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KSE Institute Russia Chartbook

Sanctions Impact Exports and the Ruble—but Continued Effectiveness Needs to Be Ensured

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Executive Summary

1. **External environment continues to be challenging for Russia.** Trade and balance of payments data for recent months illustrate how much external conditions have worsened since the fall of 2022. The trade surplus over January-August dropped by 68% vs. the same period last year—and the overall current account surplus by 86%. In fact, Russia's current account slipped into deficit in July for the first time since the Covid pandemic. The ruble's continued weaking is testament to a fundamentally different environment. Despite the CBR's recent rate hikes, Russia's currency is, again, approaching the psychologically important mark of ₽100/$ and ₽110/€.
2. **Energy sanctions are a key driver, but there are signs of trouble.** International sanctions play an important role here. We estimate that Russia has lost around $100 billion in oil export earnings since the start of its full-scale invasion of Ukraine. Furthermore, its failed weaponization of natural gas flows to Europe has cost around $40 billion. With capital outflows likely continuing this year, sharply lower foreign currency inflows have had a sizable effect on the ruble—and significantly restricted the regime's policy space. However, discounts on Russian oil—the key mechanism through which sanctions worked—have narrowed sharply in recent months.
3. **Ukraine's allies urgently need to strengthen the sanctions regime.** We estimate that higher global oil prices and lower discounts will provide Russia with substantially higher exports earnings: $17 billion in 2023 and $33 billion in 2024. Coalition countries should step up pressure by implementing a package of measures, including lowering the price cap(s), improving enforcement via regular audits and stricter documentation requirements, and slowing down Russia's ability to acquire a sanctions-proof fleet of tankers. Export earnings and budget revenues from energy are the main channel through which sanctions can truly shorten the war and save lives.
4. **Weaker ruble contributes to marked budget improvement.** While ruble depreciation will have negative effects on inflation, the weaker currency helps with fiscal revenues as it increases the local currency value of key income streams such as mineral extraction taxes and energy export duties. Together with a strong recovery in non-O&G revenues and expenditure restraint, this has led to fiscal improvement. A total deficit of ~2.4 trillion rubles in January-August means Russia will likely miss its full-year target—but not by as much as previously expected. As a result, financing pressure is manageable and will not reduce macro buffers quickly.
5. **Defense spending provides support to the economy.** Russia's economy has proven to be rather resilient and is expected to return to growth this year and next with war-related expenditures as an important driver. However, medium- to long-term prospects are dim.

External environment: sanctions are hitting Russian exports and the ruble, but signs of their reduced effectiveness are emerging

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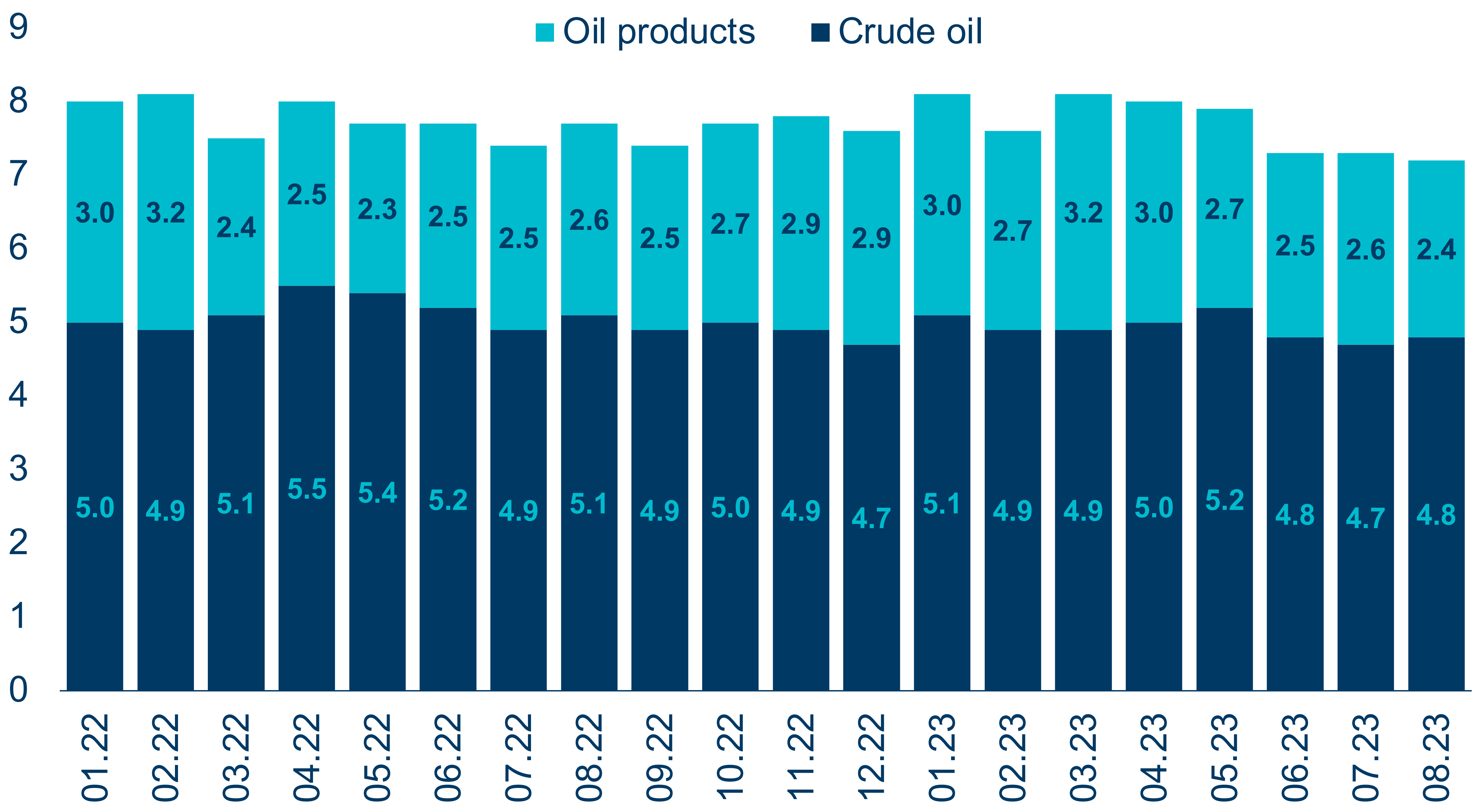
Russian oil exports down 9% in June-August 2023.

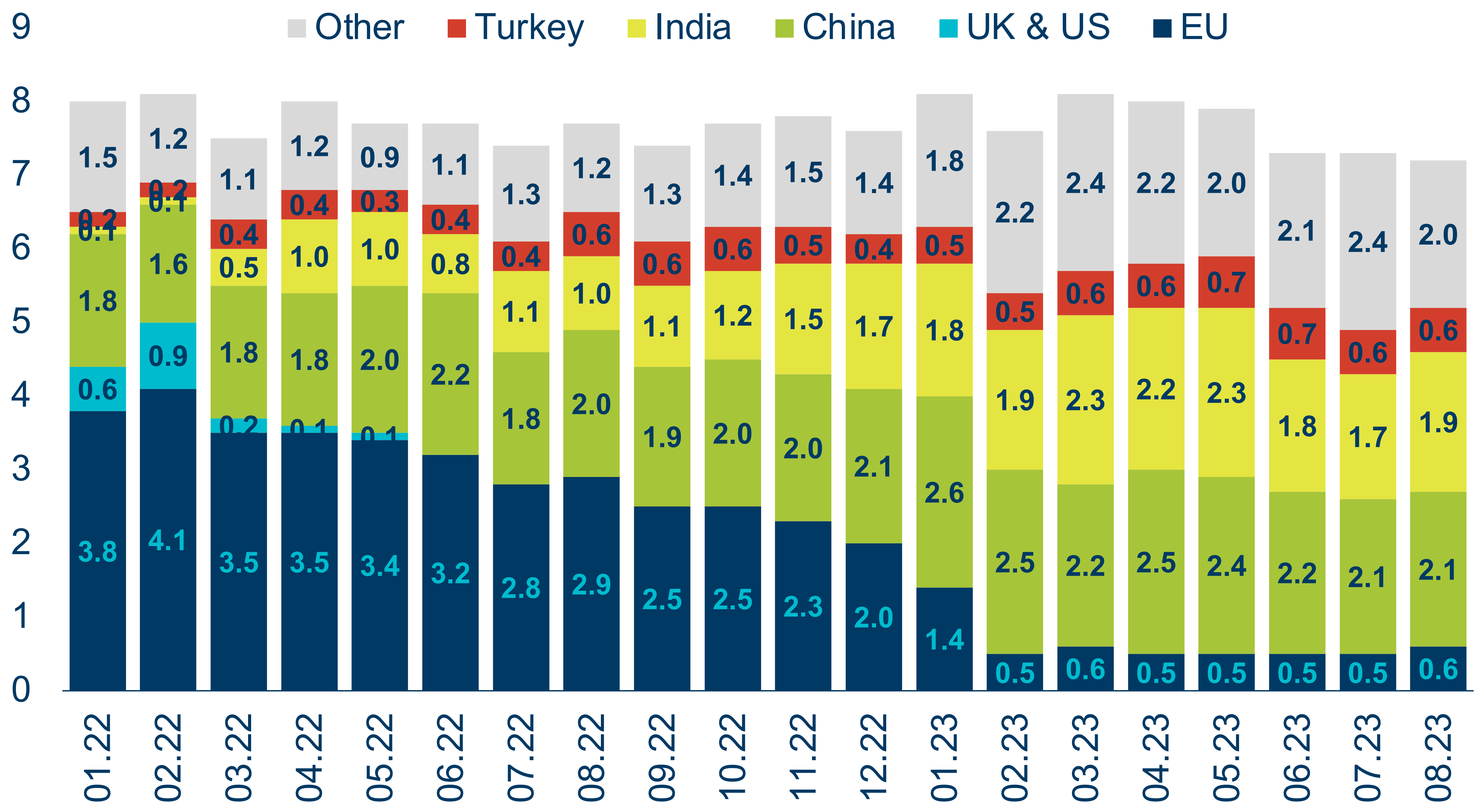
- Russian exports of crude oil and oil products fell 9% in June-August vs. March-May (crude: -5%, products: -16%).
- China and India both reduced purchases (by 10% and 21%, respectively) as discounts on Russian oil narrowed.
- Moderate cuts to oil production play a role here, as does the redirection of refinery output to the domestic market.

Russian oil export volume by type, in million barrels/day



Source: International Energy Agency, KSE Institute

Russian oil export volume by destination, in million barrels/day



Source: International Energy Agency, KSE Institute

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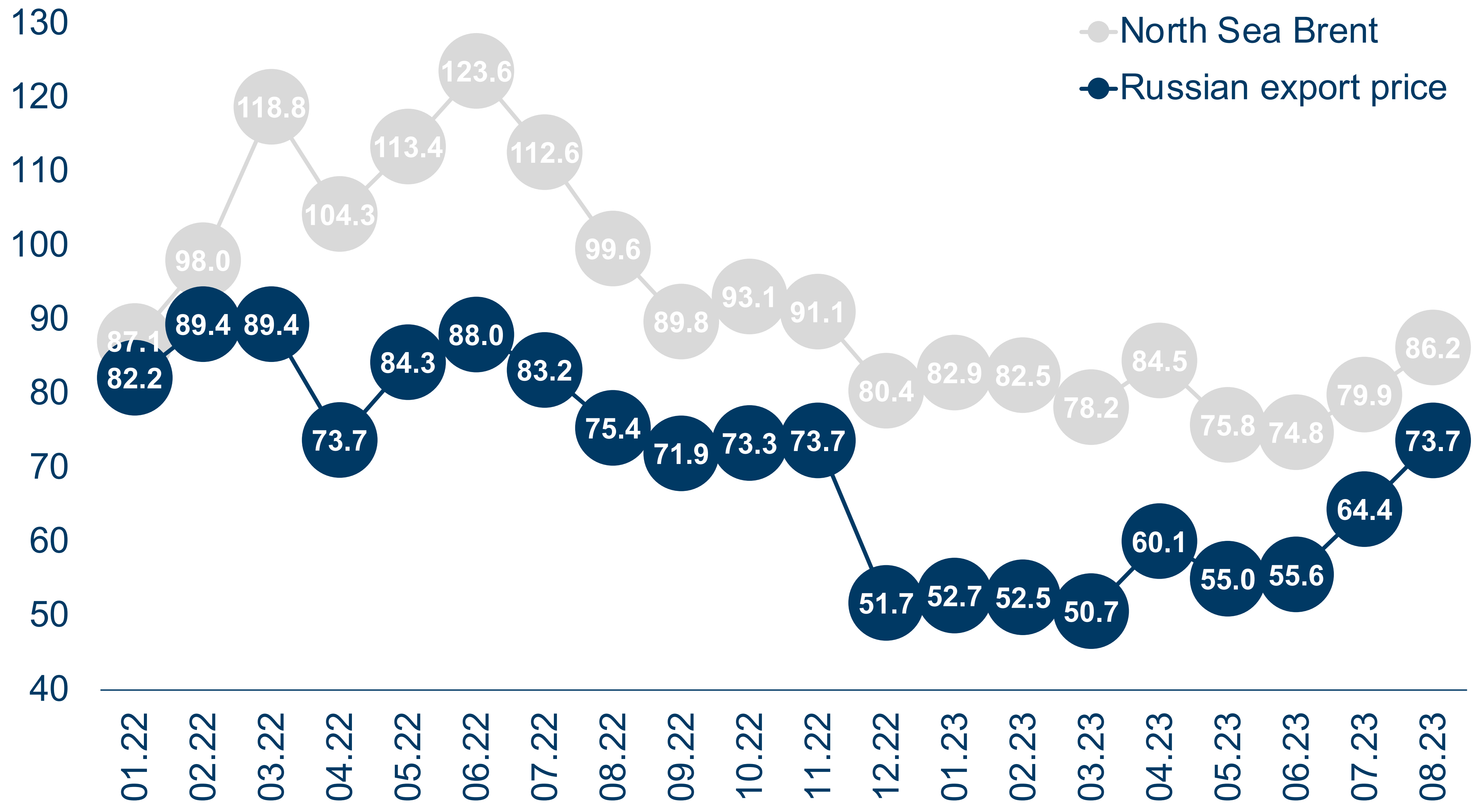
Shrinking discounts threaten key mechanism of energy sanctions.

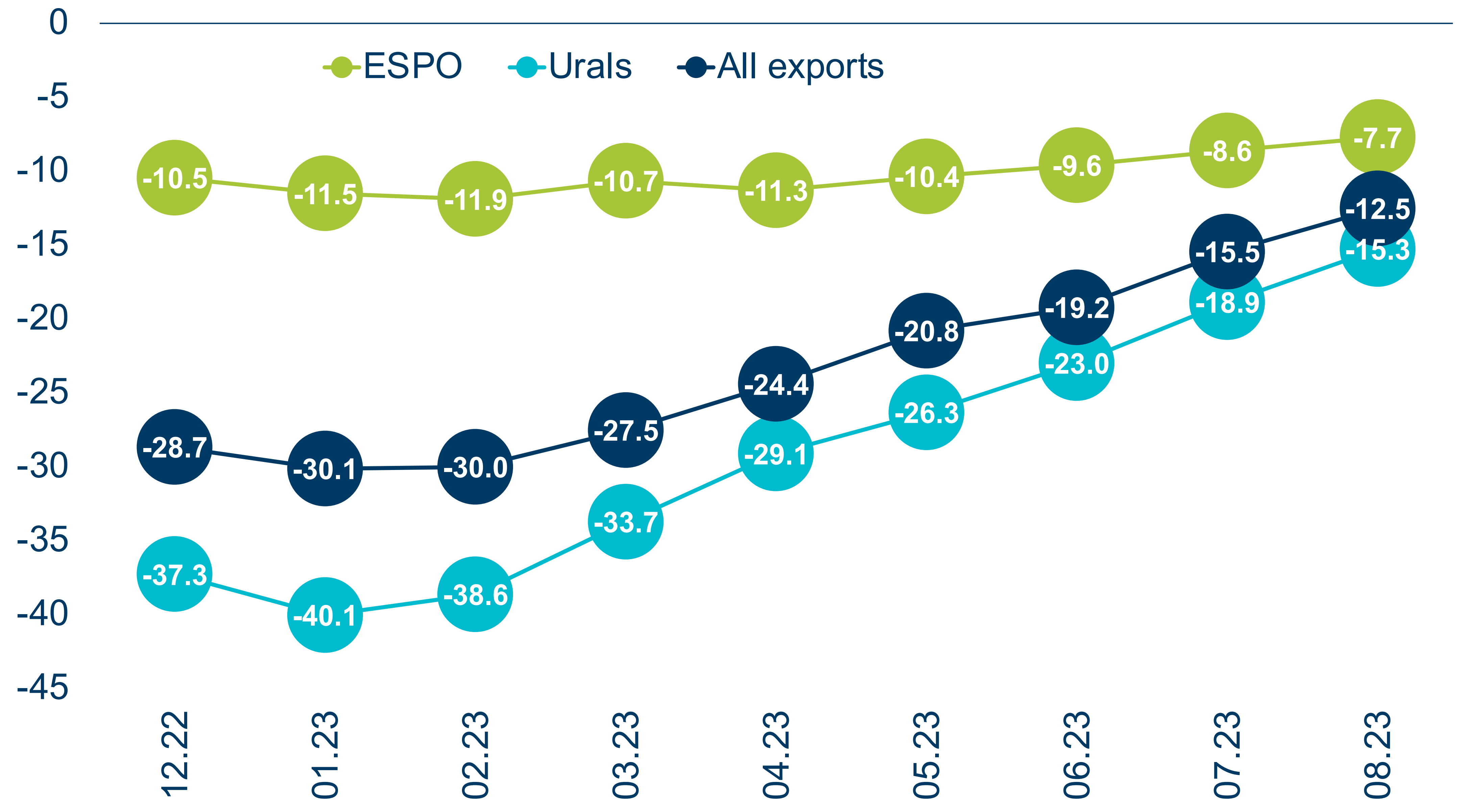
- Energy sanctions, in particular the EU embargo, weighed on Russian exports via sharply wider discounts.
- However, the Urals-Brent spread has narrowed from $40/barrel in January to only $15/barrel in August.
- The $18/barrel drop in the discount for overall oil exports would mean additional earnings of $30 billion/year.

