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**RUSSIAN ECONOMY IN 2023**

**TRENDS AND OUTLOOKS**

*(Issue 45)*

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R95 **Russian economy in 2023. Trends and outlooks. (Issue 45)** / [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, 2024. – 422 pp.: illust.

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The review "Russian economy. Trends and outlooks" has been published by the Gaidar Institute since 1991. This is the 45th 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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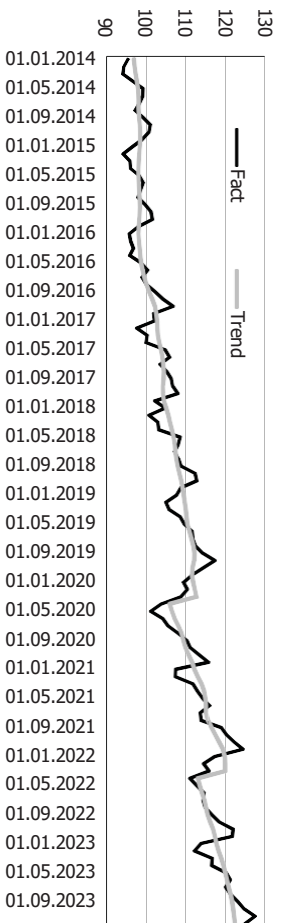
### **3.2. Sectoral dynamics of industrial production in 2023<sup>1</sup>**

In 2023, the trend component of the industrial production index kept growing, which was primarily provided by the industries related to the production of goods for the state defense order (manufacture of motor vehicles, manufacture of fabricated metal products, manufacturing of electrical equipment), and industries in which import substitution processes are underway (manufacturing of equipment, machine building, production of durable goods for households). Dependence of the extractive sector on imported technologies under sanctions, labor shortage, high inflation and secondary sanctions are the main risks for maintaining growth next year.

In order to correctly interpret the available trends in individual sectors, it is necessary to decompose their output into components: calendar, seasonal,

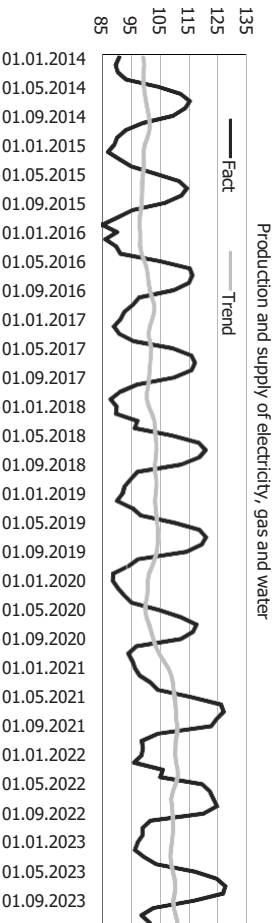
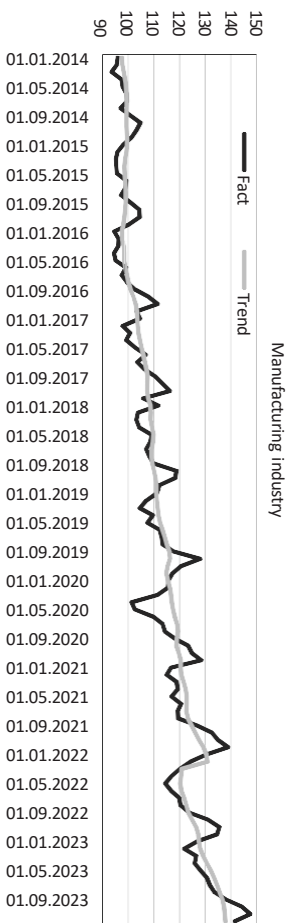
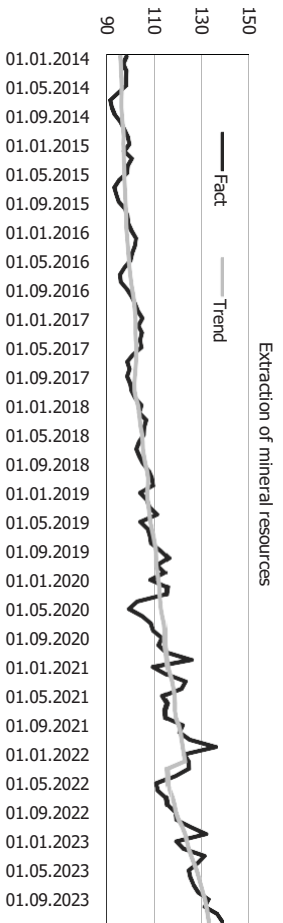
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*Fig. 1. Dynamics of the industrial production index in 2014–2022 (Actual data and trend component), in % to 2016 annual average*

