassym-Jomart Tokayev addressed the meeting of the Council of Heads of SCO Member States. URL: <https://www.gov.kz/memleket/entities/mfa-amman/press/news/details/804496?lang=ru>

Following the results of the presidency, two key documents were endorsed: the Initiative “On World Unity for a Just Peace, Harmony and Development” and the draft Development Strategy of the Shanghai Cooperation Organization until 2035; these two documents set the objectives of the SCO’s long-term development in the field of politics and security, inclusive growth and sustainable development.

In the Initiative “On World Unity”, the SCO members formulated the principles and approaches to building international relations, solving problems of international and regional development and ensuring security and stability. The Initiative is based on the principles of respect for sovereignty, independence, justice, equality, mutually beneficial cooperation, non-interference in internal affairs, non-use of force or threat of force and the inadmissibility of attempts to ensure one’s own security at the expense of that of other states, that is, principles which are fundamental to the “Shanghai spirit”¹ and consistent with UN documents. The SCO member states reaffirmed their commitment to cooperation based on these principles, with the central coordinating role of the United Nations, and invited other countries to join the Initiative. The SCO members declared that application of unilateral sanctions was incompatible with the principles of international law and noted the sanctions’ negative impact on third countries, international economic relations and global sustainable development.

The SCO Development Strategy until 2035 set guidelines for promoting cooperation between the organization’s members in politics, security, economy, energy, agriculture, high technology and innovation. For the time being, the SCO continues to face the challenge of moving from setting goals and objectives to concrete implementation thereof. In this context, it is important for the future of the organization to ensure practical steps to implement the Program of Multilateral Trade and Economic Cooperation and the SCO Economic Development Strategy for the Period till 2030. It is expected that this will be facilitated by the approval of the Plan for the implementation of the Strategy (the decision to approve the Plan is probably evidence of India’s softening its position on the Strategy, which it previously opposed) and the Decision of the Council of Heads of Government on the Concept of developing a “New Economic Dialogue” proposed by Shavkat Mirziyoyev, President of Uzbekistan, at the 2023 Summit.²

The new mechanism should contribute to the formation of a common space for industrial and technological cooperation and the formation of a competitive industry and services sector based on combined capabilities of member countries, elimination of trade and customs barriers, formation of stable production and sup-

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1. Mutual trust, mutual benefit, equality, mutual consultations, respect for the diversity of cultures, pursuit of joint development, the inseparability of the security of an individual state from that of the region.
 2. Joint communique on the results of the 22nd meeting of the Council of Heads of Government of the SCO member States. URL: https://www.fmprc.gov.cn/rus/wjdt/gb/202310/t20231027_11169680.html

ply chains, motivation of joint localization and import substitution programs, protection and promotion of mutual investments, and infrastructure development.¹ The underdevelopment of infrastructure and logistics chains is a significant barrier to promotion of the SCO economic cooperation. The decisions of the Astana Summit on the implementation of the 2022 Concept of Cooperation in the development of interconnectivity and creation of efficient transport corridors, the 2023 Concept of cooperation in the development of ports and logistics centers and the Agreement (adopted as far back as in 2014) between the governments of the SCO member states on creating favorable conditions for international road transportation can largely contribute to sustainable economic growth in the SCO countries and the region.

Decisions on strengthening cooperation in e-commerce and the integration of national programs for the development of the digital economy (if the member countries take concrete practical steps to implement them) are expected to facilitate the elimination of barriers and promotion of innovative development. Unfortunately, many initiatives bog down in differences between member countries and are difficult to implement. For example, the 2022 roadmap for a gradual increase in the share of national currencies in mutual settlements has not morphed yet into concrete mechanisms or measures. Consultations on the establishment of the SCO Development Bank (China's initiative of 2010) and the SCO Development Fund (Special Account) (Russia's initiative of 2013) have been going on for many years. Kazakhstan's new proposal on the establishment of the SCO Investment Fund has been sent for further elaboration. The understanding of the need for financial support mechanisms for key multilateral initiatives existed before, but there was a lack of political will to select and define their parameters. In particular, Russia opposed the establishment of the SCO Development Bank and China stopped considering it as a priority after the launch of the One Belt, One Road Initiative (OBOR). In the new geopolitical environment, the need for mechanisms, independent of the US dollar-based international monetary and financial system, has increased. The SCO countries are increasing the use of national currencies in mutual settlements. In 2024, the share of such settlements in Russia's commercial transactions with SCO members exceeded 92%. In 2024, Russia put forward the idea of establishing the SCO payment and settlement mechanism of its own.

The SCO member states' common approach to energy and environmental issues is important to Russia. The SCO stands for a coordinated and balanced energy transition in accordance with national priorities and capabilities, with the interests of both traditional fuels producing and consuming countries taken into account. Common priorities include environmental protection, environmental safety, rational use of natural resources, mitigation and adaptation to negative effects of climate change, particularly, through technology transfer and resource mobilization

1. Uzbekistan's proposals for the SCO: food security, interconnectivity, support for Afghanistan. URL: <https://www.gazeta.uz/ru/2022/09/16/suggestions/>

to meet the needs of developing countries. In 2024, an agreement was signed between the governments of the SCO member states on cooperation in the field of environmental protection, joint approaches were adopted to solve environmental problems, a program for the development of cooperation between the SCO member states in the field of protected territories (specially protected natural areas, protected natural areas) and ecological tourism and a Joint Action Plan for the implementation of the SCO Green Belt Program for 2024–2026 were approved; also it is planned to establish a SCO Special Working Group on climate change. This is important for promoting cooperation within the SCO and the SCO common positions on the platforms of the UN Framework Convention on Climate Change, the WTO and other multilateral institutions.

As in previous years, security issues had a considerable weight on the cooperation agenda. The SCO members have adopted a program of cooperation in countering terrorism, separatism and extremism in 2025–2027 aimed at raising the effectiveness and stepping up the fight against the forces of the “three evils” and promoting the activities of the Regional Anti-Terrorist Structure (RATS). The SCO Anti-Drug Strategy for 2024–2029 and the Action Program for implementation thereof have been approved to combat the global drug threat and build a drug-free society. The SCO members came out with a common position on the need to conclude an international legally binding document that would strengthen the legal regime providing exclusively for the peaceful use of outer space. In the field of international cyber security, the SCO members supported the adoption of the comprehensive Convention on Countering the Use of Information and Communication Technologies for Criminal Purposes within the framework of the United Nations and agreed on the SCO document on cooperation in combating crimes in the field of information technology. The SCO member states reaffirmed their common positions on the sovereign right of the state to manage the Internet in its national segment.

Within the framework of its presidency, China intends to ensure the continuity of the agenda, promote sustainable development in the SCO and the region and build on the achievements of OBOR and its technological competitive advantages. The year 2025 has been declared the SCO Year of Sustainable Development. China’s proposals include the establishment of a pilot zone for regional trade and economic cooperation and an innovation base in ecology and environmental protection, expansion of the share of settlements in national currencies and work on creating a financing platform.¹

However, not everything in the SCO’s work is simple. The differences still exist between China and India. Thus, in 2024 all members, except India, confirmed once again their support for China’s One Belt, One Road Initiative (OBOR) and the integration of the development of the Eurasian Economic Union and OBOR.

1. The Shanghai Cooperation Organization: a common home for a wonderful future. Speeches at the SCO Plus meeting in Astana. URL: https://www.mfa.gov.cn/rus/zxxx/202407/t20240704_11448348.html

The SCO members supported Russia's proposal to establish the Greater Eurasian Partnership (GEP) with the participation of the SCO countries, the Eurasian Economic Union, the Association of South East Asian Nations (ASEAN) and other interested states and multilateral associations. The Russian-Chinese Economic Partnership will play an important role in the implementation of the GEP.¹ To implement the concept, it is important to promote the vision of the GEP not as another independent project, but as an initiative combining numerous SCO projects and programs into an integrated structure in order to enhance the effectiveness of the organization's cooperation as one of the pillars of future Partnership.

5.4.9. The Eurasian Economic Union

The Eurasian Economic Union (EAEU) is an important platform for promoting the interests of the Russian Federation, preventing its economic, financial and political isolation, as well as ensuring effective reorientation of economic and trade flows.

In 2024, considerable progress was achieved in a number of areas which are of priority to Russia.