Crude oil prices, in U.S. dollar/barrel*



Source: Federal Customs Service, International Energy Agency, KSE Institute
*export price until November 2022 from Russian customs, all other numbers from IEA

Discount of Russian export prices vs. Brent, in U.S. dollar/barrel*



Source: International Energy Agency, KSE Institute

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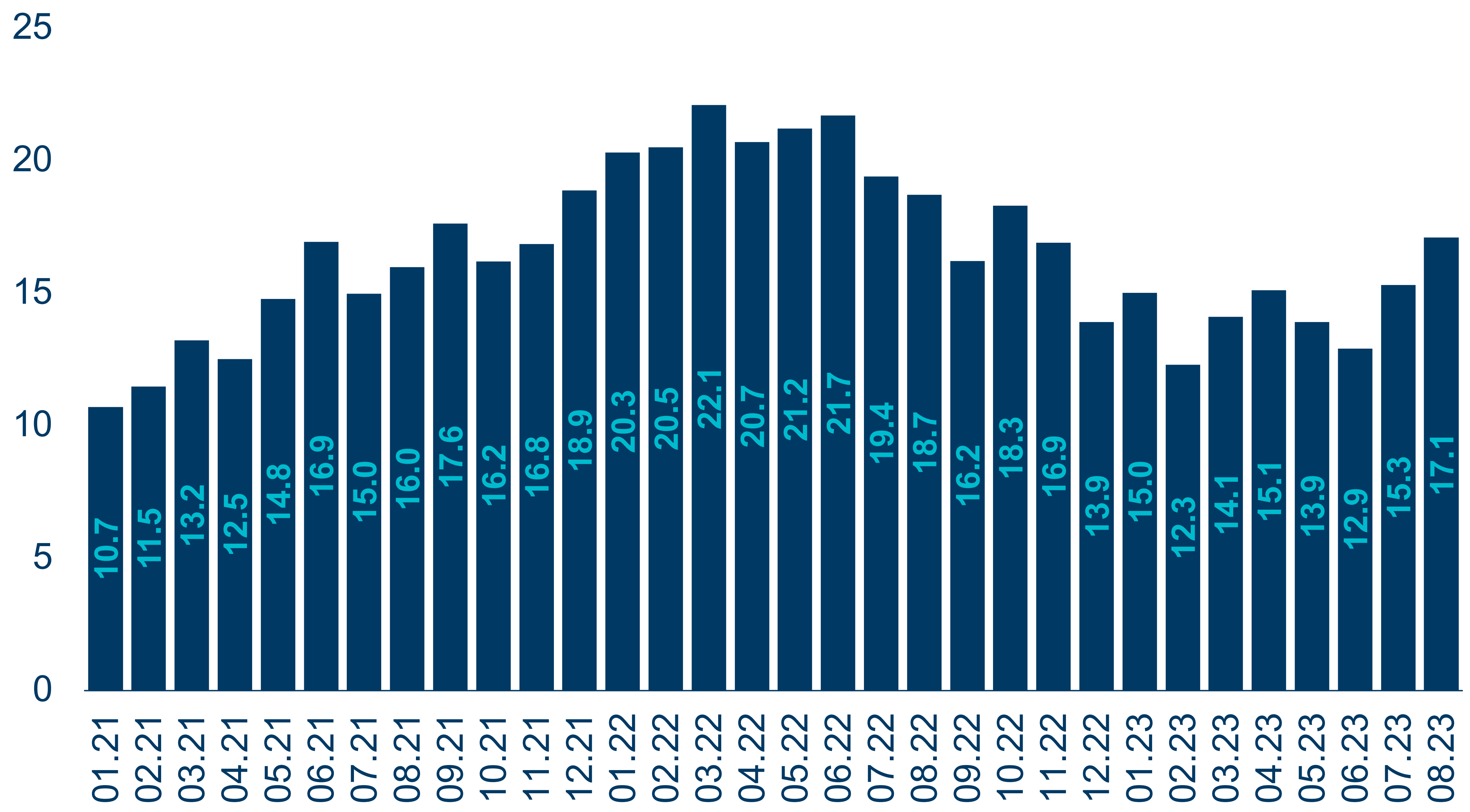
Higher prices offset lower volumes, lead to rise in export earnings.

- In August, Russian oil export earnings reached $17.1 billion, the highest reading since October of last year.
- At the same time, the weaker ruble is supporting budget revenues from extraction taxes and export duties.
- Ukraine’s allies urgently need to consider lower price caps and better enforcement to step-up pressure on Russia.

Oil export earnings, in U.S. dollar billion



Source: Federal Customs Service, International Energy Agency, KSE Institute
*2021 data from Russian customs service, 2022-23 data from IEA

Federal budget oil revenues, in ruble billion*

Source: Ministry of Finance, KSE Institute *includes extraction tax and export duty

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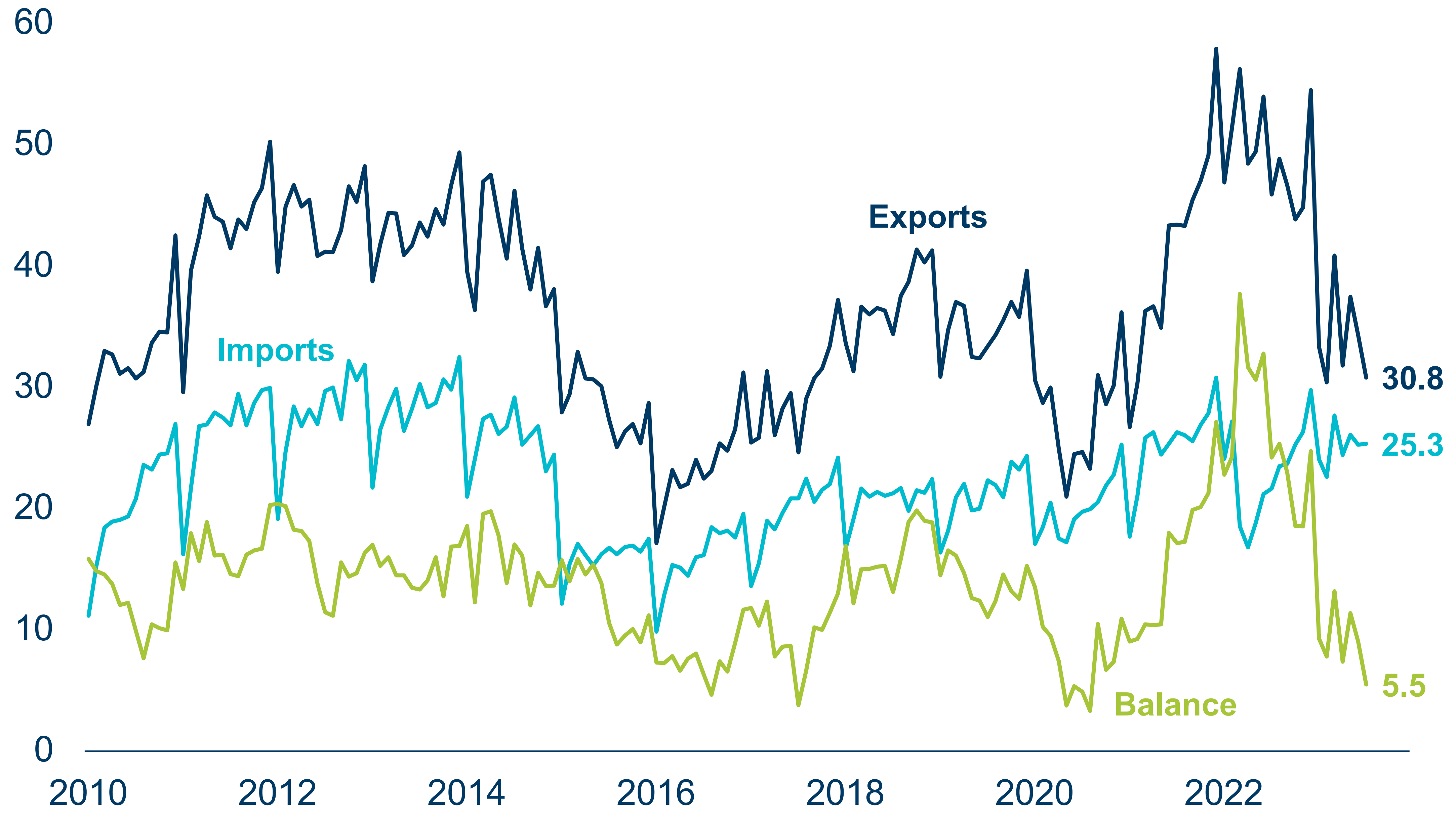
Overall external environment remains extremely challenging.

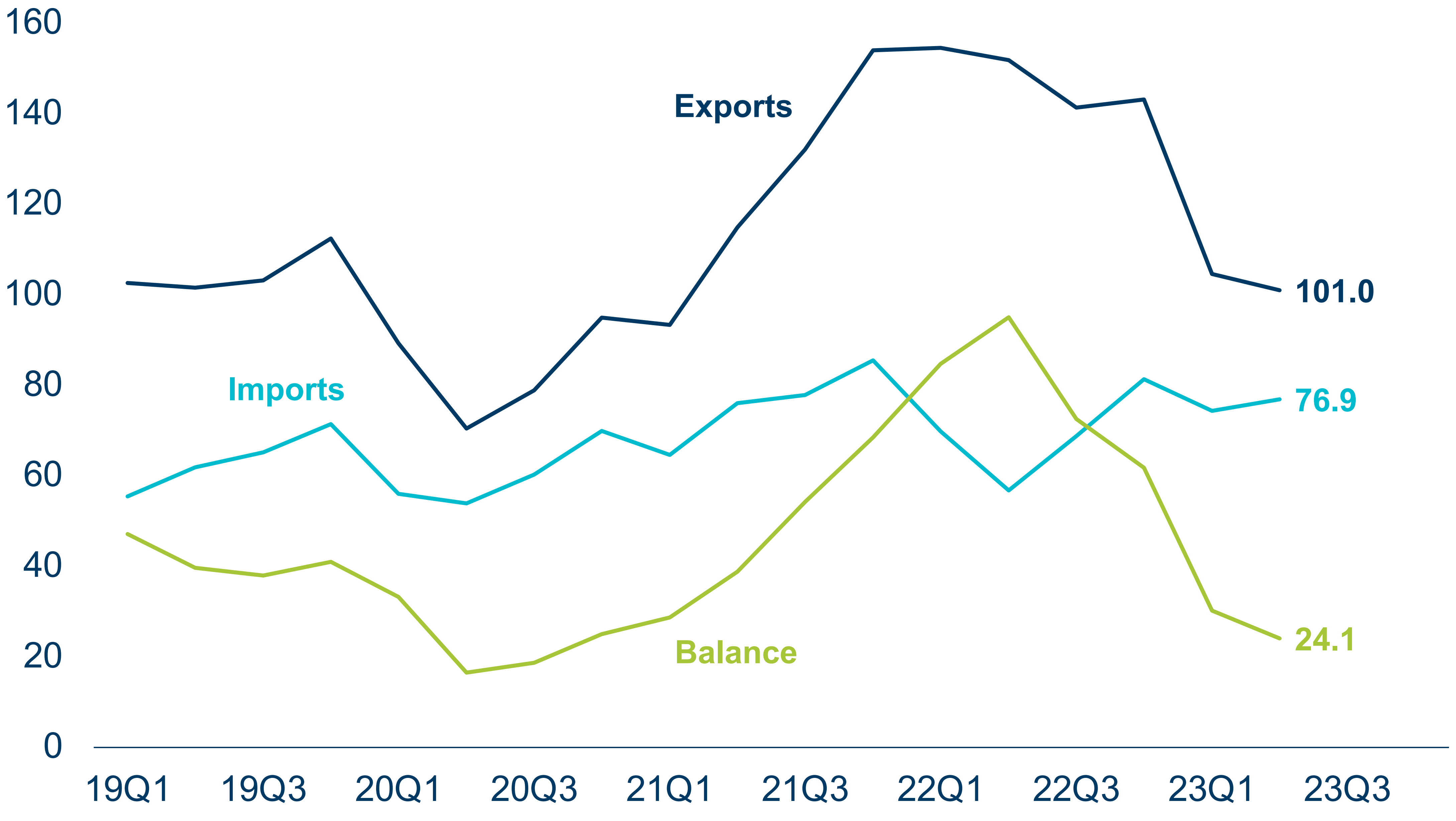
- Total goods exports remain weak despite higher earnings from oil; they are down one-third vs. early/mid-2022.
- With imports essentially back to pre-full scale-invasion levels, this has resulted in a sharply lower trade surplus.
- In July, it reached only $5.5 billion—a drop of 83% compared to Q2 2022 and the lowest since the Covid pandemic.

Monthly trade statistics, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

Quarterly balance of payments statistics, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

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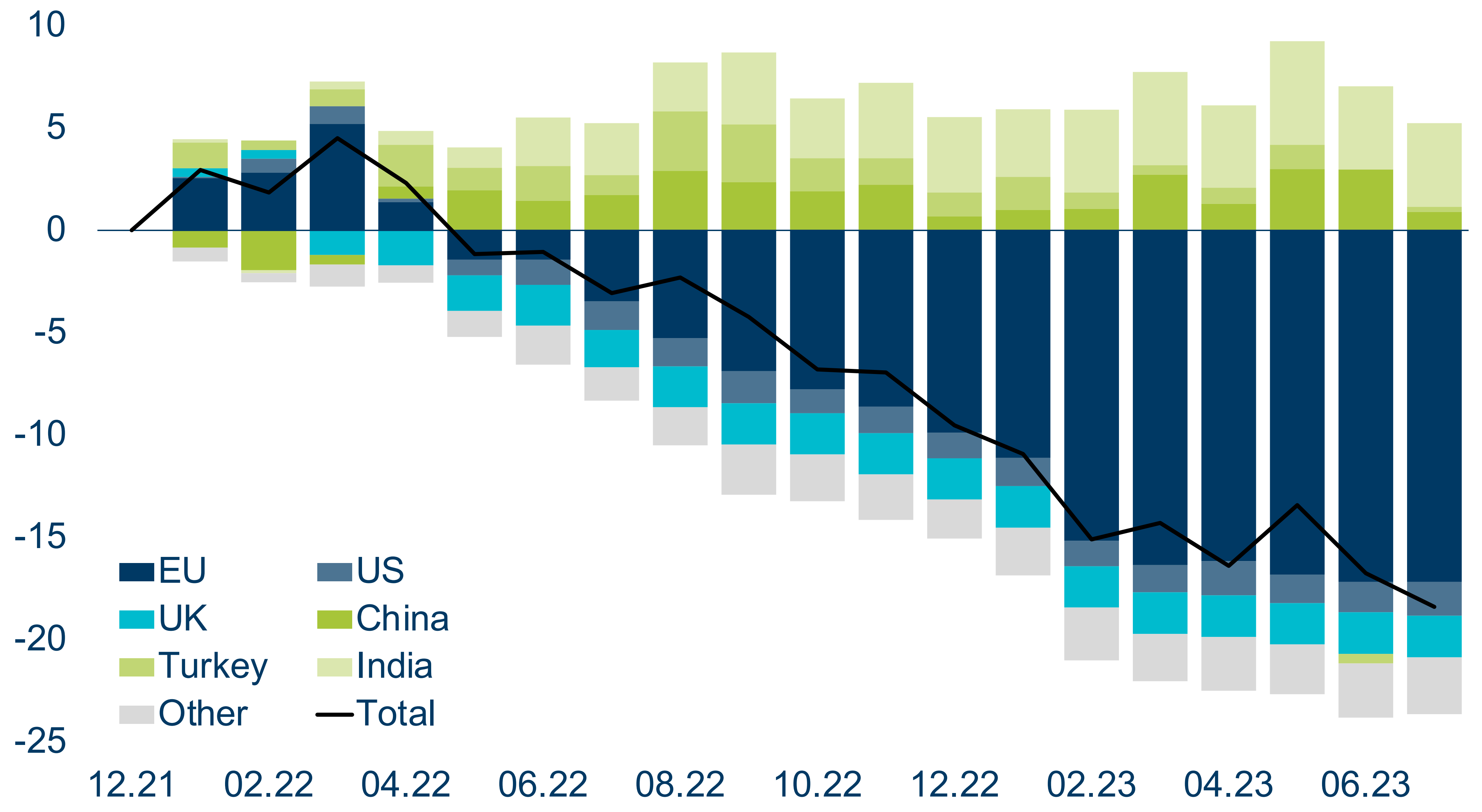
Russia has not been able to replace traditional trading partners.

