# MONITORING OF RUSSIA'S ECONOMIC OUTLOOK:

## TRENDS AND CHALLENGES OF SOCIO-ECONOMIC DEVELOPMENT

No. 2(158) March 2023

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## (158) 2023

#### Monitoring of Russia's Economic Outlook

Monitoring is a publication of Gaidar Institute for Economic Policy (Gaidar Institute).

Editorial board: Sergey Drobyshevsky, Vladimir Mau, and Sergey Sinelnikov-Murylev.



Monitoring of Russia's Economic Outlook: trends and challenges of socio-economic development. 2023. No. 2(158). March. Edited by: S. Drobyshevsky, V. Mau and S. Sinelnikov-Murylev; Gaidar Institute for Economic Policy. 25 p. URL: http://www.iep.ru/files/text/crisis\_monitoring/2023\_02-158\_March\_eng.pdf

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#### 1. FEDERAL BUDGET: 2022 OUTCOMES AND 2023 PROSPECTS

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Macroeconomic and geopolitical atmosphere of 2022 did not have a significant negative impact on the federal budget. In particular, the federal budget deficit at 2022 year-end did not exceed 2.2% of GDP amid the forced increase in government spending, which is almost twice lower than the crisis year of 2020. The key factors of a relatively favorable budget throughout the year remained high oil and gas revenues, as well as the stability of domestic VAT revenues. Despite the growing sanctions pressure, the effect of these factors will generally remain in 2023, which is able to ensure a zero primary deficit even with a slight fiscal consolidation (within 10% of the planned non-interest expenditures).

**Revenues** of the federal budget in 2022 evidenced Rb27.8 trillion, which is 11.2% higher that the initially approved amounts<sup>1</sup>. The federal budget revenues in 2022 in the shares of GDP dropped by 0.4 p.p. of the GDP relative to 2021 to 18.3% of GDP, in real terms by 1.7% (*Table 1*).

The share of oil and gas incomes in the total amount of the federal budget revenues in 2022 accounted for 41.6% vs 35.8% in 2021. At the year-end of 2022 the oil and gas revenues of the federal budget exceeded the level of 2021 by 0.9 p.p. of GDP, as well as the forecast expectations included in the law on the budget (in the original version) by Rb2.0 trillion. Given a 10% increase in the average price of oil and a 7.2% appreciation of ruble against dollar in 2022 vs 2021, it is certain that Russia has managed to partially redirect its crude oil exports to China, India and Turkey. Otherwise, oil and gas revenues to the federal budget from export duties would have been more modest.

However, since December 2022 Western sanctions on Russian oil supplies, including the establishment of a price ceiling, came into effect, resulting in the price of Urals oil drop significantly, reaching \$50.5/barrel in December. It can be suggested that if such a significant difference between the prices for Russian Urals and the Brent international oil will remain 2023<sup>2</sup>, the budget revenues will be again under a rather strong pressure: oil and gas revenues will not exceed Rb9.0 trillion if the current terms of trade and the ruble exchange rate are maintained throughout the year, according to our estimates.<sup>3</sup>

The negative dynamics of the federal budget revenues in 2022 vs 2021 is associated with a decline of non-oil and gas revenues by 1.3 p.p. of GDP to 10.7% of GDP. The main factor behind the decline in non-oil and gas revenues

<sup>1</sup> Federal law on 06.12.2021 No. 390-FZ "On Federal Budget for 2022 and for 2023 and 2024 planning period" (original version).

<sup>2</sup> According to the Russian Ministry of Finance, the average price of Urals oil in January-February 2023 was \$49.52/bbl.

<sup>3</sup> Taking into account the excise tax on crude oil as well as damping and investment surcharges.

Table 1
Main parameters of the federal budget in 2019–2022

	2019		2020		2021		2022		Changes in 2022 relative to 2021		
	Billions of rubles	% GDP	Billions of rubles	p.p. GDP	In real terms*, %						
Revenues	20 189	18,4	18 719	17.4	25 286	18.7	27 824	18.3	2 5 3 8	-0.4	-1.7
Including oil and gas revenues**	7 924	7.2	5 235	4.9	9 056	6,7	11 586	7.6	2 530	0.9	14.3
Expenditures	18 214	16.6	22 821	21.2	24 762	18.3	31 119	20.5	6 357	2.2	12.3
Deficit (-) / Budget surplus (+)	1 975	1.8	-4 102	-3.8	524	0.4	-3 295	-2.2	-3 819	-2.6	-661.7

Source: Federal Treasury; own estimates.

was taxes on imported goods, but even under sanctions their actual volume averaged about 78% of the planned values, i.e., it is about less than Rb0.9 trillion of lost revenues. This decline in tax revenues was offset by an excess of actual volumes over the target for taxes from domestic production, resulting in total non-oil and gas revenues in nominal terms remaining at the 2021 level, but declining in real terms and as a share of GDP.

VAT revenues form more than half of all non-oil and gas revenues. At year-end 2022, budget revenues from VAT increased by 3.7% in nominal terms, but declined in real terms by 7.4% (or down to 6.3% of GDP). The main reason for reduction of tax revenues in real terms was a drop in revenues from taxation of imports (by 26.7% in real terms against 2021), while growth of VAT on taxation of domestic sales of goods and services amounted to 5.8%. This proves again the thesis that domestic VAT has a fairly steady tax base, which reacts to economic shocks with a delay of 1–2 quarters and low volatility. In 2023, amid a slight slowdown of economic growth and the expected slight growth in imports, VAT revenues may exceed Rb11 trillion or 6.9% of GDP, according to our estimates, which corresponds to the expectations of the RF Ministry of Finance.

Thus, the total volume of federal budget revenues in 2023 could amount to about Rb26.4 trillion, which exceeds by Rb0.3 trillion the amount of revenues provided for in the federal budget law for 2023 (Rb26.1 trillion).

The amount of federal budget **expenditures** in 2022 evidenced Rb31.1 trillion or 20.5% of GDP, which is by Rb6.3 trillion higher than the in the previous year. In real terms and as a share of GDP growth was also positive and quite significant (*Table 1*). The actual execution by 2022 year-end exceeded the forecast expectations by Rb7 trillion.

The largest deviation of actual federal budget expenditures from the initially approved amounts is noted in the sections "social policy", "national defense" and "national economy" by 3.0, 1.9 and 1.3 trillion rubles, respectively, which is associated with the conduct of SSE, the expansion of social support measures for certain categories of individuals and business support. For other sections, the actual budget allocations changed less significantly in nominal terms relative to the initially approved amounts.

<sup>\*</sup> Hereinafter, the recalculation in real terms (in real prices) is based on the consumer price index, which, according to Rosstat, was 111.94% in 2022 (December 2022 to December 2021). URL: https://rosstat.gov.ru/storage/mediabank/186\_09-11-2022. html

<sup>\*\*</sup> Including the excise tax on crude oil sent for refining.

<sup>1</sup> S.G. Belyov, I.A. Sokolov, O.V. Suchkova. Stability of VAT revenues to the budget: myth or reality? // Economic Development of Russia. 2020. V. 27. No. 12. P. 60–69.

#### 1. Federal budget: 2022 outcomes and 2023 prospects

In real terms, "leaders" in the context of spending growth were "national defense" (37.8%), "housing and utilities" (37.0%), "culture, cinematography" (30.1%), "social policy" (20.1%), while only "environmental protection" (-31.9%) and "national economy" (-3.9%) were in decline.

The volume of expenditures on closed items of the federal budget in 2022 increased to a maximum for the entire period under review in the amount of Rb6.0 trillion or 3.9% of GDP. As a consequence, the share of closed expenditures in total costs of the federal budget in 2022 increased to 19.2%, against 15.1% in 2021.