The EAEU members have negotiated the draft Agreement on Electronic Trade in Goods. Tangible and digital goods, as well as related e-commerce services, will move freely within the Eurasian "five" countries. The member states will not impose any tariff, non-tariff or other restrictions on sellers of goods or marketplaces that are not provided for by the Treaty on the EAEU Union, and the marketplaces will not discriminate against sellers and buyers from other EAEU countries.²

The member countries continued to develop a common green agenda. In 2024, the Eurasian Economic Commission (EEC) presented a Concept for the introduction of green economy principles in the EAEU.³ According to the document, the green economy approach is meant to ensure an optimal balance in each member state between environmental and climate protection, on the one hand, and the achievement of national socio-economic development goals, on the other hand. This is consistent with Russia's stance regarding a fair transition to low-carbon development. To implement this approach, the EEC proposes to use a set of specific, scientifically based and internationally recognized criteria for classifying economic projects as green ones. The Concept stresses the importance of using the best avail-

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1. *Luzyanin S. G., Klimenko A. F.* Cooperation between Russia and China in the SCO on the implementation of the Concept of the Greater Eurasian Partnership. URL: <https://cyberleninka.ru/article/n/sotrudnichestvo-rossii-i-kitaya-v-shos-po-realizatsii-kontseptsii-bolshogo-evraziyskogo-partnerstva>
 2. *Andrei Slepnev.* "Fundamental agreements have been reached on the draft Agreement on Electronic Trade in Goods in the EAEU." URL: <https://eec.eaeunion.org/news/andrey-slepnev-dostignuty-print-sipialnye-dogovorennosti-po-proektu-soglasheniya-ob-elektronnoy-torgo/>
 3. The concept of implementing the principles of the "green" economy in the Eurasian Economic Union. URL: https://eec.eaeunion.org/upload/files/dep_makroec_pol/green_economy.pdf

lable technologies (BAT) as an instrument of international cooperation in the field of sustainable development. The use of BAT can become a link between enterprises, investors, lenders and technology developers, regardless of the country they are residents of, thus creating additional opportunities for attracting financing and promoting international cooperation. BAT is given considerable attention in the strategy for the long-term development of the Russian Federation with a low level of greenhouse gas emissions until 2050. It is noteworthy that the EAEU Concept is considered one of the best international sustainable development initiatives of 2024 according to the results of the ISAR Honours competition held by the United Nations Conference on Trade and Development (UNCTAD)¹.

Also, cooperation was developing in other key areas. The EAEU has developed a draft Agreement on approaches to combating violations of intellectual property rights in the Internet. The document provides for the blocking of illegal content, liabilities for owners of information resources and information intermediaries, as well as the termination of information on blocked resources by search engines.² An Agreement on the unified customs transit system of the EAEU and a third party(s) has been adopted, which allows for a conclusion of an international agreement between the EAEU and a third party (for example, Uzbekistan or China) in the future, thus forming the basis for simplifying the transportation of goods through the customs territory of the member countries³. The roadmap for the implementation of the main guidelines and stages of the implementation of the common transport policy of the member states in 2024–2026⁴ and the order on the harmonization of the legislation of the member states in the field of civil aviation were approved.⁵ The Concept of forming a common commodity exchange market⁶ was signed; it is aimed at establishing fair market prices for commodities, increasing trade volumes

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1. The concept of implementing the principles of the green economy in the EAEU has become one of the best regional practices for sustainable development of UNCTAD. URL: <https://eec.eaeunion.org/news/kontseptsiya-po-vnedreniyu-printsipov-zelenoy-ekonomiki-v-eaes-voshla-v-chislo-luchshikh-regionalnykh/>
 2. The EAEU has developed a draft Agreement on approaches to combating violations of intellectual property rights in the Internet. URL: <https://eec.eaeunion.org/news/v-eaes-razrabotan-proekt-soglashe-niya-o-podkhodakh-k-borbe-s-narusheniyami-prav-na-obekty-intellektu/>
 3. The agreement on the EAEU unified customs transit system and third countries will ensure seamless cargo transportation. URL: <https://eec.eaeunion.org/news/soglaschenie-o-edinoy-sisteme-tamozhen-nogo-tranzita-eaes-i-tretikh-stran-obespechit-besshovnost-gruzo/>
 4. The Heads of government approved the roadmap for transportation for the next three years. URL: <https://eec.eaeunion.org/news/glavy-pravitelstv-utverdili-dorozhnuyu-kartu-po-transportu-na-bliz-hayshie-tri-goda/>
 5. The EAEU countries have agreed to bring in harmony legislative approaches in the field of civil aviation. URL: <https://eec.eaeunion.org/news/strany-eaes-dogovorili-sblizit-zakonodatelnye-podkhody-v-sfere-grazhdanskoy-aviatsii/>
 6. The EAEU has approved the concept of forming a common commodity exchange market. URL: <https://eec.eaeunion.org/news/v-eaes-utverzhdена-kontseptsiya-formirovaniya-obshchego-birzhevogo-ryнка-tovarov-/>

in the Union, enhancing the share of settlements in national currencies and facilitating fair pricing of EAEU goods on the global market. The issues of forming common approaches to the study of digital markets in the EAEU were considered.¹ The parties noted the similarity of the methods used to assess digital markets and agreed to continue sharing law enforcement experience, which provides grounds for further convergence of approaches.

However, not all areas of integration have seen considerable progress.

The EAEU unified energy markets were expected to be launched in 2025. Accordingly, it was planned to resolve the remaining differences in 2024, but it failed to be done. The establishment of the EAEU common gas market may be postponed till 2030 or indefinitely. In 2024, the Eurasian Intergovernmental Council approved the Rules for Information Exchange in the EAEU Common Electric Power Market. This is the final document in the set of rules regarding the common electricity market.² Though there were only few minor disagreements about the operation of the electricity market, its launch may entail difficulties, which are of particular concern to Armenia that does not have a common border with other EAEU member states and fears it will not be able to get fully integrated into the markets.³ Further, different levels of technological equipment and infrastructure quality may become a challenge to effective market integration. As regards the common oil and gas markets, insurmountable differences remain primarily between Russia and Kazakhstan, as energy suppliers, and other member states. The member states that buy gas insist on uniform pricing principles to ensure competitiveness. There is also a question about the validity of bilateral agreements: Russia and Kazakhstan believe that these agreements should remain in force, while Armenia proposes to declare them invalid.

In 2025, it is planned to create a Supranational body for regulating the common financial market, however, the relevant international agreement has not been adopted within the EAEU. Other agreements prepared for implementation of the first stage of the Concept of establishing the EAEU common financial market (on standardized licenses in the banking and insurance sectors; on cross-border circulation of securities; on the admission of brokers and dealers) remain at the stage of intrastate approval and signing.

No progress was achieved either in the EAEU digital agenda or in the development of the data traffic regulation regime. These issues were not discussed in 2024.

Thus, integration lines, which are important to Russia, are actively promoted in the EAEU, primarily in the field of transportation, the green economy and e-

1. The EEC forms common approaches to the study of the digital markets of the EAEU countries. URL: <https://eec.eaeunion.org/news/eeek-formiruet-obshchie-podkhody-k-issledovaniyu-tsifrovyykh-rynkov-stran-eaes/>

2. Results of the Eurasian Intergovernmental Council. URL: <https://eec.eaeunion.org/news/itogi-evraziyskogo-mezhpriatelstvennogo-soveta-/>

3. Yerevan declared that the EAEU single energy market will not be formed until 2027. URL: <https://tass.ru/ekonomika/20198751>

commerce. Cooperation is developing in other important areas, as well. However, progress has failed to be achieved in some key areas — energy, finance and the digital agenda — owing to member countries' conflicting positions on crucial state interests.

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In 2025, the processes that cause a shift in the balance of power and transformation of the world order will develop further. The multidirectional trends in the reform of international institutions in the interests of the global majority states and building an order based on the rules of the G7 will increase tension and fragmentation in the system of multilateral institutions. In 2024, developing countries began to build more consistently their positions in international organizations proceeding from their priorities and awareness that unilateral economic measures, manipulation of political systems and regulation of market access, trade agreements and payment systems violate WTO rules, the UN Charter and the most important aspects of sovereignty and are incompatible with the goal of building a fair and effective system of international relations. Russia and its partners will have to uphold their vision of a fair and effective global governance architecture within the framework of South Africa's G20 presidency, the last one in a series of developing countries' presidencies, Brazil's BRICS and UNFCCC COP presidencies, UN negotiations on future AI and Internet governance and on many other venues.