Sources: Rosstat, own calculations.



*Fig. 2. Production indexes dynamic by industry in 2014–2023 (actual data and trend component), in % to 2016 annual average*

Sources: Rosstat, own calculations.

irregular and trend.<sup>1</sup> The interpretation of the latter is of substantial interest. Experts of the Gaidar Institute have identified the trend component of the series of production indices for 2003-2023<sup>2</sup> on the basis of actual statistics published by Rosstat.

The results of series processing for the index of industrial production as a whole are shown in *Fig. 1*. *Fig. 2* presents the results for the aggregated indices of the extractive and manufacturing sectors, as well as the production and distribution of electricity, gas and water. For the rest of the series, the decomposition results are presented in *Table 15*.

### 1. Dynamics of the industrial production index in Q1 2023

Despite the consequences of the imposed in 2022 anti-Russian sanctions (increase in logistics costs, search for new suppliers and buyers, increase in insurance premium, supply chains disruptions, working out parallel import chains, increase in delivery time, lack of alternatives when replacing import components, etc.), the trend component of the index of industrial production in Q1 2023 showed a slow growth of 1.0% against the corresponding period of the previous year (*Fig. 1*).

The extractive and manufacturing sectors have made the main positive contribution. The sector of production and supply of electricity, gas and water showed a slow decline. The dynamics of the actual data of production indices and their trend components are shown in *Fig. 2*.

The drivers of positive trends in the economy in early 2023 were the construction sector and manufacturing industries whose products are targeted to meet domestic demand (food industry, textile and clothing manufacturing, furniture production) or are intermediate for the needs of the state defense order and construction projects, including the development of railway and marine infrastructure.<sup>3</sup>

Economic growth through Q1 2023 has also been retained:

- in retail trade by replacing American and European chains in the non-food segment with products of Russian, Turkish and Chinese brands;
- in construction through the renovation and construction of infrastructure in the incorporated territories and the implementation of transport infrastructure expansion projects;
- cargo turnover growth was due to increased production capacity of Russian seaports and import substitution, reorientation of cargo flows to Turkey, Arab countries and Africa from the European direction.

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.

2 The trend component was extracted with the Demetra package using the X12-ARIMA procedure.

3 *Tairov R.* Russian industry grew in March for the first time in a year // Forbes. 26.04.2023. URL: <https://www.forbes.ru/biznes/488437-rossijskaa-promyslennost-vyrosla-v-marte-vpervye-za-god>

## 2. Industrial production dynamic in Q2 2023

In Q2 2023, the growth of the trend component of the industrial production index accelerated to 1.18% against the corresponding period of the previous year. The growth was driven by the same factors as in Q1 2023.<sup>1</sup>

Additional growth factors in Q2 include the impact of pent-up demand. Deferred purchases and spending related to travel (mostly foreign) and entertainment started in the pandemic, then continued due to the growth of prices for electrical devices, household appliances, cars (the reason was the shortage of semiconductors), in 2022 the trend continued due to the restructuring of trade flows. This affected the growth of the most liquid assets (cash and funds on current accounts) in the structure of household savings. And any improvement of the situation (for example, setting more attractive credit rates, commissioning of frozen residential and infrastructure construction projects, measures of anti-crisis state support) could lead to their spending.