A peculiar feature of cash execution of the federal budget was the unprecedented volume of expenditures in December 2022, which amounted to nearly Rb7 trillion or 22.5% of the annual volume (as compared with an average of 17% in the previous few years). This is partly due to the transfer of certain expenditures to 2022, which emerged during the consideration of the draft law on the federal budget for 2023–2025 by State Duma, i.e., a kind of early funding, which has not been previously observed in the practice of the federal budget cash execution.

For 2023 the law on the federal budget planned expenditures at Rb29 trillion, while execution in January-February 2023 amounted to about Rb6.3 trillion (21.7% of the annual volume).

Given the rates of cash execution, as well as the level of expenditures achieved last year (the limit of annual expenditures of Rb29 trillion means in real terms at least a 10% consolidation vs previous year) and the inflation rate (according to our estimates, it can exceed the price growth included in the budget law of 5.5% by 1-2 p.p.) there is reason to believe that the actual federal budget expenditures will exceed Rb30.5 trillion by the end of the year.

The federal budget **deficit** in 2022 amounted to Rb3.3 trillion or 2.2% of GDP, but if the funds which were compensated by the state extra-budgetary fund due to the deferral of insurance premiums and in 2023 will be refunded to the NWF are not taken into account, the budget deficit was about 1.8% of GDP.

About Rb1.5 trillion of the deficit was covered by attracting securities, while the rest was mainly financed at the expense of the NWF. Hence, the volume of domestic government debt by the end of 2022 increased to Rb18.8 trillion (12.4% of GDP), while the volume of the NWF reduced from Rb13.6 to Rb10.4 trillion, i.e., by almost a quarter.

As noted above, in 2023 we should expect multidirectional dynamics of revenues and expenditures of the federal budget compared with the parameters of the federal budget law, resulting in a budget deficit for the year that could reach more than Rb4 trillion or 2.5% of GDP.

On the whole, given the level of public debt, the amount of sovereign assets in the NWF and the dynamics of the main parameters of the budget system of the Russian Federation, we can recognize that the RF Ministry of Finance in 2022 managed to relatively painlessly buy out budget risks, including through the use of previously created reserves. However, as oil and gas revenues decline, this strategy can only be effective in the short term, and therefore other mechanisms, including fiscal consolidation, will need to be employed to ensure the long-term stability of the federal budget.

#### 2. REGIONAL BUDGETS IN 2022

Alexander Deryugin, Acting Head of the Budget Policy Department, Gaidar Institute

The year 2022 was a critical one in terms of the dynamics of tax and non-tax revenues of the consolidated regional budgets: while in the first half of the year it looked quite satisfactory and the growth of budget revenues significantly outpaced the inflation rate, by the end of the year the growth halted and the decline of profit tax revenues, exacerbated by its partial refunds to taxpayers, significantly raised the risk of formation of negative budget revenues in some regions in some months. In 2023, without additional financial assistance from the federal budget, the budgets of the overwhelming majority of regions will be unbalanced, which may lead to an increase in the total volume of regional debt and the amount of debt burden.

#### Revenues

Total revenues to consolidated budgets of the subjects of the Russian Federation<sup>1</sup> in 2022 amounted to Rb19.67 trillion or 12.1% more than in 2021 and slightly above the annual inflation rate.<sup>2</sup> These indicators were achieved largely through growth in tax and non-tax revenues of the regions (+13.0%), which amounted to Rb15.43 trillion. Non-repayable receipts from other budgets were growing a bit more slowly (+6.7%, Rb3.92 trillion).

In general, in 2022 the main tax revenues of regional and local budgets showed a rather similar dynamic: personal income tax (+16.4%), excise taxes (+17.5%), tax levied in connection with the application of the simplified taxation system (+23.6%), corporate property tax (+16.6%). Non-tax revenues grew at higher rates (+29.0%). Positive growth rates of non-repayable receipts from other budgets were supported exclusively by subsidies (+47.3%), while other types of interbudgetary transfers – grants (-0.2%), subventions (-17.5%) and other interbudgetary transfers (-14.6%) – showed a negative dynamic.

Good budget revenues in 2022 were generated by high growth rates in H1 2022 (+24.8%), while in H2 2022 they went up by only 2.7%, and in Q4 they did not increase at all (0.0%). This dynamic was observed not only in tax and non-tax revenues (26.8% in H1 2022, +2.2% in Q2, and -1.2% in Q4), but also in transfers (+14.1, +2.1 and -0.3%, respectively).

The most drastic change in the dynamics during 2022 was demonstrated by corporate tax: its growth (+45.7%) in H1 2022 was followed by a decline

<sup>1</sup> In order to ensure comparability of calculation results, information on indicators of consolidated budgets of the subjects of the Russian Federation does not include data on the Donetsk People's Republic, Luhansk People's Republic, Zaporozhye and Kherson regions, as well as Baikonur city. The data on the federal territory Sirius are taken into account.

<sup>2</sup> The consumer price index was 111.94% in December 2022 compared to December 2021.

#### 2. Regional budgets in 2022

in H2 2022 (-30.7%) and Q4 (-39.8%) (Fig. 1). The rates of other tax revenues to consolidated regional budgets saw no visible changes during 2022, while non-tax revenues, though remaining in the positive zone, experienced a slump in growth rates (44.4% in 1H 2022, +19.6% in 2H 2022, and +18.3% in Q4).

Changes in the dynamics of the volume of main revenue sources of regional and local budgets affected the overall picture in the regional context. Thus, at the end of H1 2022 negative growth rates of budget revenues were observed



Fig. 1. Growth rate of corporate tax in the consolidated budgets of the RF subjects for the month relative to the corresponding month of the previous year, %

Source: Own calculation on the Federal Treasury data.

only in the Kaliningrad Region (-4.6%), however by the end of the year the number of such subjects increased to 12, while Lipetsk Region (-12.8%) became a leader in terms of consolidated budget revenues reduction.

In H2 2022, a decrease in the volume of receipts affected 26 regions (maximum 38.9% in Tyumen Oblast), while in Q4 – 33 subjects, in five of which it exceeded 30%: The Tyumen Oblast (-48.89%), Krasnoyarsk Krai (-39.2%), the Murmansk Oblast (-33.2%), the Republic of Khakassia (-32.3%), the Kemerovo Oblast – Kuzbass (-30.4%). The main driver of such a reduction was the corporate profit tax, whose balance of revenues to the budgets of some regions in Q4 2022 became negative (the Republic of Kalmykia, the Tyumen Oblast, Khanty-Mansi Autonomous Okrug – Ugra, the Republic of Khakassia, the Republic of Sakha (Yakutia), Kamchatka Krai and Chukotka Autonomous Okrug). In Q4 2022, only 17 regions saw their budget revenues grow faster than inflation.

The biggest increase in consolidated budget revenues in 2022 was shown by the Sakhalin Region (+51.0%), Yamal-Nenets Autonomous Okrug (+37.8%) and the city of St. Petersburg (+37.7%), where corporate tax was the main source of growth.

Given the negative dynamics of corporate tax revenues, which was especially strong in Q4 2022 (*Fig. 1*), as well as persistence of negative trends in the economy, one can expect in 2023 more frequent application of the practice of refunding from the regional budgets the amounts of excessively paid corporate tax; further reduction of the total volume of its revenues; as well as at least slowdown of the growth rates of other tax and non-tax revenues of consolidated regional budgets. Without additional financial assistance from the federal budget, the growth rate of revenues of the regions' consolidated budgets may be in the negative zone.