5.5. Russia's participation in WTO disputes¹

5.1.1. The WTO crisis and Russia's participation in the WTO from the onset of the SMO

Since its accession to the WTO in August 2012, Russia has participated participates in 125 WTO trade disputes: 8 as a complainant, 11 as a respondent, 106 as a third party. The WTO dispute settlement mechanism has been in crisis for several years, primarily due to the suspension of the Appellate Body (AB) due to the U.S. blocking the appointment of new members. Despite this, countries continue to file complaints with the WTO Dispute Settlement Body (DSB), recognizing the need for reforms to the dispute settlement system.² Various ideas have been put forward,

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1. Authors: *Baeva M. A.*, Senior Researcher, International Trade Department, RANEPA; *Knobel A. Yu.*, Candidate of Economic Sciences, Senior Researcher at the International Trade Department, Gaidar Institute; Head of International Trade Department, RANEPA.
 2. For more information, see: URL: <https://www.iep.ru/ru/publikacii/publication/rossiyskaya-ekonomika-v-2020-godu-tendentsii-i-perspektivy-vypusk-42.html>

including, among others, doing away with appellate procedures altogether, replacing them with “review” by arbitration panels (APs), modernizing appellate procedures, including establishing additional requirements for appeals and standard of review.¹ In late February and early March 2024, the 13th WTO Ministerial Conference was held in Abu Dhabi. Among other things, the final Ministerial Declaration reaffirmed the intention to agree on a reformed dispute settlement system that is fully operational and accessible to all participants. Since September 2024, a number of meetings have been held with experts to advance technical work, including on appeals, accessibility and transparency, capacity building and technical assistance.² Significant disagreements remain on legal costs, access to the appeals mechanism, its form and standards of review.³

Other controversial points are the application of trade barriers with reference to the environment, the extension of the moratorium on duties on electronic transmissions, and the program for future negotiations on agriculture and fisheries subsidies (benefits for developing countries), etc.⁴

WTO technical experts are discussing the need to reduce or modify appeal opportunities, as well as clarifications from AO members on access to and form of the trade dispute settlement mechanism.⁵ The WTO experts may engage in the development of a text on technical assistance and capacity building, but significant disagreements remain on the issue of litigation costs.⁶

Some countries, primarily the U.S. and EU countries, have continued to impose unprecedented trade and economic sanctions against Russia since the beginning of the Russian special military operation. In particular, they suspended Russia's most-favored-nation treatment (MFN), which contradicts the fundamental principle of the WTO (non-discrimination), and began to discuss Russia's exclusion from the WTO, although WTO rules do not provide for such an exclusion. The Agreement Establishing the WTO (the Marrakesh Agreement) does not provide for the suspension of MFNs in respect of a particular country. However, other WTO agreements, such as the GATT, impose some restrictions with reference to Article XXI (Security Exception) when there is an emergency and a substantial threat to national security. Where members invoke these exceptions, there is a question of enforcement and interpretation of the provisions of the Article in relation to each particular situation.

A number of Russian politicians and experts suggest that Russia should withdraw from the WTO, while others believe that this is what the countries imposing an-

1. URL: <https://wto.ru/our-blog/spros-na-uslugi-apellyatsionnogo-organa-vto-po-prezhnemu-sushchestvuet/>

2. URL: https://www.wto.org/english/news_e/news24_e/dsr_11oct24_e.htm.

3. URL: https://www.wto.org/english/news_e/news24_e/refrm_22nov24_e.htm.

4. URL: https://www.economy.gov.ru/material/news/chleny_vto_podtverdili_namerenie_dogovoritsya_o_reforme_sistemy_razresheniya_sporov_v_techenie_2024_g.html.

5. URL: https://www.wto.org/english/news_e/news24_e/disp_18jul24_e.htm.

6. URL: https://www.wto.org/english/news_e/news24_e/dsr_11oct24_e.htm.

ti-Russian sanctions are seeking,¹ which will only increase discrimination in Russia's foreign trade.² Efforts to isolate Russia from the multilateral trading system will lead to paralysis of the WTO's core functions, such as a forum for trade negotiations, dispute settlement and administration of trade agreements.

WTO rules should be reviewed in the context of sanctions, the concept of emergency situations should be formalized, and restrictions on the use of sanctions should be introduced.³ To combat sanctions, Russia should continue to develop cooperation with friendly and neutral countries, in particular with the BRICS countries.

5.5.2. BRICS countries and the WTO

In 2024, Russia was the BRICS chair. On October 22–24, 2024, the XVI BRICS Summit was held in Kazan, which showed the untenability of Russia's isolation by unfriendly jurisdictions.⁴ The Kazan Declaration was the final document of the summit, which reflects the basic ideas of the BRICS. In 2024, Iran, Egypt, UAE and Ethiopia acceded to BRICS in addition to Brazil, Russia, India, China and South Africa. The trade regime between the BRICS members and Russia is based on the countries' WTO commitments.⁵ Despite the development of trade within the BRICS, tariff and non-tariff restrictions remain among the partners: there are about 191 anti-dumping measures in force. 23% of them relate to goods of metallurgical and chemical industries, 17% — to the timber industry. India and Brazil have introduced the most measures (69% of such measures), Russia has 18 anti-dumping measures against partners. 75% of measures within BRICS are against Chinese companies (144 measures), 9% are against Indian companies (18 measures). There are 8 anti-dumping measures against the Russian Federation within BRICS (*Table 11*).

The BRICS countries also have countervailing measures on chemical and metal products against partners: three in Brazil, two against India, one against China, and four in India against China.

All BRICS countries, except Iran and Ethiopia, are members of the WTO and seek fair trade rules that take into account the interests of developing countries and reform of the international financial system. The launch of a special mechanism for BRICS countries' consultations on WTO issues was declared. In particular, in order to counter protectionism and develop sustainability of supply and value chains,

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1. URL: <https://www.rbc.ru/rbcfreenews/6238870a9a79476f887f02ee>.
 2. URL: <https://cyberleninka.ru/article/n/vzaimodeystvie-rossii-i-vto-v-usloviyah-mezhdunarodno-pravovyh-i-ekonomicheskikh-sanktsiy-istoriko-pravovoy-aspekt>.
 3. URL: http://www.vavt-imef.ru/wp-content/uploads/2022/07/Monitoring_82.pdf.
 4. URL: <https://spi-cis.ru/novosti/osnovnye-itogi-16-sammita-briks-v-kazani-22-24-oktyabrya-2024-goda>.
 5. URL: <https://cyberleninka.ru/article/n/osobennosti-gosudarstvennoy-podderzhki-rossiyskogo-eksporta-v-strany-briks>

Table 11

Anti-dumping measures in force in BRICS countries against each other in 2024

Countries imposed tariff and non-tariff barriers	Number of measures	Share, %	Countries with imposed tariff and non-tariff restrictions	Number of measures	Share, %
India	66	35	China	144	75
Brazil	64	34	India	18	9
RSA	20	10	UAE	9	5
Russia	18	9	Russia	8	4
Egypt	11	6	RSA	6	3
China	7	4	Egypt	3	2
UAE	5	3	Iran	2	1
Total	191	100	Brazil	1	1
			Total	191	100

Source: Own calculations on the data released by the WTO portal regarding protection measures: URL: <https://trade-remedies.wto.org/en>.

e-commerce and special economic zones (SEZs).¹ Due to the sanctions, most of Russia's trade is reoriented towards friendly and neutral countries, in particular the BRICS countries (especially China and India) in terms of substitution of goods from unfriendly jurisdictions and supply channels.²

The BRICS largest economies participate in the WTO trade dispute settlement mechanism most frequently: China (276 disputes, including 28 as a complainant, 51 as a respondent, 197 as a third party), India (237 disputes: 24 as a complainant, 32 as a respondent, 181 as a third party) and Brazil (223 disputes: 34 as a complainant, 17 as a respondent, 172 as a third party). Egypt has not filed a complaint at the WTO, it has been sued 34 times and has been involved in 39 disputes in the role of third party. South Africa and the UAE initiated 2 disputes each, 6 against them, these countries joined 21 and 15 disputes respectively in the role of a third party.

China most often files complaints against the US (64% of China's disputes) and the EU (25%); India against the US (46%), EU (33%); Brazil against the US (32%), EU (24%), Canada (12%) on topics such as trade in goods, subsidies, agriculture, safeguard measures (anti-dumping, countervailing, special safeguard measures), and investment.

Five of the more than 200 WTO trade disputes involving BRICS countries as complainants or respondents are disputes between BRICS countries. These are Brazil's disputes against China on special safeguard measures, tariff quotas and sugar licen-

1. URL: <https://rspp.ru/events/news/anonsirovan-zapusk-mekhanizma-konsultatsiy-v-briks-po-vopro-sam-vto-6718e2778b681/>

2. URL: <https://cyberleninka.ru/article/n/vozmozhnosti-koordinatsii-torgovoy-politiki-stran-briks>

sing (DS568),¹ India on sugar and sugarcane support and export subsidies (DS579)² and South Africa on anti-dumping duties on frozen fowls (DS439).³ As well as India's disputes on anti-dumping duties against Brazil (jute bags) (DS229)⁴ and South Africa (pharmaceutical products) (DS168).⁵ Russia has joined as a third party in one dispute (DS579),⁶ which is under appeal. Almost all of the disputes relate to safeguard measures.

Disputes against China are mainly initiated in the WTO by the USA (in almost half of cases), the EU (24% of disputes against China), Canada and Mexico (8% each); against India—the EU (34%), the USA (25%), Taiwan (9%); against Brazil—the EU (29%), the USA (24%), Japan (12%). Specifically on trade in goods, investment, subsidies, safeguard measures, agriculture, etc.

5.5.3. The WTO trade dispute settlement mechanism

Russia acceded to the World Trade Organization on August 22, 2012. For more than 10 years, Russia has had access to the WTO's trade dispute settlement mechanism. The WTO trade dispute settlement mechanism provides for the imposition of countermeasures against a respondent: that fails to comply with the WTO rules and regulations. (However, in practice, such measures have been authorized by the DSB infrequently). The WTO trade dispute settlement mechanism operates under Understanding on Rules and Procedures Governing the Settlement of Disputes (hereinafter, Dispute Settlement Understanding—DSU).⁷ Since August 2012, Russia has the right to protect its trade interests through this instrument. The WTO dispute settlement procedure consists of five main consecutive stages.⁸

- 1) *Holding bilateral consultations* (within 60 days from the date of submission of the request for consultations).
- 2) *Establishment of an Arbitration Panel (AP)* at the request of any disputing party and selection of its members to consider the merits of the dispute (45 days from the date of submission of a request to establish a AP).
- 3) *Operation of the Arbitration Panel* (6–9 months from the start of the AP) and acceptance of its report by the Dispute Resolution and Recommendation Body (DSB) (approximately 60 days from the date of submission of the AP report).