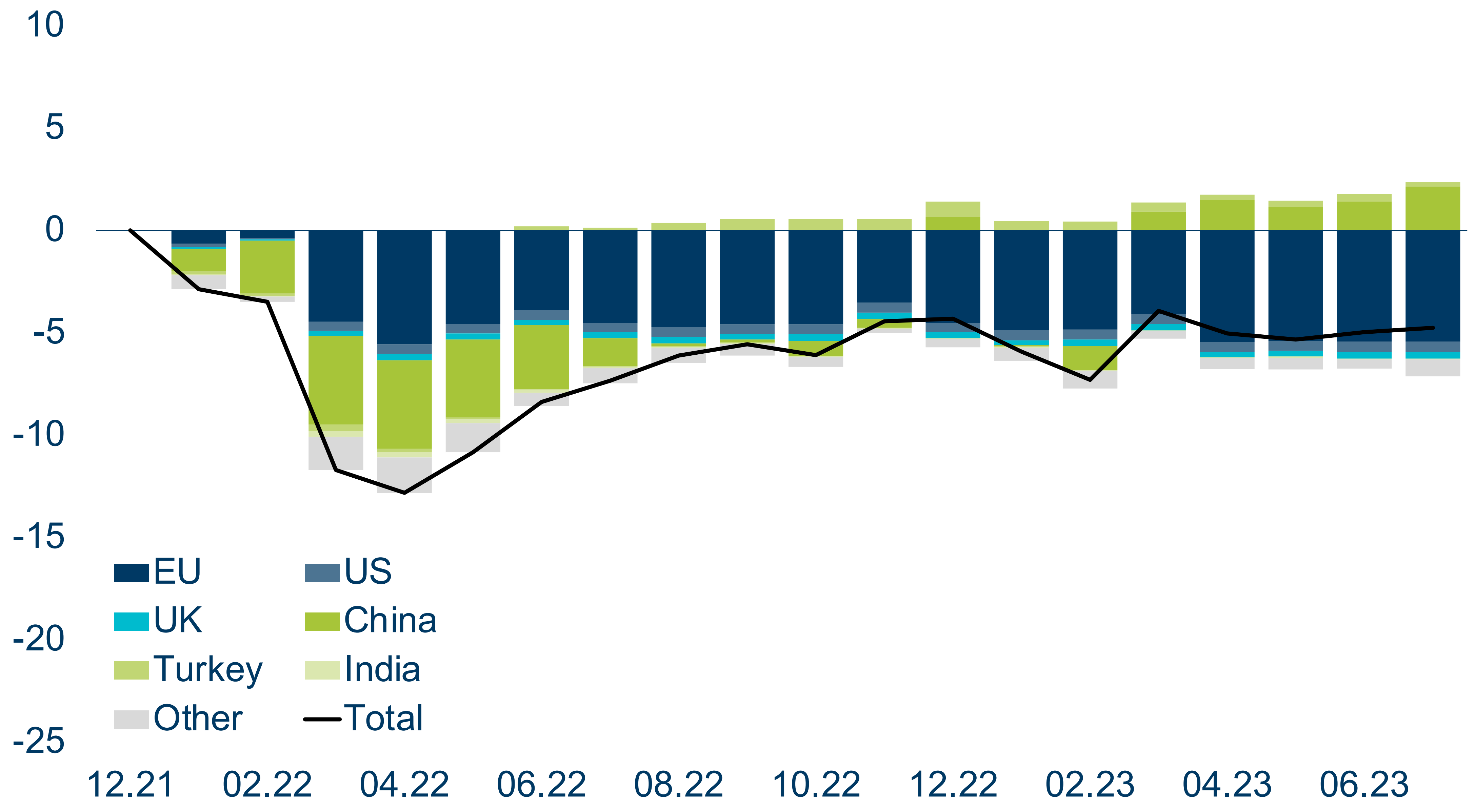
- Exports to the EU are down 64% in H1 2023 vs. the 2021 average—and imports from the EU by 54%.
- Lower trade with the EU, UK, and US costs Russia roughly $8 billion per month compared to 2021.
- Countries such as China, India, and Turkey cannot make up for the deterioration of trade relationships.

Change in goods exports vs. December 2021, in U.S. dollar billion



Source: national authorities, KSE Institute

Change in goods imports vs. December 2021, in U.S. dollar billion

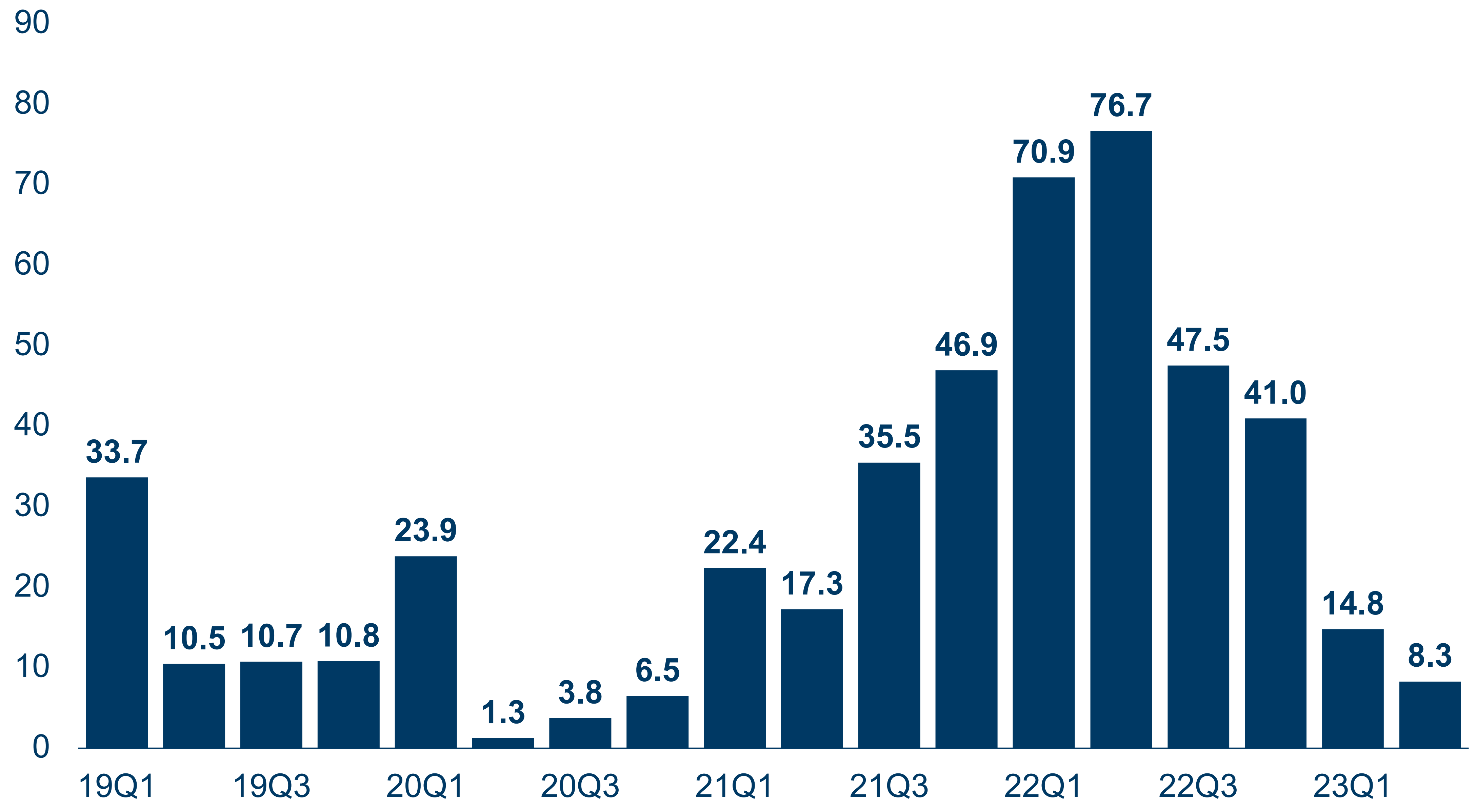


Source: national authorities, KSE Institute

Inflows of foreign currency have dropped sharply.

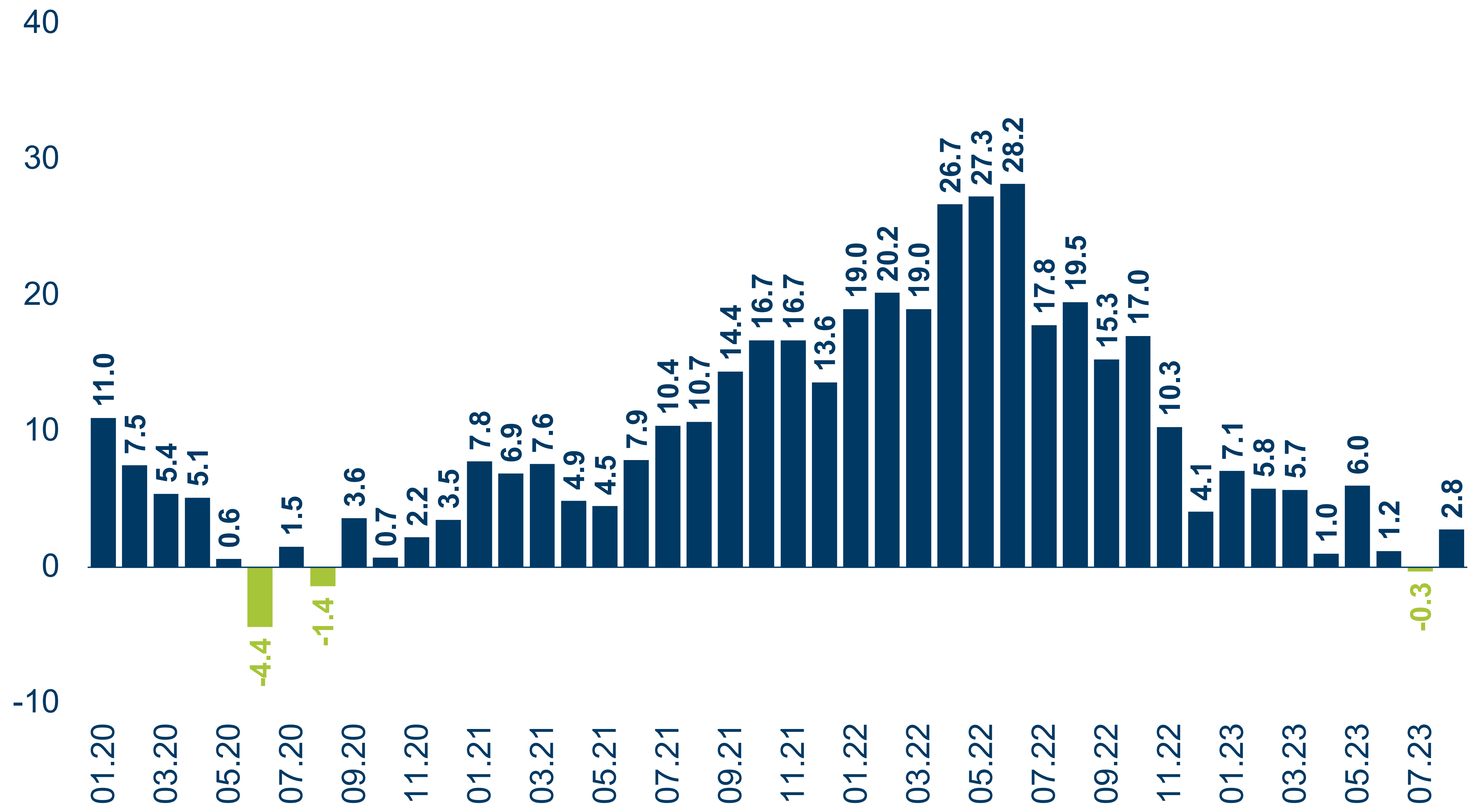
- The overall current account surplus has fallen in line with goods trade dynamics, significantly constraining FX inflows.
- In Q2 2023, it reached only $8.3 billion—a decline of 89% from its peak in 2022 and further drop from Q1 2023.
- Monthly numbers indicate a further decline in Q3 with the current account in deficit in July for the first time since 2020.

Quarterly current account balance, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

Monthly current account balance, in U.S. dollar billion*



Source: Bank of Russia, KSE Institute *monthly and quarterly data do not always fully align

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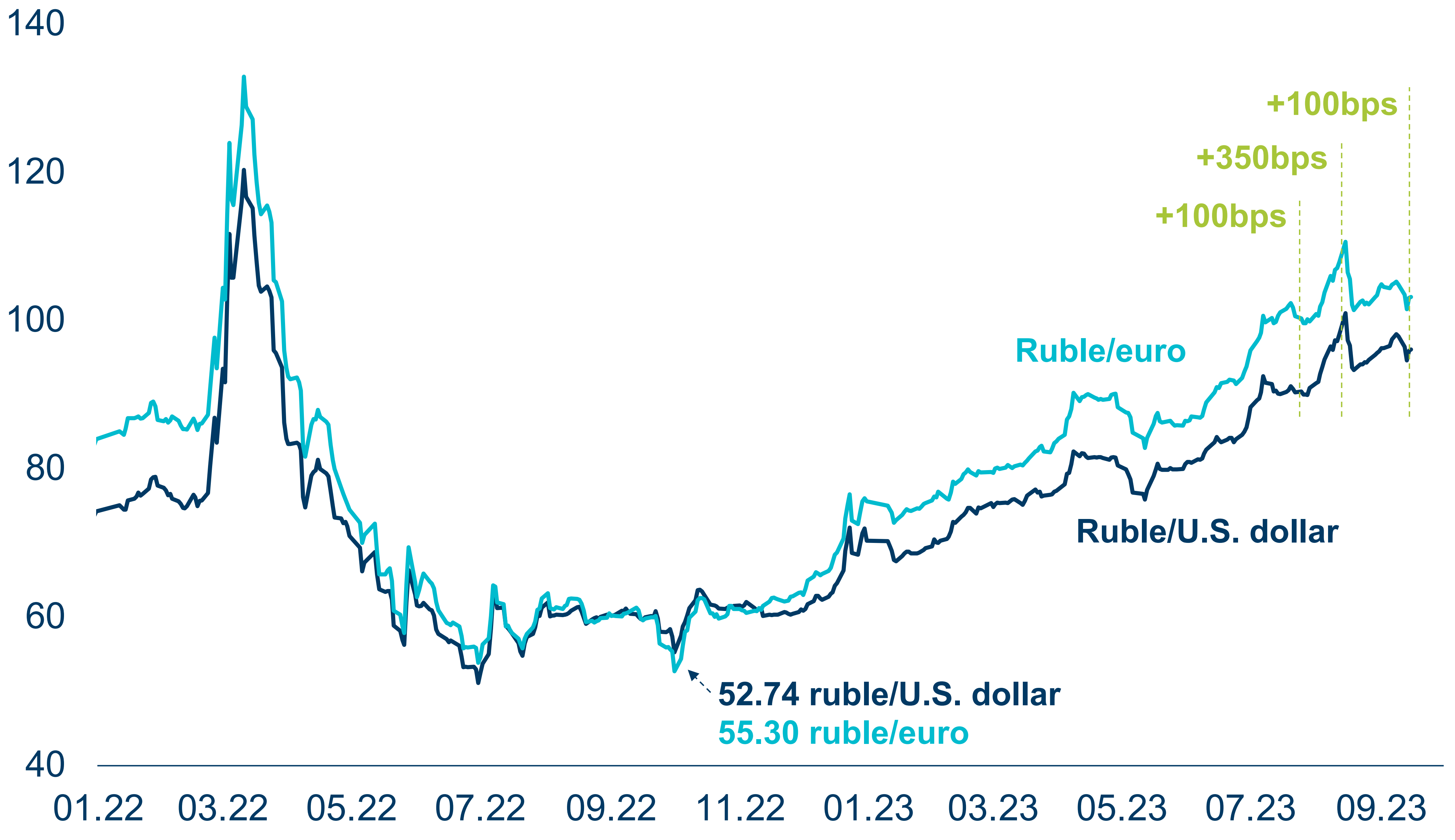
Fundamental external dynamics continue to weigh on the ruble.

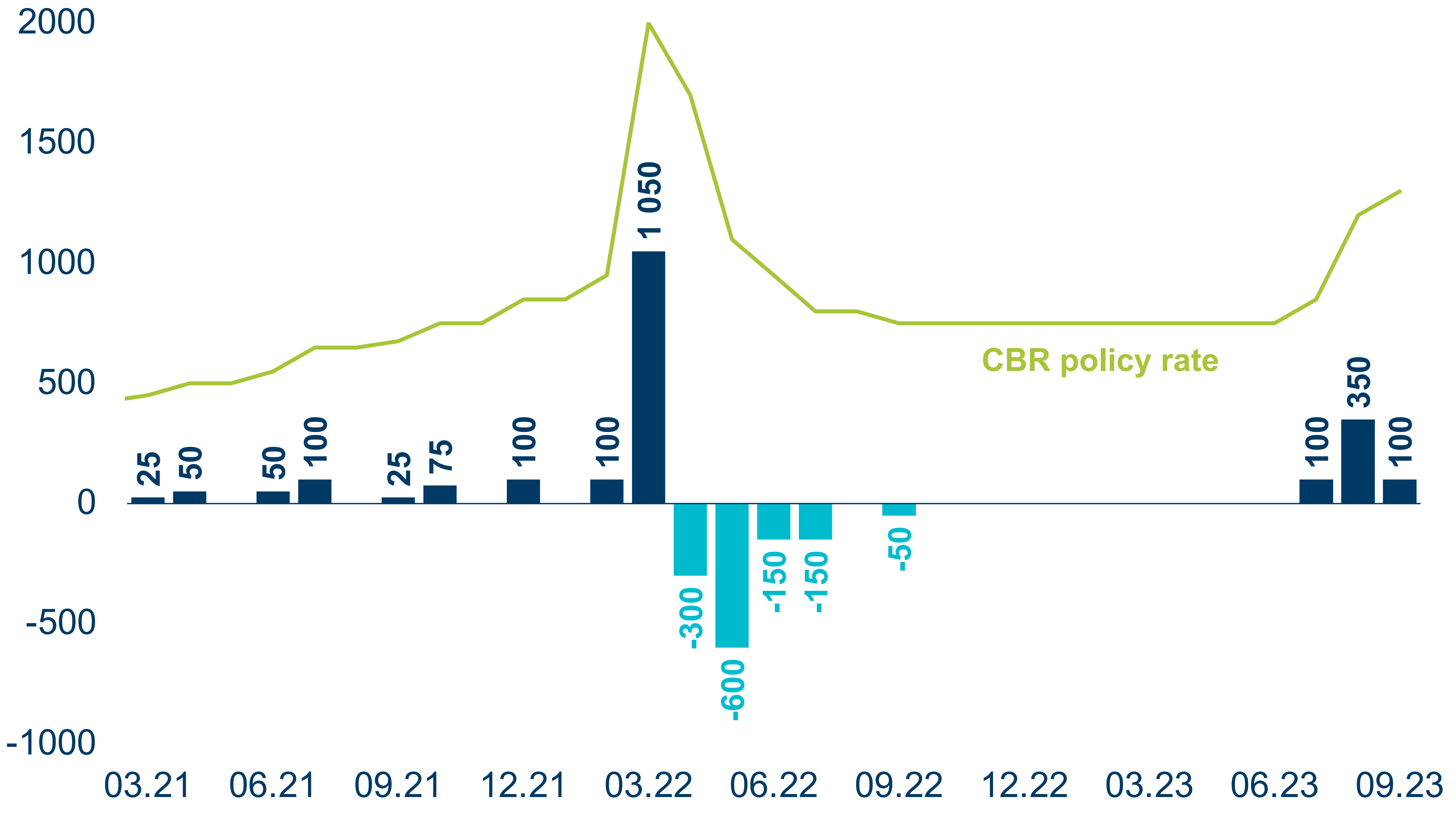
- Since last fall, the ruble has lost more than 40% of its value vs. the U.S. dollar and close to 50% vs. the euro.
- The CBR's recent rate hikes (550bps cumulatively in July-September) did not fundamentally change the ruble's path.
- A weakening currency will continue to put upward pressure on inflation and likely more monetary tightening.