#### **Expenditures**

At year-end 2022, consolidated regional budget expenditures stood at Rb19.62 trillion, up 16.2% on a year-on-year basis, which is above both the inflation rate and the budget revenue growth rate.

The leaders of the growth were expenditures on the national economy (+27.5%), including transportation (+22.6%) and road sector (+30.3%), housing and communal services (+20.6%), general education (+20.7%), as well as physical culture and sports (+25.5%). Expenditures on national issues (+15.6%), preschool education (+9.7%), culture and cinema (+16.6%), and social policy (+9.6%), including social welfare (+6.7%) and family and child protection

(+14.0%) grew somewhat slower. Expenditures on health care (-3.7%), as well as expenditures on public and municipal debt service (-18.9%) showed negative dynamics. In the first case, it was associated with a partial curtailment of anti-COVID measures, and in the second – with the replacement of the commercial debt with budget loans. In general, in 2022, there was a slight shift of the expenditure structure of consolidated budgets of regions towards investment expenditures.

In 2022, consolidated budget expenditures increased in 84 subjects of the Russian Federation, and in 62 of them the growth exceeded inflation over the same period. The only region where budget expenditures decreased was the Udmurt Republic (-0.3%), which was due to the need to contain them in view of the highest debt burden among all the subjects of the Russian Federation. Relatively well-to-do regions were leading in terms of budget expenditures growth: the Republic of Tatarstan (+32.5%), Yamal-Nenets Autonomous Okrug (+31.9%), the city of St. Petersburg (+30.8%), the Belgorod Oblast (+29.6%), and the Samara Oblast (+28.8%).

#### Balanced regional budgets and public debt

In 2022, a surplus of the consolidated regional budget was observed in 50 subjects of the Russian Federation and the federal territory Sirius and its total amount was Rb50.59 bn or 0.3% of total revenues of consolidated budgets of the RF subjects, not including subventions.

The total volume of public debt of the subjects of the Russian Federation amounted to Rb2.79 trillion as of January 1, 2023, having increased by 12.7% over the year. The total amount of debt was fully offset by the growth of tax and non-tax revenues of regional budgets (+13.2%), which allowed them to avoid increasing their debt burden, the size of which even slightly decreased, reaching its minimum level of 20.9% for the year-end period of 2014–2022 (Fig. 2).

The number of regions with a debt burden above 50% increased from 23 to 25 during the year, but continues to remain at an acceptable level (*Fig. 3*).

Only the Udmurt Republic has a high level of public debt, exceeding 100% of the region's tax and non-tax revenues (104.0%), which, given the efforts of regional authorities to control budget expenditures, is not a big issue.

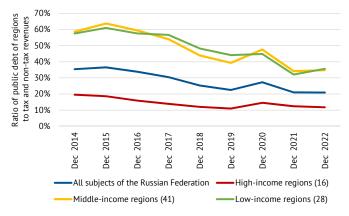


Fig. 2. Debt burden of RF subjects, %

Source: Own calculation on data released by the Finance Ministry of Russia and the Federal Treasury.

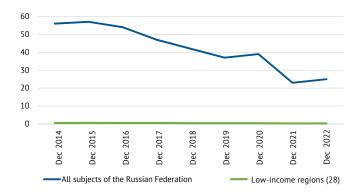


Fig. 3. Number of RF subjects with debt burden over 50%

Source: Own calculation on data released by the Ministry of Finance and the Federal Treasury.

<sup>1</sup> The debt burden of a subject of the Russian Federation is defined as the ratio of the volume of public debt of the region to the volume of tax and non-tax revenues of the regional budget.

#### 2. Regional budgets in 2022

On the whole, in 2022, the national debt of 74 subjects of the Russian Federation went up, and the debt burden increased in 48 RF subjects.

Owing to the measures taken by the RF Finance Ministry to replace expensive loans issued by credit institutions and government securities of the subjects with budget loans, the share of loans from credit institutions in the structure of government debt fell from 10.4% to 4.5% in 2022, the share of securities decreased from 32.3% to 23.4%, while the share of budget loans increased from 55.4% to 71.0% (Fig. 4).

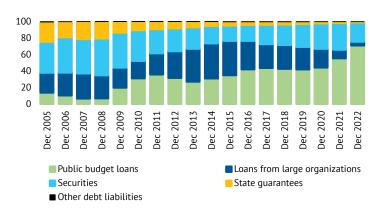


Fig. 4. Public debt structure in RF subjects, as % to total

Source: Own calculation on data released by the Ministry of Finance of Russia.

Thus, in 2022, with the help of the federal center, the regions managed to maintain a safe level of debt burden. At the same time, the emerging in H2 2022 trends towards a significant reduction of corporate tax revenues, as well as lack of prospects for maintaining a relatively high growth rate of other taxes and non-tax revenues, without additional financial aid from the federal budget to the budgets of the overwhelming majority of regions will become unbalanced, which will increase both the total volume of regional debt and the level of debt burden.

### 3. THE LEGISLATIVE CAP ON URALS OIL PRICE DISCOUNT TO BRENT OIL

Andrei Kaukin, Candidate of Economic Sciences, Head of the Sectoral Market and Infrastructure Department, Gaidar Institute;

Evgenia Miller, Senior Researcher, the Sectoral Market System Analysis Department, IAES, RANEPA

The approved tax code amendments will cap a discount on Urals oil price to North Sea Dated¹ for the calculation of oil taxes. By our estimates, amendments may bring an additional of around Rb640bn into the budget in 2023. However, the mechanism incorporated in the amendments entails the risk of a "manual" regulation of taxation parameters in the oil industry in case of a dramatic change in prices for oil on the global market.

The EU countries' approval of an oil cap in October 2022 has led to a higher discount on prices for Urals oil to Brent oil. Shown in Fig.~1 is the dynamics of monthly average oil prices. It is clear that prior to February 2022 an average discount was equal to \$1.5-2.0 per barrel, while late in 2022, to \$35 per barrel.

According to the effective Tax Code of the Russian Federation<sup>2</sup>, for the calculation of the severance tax, the windfall tax, excises on crude oil and a damper, the average level of Urals oil prices during the tax period on global crude oil markets, particularly the Mediterranean and Rotterdam oil markets, is used. From 2013, it was the Argus agency's prices for oil deliveries to the ports of Augusta (Italy) and Rotterdam (the Netherlands) that were used. Prices included transportation costs (freight, insurance, financing, that is, the basis CIF - Cost, Insurance, and Freight) which were incorporated into the oil price for calculation of taxes. After December 5, 2022, the Argus agency's methodology has changed: they preserve CIF price, but their calculations are based on the price for Urals oil on terms of basis FOB (Free on Board) deliveries via the seaports of Primorsk, Ust-Luga and Novorossiysk with costs related with shipment to European ports (freight price, port duties and freight insurance) added. This indicator is currently largely distorted owing to the building of new logistics chains and a dramatic increase in a "transport arm" for Urals oil shipped from seaports in the western part of Russia to new target markets in Asia.<sup>3</sup> Such prices have led to a substantial shortfall in budget revenues: by estimates of the RF Ministry of Finance the shortfall was equal to Rb160 bn in January 2023, so the amendments to the

<sup>1</sup> Argus North Sea Dated is a benchmark of light North Sea oil which includes the following sorts: Brent, Forties, Oseberg, Ekofisk and Troll.

<sup>2</sup> The Tax Code of the Russian Federation (Part 2) as of August 05, 2000, Federal Law No. 117-FZ (as amended of December 29, 2022) (as amended and enacted on February 01, 2023).

