

## Section 3

# Real sector of the economy

### 3.1. Dynamics and structure of GDP and investments<sup>1</sup>

#### 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

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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
<b>Producer prices</b>										
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 production<sup>1</sup>**

### **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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