Ruble-U.S. dollar exchange rate



Source: Bank of Russia, KSE Institute

CBR policy rate and MPC decisions, in bps



Source: Bank of Russia, KSE Institute

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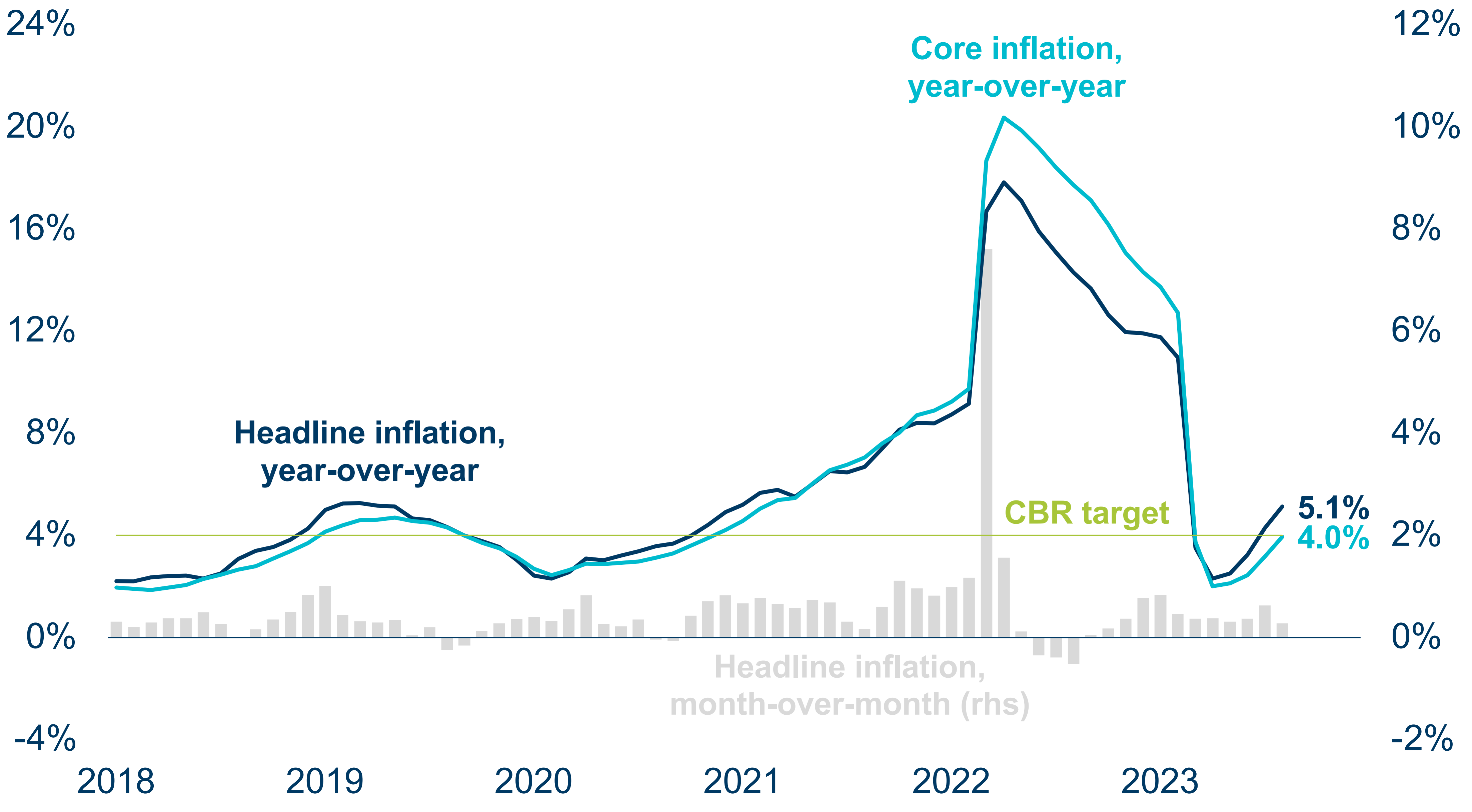
Inflation begins to pick back up as base effects fade.

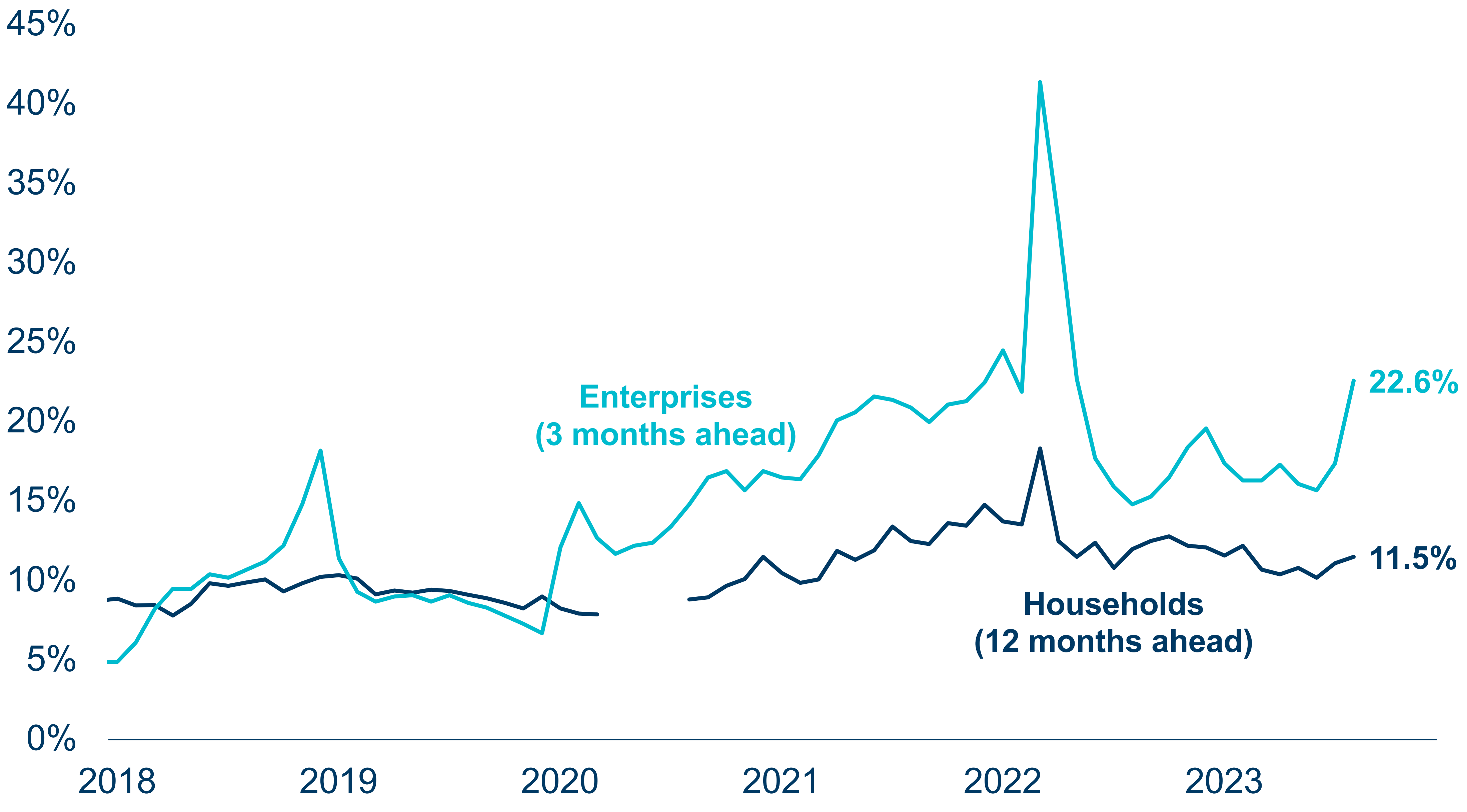
- The recent drop in year-over-year headline and core inflation was largely the result of base effects.
- Based on current price dynamics, headline inflation will likely rise to around 6% by the end of the year.
- Inflation expectations by enterprises point to increasing concerns, with households likely to follow suit.

Inflation, in %



Source: Bank of Russia, KSE Institute

Inflation expectations, in %



Source: Bank of Russia, KSE Institute

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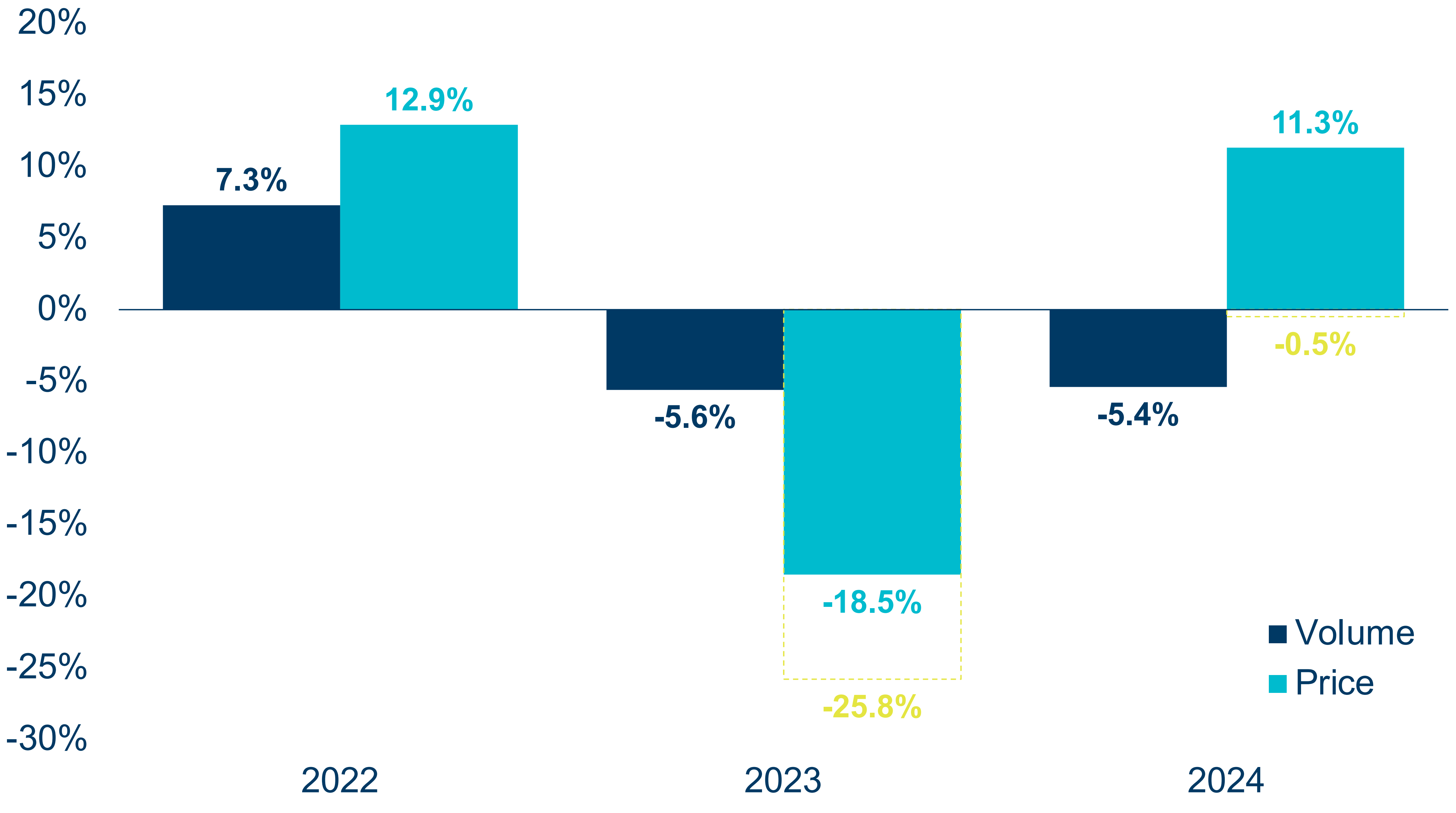
Estimate of Russian oil export earnings in 2023-24 revised upward.

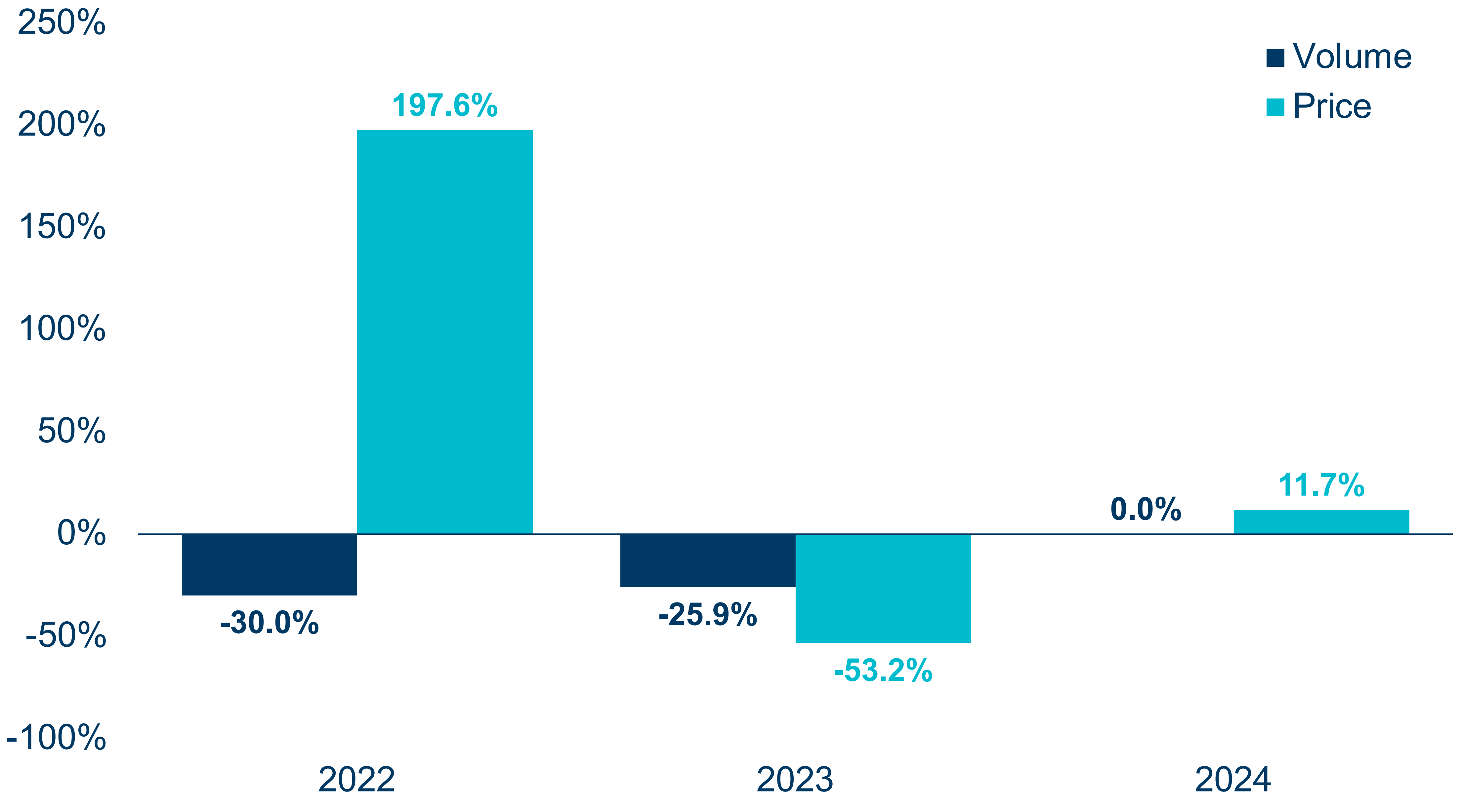
- We forecast a smaller drop of Russian oil export prices in 2023 and a significant increase in 2024 vs. our last forecast.
- Drivers are higher global oil prices rose and sharply narrower discounts on Russian crude oil exports vs. Brent.
- As a result, oil exports are expected to reach $168 billion in 2023 (+$15 billion) and $177 billion in 2024 (+$33 billion)