The cost of physical oil trade is based on price agencies' prices (Platts, Argus and the Reuters), open data relevant bases (points of shipment), the results of a tender, as well as closed surveys of participants involved in transactions (employees of oil companies' trading divisions and independent traders). Owing to sanctions, transactions with Urals oil have closed completely: tenders are no longer held, the spot market for this sort of oil has disappeared, European traders participate rarely in these transactions and Russian companies do not disclose the terms of sale of their oil to Asia.

#### 3. The Legislative Cap on Urals Oil Price Discount to Brent Oil

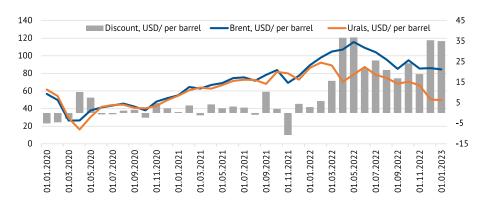


Fig. 1. The dynamics of prices for Brent oil and Urals oil (left-hand axis) and discounts on Urals oil to Brent oil (right-hand axis), US Dollars per barrel

Source: The Ministry of Finance, Finam.

RF Tax Code<sup>1</sup> were approved to cap a discount on Russian Urals oil to North Sea Dated oil starting from April 1, 2023 for the calculation of oil taxes.

The law provides for specifying the average price for Urals oil on global markets for the purpose of calculating the severance tax in oil production, the windfall tax from production of hydrocarbon crude, the excise on crude oil<sup>2</sup>, as well as average prices to calculate export alternative to Class 5 motor gasoline and Class 5 diesel fuel for computing a damping component of tax deduction sums of crude oil excises.<sup>3</sup>

By the RF Finance Ministry's estimates, the application of a new procedure for calculating the price for oil for taxation purposes will bring nearly Rb600 bn into the budget in 2023 (owing to additional revenues from the severance tax and the windfall tax).<sup>4</sup> Such a fixing of a discount on Urals oil to Brent oil will influence budget revenues from export duties on oil and petrochemicals, which duties continue to be effective within the closing tax maneuver till the end of 2023 (the calculation formula is based on the average price for Urals oil).<sup>5</sup> By our

<sup>1</sup> Federal Law No.36-FZ of February 23, 2023 "On amendment of Part 2 of the Tax Code of the Russian Federation" (hereinafter the law).

<sup>2</sup> Amendments concern calculations of the coefficient characterizing the momentum of global oil prices – Kts, (see Part 2 of the RF Tax Code, Clause 342 (3)). The Law caps the difference between the average level of prices for Urals oil during the tax period – Ts (USD/barrel) to be used in respect of prices for North Sea Dated oil – TSNSD in calculating the severance tax and the windfall tax starting from April 1, 2023:

From April 1 till April 30, 2023: \$34 per barrel;

From May 1 till May 31, 2023: \$31 per barrel;

From June 1 till June 30, 2023: \$28 per barrel;

From July 1, 2023: \$25 per barrel.

The Law envisages the adjustment of the formula for calculating a damping premium for deliveries of gasoline and diesel fuel to the local market. The price differential for calculating the gasoline damper increases and it is also introduced in calculating the diesel fuel damper to reduce budget spending on damper to oil companies. According to the new formula:

From April 1, 2023, the maximum value of the reduced coefficient (a price discount on Urals oil to Brent oil) used in calculating the indicative export price for gasoline will be raised from \$146 per ton to \$182.5 per ton (or from \$20 per barrel to \$25 per barrel);

A similar reduced coefficient for calculating the indicative export price for diesel fuel will be introduced to cap it at the level of \$73 per ton (or \$10 per barrel).

It is noteworthy that this component changes the calculation of the severance tax and the windfall tax, as it is included in the calculation of the deduction related with the amendment of damping premium parameters.

<sup>4</sup> *I. Degotikova, T. Dzyadko.* The Ministry of Finance has assessed budget gain from the new oil price formula // RBK. February 14, 2023. URL: https://www.rbc.ru/economics/14/02/2023/63e-ba83b9a794725db7b718d

<sup>5</sup> RF Law No.5003-1 of May 21, 1993 (as amended of December 19, 2022) "On Customs Tariff."

estimates, with the fixed discount on Urals oil to Brent oil in calculating export duties on oil and petrochemicals, the state budget will receive an additional of around Rb40 bn.¹ Further, calculations do not take into account potential appreciation of prices on the retail market owing to the above-stated changes. According to our calculations, in April 2023, shortly after the amendments become effective, prices will appreciate by 5% as compared to January 2023, while in July 2023, by 8% when the discount amounts to \$25 per barrel and ceases to decrease further.

Despite expectations of additional budget revenues, amendments set forth in the Law are related with risks which may affect, among other things, actual tax revenues:

- first, as the price discount on Ural oil to Brent oil is fixed, this may result in distortions in case of a dramatic change in prices for oil; in its turn this will initiate a switchover to "manual" tuning of the parameters of a new mechanism, that is, changes in the oil industry's business environment. Similar precedents have already taken place with repeated revision of parameters of the damping mechanism in the reverse excise on crude oil;
- second, changes resulting in an increased tax burden may bring about
  a decrease in production volumes and this, in its turn, may lead to
  revenues shortfalls with regions where oil companies carry out their
  operating activities (in terms of a decrease in profit tax payments which
  go, in particular, to regional budgets, as well);
- third, growing taxes may lead to oil companies' higher costs which
  may affect retail prices for motor fuel and a possible adjustment of the
  damping mechanism.<sup>2</sup>

<sup>1</sup> The actual data for 2022 were taken as forecasted indicators of export volumes of oil and petrochemicals across the types of motor fuel in 2023. The average price for Brent oil in 2023 is assumed to be equal to \$84.49 per barrel in January 2023 (Urals oil, to \$49.8 per barrel). In 2023, the average Ruble/US Dollar exchange rate is expected to be equal to its January value of Rb69.23 to \$1.

<sup>2</sup> A.S. Kaukin, E.M. Miller. Tax Maneuver in the Oil Industry: Risks of "Manual Regulation" // Russia's Economic Development. 2019. Issue No.7 (26). P. 87–92.

#### 4. INDUSTRIAL PRODUCTION DYNAMICS IN Q4 20221

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Q4 2022 saw trend component growth in the industrial production index driven by extractive industries and manufacturing of goods substituting foreign brands which left the Russian market, as well as a pickup in demand for intermediate goods for the state defense order.

For the sake of correct interpretation of the existing trends in individual sectors, it is necessary to break down their output into calendar, seasonal, nonregular and trend components,<sup>2</sup> with the latter's interpretation being of substantive interest. Gaidar Institute experts have cleared all industrial sectors' 2003–2022 index series of their seasonal and calendar components and determined the trend component<sup>3</sup> based on relevant statistics published by Rosstat on the basis of industrial production indices of various industrial sectors.

The series clearing outputs for the overall industrial production index are shown in *Fig. 1*. Presented in *Fig. 2* are the outputs for the aggregate indices of production of minerals and manufacturing, as well as production and distribution of electricity, gas and water. As regards other series, the outputs of decomposing are shown in *Table 1*.

Q4 2022 saw slow trend component growth in the industrial production index mainly driven by production of fuel and energy minerals and manufacturing. Production and distribution of electricity, gas and water saw a near-zero growth rate.