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds568_e.htm

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds579_e.htm

3. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds439_e.htm

4. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds229_e.htm

5. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds168_e.htm

6. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds579_e.htm

7. URL: https://www.wto.org/english/tratop_e/dispu_e/dispu_e.htm

8. URL: <https://www.iep.ru/ru/publikacii/publication/rossiyskaya-ekonomika-v-2021-godu-tendentsii-perspektivy-vypusk-43.html>

- 4) *Review of the case by the Appellate Body (AB)* when at least one of the parties files an appeal (60–90 days from filing of appeal), acceptance of the Appellate Body's report by the DSB and the announcement of the DSB recommendations to the parties (30 days from the submission of the AB's report).
- 5) *DSB control* over the implementation of recommendations (not more than 15–18 months from the date of the DSB acceptance of the AP or AB report).

The WTO Trade Dispute Settlement Mechanism provides for retaliatory measures against a respondent that does not comply with WTO rules and regulations, but in practice such measures have not been often authorized by the DSB.

5.5.4. WTO trade disputes with Russia's participation

As of late 2024, Russia was and is involved in 125 WTO disputes: 8 as a complainant, 11 as a respondent, and 106 as a third party. In 2024, no disputes were initiated by or against Russia. In the role of a third party, Russia joined four trade disputes in 2024. Some of the disputes involving Russia as a third party have already been concluded, and in a number of cases Russia has benefited (directly or indirectly) from its participation.

The 2024 changes in the WTO trade disputes involving Russia as a complainant

DS521: European Union — Anti-Dumping Measures On Certain Cold-Rolled Flat Steel Products From Russia (Russia)

On January 27, 2017, Russia submitted a request to the DSB for consultations with the EU on anti-dumping measures against Russian cold-rolled products.¹ Exports of the disputed goods from Russia to the EU in 2016 dropped by 84% compared with 2015 and the share of Russian exports in total exports of these goods dropped from 46% in 2015 to 10% in 2016.² Anti-dumping duties: 34% for Severstal, 18.7% for MMK, 36.1% for NLMK and others. The dispute is an example of Russia challenging the practice of “energy adjustments” used in anti-dumping investigations, when information from Russian producers is replaced by data from third countries despite the EU recognition of Russia's market economy status.

The AP works since April 26, 2019. In 2022, at the request of Russia, the AP suspended its work, resumed in March 2023, but in summer of 2023 the AP suspended its activity again.

As the AP did not receive a request to restart its work, in accordance with Article 12.12 (Procedure for Arbitration Panels) of Understanding on Rules and Procedures Governing the Settlement of Disputes, the AP's authority expired as of July 13, 2024.

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds521_e.htm

2. Data base UN COMTRADE. URL: <http://comtrade.un.org/>

Russia seeks to ensure that anti-dumping investigations are conducted and measures are imposed by the EU in accordance with the WTO rules and regulations. If the DSB recognizes that the EU's energy adjustment practices are systemically inconsistent with the WTO, this would make it more difficult for the EU to conduct anti-dumping investigations and impose anti-dumping measures against Russia, which would result in lower costs for Russian exporters, particularly in the metals and chemicals sectors, since safeguard measures are essentially a surcharge on tariffs. For example, in the DS493¹ dispute initiated by Russia in 2015, Ukraine lifted anti-dumping duties on ammonium nitrate against Russian exporters. Since June 2008, the anti-dumping duty was in effect: Dorogobuzh — 29.25%, for other Russian companies — 42.96%.² Russian imports of ammonium nitrate to Ukraine decreased from \$70.9 mn (7% of Russia's export and 99% of Ukraine's imports of this commodity) in 2013 (before the crisis in Russia-Ukraine relations in 2014) to 0 in 2020–2022.³

DS554: United States — Protective Measures On Steel And Aluminum Products (Russia)

On June 29, 2018, Russia has submitted a request to the DSB to consult with the U. S. on measures on steel and aluminum products imposed in spring.⁴ According to Russia, the U. S. imposed these measures in violation of the GATT 1994 and the Agreement on Special Protective Measures: it granted advantages and privileges to some countries that did not apply to other countries, imposed import restrictions in addition to duties, taxes or other charges through quotas, did not justify the imposition of emergency measures, did not send a written notice asap, did not provide opportunity for consultations, and did not provide the U. S. with the necessary information about the measures. In 2017, the share of exports of Russian steel and aluminum to U. S. in the Russian exports of this commodity amounted to 13% and to 32% in the U. S. imports.⁵

Similar disputes against the U. S. have been initiated by China (DS544), India (DS547), the EU (DS548), Canada (DS550), Mexico (DS551), Norway (DS552) and Switzerland (DS556), most of which Russia has joined. As of November 2018, the AP activities were underway. In 2023, the U. S. objected to Russia's request that the AP be suspended, but the AP has been suspended since June 23, 2023. As the AP did not receive a request to resume its work, in accordance with Article 12.12 (Procedure for Arbitration Panels) of Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU), the authority of the AP to establish an AP expi-

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds493_e.htm

2. URL: https://www.economy.gov.ru/material/directions/vneshneekonomicheskaya_deyatelnost/dostup_na_vneshnie_rynki_i_zashchitnye_mery/reestr_ogranich_mer/

3. Data base UN COMTRADE URL: <http://comtrade.un.org/>

4. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds554_e.htm

5. Data base UN COMTRADE URL: <http://comtrade.un.org/>

red as of June 23, 2024. Russia wants to ensure that special safeguard measures are applied in accordance with the WTO rules, in particular the non-discrimination regime—if the U. S. proves that imports of the disputed goods are a threat to the domestic industry, such measures should be imposed against all countries. Russia also wants to ensure that countries do not invoke national security exceptions when imposing measures restricting trade from certain countries.

The 2024 changes in the WTO trade disputes involving Russia a respondent:

DS566: Russia—Additional Duties On Certain Products From The United States (USA)

As of January 25, 2019, the work of the AP on the dispute initiated by the United States against Russia over the increase of import tariffs by Russia on a number of goods originated in the United States in response to the introduction of special protective measures by the United States in the form of corresponding duties on steel and aluminum products is underway.¹ In August 2018, Russia raised import duties on certain types of cargo transport vehicles, construction and road building equipment, oil and gas equipment, tools for metalworking and rock drilling, and fiber optics (25, 30, and 40% depending on the product). According to the U. S., these measures violate the GATT 1994 because Russia does not impose such duties on similar goods from other WTO member countries and gives the U. S. less favorable treatment. The U. S. has requested consultations with a number of countries on similar issues.

On January 17, 2024, the Chair of the AP informed DSB that the AP had consulted with the parties on the way forward in this proceeding and that each party had indicated that it was continuing to consult internally on the matter. The AP did not plan to report to the parties until the end of 2024.

The 2024 changes in the WTO trade disputes involving Russia as a third party

In 2024, Russia joined four WTO trade disputes DS613, DS622, DS623 and DS624 as a third party, the total number of such disputes hit 105. Most often Russia joins disputes on measures affecting agricultural and food products, metallurgical, automotive, aircraft and chemical industries, wood and wood products, renewable energy sources (RES). *Fig. 1* shows the distribution by agreements of the WTO disputes to which Russia joined as a third party. Traditionally, the majority of disputes are related to the GATT, as well as measures to protect the domestic market (Agreement on Subsidies and Countervailing Measures, Agreement on Anti-Dumping, Agreement on Special Protective Measures). In addition, Russia is also interested in violations of the Agreement Establishing the WTO, Protocols of Accession, Agreement on Technical Barriers to Trade (TBT), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), etc.