Oil volume and price forecast, in % year-over-year*



Source: KSE Institute *dotted lines show July forecast

Natural gas volume and price forecast, in % year-over-year



Source: KSE Institute

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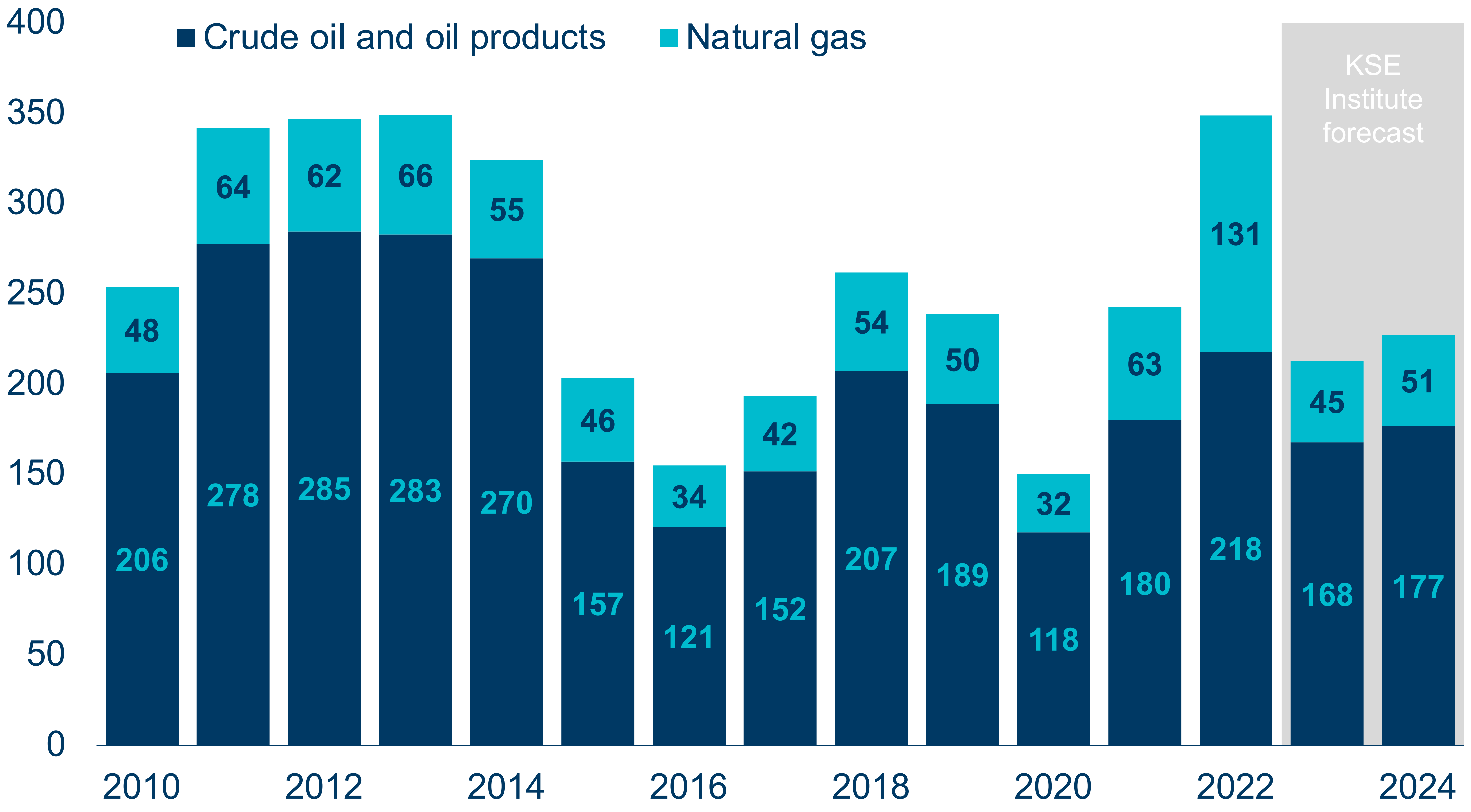
Larger current account surplus this year and next, more policy space.

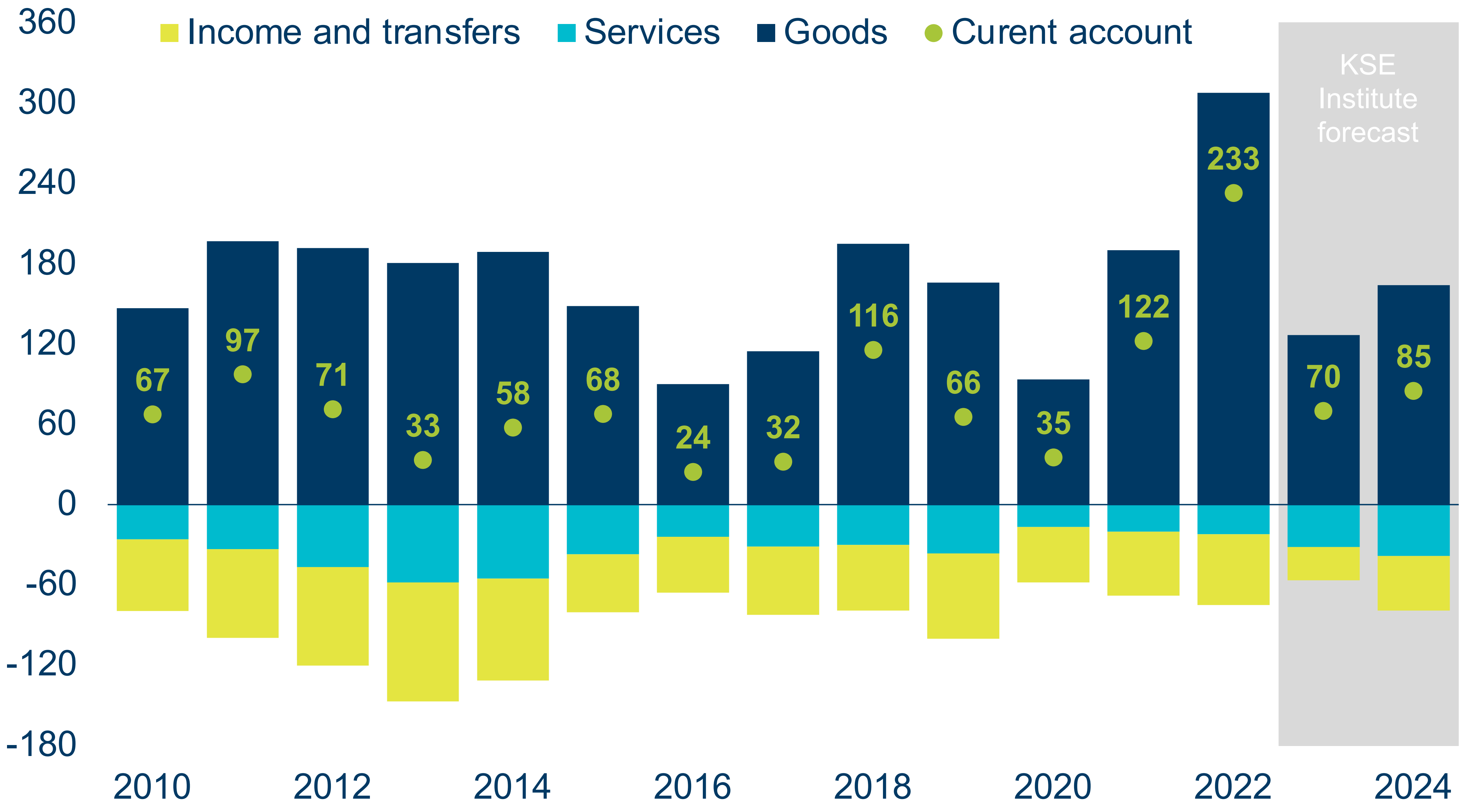
- In our updated forecast, oil and gas exports will reach $213 billion in 2023 (+15 billion) and $227 billion in 2024 (+$33 billion).
- With other components of the current account largely unchanged, this will result in a projected surplus of $70 billion in 2023.
- Both this year and next (est. surplus of $85 billion), this will provide Russia with more policy space to manage its economy.

Oil and gas earnings, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

Current account and components, in U.S. dollar billion



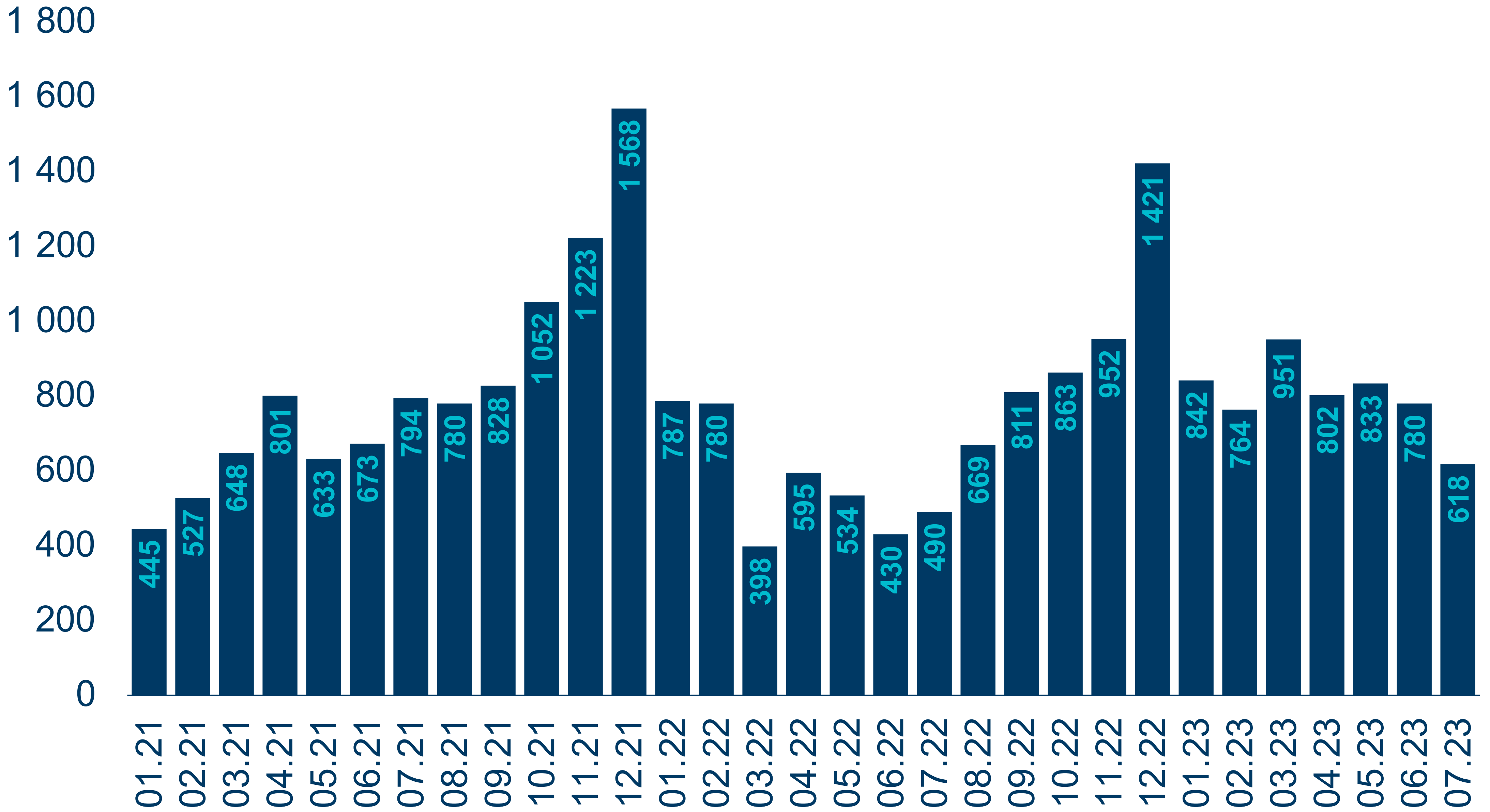
Source: Bank of Russia, KSE Institute

Russia is still able to acquire components needed for military production.

- Russian imports of "high-priority battlefield items" have fully recovered from their initial drop in the spring of 2022.
- While Chinese companies are playing a key role as producers/manufacturers or intermediaries, so do Western ones.
- More than 50% of imports in January-July 2023 involved entities from countries that have imposed export controls.

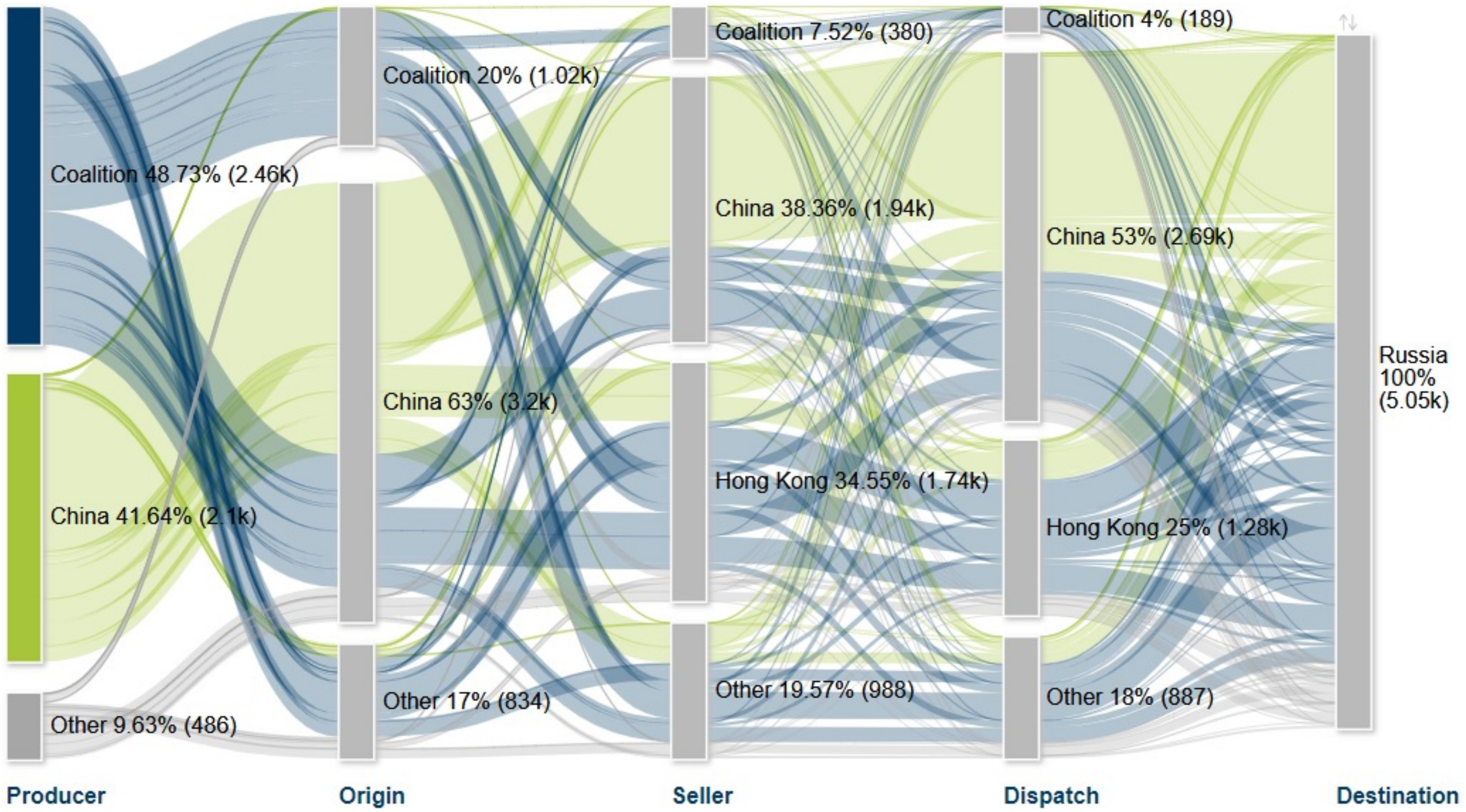
Download KSE's recent studies *Russia's Military Capacity and the Role of Imported Components* and *Foreign Components in Russian Military Drones*.

Russian imports of high-priority items, in U.S. dollar million*



Source: KSE Institute *for the definition of high-priority battlefield items see here.

January-July 2023 flows of high-priority items, in U.S. dollar million*



Source: KSE Institute *"producer" - location of producer's headquarter; "origin" - place of manufacturing; "seller" - location of seller's headquarter; "dispatch" - location of shipment

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Budget: weaker ruble supports oil and gas revenues, continued expenditure constraint, moderate financing needs

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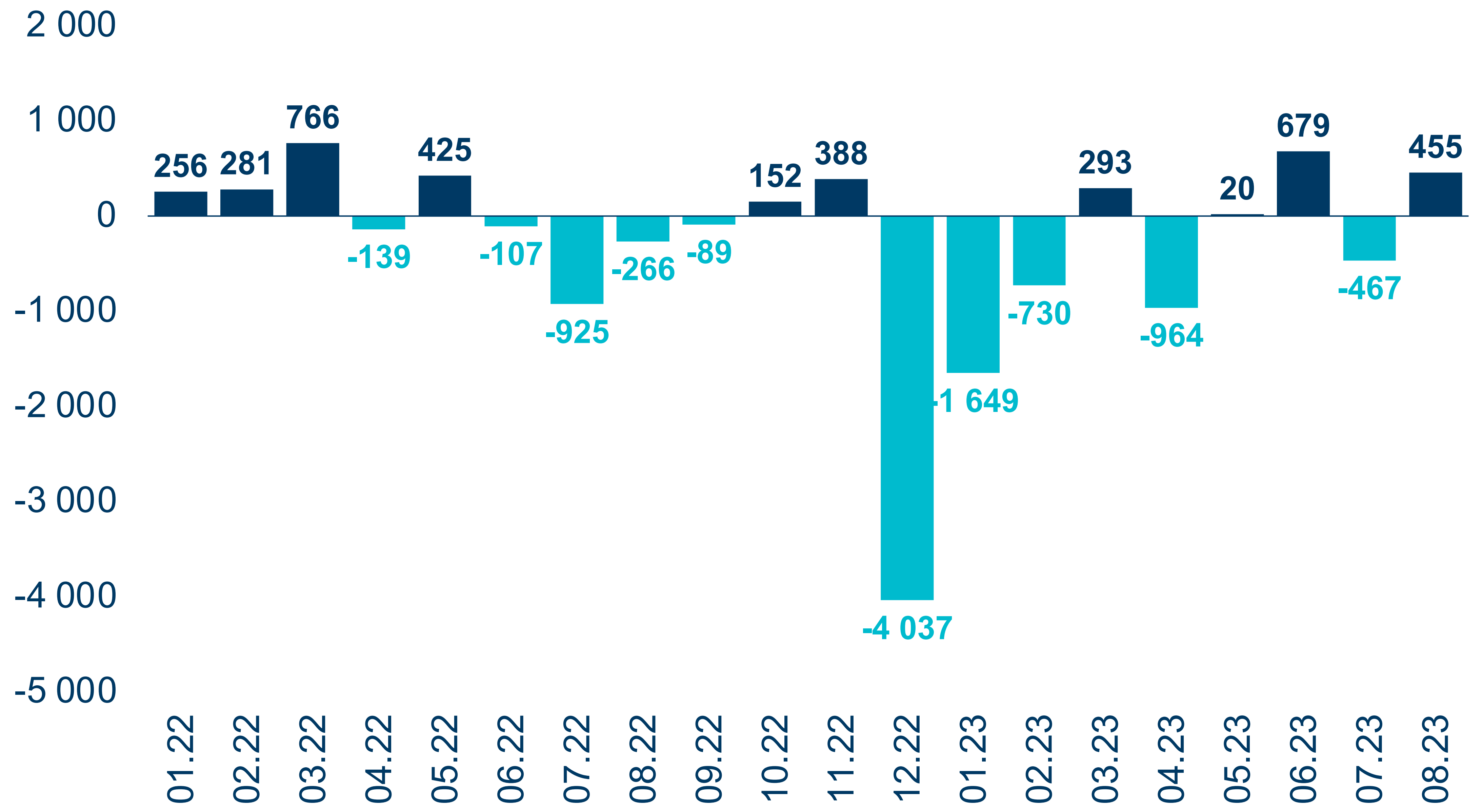
Russia’s federal budget has improved markedly in recent months.