On December 5, 2022, the embargo on maritime supplies of oil from Russia to the EU was imposed and an oil price cap at the level of \$60 per barrel was introduced. According to the IEA, despite limitations the volumes of oil production and exports at year-end 2022 remained stable: oil production increased by 2% to 535mn tons and exports of oil to the far abroad via pipelines and by sea increased by 19% to 207mn tons. Early in 2023, a temporary decrease in oil production volumes is likely (oilwells with a high water level may be withdrawn from circulation) with a subsequent renewal as time is needed for building alternative oil supply routes. An additional factor in the decrease in

<sup>1</sup> The authors express gratitude to M. Turuntseva and T. Gorshkova for their assistance in preparing the statistical analysis.

<sup>2 &</sup>quot;Trend component" is a well-established term in the literature; however, it is noteworthy that this component is not a "trend" in a strict sense and is used in econometrics for analyzing time series: in this particular case, it is the remainder after the time series have been cleared from calendar, seasonal and non-recurrent components. It is incorrect to use the "trend component" for forecasting time series: for most industrial production indices it is time-varying in levels (and time-invariant in differences), but can be used for interpreting short-term dynamics and for comparison with events that have taken place.

<sup>3</sup> The trend component was determined using the Demetra package with utilization of the X12-ARIMA procedure.

oil production volumes early in 2023 will be the embargo on exports of petrochemicals which became effective on February 5.

Production and exports of gas to the far abroad kept declining in Q4 2022 by contrast with the relevant period of the previous year. It can be explained primarily by the stoppage of the export infrastructure: a twofold decrease in gas transit via Ukraine after the special military operation (SMO) began; termination of supplies through the Nord Stream pipeline due to an equipment failure; introduction of a new scheme of payment for gas supplies (conversion of euros into rubles) to the European market and suspension of export supplies late in May 2022 to Bulgaria, Poland, Finland, and the Netherlands because of these countries' refusal to pay in accordance with the new scheme. Another factor is the EU countries' agreement to reduce their reliance on Russian gas supplies owing to a 15% decrease in demand which is expected to be achieved by the end of March 2023. Further, in Q4 2022 export volumes of Russian gas were affected by the level of filling of gas storage facilities (80%) in the EU. A pickup in the EU's demand for gas is likely at the end of H1 2023 when they start preparing for the next heating season. A positive effect from the consolidation of gas cooperation with Turkey, China and Iran will become noticeable beyond 2023. In the period under review, growth in transshipment of liquefied gas at Russian ports was justified by the replacement of pipeline gas with liquefied gas to the EU because Russian LNG is affected only by technological sanctions.

From the Q4 2022 results, the coal-mining industry maintained growth in production of power-generating coal. The volumes of production and exports of charred coal kept falling owing to infrastructure limitations related with railway lines' capacity in the Far East and competition on the part of other commodities whose exports were reorientated to the East because of sanctions.

Based on results for Q4 2022, the trend component of the manufacturing sector picked up. Industries which focused primarily on domestic demand – production of food products, including beverages and tobacco; manufacturing of fabricated metal products; manufacturing of machinery and equipment; manufacturing of transport vehicles and equipment – saw a positive momentum. Exportoriented sectors, particularly the chemical industry and the timber industry, had a restraining influence on the industry's dynamics. The existing momentum

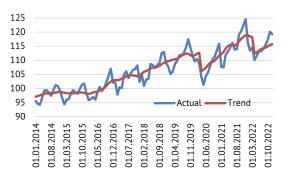
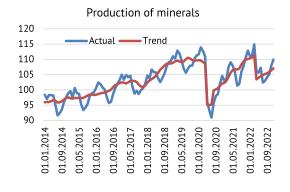
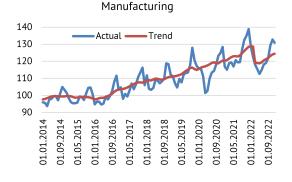


Fig. 1. Industrial production index dynamics, 2014–2022 (actual data and trend component), % change relative to average annual value in 2016

Source: Rosstat, own calculations





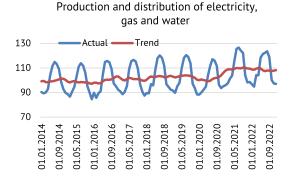


Fig. 2. Industrial production indices' dynamics across sectors, 2014–2022 (actual data and trend component), % change relative to the 2016 annual average value

Source: Rosstat, own calculations

#### 4. Industrial production Dynamics in Q4 2022

Table 1
Output index change across economic sectors, %

Sector	Share in the industrial production index, %	December 2022/ Decem- ber 2021, %	December 2022/ June 2022, %	Change over past months
Industrial production index		97.34	102.04	Slow growth
Extraction of minerals	34.54	97.19	102.51	Growth
Manufacturing, including:	54.91	96.86	104.26	Growth
Production of food products, including beverages and tobacco	16.34	110.71	106.18	Growth
Textile and garment industries	1.14	105.52	107.27	Growth
Manufacturing of leather, articles thereof and footwear	0.27	96.42	100.47	Slow growth
Wood processing and woodware manu- facturing	2.02	81.29	95.34	Stagnation
Pulp-and-paper industry	3.35	74.25	86.01	Decline
Production of charred coal and petro- chemicals	17.25	101.48	101.53	Slow growth
Chemical industry	7.56	101.58	100.59	Stagnation
Manufacturing of rubber and plastic articles	2.14	96.67	104.03	Growth
Manufacturing of other nonmetallic mineral products	4.02	91.16	93.58	Stagnation
Metallurgy and manufacturing of ready- made fabricated metal products	17.42	114.76	115.83	Growth
Manufacturing of machinery and equip- ment	6.97	96.50	102.54	Growth
Manufacturing of electrical, electronic and optical equipment	6.27	94.54	98.81	Stagnation
Manufacturing of transport vehicles and equipment	6.75	92.49	111.60	Growth
Other industries	2.42	93.95	103.39	Growth
Electricity, gas and water supply	13.51	98.85	100.09	Stagnation
Wholesale trade		82.53	101.27	Slow growth
Retail trade		90.04	101.06	Stagnation
Cargo turnover		94.57	97.55	Stagnation
Building		106.17	103.51	Growth
Agriculture		105.43	102.41	Slow growth
Volumes of fee-based services to house-holds		101.23	101.55	Slow decline

Source: Rosstat, own calculations.

can be explained by replacement of foreign-made products with products of Russian manufacturers owing to technological sanctions, termination of direct imports of some goods, as well as a pickup in demand for intermediate goods for the state defense order.

Q4 2022 saw growth both in trade on the back of big players' withdrawal from the Russian non-food segment and sellouts of their products and in the building industry owing to the repairing and building of the new territories' infrastructure. The cargo turnover is falling for the following reasons: limitations on transshipment by sea of fuel and energy products; low railway transportation capacity in the eastward direction; a decline in exports of gas via main gas pipelines.

In 2023, potential challenges to Russian industrial growth will be the following:

#### Monitoring of Russia's Economic Outlook

- substitution of more complicated products by relatively simpler ones
  on the back of technological sanctions and a decrease in the number of
  those employed because of the partial mobilization and departure of a
  portion of skilled workers abroad;
- a decline in the level of competitiveness owing to the withdrawal of a number of foreign manufacturers from the Russian market and introduction of restrictions on access to foreign markets;
- a decrease in revenues from exports of Russian oil and gas amid the embargo and price caps;
- the pace of building new logistics and supply chains, as well as the required infrastructure to maintain them.

#### 5. MORTGAGE LENDING IN 2022

Sergey Zubov, Candidate of Economic Sciences, Docent, Senior Researcher, the Structural Studies Department, IAES, RANEPA

In 2022, Russia maintained a high demand for real estate and the banking services pertaining to the issuance of housing (mortgage) loans. The main driver of market development, just as it was during the period 2020–2021, remained the government-funded mortgage programs offering relatively low interest rates. At the same time, over the course of last year, in the situation of unsatisfied demand, there emerged joint schemes of banks and real estate developers in the form of almost interest-free mortgage loans to finance the purchase of an overpriced home. The widespread use of such products has forced the RF Central Bank to resort to constraining measures against mortgage loans with extremely low interest rates, which it plans to implement in 2023.