In the services sector, the growth of the trend component of production indices for the majority of industries remained, which is explained by the increase in consumer demand against the backdrop of accelerated growth of wages due to the shortage of labor force. The effect is temporary, as there is a potential for inflation growth due to faster growth rates of wages than labor productivity. Freight turnover decreased slowly due to lower mineral supplies and low capacity of railroads in the eastern direction, as a result of which it is impossible to cover the entire volume of shed European demand even with full utilization in this direction.

## 3. Industrial production dynamic in Q3 2023

The growth of the trend component of industrial production index in Q3 2023 remained unchanged: 1.17% vs. the corresponding period of the previous year. The manufacturing industries continued making the main contribution to the dynamic (*Fig. 2*).

A negative impact on the dynamics of the trend component of the mineral extraction industry production index in Q3 2023 was caused by the extension by Russia until the end of 2024 for the third time<sup>2</sup> of its commitments on voluntary reduction of oil production by 500,000 barrels per day (excluding gas condensate). Coal mining made a positive contribution to the trend component of the mining industry production index with a slight increase due to raised demand from China, where safety inspections at mines were intensified owing to a number of

1 *Milkin V.* Steel consumption in Russia started to recover in Q2 // *Vedomosti*. 08.08.2023. URL: <https://www.vedomosti.ru/business/articles/2023/08/08/988981-potreblenie-stali-v-rossii-na-chalo-vosstanavlivatsya>

2 On March 1, 2023 Russia voluntarily reduced oil production by 500,000 barrels per day. The first time it extended the decision until June 2023, the second time - until the end of 2023, and the third time - until the end of 2024. The reduction was carried out from the production level agreed on June 4, 2023 (i.e. from 9.8 million barrels per day).

emergency incidents during the year as well as increased demand from India<sup>1</sup> on the back of higher steel production in the country.<sup>2</sup>

The decline in pulp and paper production was due to issues with the supply of chemicals, spare parts and the ban on the export of wood pulp from Russia to the EU. In coke and petroleum products production, the near-zero growth rates can mostly be attributed to the expectation of changes in tax legislation parameters (reduction of reverse excise tax payments, etc.).

#### 4. Industrial production dynamic in Q4 2023

In Q4 2023, the trend component of industrial production index slowed slightly to 1.13% y-o-y growth (*Fig. 1*).

The positive dynamics of the trend component of the industrial production index of the mining industry was ensured by:

- coal mining on the back of growing demand from the metallurgical, chemical and power industries in China and India;<sup>3</sup>
- growth in the volume of services rendered in the field of mineral resources extraction on the back of increased drilling of oil wells (in the first 11 months of 2023, the volume of production drilling in Russia amounted to 28,100 kilometers, the number of launched wells reached 7,930, the number of completed wells – 8,540 the results exceeded the final figures for the whole 2022<sup>4</sup>);
- growth in the volume of geological exploration work (193 new fields were put on the balance sheet in 2023, which is 23 more than in 2022<sup>5</sup>).

The drivers of growth in the manufacturing industry by the end of 2023 can be identified as the industries that produce goods intended, among other things, for the needs of the defense industry (metallurgical production and production of finished metal products; manufacturing of electrical equipment, electrical and optical equipment; manufacturing of vehicles and equipment), and industries whose products are aimed at domestic final demand and substitution of imported products (production of medicines, furniture manufacturing, and food industry).

The growth of trend components of the production indices of the service sector industries was retained: in trade due to the sale of non-food products, including imported goods of new partners; in construction owing to the rehabilitation of

1 *Milkin V.* Export prices on Russian coal turned to growth in Q3 // *Vedomosti*. 25.09.2023. URL: <https://www.vedomosti.ru/business/articles/2023/09/25/996848-eksportnie-tseni-na-rossiiskii-ugol>

2 *Milkin V.* Russia more than doubled metallurgical coal exports to India // *Vedomosti*. 23.10.2023. URL: <https://www.vedomosti.ru/business/articles/2023/10/23/1001892-eksport-metallurgicheskogo-uglya-v-indiyu>

3 *Zainulin E., Kozlov D.* Metallurgical coal is piling up nicely // *Kommersant*. 21.12.2023. URL: <https://www.kommersant.ru/doc/6412972>.