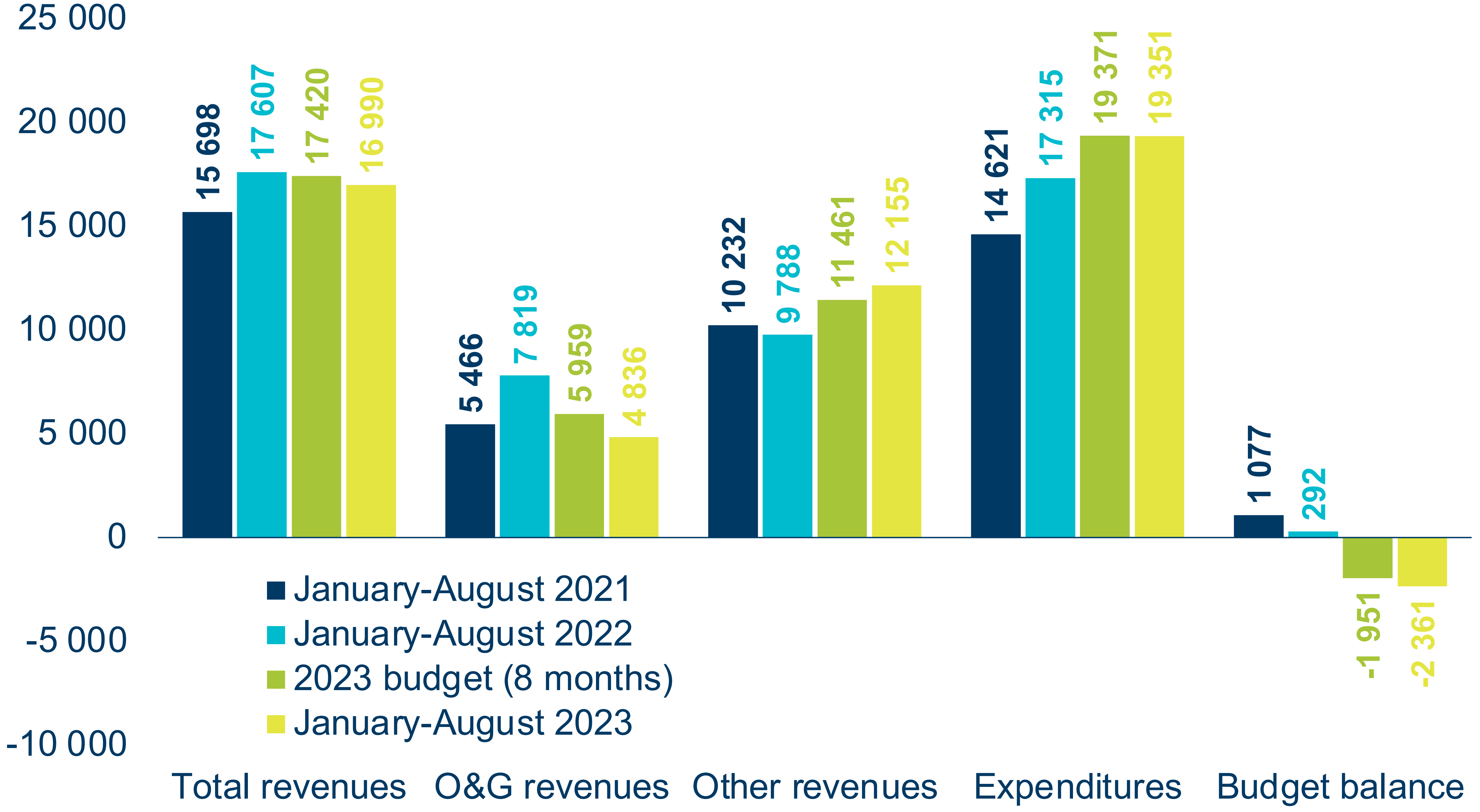
- Russia’s budget shifted back into surplus in August, with recent months displaying a significant overall improvement.
- Strong revenue collection, in particular non-O&G, and expenditure restraint are the drivers behind these dynamics.
- A January-August deficit of 2.36 trillion rubles represents 81% of the full-year number planned in the 2023 budget.

Federal government balance, in ruble billion



Source: Ministry of Finance, KSE Institute

Revenues and expenditures, in ruble billion

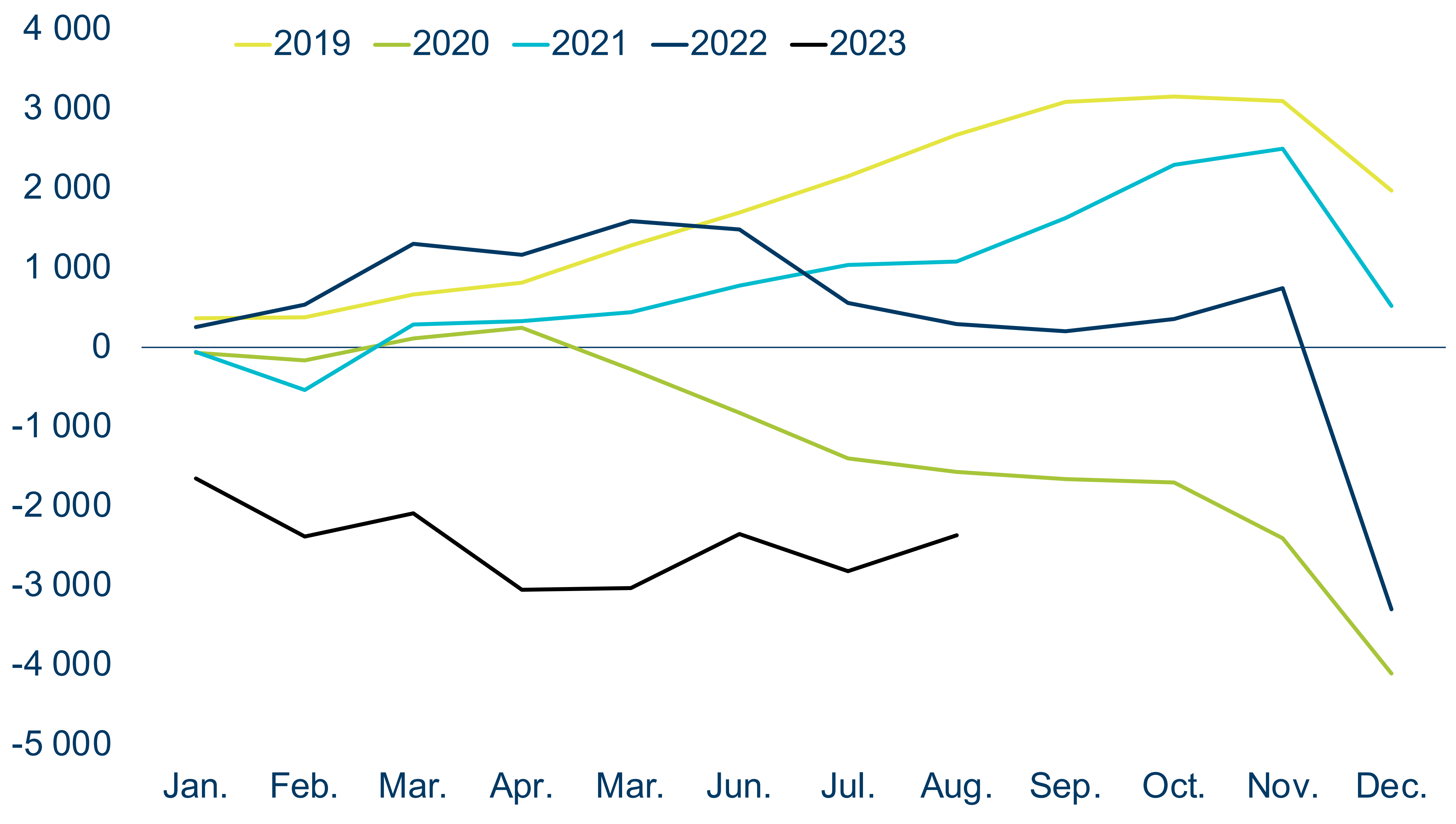


Source: Ministry of Finance, KSE Institute

Budget deficit likely moderate, but defense accounts for increasing share.

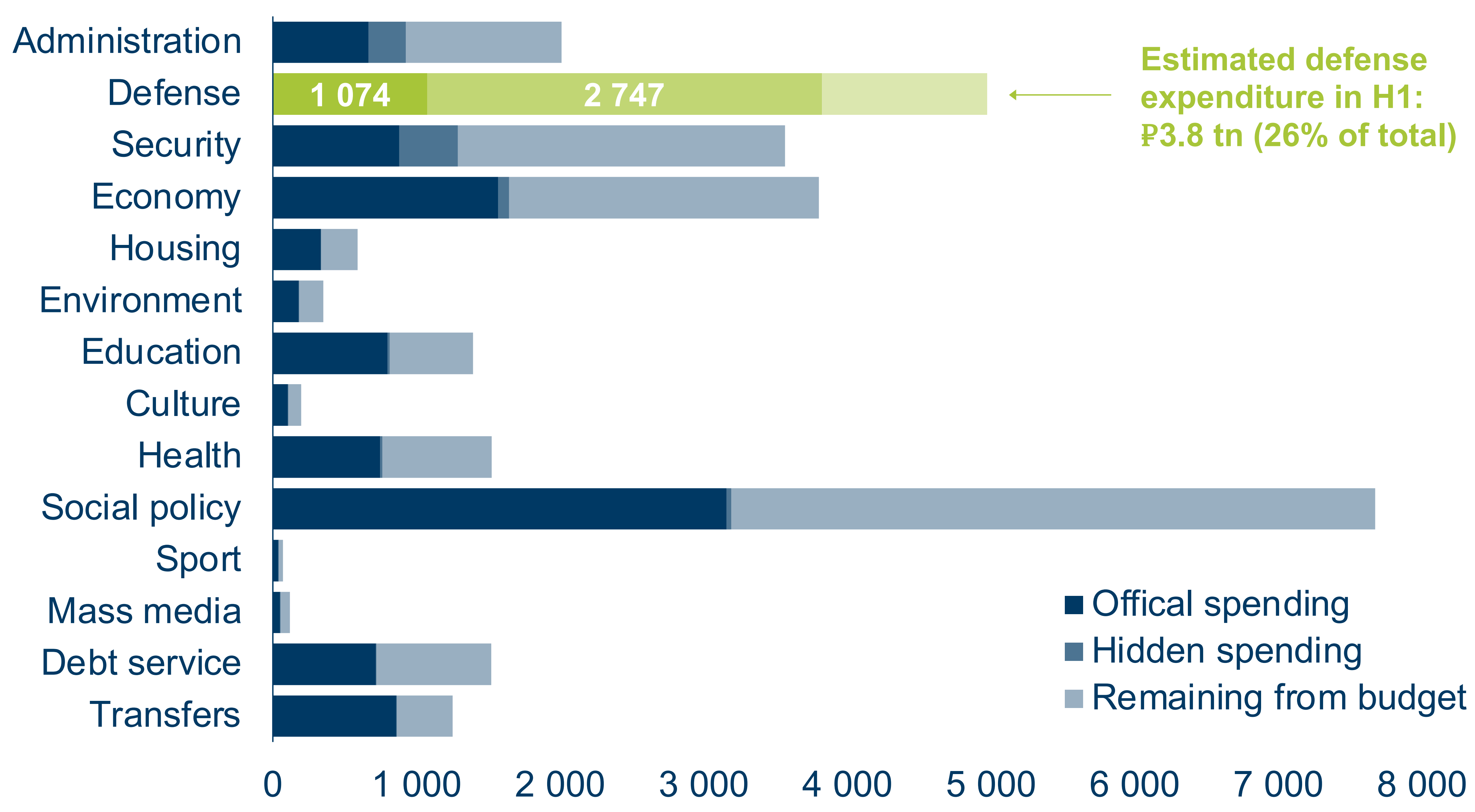
- Based on the recent outturn, we revise our forecast for the full-year deficit to ~6 trillion rubles (or 3.5-4% of GDP).
- A closer look at budget expenditures shows the increasing share of defense spending (official and hidden).
- While all other categories' execution was in line with the budget, defense spending will come in higher than planned.

Cumulative federal budget balance, in ruble billion



Source: Ministry of Finance, KSE Institute

Estimated federal budget expenditure in H1 2023, in ruble billion*

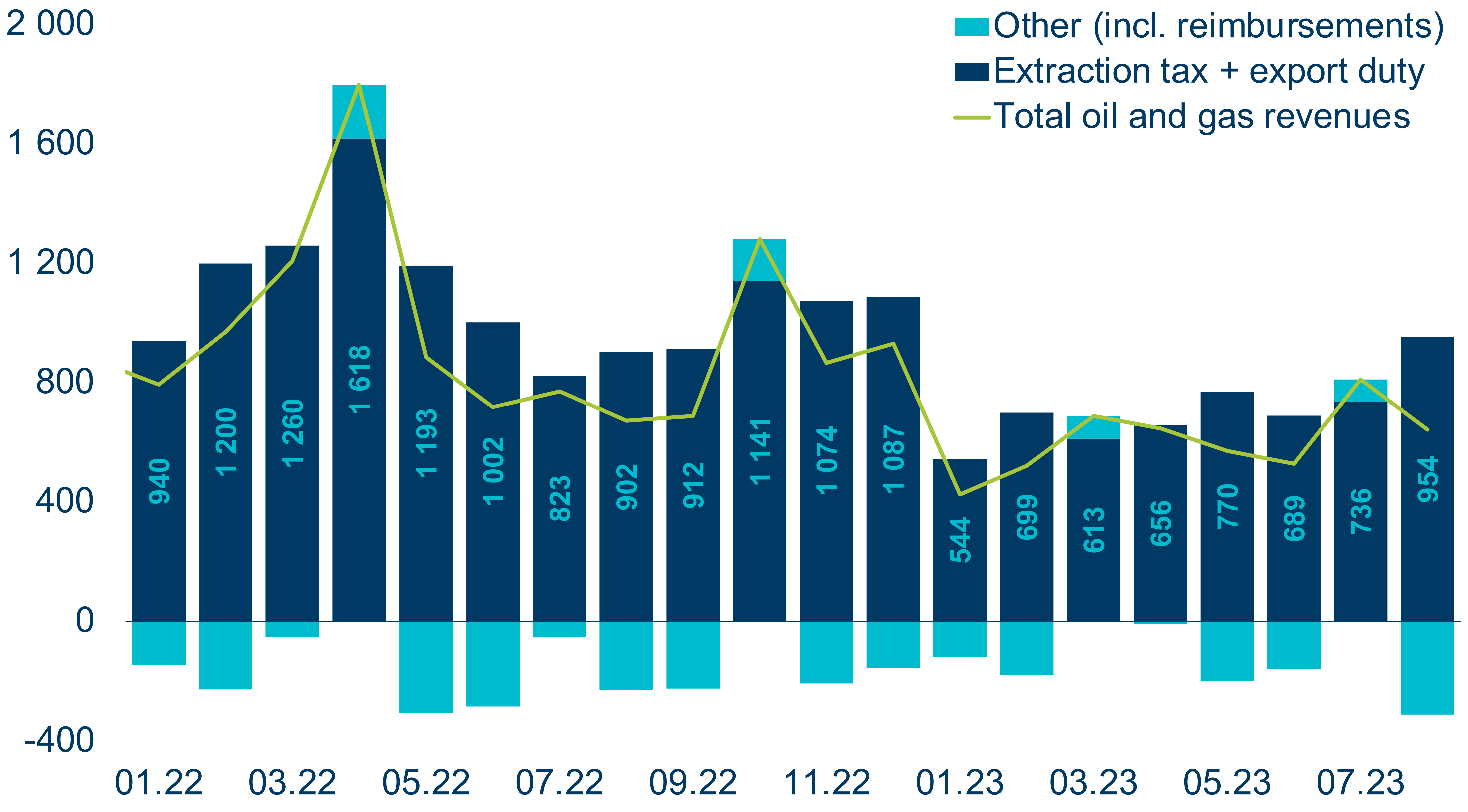


Source: Ministry of Finance, KSE Institute *estimates from Janis Kluge, SWP

Oil and gas revenues are rising due to ruble weakness.