As of January 1, 2023, the total housing mortgage loan (HML) portfolio stood at Rb13.8 trillion. Over the past year, the total HML portfolio gained Rb2.0 trillion, or 17.5%, which is slightly below the corresponding index for 2021, when the total HML portfolio growth amounted to Rb2.5 trillion, or 26.6%. In spite of a slowdown in market growth, the HML share in the total retail loan portfolio was on the rise throughout the year, reaching the level of 51.5% (vs 47.5% by the end of 2021).

Overall in 2022, banks issued 1.5 mn loans to the total value of Rb4.8 trillion, while the corresponding index for the previous year was 1.9 mn loans worth Rb5.7 trillion; i.e., there was a decline of 15.6%. The loan issuance structure underwent some changes: in response to the prolongation of government programs with reduced interest rates, the volume of HMLs in the primary market (HML under a cost sharing agreement (CSA)) jumped to 42.9% of the total volume of issued loans (vs 33.1% in 2021).

Almost all the transactions took place in the ruble segment; in 2022, the total volume of HMLs issued in foreign currencies amounted to Rb77 mn. Over that year, the volume of foreign-currency HML debt shrank by Rb8.8 bn, to Rb6.7 bn (less than 0.1% of the total HML portfolio). Foreign currency loans will remain unprofitable due to the effect of a protective premium on risk-reward ratios (up from 200%, depending on the TALC¹).

Over the year, the average size of a HML increased by 18.6%, to Rb3.95 mn (vs Rb3.33 mn by the end of 2021), which happened, among other things, due to the growth in the cost of housing, both in the primary market (annual growth of 37.3%) and the secondary market (annual growth of 23.1%).

The weighted average loan term length increased: in December, it amounted to 311.3 months; and a year earlier, to 262.8 months (an increase of 18.5%).

<sup>1</sup> Total Annual Loan Cost.

An extended term length makes it possible to reduce the monthly debt burden on borrowers, thereby bringing down the risk of loan default.

One positive trend in 2022 was an increase in securitization transactions. This type of operation allows banks to unload their balance sheets and obtain some additional liquidity for lending. In 2023, the securitization volume may grow due to transactions involving mortgage-backed securities (MBS) as the underlying asset supplied by the preferential mortgage programs. At the same time, a rapid growth in securitized mortgage assets contributes to market expansion and stimulates the hyperactivity of banks in the HML segment, which may boost HML portfolio volumes as a result of lending of dubious quality. Moreover, the secondary HML market can become a potential crisis source, especially if one recalls the experience of a similar crisis in the USA in 2006–2007.

The loan portfolio quality remained at an acceptable level: over the past year, overdue debt shrank by 8.4%; and as of January 1, 2023 it amounted to only 0.4% of the total HML debt (vs 0.6% as of January 1, 2022), which is significantly lower than the amount of debt in the other bank lending segments (4 to 7%). The share of non-performing loans (NPL 90+) also remained at a minimum level of about 0.7%.

The weighted average rate on HMLs in the primary market was reduced to 4.3%, which is generally below the level of 2021, and it happened as a result of monetary policy easing by the RF Central Bank (reducing the key rate), the introduction of partnership programs by major real estate developers and banks at rates from 0.01% to 2% (the rate is being subsidized by the developers through selling apartments at a higher price), and the renewal of preferential mortgage programs with relatively low interest rates for retail consumers.

The secondary market was displaying the movement of interest rates in the opposite direction. However, there was no significant growth; the raised interest rates on loans offered during the period of an exacerbated geopolitical conflict and the introduction of anti-Russia sanctions resulted in a shrinkage in the lending volume. Overall by the end of 2022, the interest rate climbed to 9.3%, which is 1 p.p. above the corresponding index for 2021.

Over the course of the year 2022, in order to stimulate mortgage lending, the government implemented a number of measures designed to reformat the ongoing government preferential mortgage programs. As a result, the plans to phase out subsidized HMLs were revised, and at the end of 2022, subsidized HMLs for new homes were extended until July 1, 2024. Under the new terms, the interest rate was increased from 7% to 8%, while the loan amount was still

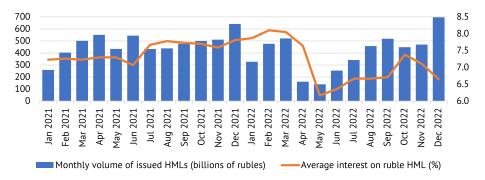


Fig. 1. The movement of monthly lending volumes and interest rates in the HML market in 2021–2022

Source: Housing (Mortgage) Loan Market. URL: https://www.cbr.ru/statistics/pdko/Mortgage/ML/

#### 5. Mortgage lending in 2022

limited to Rb12 mn for Moscow and St. Petersburg, and to Rb6 mn for other regions (the loan amount can be increased to Rb30 mn and Rb15 mn, respectively, by using other HML programs), and the amount of the down payment was 15%. From 2023 onwards, family mortgages have been made available to parents with two or more children aged under 18 years as of the date of conclusion of a HML contract. The interest rate under the program is 6% per annum.

One of the main innovations was the launch of a preferential mortgage program for self-builders (the individuals undertaking the construction of private residential buildings on their own) without a contract with professional developers. In spite of a slowdown in the HML market, the amount of HMLs for self-builders and ready-made homes in 2022 increased by 8% compared to 2021.

Another stimulus for the HML market development was the introduction of a housing mortgage program for IT professionals at an interest rate of 5%, with a down payment of at least 15%. However, because of the difficult terms for getting a loan and the existence of private mortgage programs launched by IT corporations, this program has not yet been in great demand. Overall in Russia, according to the year-end results of 2022, a total of 5,000 loans of this type were issued to the total value of Rb44.79 bn.¹ In December 2022, the Russian government cut down its plan to provide preferential mortgages for IT professionals.

In the course of their struggle for attracting clients, banks have been developing new marketing solutions fraught with some additional risks. Last year, the "mortgage based on passport data" program became especially popular. Essentially, this scheme means that the borrower does not need to provide confirmation of his or her employment and income level. As a rule, it is applied in transactions with finished real estate. However, this practice is fraught with risks because no comprehensive analysis of the client's creditworthiness is carried out, and so the assessment of the borrower can be inadequate, giving rise to problems with loan repayment in the future.

Another field where banks have been advancing is digital mortgage. The introduction of digital services in the mortgage process makes it possible to reduce the time for its implementation, simplify the assessment procedure, register and insure real estate, and thus obtain a loan, without visiting a bank office (if there is an electronic digital signature and biometric characteristics of the client). However, in this connection, operational risks become higher – digital transformation may be hindered by a disruption in communication between software developers, front office specialists and decision makers. In the near future, the RF Central Bank will most likely have to take measures designed to curb the possible negative consequences of the hasty and unsystematic digitalization across the banking sector.

Another trend of the past year was the growing influence of the  $\mathsf{ESG^2}$  framework on the Russian banking sector. At the initiative of the RF Central Bank, it is proposed to launch a new type of housing loans – a "green" mortgage, which is a subsidy for the purchase of a home situated in buildings that meet green building standards. The program can be tested in the Russian Far East as part of the already existing government mortgage subsidy program there.

<sup>1</sup> URL: https://www.kommersant.ru/doc/5864435?from=top\_main\_1

<sup>2</sup> ESG – Environmental, Social, and Corporate Governance.