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds566_e.htm

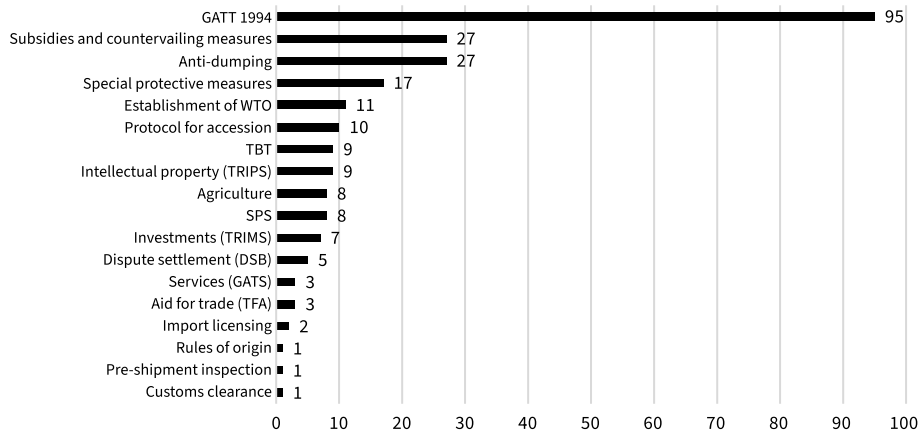


Fig. 1. Topics of the WTO dispute agreements where Russia joined as a third party by late 2024

Source: Own estimates based on WTO official website: URL: https://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm

DS613: European Union—Measures Concerning The Importation Of Citrus Fruit From South Africa (RSA); DS624: European Union—Additional Measures Concerning The Importation Of Citrus Fruit From South Africa (RSA)

On July 27, 2022, South Africa submitted to the DSB a request for consultations with the EU on the treatment of citrus imports from South Africa (DS613),¹ and on April 15, 2024, a second request on this issue, in particular the application of measures related to the pest (citrus black spot²) (DS624).³ On June 24, 2024, South Africa submitted a request to the DSB for the establishment of a AP on these disputes, and on July 26, 2024, it was established, and the selection of participants is underway. Since these disputes involve perishable products, South Africa is making a request under Article 4.8 (Consultations) of the DSU with fast-track deadlines. Let us further consider these disputes jointly.

The EU has classified the pest as a quarantine and priority pest under the Regulation (EU) 2016/2031. The EU added citrus fruit to the list of plants, plant products and other objects subject to specific requirements for importation into the EU, which include, inter alia, that the importation of citrus fruit comes from a country, area or place of production that is free from the pest, the fruit has been treated, the fruit is found free from pest symptoms, inspections are carried out at the place of production, and traceability information is included in the phytosanitary certi-

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds613_e.htm

2. A cosmetic disease caused by a fungus that results in external blemishes on the rind of citrus, although the fruit itself remains safe for human consumption.

3. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds624_e.htm

ficite. On April 13, 2022, the EU adopted the Regulation (EU) 2022/632 establishing “provisional measures” against the pest due to alleged non-compliance of several imports of citrus fruit from South Africa. These provisional measures, which derogate from specific requirements, have tightened phytosanitary import requirements for South African citrus fruit. Until recently, South African citrus fruit was freely imported into the EU provided that they were subjected to effective systemic treatment after harvest against false apple worm. South Africa has developed an effective systemic approach to citrus, under which oranges and other citrus fruit have been exported from South Africa to the EU without significant problems. As of July 14, 2022, the EU requires imported citrus fruit to undergo certain mandatory cold treatment processes and pre-cooling stages for certain periods (up to 25 days of cold treatment) prior to importation. In some cases, these processes must be carried out in the exporting country prior to consignment. These phytosanitary requirements apply to all imports, regardless of whether the importer follows an effective systems approach or other effective post-harvest treatment for false apple worm.

According to South Africa, the new EU requirements lack scientific and technical justification, are discriminatory and more restrictive than necessary for trade. The EU import regime, according to the Complainant, is inconsistent with the EU’s obligations under the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement), including because it is not based on scientific principles, is applied without sufficient scientific evidence, and is not applied to the extent necessary to protect plant life or health; because there is a relevant international standard to which the EU has referred; is not based on an assessment appropriate to the circumstances, risks to plant life or health; does not take into account necessary factors; and is inconsistent with the EU’s obligations under the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement). In addition, the EU makes unjustifiable distinctions by discriminating against the WTO Members where similar conditions prevail; fails to take into account the special status of South Africa as a developing country; fails to allow a reasonable period between the publication of the phytosanitary regulation and its entry into force to give producers in exporting members, especially developing members, in particular South Africa, time to adapt their products and production methods to the new requirements; fails to fulfill its obligations regarding control procedures, etc. Also, according to the complainant, the EU violates the GATT 1994 because the EU measure constitutes a restriction on imports of citrus fruit from South Africa; discriminates between similar products of different origins; and fails to apply the import regime in a consistent, impartial and reasonable manner.

The interest of Russia’s participation in this dispute is due to the importance of the SPS topic for Russia, which has concluded a dispute over live pigs, pork and pork products initiated by the EU (DS475).¹ In this dispute, the EU requested retaliatory measures, although Russia canceled the measure, however the dispute en-

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds475_e.htm

ded with the expiration of the full powers of the AP. Countries often use SPS measures not to ensure the safety of products, animal and human life, but for protectionist purposes, so Russia is interested in the experience of participation and enforcement of the relevant WTO rules and regulations in such disputes.

DS622: European Union — Anti-Dumping Measures Against Imports Of Fatty Acid From Indonesia (Indonesia)

On February 7, 2024, Indonesia submitted to the DSB a request for consultations with the EU on the anti-dumping investigation and measures on imports of fatty acid from Indonesia, as well as the methodology, construction of normal value based on cost and profit data specific to the product control number (PCN),¹ applied by the EU in anti-dumping investigations, including the challenged.² On November 30, 2021, the EU launched an investigation to impose anti-dumping duties on imports of certain fatty acid products from Indonesia. The anti-dumping duties were imposed in amounts ranging from 15.2% to 46.4% from January 18, 2023 to January 20, 2028. A countervailing investigation was also underway from May 13, 2022, but no corresponding measures were imposed.

In EU anti-dumping investigations, the product in question is usually subdivided into several PCNs. The normal value and export price are calculated for each PCN, and a comparison between normal value and export price is made on the basis of the PCN. When the normal value cannot be established on the basis of domestic sales prices in the exporting country, the EU resorts to an engineered normal value calculated on the basis of adding the cost of production and a reasonable amount of administrative, selling and general expenses and profit. If the volume of domestic sales determined by the PCN is less than 5% of the total volume of the same PCNs sold in the EU, the EU applies a PCN-specific profitability test to determine the methodology for constructing the normal value.

A methodology used by the European Commission applies data relating to a specific PCN is applied in the anti-dumping investigation on fatty acid. Indonesia believes that this methodology and the challenged EU anti-dumping measures violate:

—Art. 2 (“Determination of dumping”) of the Anti-Dumping Agreement because, by requiring the use of data on commercial, general and administrative costs and profits relating solely to a particular PCN sold in insufficient quantities on the domestic market of the exporting country, the EU methodology uses such costs and profits that are not based on actual data relating to the production and sales in the ordinary course of trade of a similar product by the exporter or producer under investigation.

1. Product Control Number (PCN) — a methodology developed to compare identical types of products under consideration in a protective measures investigation to provide a fair comparison for dumping margin and damages calculations.

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds622_e.htm

— Article 3 (Determination of damage) of the Anti-Dumping Agreement because the EU failed to conduct an objective examination of the damage factors and erroneously found material damage to the EU industrial sector.

— Art. 5 (“Launch and holding an investigation”) of the Anti-Dumping Agreement because the EU conducted an investigation without sufficient evidence of dumping, damage and cause-effect link.

— Art. 2.4.1 and Art. 9 (Imposition and collection of anti-dumping duties) of the Anti-Dumping Agreement, Art. VI:2 (Anti-dumping and countervailing duties) of the GATT 1994, because the EU applied an anti-dumping duty in excess of the dumping margin as a result of the use of an incorrect exchange rate.

— Article X:3(a) (Publication and application of trade rules) of the GATT 1994, because by applying different methodologies to construct a normal value for PCN sold in insufficient quantities on the domestic market of the exporting country depending on the existence of profitable sales of those PCN, by imposing anti-dumping duties, and by terminating the parallel countervailing duty investigation after the withdrawal of both complaints, the EU did not properly apply the EU rules.

Russia is interested in disputes over anti-dumping measures, especially those imposed by the EU. Five of the eight disputes initiated by Russia at the WTO relate to such measures, of which three are against the EU. In particular, Russia is challenging the methodology of energy adjustments applied by the EU in anti-dumping investigations, which also emphasizes the interest of Russia's participation in this dispute, as Indonesia is also challenging not only specific anti-dumping measures, but also the methodology.

DS623: United States — Certain Tax Credits Under The Inflation Reduction Act (China)

On March 26, 2024, China requested the DSB consultations with the United States regarding subsidies that the complainant believes are provided under the Inflation Reduction Act (IRA) and are contingent upon the use of domestic over imported goods or that otherwise discriminate against goods of Chinese origin:¹

— The Clean Vehicle Credit.

— The Renewable Energy Tax Credits (including the Investment Tax Credit for Energy Property).

— The Clean Electricity Investment Tax Credit.

— The Production Tax Credit for Electricity from Renewables.

— The Clean Electricity Production Tax Credit.

The Inflation Reduction Act may be the largest subsidy measure in modern economic history. Official estimates of climate-related subsidies provided under the IRA total \$393 bn, while independent estimates put the total at more than \$1 trillion.