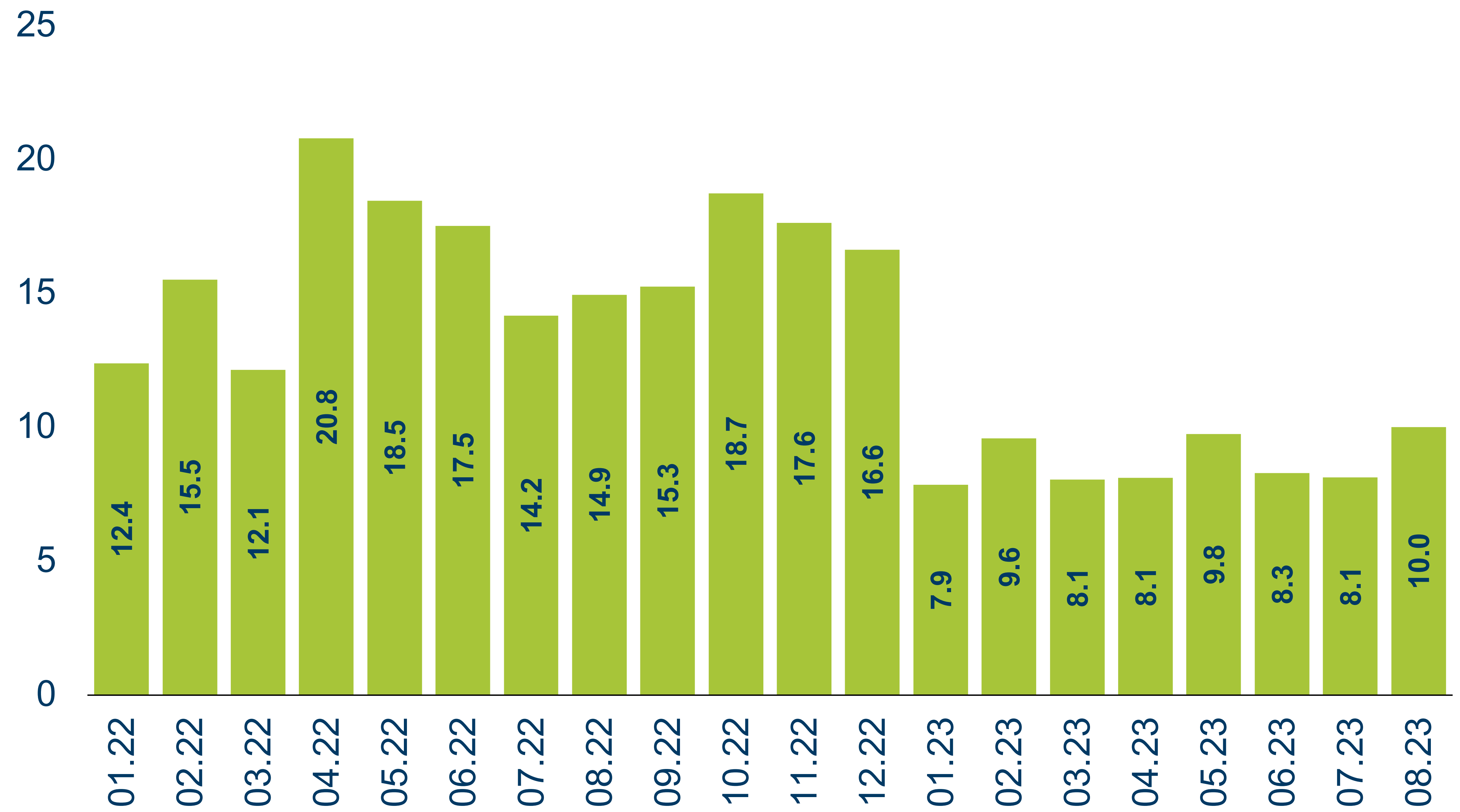
- Extraction taxes and export duties reached close to 1 trillion rubles in August, the highest since December 2022.
- The recent narrowing of Urals-Brent spreads means that changes to the tax oil price are unlikely to be behind this.
- Rather, the budget benefits from the weaker ruble; revenues in U.S. dollar remain significantly below 2021 levels.

Federal oil and gas revenues, in ruble billion



Source: Ministry of Finance, KSE Institute

Federal oil and gas revenues, in U.S. dollar billion*



Source: International Monetary Fund, Ministry of Finance, KSE Institute
*includes extraction tax and export duty; calculated with monthly average exchange rate

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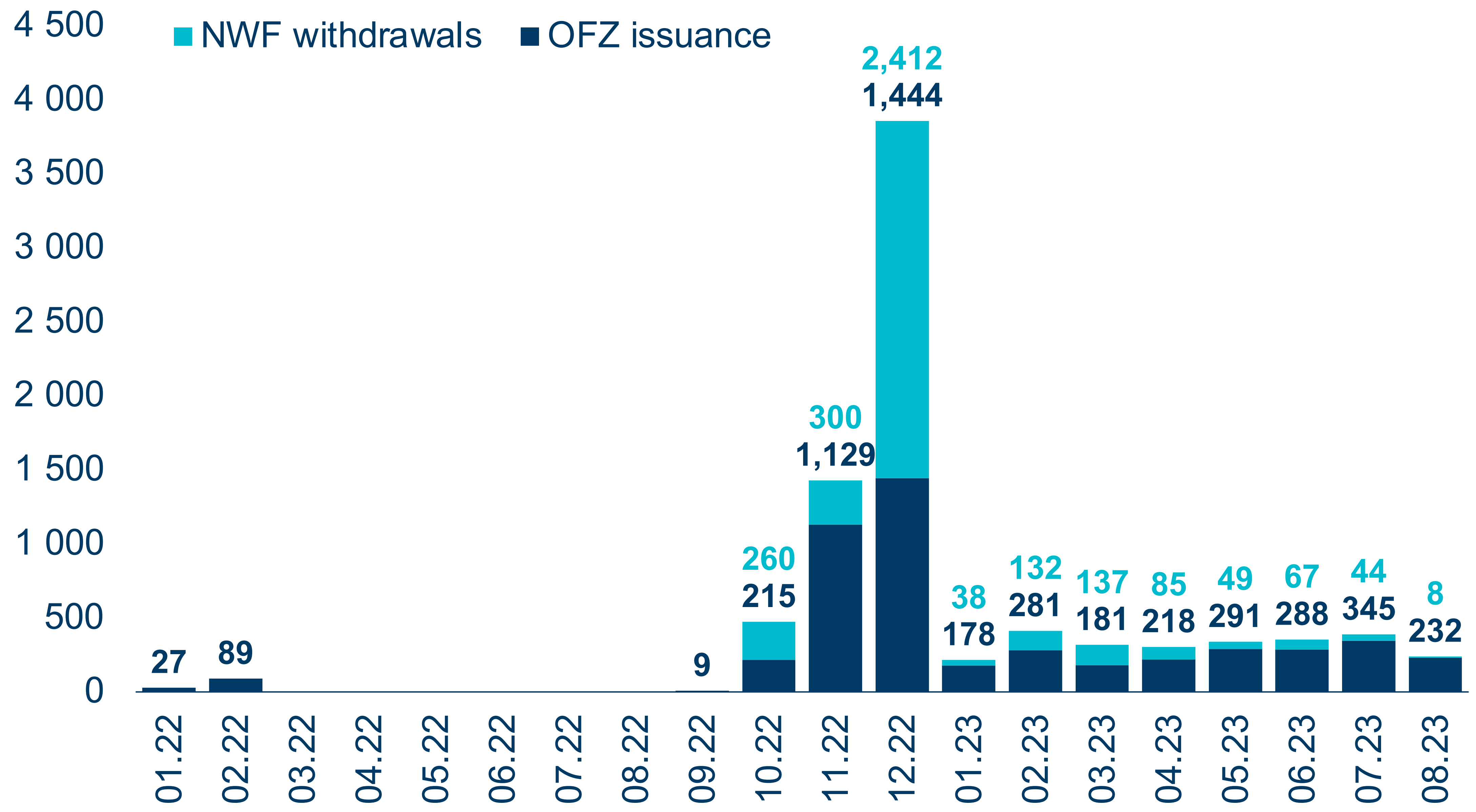
Reliance on NWF and OFZ issuance sharply lower in 2023.

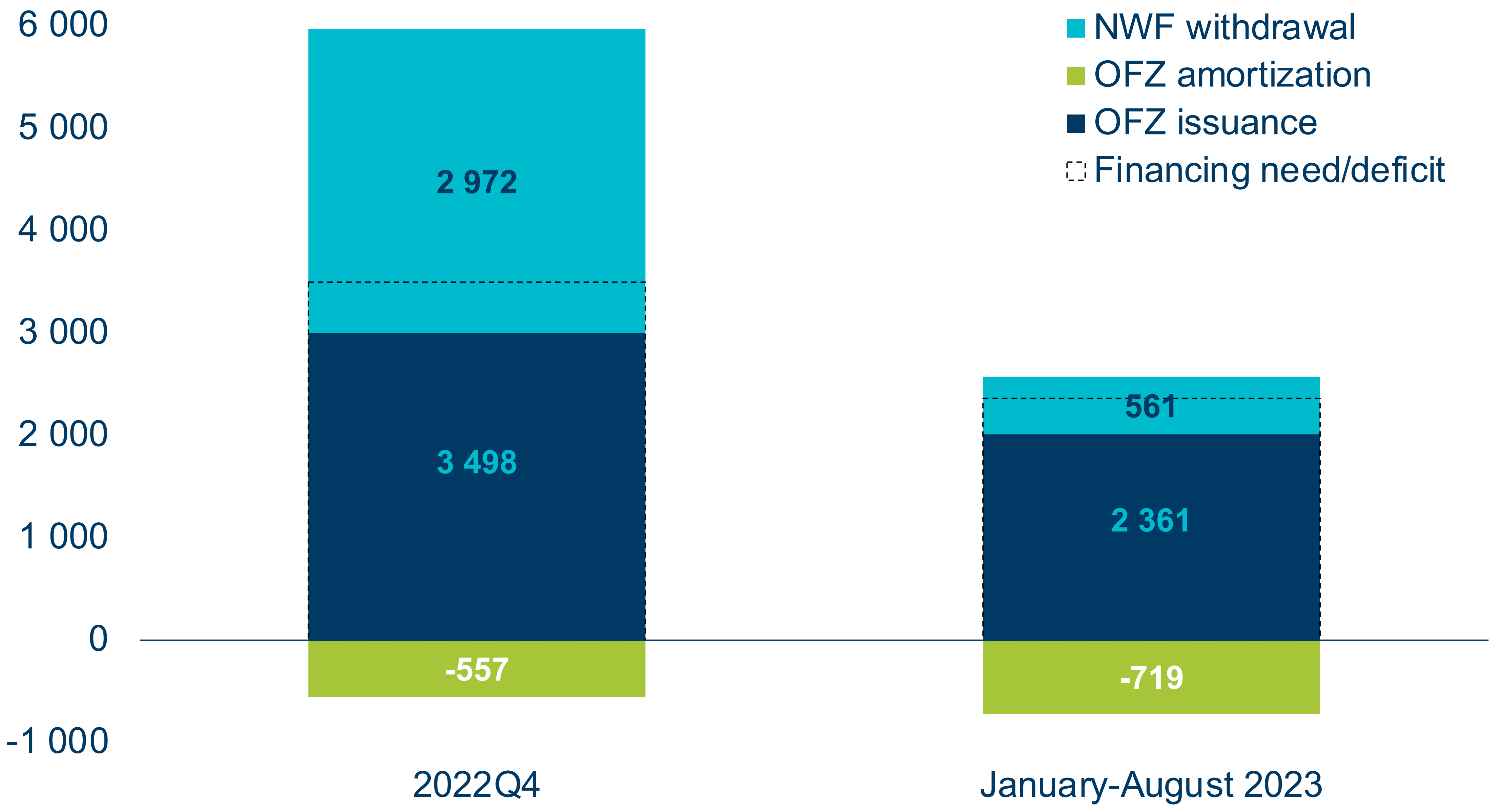
- Due to smaller deficits, Russia needs to rely less on two key financing channels—NWF withdrawals and OFZ issuance.
- New issuance of domestic debt was 2.4 trillion rubles in January-August 2023, significantly less than in Q4 2022.
- At the same time, the NWF only sold assets worth 560 billion rubles to support the budget (vs. 3 trillion in Q4 2022).

Key fiscal financing channels, in ruble billion



Source: Ministry of Finance, KSE Institute

Fiscal financing summary, in ruble billion*



Source: Ministry of Finance, KSE Institute *amortization estimated as the difference between total for 2023 as of December 1, 2022, and remaining as of September 1, 2023.

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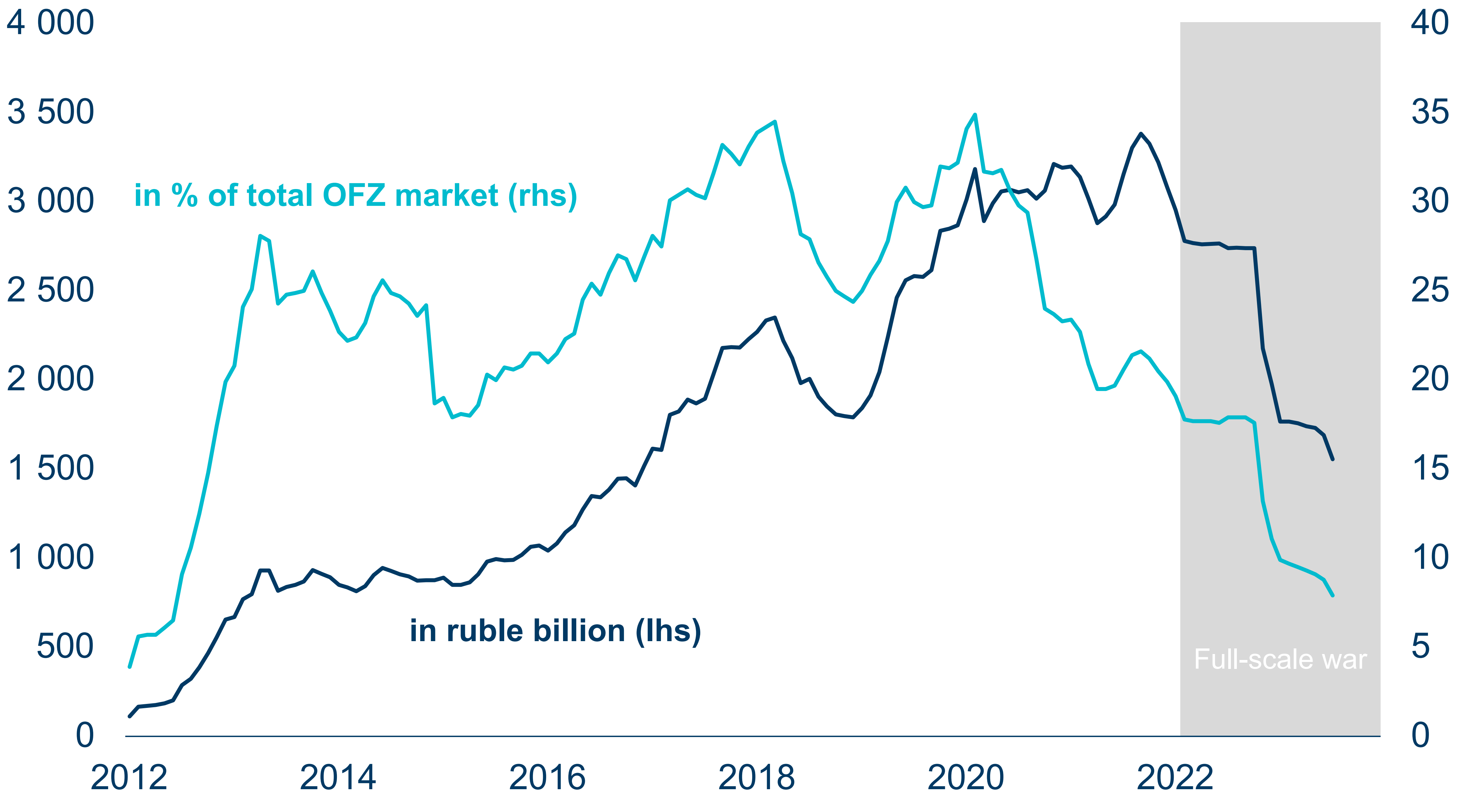
Domestic banks are the only remaining buyer for OFZs.

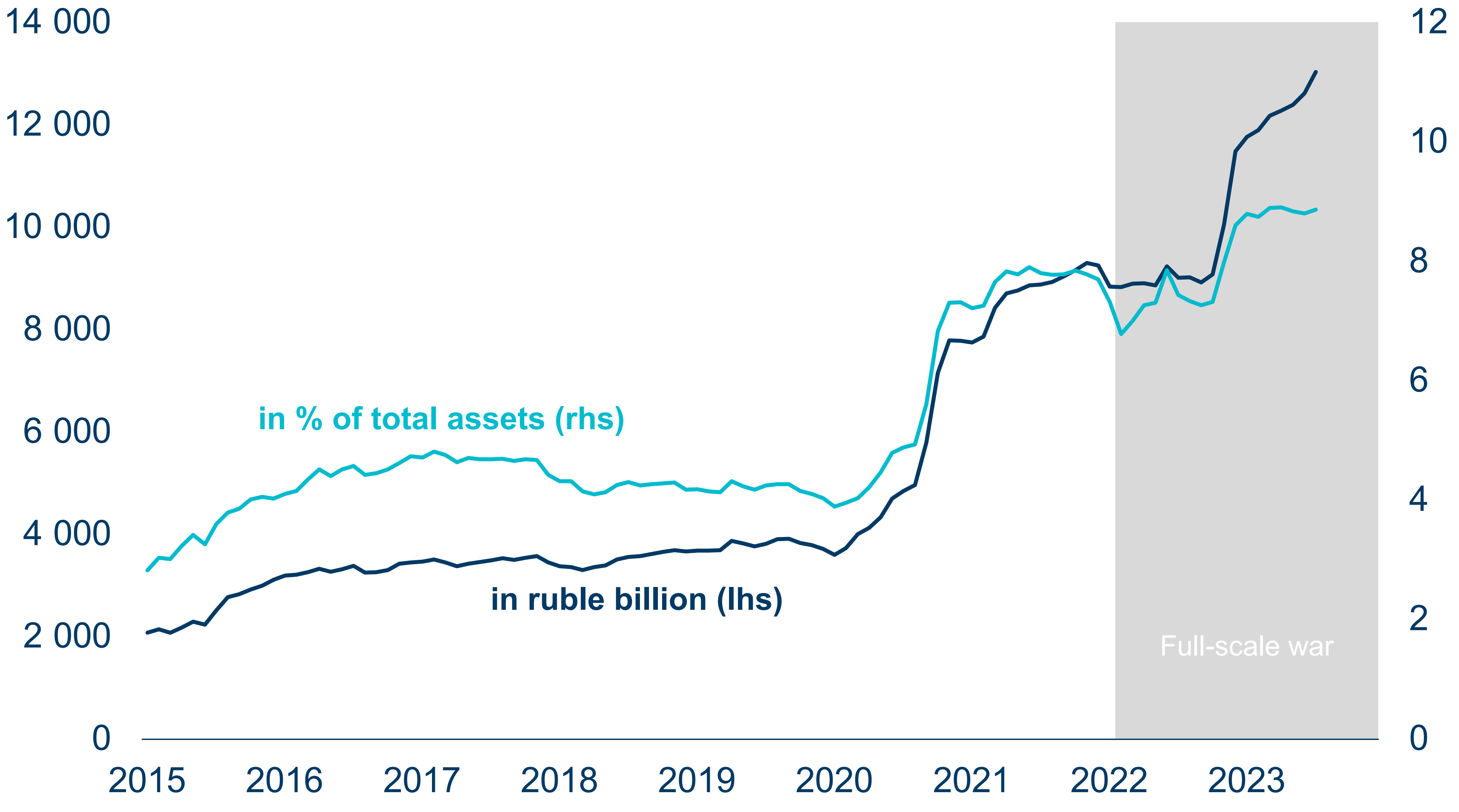
- Foreigners have largely disengaged from the Russian sovereign debt market since the start of the war.
- Non-resident holdings have dropped by 1.2 trillion rubles (or 43%) since November as bonds matured.
- Over the same period, credit institutions’ holdings have risen by close to 4 trillion rubles (or 44%).