#### Monitoring of Russia's Economic Outlook

At the suggestion of the President of the Russian Federation, the government is launching a new tool to support industrial enterprises: industrial mortgages. Russian organizations will be able to obtain long-term soft loans for purchasing industrial real estate. It is planned that loans be issued for up to 7 years at a preferential rate of 5% per annum, while for innovative technology companies the rate will be even lower, at 3%; the upper limit of an industrial mortgage loan is proposed to be set at Rb500 mn.

The Russian mortgage market can also be helped to bring out its full potential by the forthcoming introduction of a wide range of financial instruments that are now being actively developed by leading market players: mortgage bonds, mortgage marketplaces, blockchain technology, and some other products and procedures. The implementation of these tools will optimize banking business processes, and simplify and speed up the execution of credit transactions, which will result in lower rates and the accessibility of mortgage loans for a wide range of borrowers.

In general, HMLs help boost the well-being of people by means of improving their housing conditions, motivating them to maintain high incomes by entering into long-term credit relationships, and promote labor migration. However, it is dangerous to force the growth of lending volumes by means of setting low interest rates, abolishing the down payment, simplifying the procedure for issuing loans, and reducing the amount of monthly payments, because the result could be high credit risks and accumulated imbalances capable of creating a mortgage bubble. By way of dealing with this problem, in the near future the RF Central Bank will continue to build a comprehensive mortgage market regulation system.

### 6. DYNAMICS OF TRADE TURNOVER BETWEEN RUSSIA AND ITS MAIN PARTNERS IN 2022

Alexander Knobel, Candidate of Economic Sciences, Head of the Foreign Trade Department, Gaidar Institute;

Alexander Firanchuk, Senior Researcher, Center for International Trade, RANEPA

In 2022, Russia's trade turnover stood at \$850.5 bn and the surplus rose to \$332.4 bn. Exports hit a record high of \$591.5 bn (+19.9%) on the back of an increase in exports of mineral fuels to the tune of \$383.7 bn (+42.8%), which offset the decline in exports of other goods (-7.4%). The share of mineral fuels in exports reached 64.9% (+10.4 p.p.). Imports amounted to \$259.1 bn (-11.7% for the year, and -8.0% at the end of H2 2022). In the second half of the year, the share of neutral countries in exports and imports increased to 63.6% (+19.7 p.p.) and 74.6% (+24.8 p.p.), respectively. In late 2022, imports stabilized at new levels: there was a six-to-seven-fold decrease in supplies from the UK and the US and a one-and-a-half or two-fold decrease in supplies from other major "unfriendly" countries; at the same time, geographically close neutral Turkey and Kazakhstan raised their supplies to the Russian market the most.

#### Goods turnover dynamic<sup>1</sup>

In2022, Russia's *exports* reached a record of \$591.5 bn, an increase of 19.9% over the year. The determining factor was the increase in export of mineral fuel (Group 27) by 42.8% (to \$383.7 bn), which exceeded the decrease in export of other goods by 7.4% (to \$207.7 bn). As a result, the share of mineral fuels in the value of exports jumped to 64.9% (+10.4 p.p.). Sanctions restrictions and redirection of Russian exports led to a significant divergence in the dynamics of supplies to "unfriendly" markets² and markets of neutral countries³ (*Fig.1*).

In early 2022, exports to "unfriendly" countries significantly exceeded the levels of the previous year against the backdrop of record-high energy prices, primarily for natural gas in Europe. The subsequent normalization of prices and lower supplies due to sanctions restrictions led to a pronounced downward trend since March. By December, the value of supplies to "unfriendly" markets halved (year-on-year) to \$14.6 bn, which is a record low for this month for a decade.

Exports to neutral countries, on the contrary, were relatively stable, exceeding the level of the previous year by 20–60%. In February-March 2022, a moderate decline in growth rates was due to the base effect – increase in exports in early 2021. The growth in supplies in April-June is associated with the beginning of redirection of Russian exports to neutral markets. Further dynamic was determined by the imposition of two factors: the continuing process of redirection

<sup>1</sup> FCS statistics are available only on annual volumes of imports and exports, the monthly dynamic was estimated by mirror statistics of major trading partners.

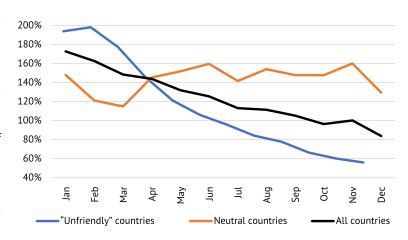
<sup>2</sup> Own calculations on the statistics of EU, Japan, USA, Great Britain, EFTA (Island, Liechtenstein, Norway, and Switzerland) and South Korea.

<sup>3</sup> According to statistics of China, India, Turkey, Kazakhstan, and Brazil.

of supplies to neutral countries and the adjustment of prices on the global commodity markets, primarily fuel and energy markets, relative to the peak values of Q2.<sup>1</sup>

In 2022, Russia's *imports* amounted to \$259.1 bn, a decline of 11.7%; at the end of the more stable H2 2022, the decline was 8.0%. During 2022, there was a 47% reduction in imports from "unfriendly" countries (to \$80.2 bn), which was largely offset by a 26% increase in supplies from neutral markets (to \$179.0 bn).

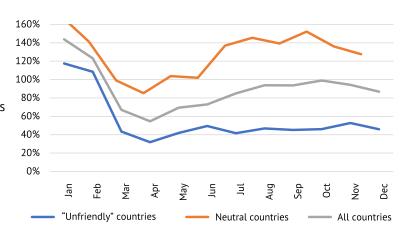
The import flows reorientation towards suppliers from neutral countries occurred in the summer of 2022 (Fig. 2). While in February-April there was a synchronous collapse of supplies from "unfriendly" and neutral countries caused by exchange rate volatility and sanctions restrictions, which entailed violations of logistics and transactional mechan isms for almost all importers, the further dynamics of imports was different. In H2 2022, supplies from "unfriendly" countries stabilized at half the level of the previous year (\$36.6 bn vs \$78.8 bn over the same period in 2021), while imports from neutral countries were one and a half times higher (\$107.7 bn vs \$78.1 bn over the same period in 2021). As a result, the share of "unfriendly" countries in the value of imports in 2022 dropped to 30.9% (-21.0 p.p.), and in H2 2022 amounted only to 25.4%.



**Note.** In 2021, the countries in question accounted for 95% of exports to "unfriendly" countries and 59% to neutral countries. The value for all countries is calculated taking into account the original shares of these countries in Russian exports, specification to the FCS data on total exports for 2022

Fig. 1. Assessment of the dynamics of the value of exports to "unfriendly" and "neutral" countries in 2022, in % to the same month of 2021

 $\it Source$ : Own calculations on the basis of trading partners' statistics,  $\it Table~1$ .



**Note.** In 2021 the countries in question accounted for 94% of imports from "unfriendly" countries and 64% from the neutral ones. "Total" value was calculated taking into consideration the original shares of these countries in Russian exports, specification on the FCS data on total imports for 2022

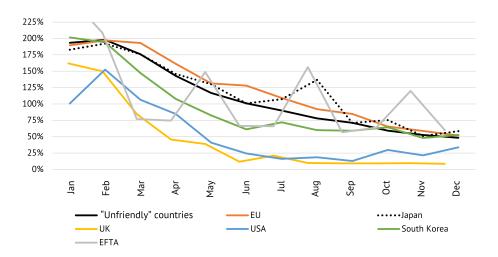
Fig. 2. Assessment of the dynamics of the value of imports from "unfriendly" and "neutral" countries in 2022, in % to the same month of 2021

Source: Own calculations on the basis of statistics released by trading partners, Table 1.