4 Russia's Oil Drilling Boom Proves Moscow's Resilience to Western Sanctions // *Bloomberg*. 10.01.2024. URL: <https://www.bloomberg.com/news/articles/2024-01-10/russia-s-oil-drilling-boom-proves-moscow-s-resilience-to-western-sanctions>

5 Geological exploration in Russia in 2023: Summarizing results and making plans // *Mining sector*. 10.01.2024. URL: <https://dprom.online/mtindustry/gyeologorazvyedka-v-rosseeee-v-2023-godu/>

infrastructure and housing construction; in other paid services to the population due to public eating places.

Possible risks to maintaining industrial growth in the near term include:

- dependence of the upstream sector on imported technologies (exploration software, marine seismic software, GIS technologies and general-purpose infrastructure equipment for remote regions), which may become a challenge for further development, as oil drilling is required to maintain production at a certain level and to increase it;
- labor force shortage as a consequence of population decline (“demographic hole” of the 1990s, COVID-19, relocation and partial mobilization, decreased inflow of migrants), which limits opportunities for increasing output in the economy (especially by manufacturing, agriculture, water supply and transportation enterprises) to meet the growing demand, forces to reduce requirements for personnel competencies (with plans to improve the qualifications of hired workers through training programs, etc.), which, as a consequence, in the short term, will lead to a reduction in productivity and performance quality because professional retraining is a rather prolonged process.
- high inflation caused by competition for employees in industrial sectors in terms of wages. At the same time, the growth of wages occurs in industries that are related to the production of goods directed to the needs of the defense industry, but the price increase falls on the entire population;
- secondary sanctions may force Russia’s trading partners to resort to self-restrictions. Strengthened control over compliance with sanctions in the financial sphere may limit the possibility of using dollars and euros in foreign trade settlements. All this will affect the growth of trade costs (including the circumvention of restrictions).

*Table 15*

**Change in the output index across sectors of the economy, %**

Sectors	Share in industrial production index, %	December 2023 on December 2022	December 2023 on September 2023
Industrial production index		104.3	100.6
Extraction of minerals	34.54	108.0	101.2
Manufacturing, including:	54.91	108.3	100.9
Production of food, including beverages and tobacco	16.34	110.8	102.4
Textile and garment production	1.14	111.4	103.4
Manufacturing of leather, articles thereof and footwear	0.27	113.3	101.5
Wood processing and wood ware manufacturing	2.02	110.0	99.1
Pulp-and-paper industry	3.35	85.5	98.3
Production of coke and petrochemicals	17.25	99.4	100.0
Chemical industry	7.56	116.1	103.0
Manufacturing of rubber and plastic articles	2.14	108.2	98.3
Manufacturing of other nonmetallic mineral products	4.02	105.3	97.2
Metallurgy and manufacturing of ready-made fabricated metal products	17.42	126.3	103.6



Sectors	Share in industrial production index, %	December 2023 on December 2022	December 2023 on September 2023
Manufacturing of machinery and equipment	6.97	107.3	98.5
Manufacturing of electrical, electronic and optical equipment	6.27	120.9	101.7
Manufacturing of transport vehicles and equipment	6.75	144.7	104.7
Other industries	2.42	108.1	96.0
Electricity, gas and water supply	13.51	101.5	101.3
Wholesale trade		119.0	103.1
Retail sales		109.9	100.8
Cargo turnover		100.0	99.5
Construction		105.8	101.1
Agriculture		99.7	94.3
Volumes of paid services to households		104.7	101.0

Sources: Rosstat, own calculations.