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds623_e.htm

China supports national and international efforts to reduce and mitigate climate change, including through the use of subsidies for clean energy production in accordance with the WTO rules. The challenged subsidies, according to complainant, are discriminatory, protectionist, and contrary to the WTO rules and do not further the interest of all members of the community in addressing climate change. For example, under the IRA, to qualify for the clean car credit, the final assembly of a vehicle must take place in North America. Requiring assembly in North America is a condition for claiming one or both of two components of the Clean Vehicle Credit: a critical minerals component valued at \$3,750 per vehicle; and a battery component valued at an additional \$3,750 per vehicle. To qualify for the critical minerals component, 40% (80% after 2026) of the value of the applicable critical minerals (aluminum, cobalt, lithium, nickel, and graphite) contained in the vehicle battery must be mined or processed in the U. S., be mined or processed in a country with which the U. S. has a free trade agreement (FTA), or be processed in North America. To qualify for the battery component requirement, 50% (100% after 2028) of the cost of battery components in an electric vehicle must be manufactured or assembled in North America. After 2024, a clean vehicle will not qualify for these subsidies if it contains any critical minerals or battery components that were “mined, processed, or recycled by a foreign entity of concern.” China believes that the Clean Vehicle Credit is inconsistent with:

- Article I:1 (General Most-Favored-Nation Treatment) of the GATT 1994, because by conditioning eligibility for the Clean Vehicle Credit on the above requirements, in particular by limiting eligibility for the Clean Vehicle Credit to vehicles produced by “foreign entities of concern,” the U. S. does not immediately and unconditionally grant goods of Chinese origin the same benefits under Article III:4 (National Treatment of Domestic Taxation and Regulation) of the GATT 1994 that the U. S. grants to similar goods and products.

- Article III:4 of the GATT 1994, because the U. S. does not accord goods of Chinese origin treatment no less favorable than that accorded to similar goods of the United States origin.

- Articles 2.1, 2.2 (National Treatment and Quantitative Restrictions) of the Agreement on Trade-Related Investment Measures (TRIMS) because the challenged measures are trade-related investment measures that are inconsistent with Article III:4 of the GATT 1994. Compliance with these measures is necessary to obtain the benefit required by the purchase or use by a business of U. S. products or from any source in the United States, as provided for in paragraph 1(a) of the Annex (Illustrative List) to the TRIMS Agreement.

- Articles 3.1(b) and 3.2 (Prohibition) of the Agreement on Subsidies and Countervailing Measures because the Clean Vehicle Credit is a subsidy contingent upon the use of domestic goods in lieu of imports.

The domestic content requirements for the four renewable energy tax credits are the same. Specifically, an eligible project must use 100% domestic steel and iron for construction materials, a certain percentage of the components (varying over

time and depending on the type of renewable energy project) included in the project must be produced in the United States. China believes that the renewable energy tax credits are inconsistent with the following provisions of the applicable agreements:

— Article III:4 The GATT 1994, because by conditioning eligibility for bonus subsidy amounts on the use of goods of US origin, the United States does not treat goods of Chinese origin any less favorably than it treats similar domestic goods.

— Article 2.1 of the TRIMS Agreement, as the challenged measures are investment measures related to trade in goods, which are inconsistent with Article III:4 of the GATT.

— Article 2.2 of the TRIMS Agreement, as the measures are investment ones, compliance with which is necessary to obtain an advantage, and which require the purchase or use by a business of goods of the U. S. origin or from any source in the United States as provided for in paragraph 1(a) of the Annex to the TRIMS Agreement.

— Articles 3.1(b) and 3.2 of the Agreement on Subsidies and Countervailing Measures, as the bonus subsidy amounts available for renewable energy tax credits are subsidies contingent upon the use of domestic instead of imported goods.

Although electric vehicle production is not as developed in Russia as in China, Russia is also concerned about the new U.S. law to reduce inflation because it appears protectionist and discriminatory. Russia also appears to fall under “foreign entity of concern.” In addition, Russia is interested in the topics of renewable energy, electric vehicles and subsidies and the enforcement of the relevant WTO rules and regulations.

Below we will consider the 2024 changes on WTO disputes where Russia joined as a third party even before 2024 (on unique disputes).

DS561: Turkey—Additional Duties On Certain Products From The United States (USA)

On January 26, 2024, Turkey appealed the AP 2023 report on the U. S. dispute over additional duties (increases in import tariffs on U. S. goods in retaliation for the U. S. imposition of special safeguard measures in the form of corresponding duties on steel and aluminum products), in which the panel sided with the complainant.¹ Turkey indicated that due to the lack of members in the AP, it will await further guidance on this appeal. A similar dispute against China² was also under appeal since September 18, 2023, and in another dispute,³ the U. S. and India reached a mutually acceptable solution in 2023.

Russia's concern in participating in the dispute is primarily due to the fact that the U. S. filed a complaint on similar measures against Russia (DS566), on which the work of the AP was still underway in 2023, with a report expected as early

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds561_e.htm

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds558_e.htm

3. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds585_e.htm

as 2025.¹ The disputes relate to measures imposed by countries in response to additional U. S. duties on steel and aluminum products, which do not apply to all countries and impose a burden on Russian exporters in particular.²

DS577: United States — Anti-Dumping And Countervailing Duties On Ripe Olives From Spain (European Union)

In 2022, the U. S. stated that intended to implement the recommendations of the DSB in accordance with its WTO commitments in the EU-US dispute over anti-dumping and countervailing measures on ripe olives from Spain.³ The U. S. stated that it had implemented the recommendations of the DSB under Section 771B of the U. S. Tariff Act of 1930.

However, the EU requested the establishment of AP in July 2023, and the AP report was submitted on February 20, 2024. The AP concluded that the EU had revealed that the US had not brought its measures into compliance with the recommendations of the DSB.

The AP recommended that the U. S. harmonize its measures with its obligations under the GATT 1994 and the Agreement on Subsidies and Countervailing Measures. On March 19, 2024, the DSB adopted the AP's compliance report.

Russia's concern can be explained by the fact that it also filed an anti-dumping complaint against the United States (DS586), which was still under consultation in 2024.⁴ Russia often joins disputes over countervailing measures and subsidies because it is subject to a large number of safeguard measures that have a significant negative impact on Russian exports.⁵

DS591: Colombia — Anti-Dumping Duties On Frozen Fries From Belgium, Germany and the Netherland (European Union)

On January 20, 2023, Colombia announced that it intends to comply with the arbitrators' decision to bring the measures into conformity with WTO rules and regulations in the EU dispute against Colombia concerning anti-dumping duties on imports of frozen French fries originating in Belgium, the Netherlands and Germany.⁶ For this purpose, Colombia published Ministerial Resolution No. 286 in 2023. Colombia believes that these anti-dumping duties should be maintained on the basis of the modifications made and the reduced dumping margin. This is the first arbitration based on the MPIA (Multilateral Provisional Arbitration Arrangements for Appellate Arbitration).

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds566_e.htm

2. URL: <https://www.iep.ru/ru/publikacii/publication/rossiyskaya-ekonomika-v-2023-godu-tendentsii-perspektivy-vypusk-45.html>

3. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds577_e.htm

4. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds586_e.htm

5. URL: <https://www.iep.ru/ru/publikacii/publication/rossiyskaya-ekonomika-v-2023-godu-tendentsii-perspektivy-vypusk-45.html>

6. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds591_e.htm

On May 31, 2024, the EU requested consultations with Colombia under Article 21.5 (Follow-up of Recommendations and Decisions) of the Dispute Settlement Understanding (DSU), in relation to a disagreement on the existence and appropriateness of the measures taken by Colombia to implement the DSB's recommendations. The EU noted that, in accordance with Article 25.4 (Arbitration) of the DSU, Article 21.5 ("Monitoring the implementation of recommendations and decisions") of the DSU applies, with appropriate modifications, to the arbitrators' decision on the dispute.

Russia is concerned with disputes over safeguard measures, both from the point of view of substantial trade interest and the practice of participation and study of enforcement of WTO norms and provisions, since Russia is also subject to a number of safeguard measures that have a significant negative impact on Russian exports. The procedure for substituting data from exporters subject to anti-dumping investigations with data from third-country producers has been challenged by Russia in a number of disputes (DS474, DS494, DS521 against the EU, DS493 against Ukraine, DS586 against the USA).¹

DS593: European Union — Certain Measures Concerning Palm Oil and Oil Palm Crop-Based Biofuels (Indonesia)

Since November 12, 2020, the work of the AP on the dispute initiated by Indonesia against the EU on the measures imposed by the EU and its Member States (in particular, the EU directives on the promotion of renewable energy sources) on palm oil and oil palm biofuels from Indonesia has been in progress.² According to the Complainant, these measures do not comply with Art. 2 (Preparation, adoption and application of technical regulations by central government authorities), Art. 5 (Conformity assessment procedures by central government authorities), Art. 12 (Special and differential treatment for developing countries) of the TBT Agreement; Art. I:1 (General Most-Favored-Nation Treatment), III:4 (National Treatment of Domestic Taxation and Regulation), X:3(a) (Publication and Application of Trade Rules) and XI:1 (General Abolition of Quantitative Restrictions) of the GATT 1994; Art. 3.1(b) (Prohibition) and Art. 5 (Adverse Effects) of the Agreement on Subsidies and Countervailing Measures.