The growth in supplies from neutral countries is associated not only with reduced competition on the Russian market against the backdrop of the departure of Western companies, but also with a significant strengthening of the ruble, which is one of the most important determinants of the short-term dynamics of

<sup>1</sup> According to the World Bank, the price index in most commodity markets was highest in Q2 2022 – fuel (June), grain (May), fertilizer (April), metals (March) – with a subsequent decline towards the end of the year.

#### 6. Dynamics of trade turnover between Russia and its main partners in 2022



**Note.** EU, Great Britain, EFTA, USA, Japan, and South Korea previously accounted for 94% of Russia's goods turnover with all "unfriendly" countries.

Fig. 3. Dynamics of the total worth of supplies of Russian goods to the main "unfriendly" countries in 2022, in % to the same month of 2021

Source: Own calculations on the trading partners' statistics, Table 1.

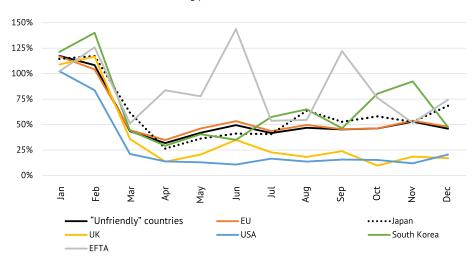


Fig. 4. Dynamics of the total worth of supplies of Russian goods from the main "unfriendly" countries in 2022, in % to the same month of 2021

Source: Own calculations on the trading partners' statistics, Table 1.

imports.¹ Consequently, the volumes of imports from neutral countries in mid-2022 were supported by the high purchasing power of the ruble relative to the level of previous years, while the return of the exchange rate to its 2021 level in December 2022 – February 2023 will probably result in a decline of imports from neutral countries relative to its summer-autumn 2022 peak.

#### Estimate of goods turnover with "unfriendly" countries

As regards supplies of Russian goods to the markets of "unfriendly" countries, there has been a fairly synchronous decline throughout the year (Fig. 3). In terms of the Q4 results by country, the leader in the reduction (year-on-year) is the United Kingdom which practically stopped importing goods from Russia (-98%),

<sup>1</sup> Bussière, Matthieu, Guillaume Gaulier, and Walter Steingress. "Global trade flows: Revisiting the exchange rate elasticities". Open Economies Review 31.1 (2020): 25–78.

followed by supplies to the United States (-72%), smaller reductions to South Korea (-46%), EU (-41%) and Japan (-40%), and the best results from EFTA countries (-27%). The latter is due to a smaller share of fuel in their imports from Russia and less stringent sanctions on it.

The dynamics of *imports of goods from "unfriendly" countries to the Russian market* clearly shows a synchronous decline in February-April and subsequent stabilization (*Fig. 4*). According to the Q4 results, the leaders in the reduction (year-on-year) of supplies to the Russian market were also the United Kingdom (-85%) and the USA (-84%), a smaller reduction was observed in the EU (-51%) and Japan (-40%), while the best results were observed in EFTA countries (-35%) and South Korea (-29%).

Taking Q4 2022 to be close to a new equilibrium, we can state a multiple decrease in trade with the UK and the US and a 1.5–2-fold reduction in trade with other major "unfriendly" countries.

#### Estimate of goods turnover with neutral countries

In terms of *supplies of Russian goods to the markets of the neutral countries in question*, there are significant geographic differences (*Fig. 5*). Supplies to China, currently Russia's main trading partner, went up by 44% over the year (to \$114.1 bn¹), while in Q4 growth was only 23% (year-on-year). The largest relative growth was observed in supplies of Russian goods to Turkey (2.1 times to \$62.1 bn) and India (4.3 times growth to \$35.5 bn), which occurred due to the redirection of oil flows to these countries. Russia's supplies to Brazil increased less significantly (+38% to \$7.8 bn), while supplies to Kazakhstan were unchanged (-1%, \$17.3 bn).

The dynamics of *imports of goods from neutral countries to the Russian market* clearly demonstrate a synchronous decline in February-April and stabilization in H2 2022 at levels exceeding the value volumes of 2021 (*Fig. 6*). In terms of country by country, the leaders of growth in Q4 were Turkey (+84%) and Kazakhstan (+52%), which is probably due to the organization of parallel imports. The geographically more distant countries have weaker growth in supplies to the Russian market during this period: China (+19%), Brazil (+23%) and India (-4%).

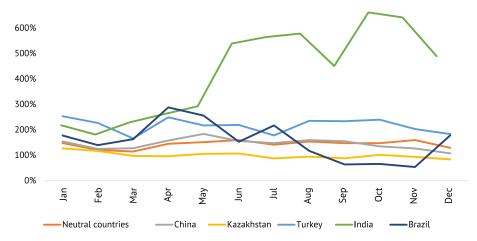
#### Limitation of the methodology

FCS statistics diverge from those released by the trading partners. In addition to the discrepancy in the time of shipment and delivery of goods, in some cases the exporting and importing country may not match due to differences in the definition of the country of origin and the country of destination. In 2021, Eurostat data on shipments of goods to Russia exceeded similar data of the Federal Customs Service by 14%. The discrepancies with the data of Great Britain (-5%), China (-7%) and Japan (-12%) were smaller, and with the data of Korea (-32%), Brazil (-36%) and the USA (-63%) – larger. The statistics of the EU (discrepancy of less than 1%), China (+18%) and India (+9%) agree relatively well with the FCS data on the volume of exports from Russia, while the data of the US (+73%) and UK (-26%) are the worst.

<sup>1</sup> According to mirror statistics, in 2021, the discrepancy between the FCS data on the volume of supplies to China (\$67 bn) and the data of China's General Administration of Customs (\$79.6 bn) reached 18%.

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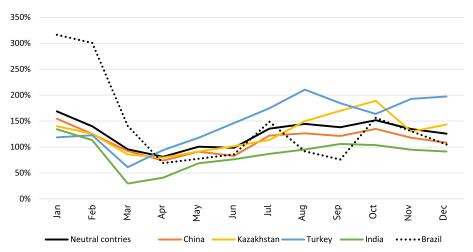
#### 6. Dynamics of trade turnover between Russia and its main partners in 2022



**Note.** In 2021, China accounted for 51% Russian imports and 31% of exports to all neutral countries; Kazakhstan, Turkey, India, and Brazil together accounted for 14% and 27%, respectively. The remaining neutral countries accounted for 35% of imports and 41% of exports, their total trade was taken proportional to trade with these 5 countries, and the total volume was adjusted with FCS data on trade with all countries for 2022.

Fig. 5. Dynamic of Russian goods supplies in value terms to the main neutral countries in 2022, in % to the same month of 2021

Source: Own calculations on the trading partners' statistics, Table 1.



Note. See note to Fig. 5.

Fig. 6. Dynamic of supplies value from the main neutral countries in 2022, in % to the same month of 2021

Source: Own calculations based on the trading partners' statistics, Table 1.

#### **Data sources**

Table 1

Country	Source	Currency
European union (27) and EFTA	Eurostat	euro
USA	Census Bureau	dollars
South Korea	Korea Customs Service	dollars
Japan	Ministry of Finance	yen
Great Britain	Office for National Statistics	pounds
China	General Administration of Customs	dollars
Kazakhstan	Bureau of National Statistics	dollars
Turkey	TurkStat	dollars
India	Ministry of Commerce and Industry	dollars
Brazil	COMEX STAT	dollars
Exchange rates	OECD (MEI)	