On March 5, 2024, the Chair of the panel informed the DSB that the panel had granted Indonesia's request of March 4, 2024, to suspend its work pursuant to Article 12.12 (Arbitration Panel Procedures) of the DSU for a period of two months. Subsequently, the Chair informed the DSB of several requests by Indonesia to extend the suspension of the panel's work. In his most recent communication of September 3, 2024, the Chair informed the DSB that the AP had granted Indonesia's request dated September 2, 2024, to extend the suspension of the panel's work until

1. URL: <https://www.iep.ru/ru/publikacii/publication/rossiyskaya-ekonomika-v-2023-godu-tendentsii-perspektivy-vypusk-45.html>

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds593_e.htm

November 8, 2024. The chair indicated that the panel would resume work and report on November 11, 2024, but there was no report at the year-end.

In February 2018, Indonesia already won a dispute with the EU over anti-dumping measures against biodiesel (DS480), in which Russia also joined as a third party. Russia's concern to participate in these disputes was due, among other things, to Russia's priority development of renewable energy sources in the country and in the world.¹

DS599: Panama — Measures Concerning The Importation Of Certain Products From Costa-Rica (Costa-Rica)

Since January 24, 2022, the AP in the Costa Rica v. Panama dispute over measures restricting or prohibiting the importation of a number of food products from Costa Rica, including strawberries, dairy products, beef, pork, poultry and turkey meat products, fish products, fresh pineapples and bananas has been in progress. There were four measures:

- 1) Restriction on the importation of fresh strawberries (changes in SPS requirements resulting in restriction).
- 2) Restriction on the importation of dairy and meat products from 16 Costa-Rican establishments because it did not renew their sanitary approvals.
- 3) Panama disallowed the phytosanitary requirements that govern the importation of pineapples from Costa Rica, preventing their importation. This measure was adopted due to the presence of pink hibiscus mealybug (*Maconellicoccus hirsutus*) in Costa Rica.
- 4) Restriction on the importation of fresh bananas and plantains from Costa Rica. Panama disallowed the phytosanitary requirements that govern the importation of bananas and plantains from Costa Rica, preventing their importation. According to Panama, this measure was adopted due to the review of those requirements to address the risks associated with the presence of the *Fusarium oxysporum* f. sp. *cubense* tropical race 4 (Foc TR4) pest in the region.

On December 5, 2024, the panel submitted report, which noted that Costa Rica had failed to prove that the measures contravened Article 7 (Transparency) and Annex B(1) (Transparency of Sanitary and Phytosanitary Regulations) of the SPS Agreement and that the restriction on the importation of dairy and meat products constituted a disguised restriction on international trade. The panel otherwise sided with the complainant, finding that the restriction violated Annex C (1) (Control, Inspection and Approval Procedures) and Article 8 (Control, Inspection and Approval Procedures) of the SPS Agreement because Panama had delayed the renewal of the sanitary permits of 16 Costa Rican establishments without adequate explanation, had requested more information than was necessary to complete the sa-

1. URL: <https://www.iep.ru/ru/publikacii/publication/rossiyskaya-ekonomika-v-2020-godu-tendentsii-perspektivy-vypusk-42.html>

nitary control procedures, and Article 2.3 (Fundamental Rights and Obligations) of the SPS Agreement. 2.3 (Fundamental Rights and Obligations) of the SPS Agreement, because the conditions in Peru and New Zealand were similar to those in Costa Rica, the measure discriminated against 16 Costa Rican establishments by granting the extension of sanitary authorization to the Costa Rican establishments based on an initial review of documents that was not provided to Costa Rica.

Furthermore, the panel concluded that the restriction on the importation of fresh strawberries and the phytosanitary requirements were not in accordance with Article 5 (Risk assessment and determination of the appropriate level of sanitary or phytosanitary protection) of the SPS Agreement, as they were not based on an assessment of the risks to human health, taking into account risk assessment techniques developed by the relevant international organizations and scientific principles, there was insufficient scientific evidence, and the necessary economic factors were not taken into account. These measures do not comply with Art. 5.6 (Risk assessment and determination of the appropriate level of sanitary or phytosanitary protection) of the SPS Agreement as they are more trade-restrictive than required. Alternative measures proposed by Costa Rica were technically and economically feasible and less trade restrictive without prohibiting imports.

Russia is interested in the import ban disputes, while its food exports in general continue to grow. In line with the industry's objectives, agricultural and food exports are expected to grow to \$55 billion by 2030, which makes Russia's involvement in this dispute a significant trade interest for Russia.¹

DS600: European Union, France, Lithuania — Certain Measures Concerning Palm Oil and Oil Palm Crop-Based Biofuels (Malasia)

Since July 2021, the AP has been working on the Malaysia v. EU (France and Lithuania) dispute over measures on palm oil and oil palm crop-based biofuels from Malaysia.² On March 5, 2024, the panel submitted the report in which not all of the complainant's claims were upheld, but the panel agreed with Malaysia in part.

The panel ruled that the EU imposed a restriction on the use of biofuels with a high risk of environmental pollution not in accordance with Article 2 (Preparation, adoption and application of technical regulations by central government authorities) of the TBT (Technical Barriers to Trade) Agreement, by failing to verify in a timely manner the data used to determine which biofuels have a high risk of environmental pollution, and because of deficiencies in the development and application of low-risk criteria for environmental pollution, which resulted in discrimination between countries. The ILUC low-risk certification procedure did not comply with Article 5.1.2 (Conformity Assessment Procedures by Central Government Authorities)

1. URL: <https://www.interfax.ru/russia/961021>.

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds600_e.htm

of the TBT Agreement, as deficiencies in the application of the ILUC low-risk procedure created unnecessary obstacles to international trade. In addition, the EU did not notify the proposed low ILUC risk certification procedure as required. The ILUC high-risk restrictions and phase-out are inconsistent with Article III:4 (National Treatment of Domestic Taxes and Regulations) of the GATT 1994, and with Article I:1 (General Treatment of the Most Favored Nation) of the GATT 1994, as less favorable bilateral treatment was provided. I:1 (General Treatment of the Most Favored Nation) of the GATT 1994, as it gave less favorable treatment to palm oil-based biofuels from Malaysia than the treatment given to similar EU products and those imported from third countries. The EU violated Article X:3(a) (Publication and Adoption of Trade Rules) of the GATT 1994 by establishing the ILUC high risk restriction and phase-out in an unreasonable manner because deficiencies in the design and implementation of the low risk ILUC criteria and procedure did not provide the elements necessary to certify palm oil crop-based biofuels as low risk ILUC biofuels. The panel reached similar conclusions under GATT 1994 on the French TIRIB tax.

On April 26, 2024, the DSB adopted the panel's report, on May 24, 2024 the EU said that it intends to implement the recommendations and bring measures in a manner consistent with its WTO obligations and that it would need a reasonable period of time to do so.

Russia is interested in the topic of renewable energy in general, and the EU policy in this area in particular, and has already joined similar disputes.

DS602: China — Anti-Dumping And Countervailing Duty Measures On Wine From Australia

A dispute between Australia and China concerning anti-dumping and countervailing duty measures on bottled wine in containers of 2 liters or less imported from Australia¹ has been the subject of a panel's work since October 2022. On December 16, 2021, Australia and China agreed to arbitration procedures under Article 25 (Arbitration) of the DSU in this dispute (MPIA). On October 30, 2023, the parties filed a request to suspend the panel's work until March 31, 2024.

On March 29, 2024, Australia and China notified the DSB that, in accordance with Article 3.6 (General Provisions) of the DSU, they had reached a mutually agreed solution to this dispute. On April 19, 2024, the panel circulated a report to the parties in compliance with Article 12.7 (Pro- procedure for arbitral panels) of the DSU, its report limited to a brief description of the case and to report that a solution has been reached.

Russia is actively joining disputes against China, in particular, over its imposition of anti-dumping and countervailing measures in violation of WTO rules and regulations. As of late 2024, 56 anti-dumping and 6 countervailing measures are in force against Russian companies, mainly by the US, EU and Ukraine. From April 22, 2022

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds602_e.htm

until April 21, 2027, China's anti-dumping duty on Russian polyamides in primary forms is in effect: for Kuibyshevazot OJSC — 5.9%, for other Russian companies — 23.9%. The measure was first introduced on April 21, 2010, and extended in 2016.¹

DS603: Australia — Anti-Dumping And Countervailing Duty Measures On Certain Products From China

On March 26, 2024, panel's report was circulated on China's dispute against Australia over anti-dumping measures on wind turbines, stainless steel shells and railway wheels and countervailing measures on stainless steel shells (DS603).² In 2022, Australia and China informed the DSB that they had agreed to arbitration procedures under Article 25 (Arbitration) of the DSU in this dispute. Such procedures were instituted by Australia and China to implement the MPIA pursuant to Article 25 of the DSU.

The panel found that some of the claims under the Agreement on Anti-dumping and all of the claims under the Agreement on Subsidies and Countervailing Measures concerned aspects of anti-dumping and countervailing measures that had expired before the establishment of the panel, and therefore declined to issue decisions and recommendations on these claims. The panel found it inappropriate to consider China's claims under the Agreement on Subsidies and Countervailing Measures because the challenged aspects of the countervailing measures regulation had expired prior to the establishment of the panel. The panel found that the Australian Anti-Dumping Commission (ADC), in conducting the investigation, had violated, *inter alia*, in its verification of the validity period of the:

— Article 2 (Determination of dumping) of the Anti-dumping Agreement, because the panel did not use the exporter's actual costs when calculating the normal value, but replaced them with indirect costs without explanation, and accordingly incorrectly calculated the anti-dumping duty.

— Article 9.3 (Imposition and collection of anti-dumping duties) of the Anti-Dumping Agreement and Article VI:2 (Anti-dumping and countervailing duties) of the GATT 1994 insofar as the AP acted inconsistently with Article 2 of the Anti-Dumping Agreement.

The panel sided with the respondent on some of the claims, finding that China had not demonstrated, for example, that the difference in VAT refunds on domestic and export sales affected the comparability of prices between normal value and export price, etc.

On April 26, 2024, the DSB adopted panel's report with recommendations to bring measures into compliance with the provisions of the GATT 1994 and the Anti-Dumping Agreement. On June 12, 2024, Australia and China reported that, in accordance with Article 21.3(b) (Follow-up of Recommendations and Decisions) of the DSU, they

1. URL: https://www.economy.gov.ru/material/directions/vneshneekonomicheskaya_deyatelnost/dostup_na_vneshnie_rynki_i_zashchitnye_mery/reestr_ogranich_mer/

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds603_e.htm

agreed that a reasonable timeframe for Australia to implement the DSB recommendations would be 7 months and 14 days (until December 10, 2024), with the possibility of a one-month extension (until January 10, 2025). On July 15, 2024, Australia and China informed the DSU of the agreed procedures under Article 21 (Follow-up of Recommendations and Decisions) and Article 22 (Compensation and Suspension of Concessions) of the DSU.

Russia's concern is primarily due to its participation in disputes over anti-dumping and countervailing measures and investigations, application of subsidies, as the issue of non-market economy is becoming increasingly relevant not only for China, but also for Russia (disputes over “energy adjustments” with the EU, withdrawal of the market status of the Russian economy by the USA).

DS610: China—Measures Concerning Trade In Goods (European Union)

On January 27, 2022, the EU submitted to the DSB a request for consultations with China on measures regarding China's trade in goods and services with Lithuania.¹ In 2021, importers of Lithuanian goods and goods transiting through Lithuania began to face customs clearance restrictions for goods entering the PRC, in particular: IT system errors; container blockages at Chinese ports; and the inability of PRC customs authorities to process customs clearance requests in a timely manner. Since 2021, Chinese customs authorities have started to refuse customs clearance of shipments of various goods covered by SPS certificates issued by Lithuanian authorities. In the EU's view, China discriminates in its application of SPS measures, which represent a disguised restriction on international trade.

On July 4, 2023, the EU and China agreed on arbitration procedures under Article 25 (Arbitration) of the DSU for the entry into force of the MPIA. The work of the panel has been in progress since April 18, 2023, but on January 25, 2024, the panel granted the EU's request to suspend the work of the panel pursuant to Article 12.12 (Arbitration Panel Procedure) of the DSU for an indefinite period of time starting on January 25, 2024. If the work of the panel is suspended for more than a year (until January 25, 2025), its mandate will be null and void.

Russia's interest stems from its practice of participating in disputes over SPS measures. Russia had to bring measures into compliance with WTO rules and regulations in EU dispute over SPS measures on live pigs, pork and pork products from the EU (DS475).² Russia participated as a respondent in a dispute initiated by Ukraine on measures restricting the import and transit of certain Ukrainian goods (DS532)³ and as a complainant in a dispute, including on transit, against Ukraine on measures related to trade in goods and services (DS525).⁴

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds610_e.htm

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds475_e.htm

3. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds532_e.htm

4. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds525_e.htm

DS617: Unites States — Anti-Dumping Measures on Oil Country Tubular Goods From Argentina (Argentina)

Since January 7, 2024, the work of the AP on the Argentina v. U.S. dispute over the final anti-dumping measure imposed on OCTG from Argentina and certain provisions of U.S. law relating to cross-accumulation of imports in assessing import injury in antidumping and countervailing duty investigations has been ongoing.¹ On July 4, 2024, the Chair of the panel informed the DSB that he believed the report would not be completed until the first quarter of 2025.

In May 2022, the United States imposed anti-dumping duties on Argentine OCTG based on a weighted average margin of 78.3% on Siderca SAIC and other Argentine exporters. According to the complainant, these measures violate the Anti-Dumping Agreement and the GATT 1994 because the United States failed to provide sufficient evidence to initiate an investigation, failed to demonstrate a causal link between the imports at issue and the alleged injury to the domestic industry, and failed to ensure that injury caused by other factors was not attributable to the dumped imports. Similar anti-dumping measures also apply to Russia and Mexico

Russia's concern in this dispute is primarily due to the fact that Russian exporters are also subject to anti-dumping and countervailing duties on threaded oil pipes. From November 21, 2022 to November 20, 2027 anti-dumping duties are applied against Russian exporters by the USA: for OMK — 11.7%, for TMK — 184.21% and for other Russian producers — 11.87%.

DS618: European Union — Countervailing Duties on Imports of Biodiesel from Indonesia (Indonesia)

Since March 14, 2024, the panel's work has been in progress in the dispute between Indonesia and the EU regarding countervailing duties on biodiesel from Indonesia.² According to the complainant, the EU measures are inconsistent with the Agreement on Subsidies and Countervailing Measures and the GATT 1994 with respect to: the determination of subsidies on the oil palm plantation fund; the alleged state support for supplies of crude palm oil; the findings of threat of material injury and causation; and the rejection of the price offer.

On September 13, 2024, the Chair of the panel informed the DSB that the case involves a large number of complex issues and that the panel did not expect to issue its final report to the parties before June 2025, at the earliest.

Russia's interest in participating in the dispute stems not only from the practice of safeguard disputes, but also from the fact that Russia frequently faces anti-dum-

1. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds617_e.htm

2. URL: https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds618_e.htm

ping measures and investigations. As of the end of 2024, the EU had 11 anti-dumping measures in force against Russian exporters, mainly in relation to goods from the metallurgical and chemical industries.¹

* * *

Russia continues to participate in the WTO trade dispute settlement system. As of the end of 2024, Russia was involved in 125 WTO disputes: 8 as a complainant, 11 as a respondent, and 106 as a third party. In 2024, Russia has 4 new WTO disputes to which it has joined as a third party. No trade disputes were initiated by or against Russia in 2024. As a rule, Russia participates as the main party in WTO disputes with the EU, Ukraine and the United States. As a complainant, Russia is interested in anti-dumping investigations and measures, particularly in the metallurgical and chemical industries. Countries are filing complaints against Russia on anti-dumping and investment measures affecting trade, tariffs, transit restrictions, import substitution and export restrictions.

Most of the disputes where Russia has joined as a third party concern the metallurgical industry, agriculture and food, automobile and aircraft industry, chemical industry, wood processing industry and renewable energy. Special attention is paid to disputes over domestic market protection measures (anti-dumping, countervailing and specific safeguard measures) as well as subsidies. Cases of trade and economic sanctions and national security exceptions are also of interest. Russia's participation in the role of a third party is associated not only with a significant trade interest, but also with the practice of participation in specific disputes, systemic interest in the application of the WTO rules and regulations, sometimes Russia takes a position analogous to the respondent. In 2024, in many WTO trade disputes where Russia participates as a third party, the complainants and respondents reached mutually acceptable solutions.

The WTO remains the only international trade regulatory organization that promotes development, sustainability and transparency. Russia is interested in preserving the multilateral format of negotiations, compliance with its obligations under WTO rules, restoration of the full-fledged work of the DSB and implementation of Russia's tasks on current disputes with its participation, as well as on other disputed trade practices. In addition, it is important for Russia to participate in negotiations on new international trade rules that meet modern challenges, in particular, WTO rules on sanctions, definition of emergency situations, restrictions on the use of sanctions measures, etc. In order to counteract sanctions, to reori-

1. URL: https://www.economy.gov.ru/material/directions/vneshneekonomicheskaya_deyatelnost/dostup_na_vneshnie_rynki_i_zashchitnye_mery/reestr_ogranich_mer/

ent trade, Russia needs to continue to develop cooperation with friendly and neutral countries, in particular with the BRICS countries. All BRICS countries, apart from Iran and Ethiopia, are members of the WTO and seek fair trade rules that take into account the interests of developing countries and reform of the international financial system. The launch of a special mechanism for BRICS countries' consultations on the WTO issues has been initiated.

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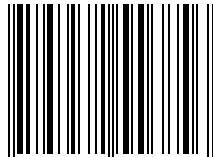
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