Non-resident OFZ holdings



Source: Bank of Russia, KSE Institute

Credit institutions OFZ holdings



Source: Bank of Russia, KSE Institute

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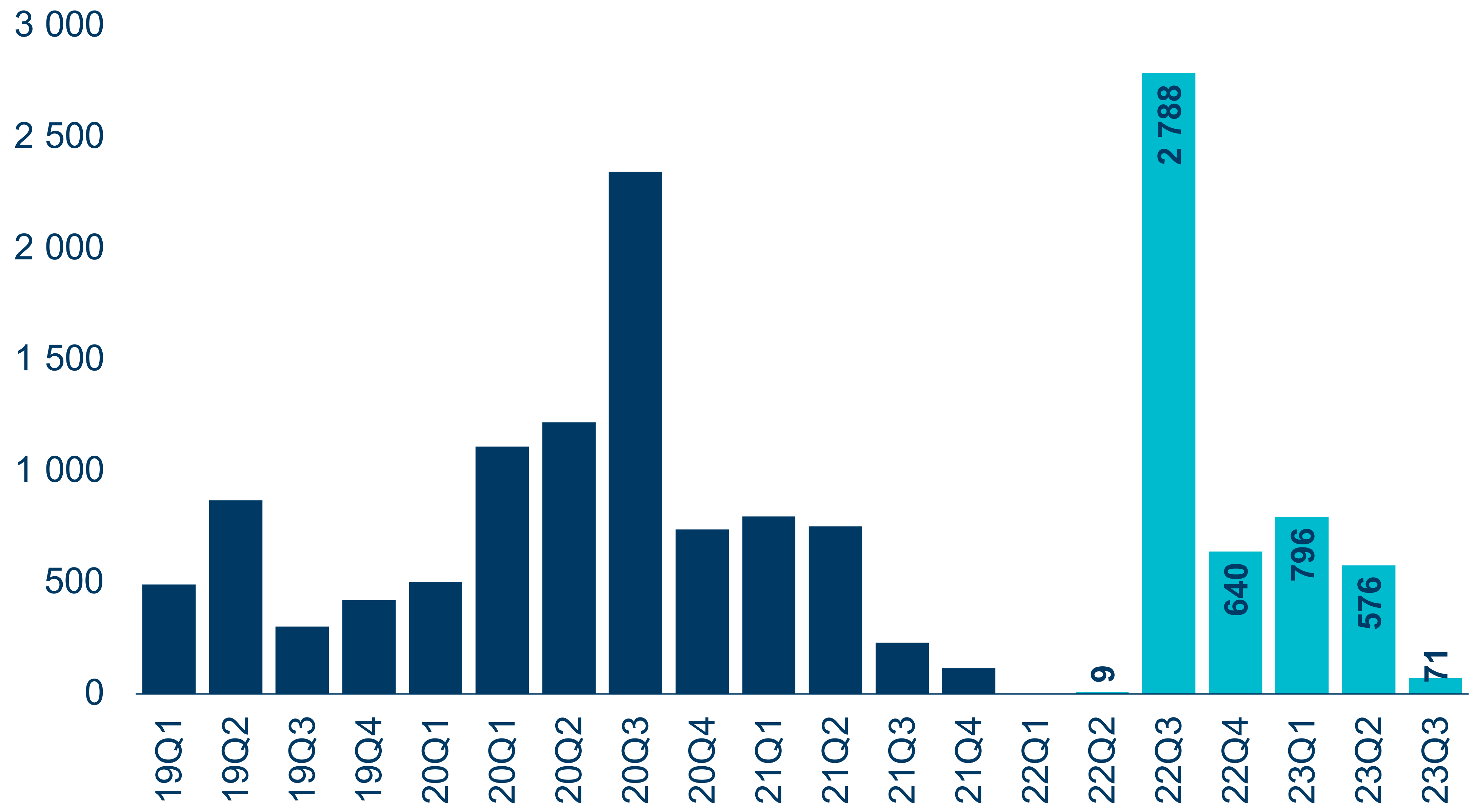
The cost of borrowing has been rising since early-2022.

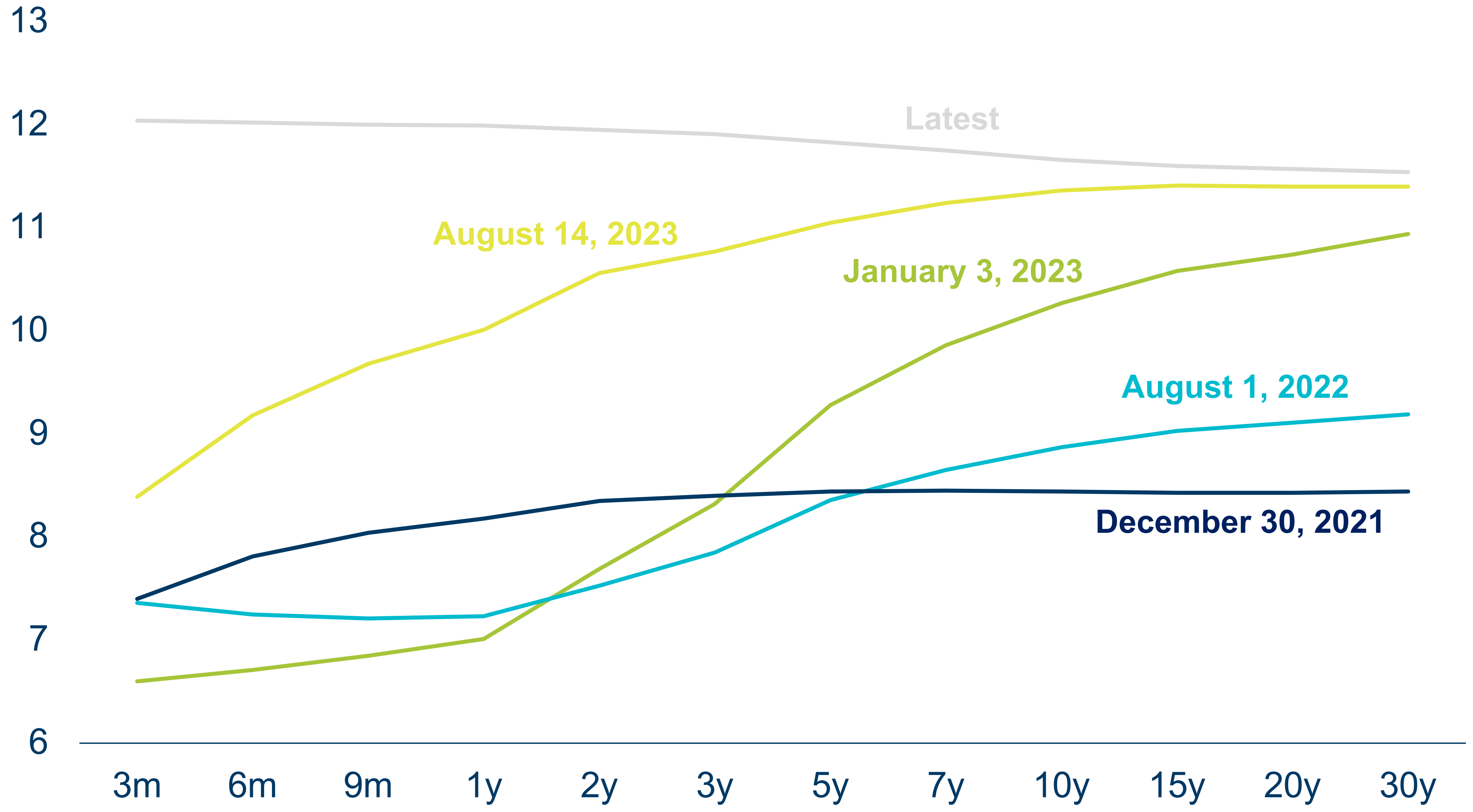
- Due to the improved fiscal picture, we do not expect a significant increase in auction volumes for the rest of 2023.
- The OFZ yield curve reflects the recent CBR rate hikes (of cumulative 550bps) with the short end shifting up sharply.
- Longer maturity interest rates will inevitably follow suit in the coming weeks/months, driving up overall borrowing costs.

New domestic debt (OFZ) issuance, in ruble billion



Source: Ministry of Finance, KSE Institute

OFZ yield curves, in %



Source: Bank of Russia, KSE Institute

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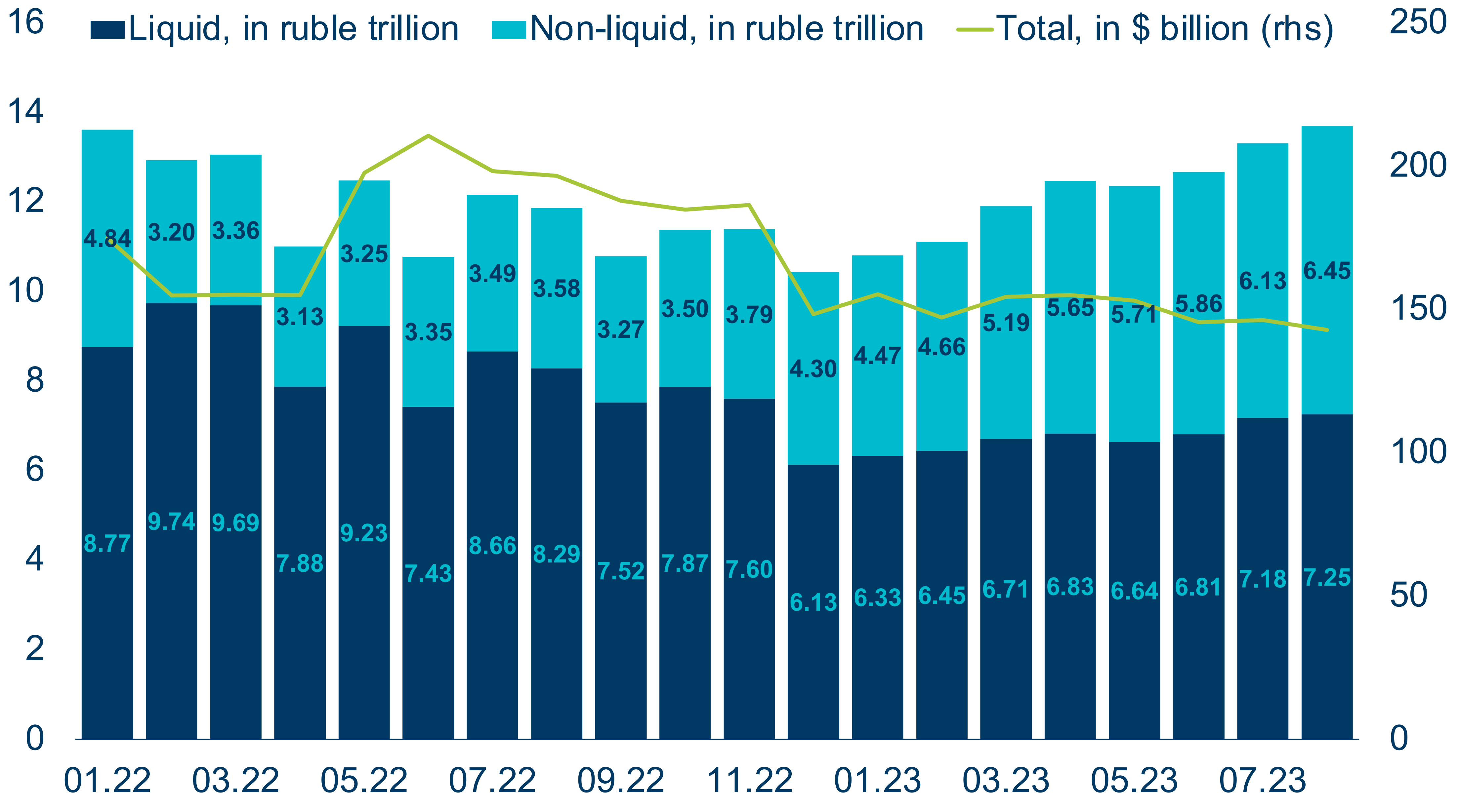
Macro buffers: NWF benefits from improved fiscal picture, access to reserves seriously constrained

NWF assets have risen due to smaller withdrawals, valuation effects.

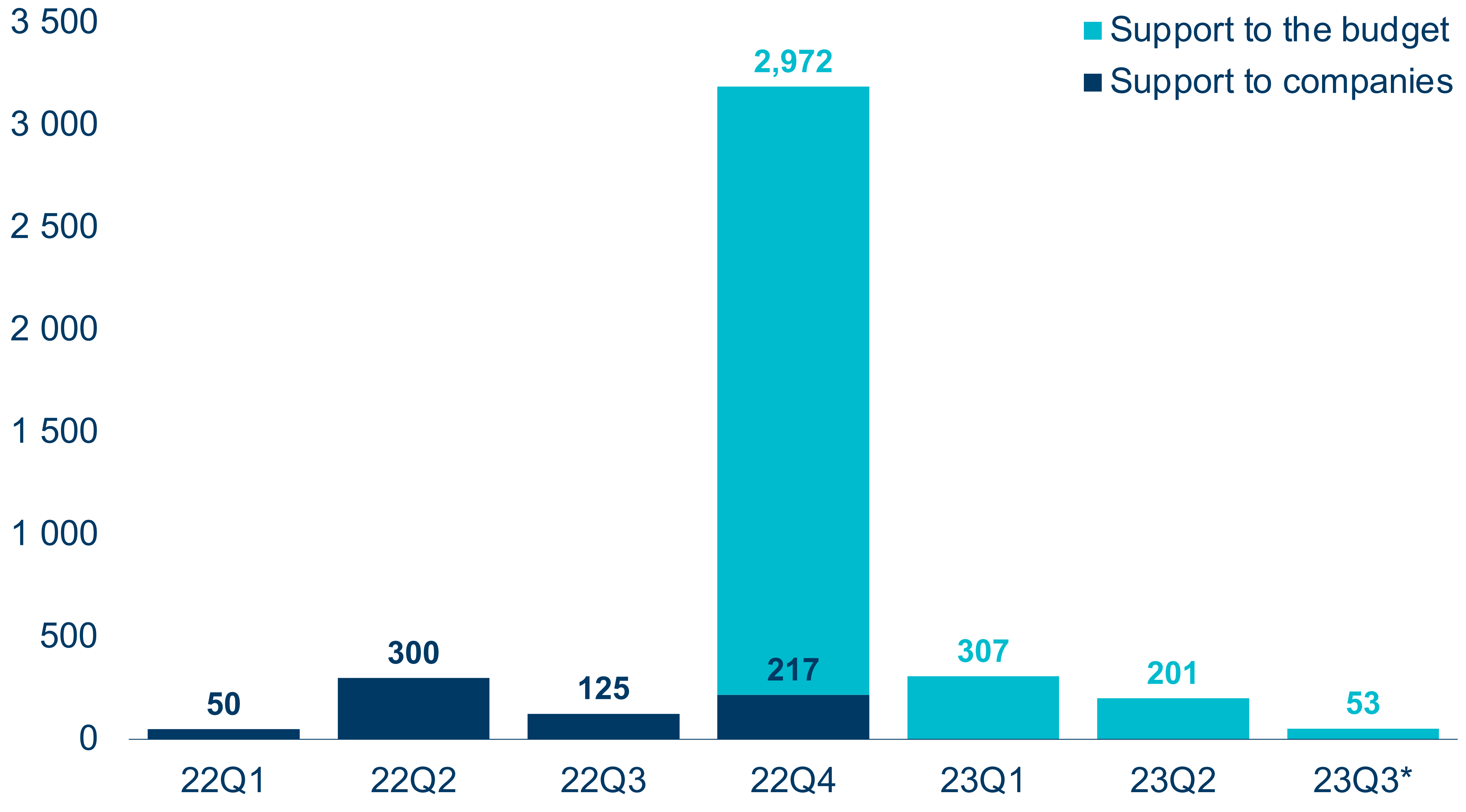
- Total assets of the National Welfare Fund stood at 13.7 trillion rubles ($142.9 billion or 9.1% of GDP) at the end of August.
- Liquid assets (e.g., foreign currency and gold) accounted for 53% of the total and non-liquid assets (e.g., stocks) for 47%.
- Withdrawals from the NWF support companies and the budget have dropped sharply after a record-high Q4 202..

Assets of the NWF, in ruble billion and U.S. dollar billion



Source: Ministry of Finance, KSE Insitute

Assets of the NWF, in ruble billion and U.S. dollar billion



Source: Ministry of Finance, KSE Institute

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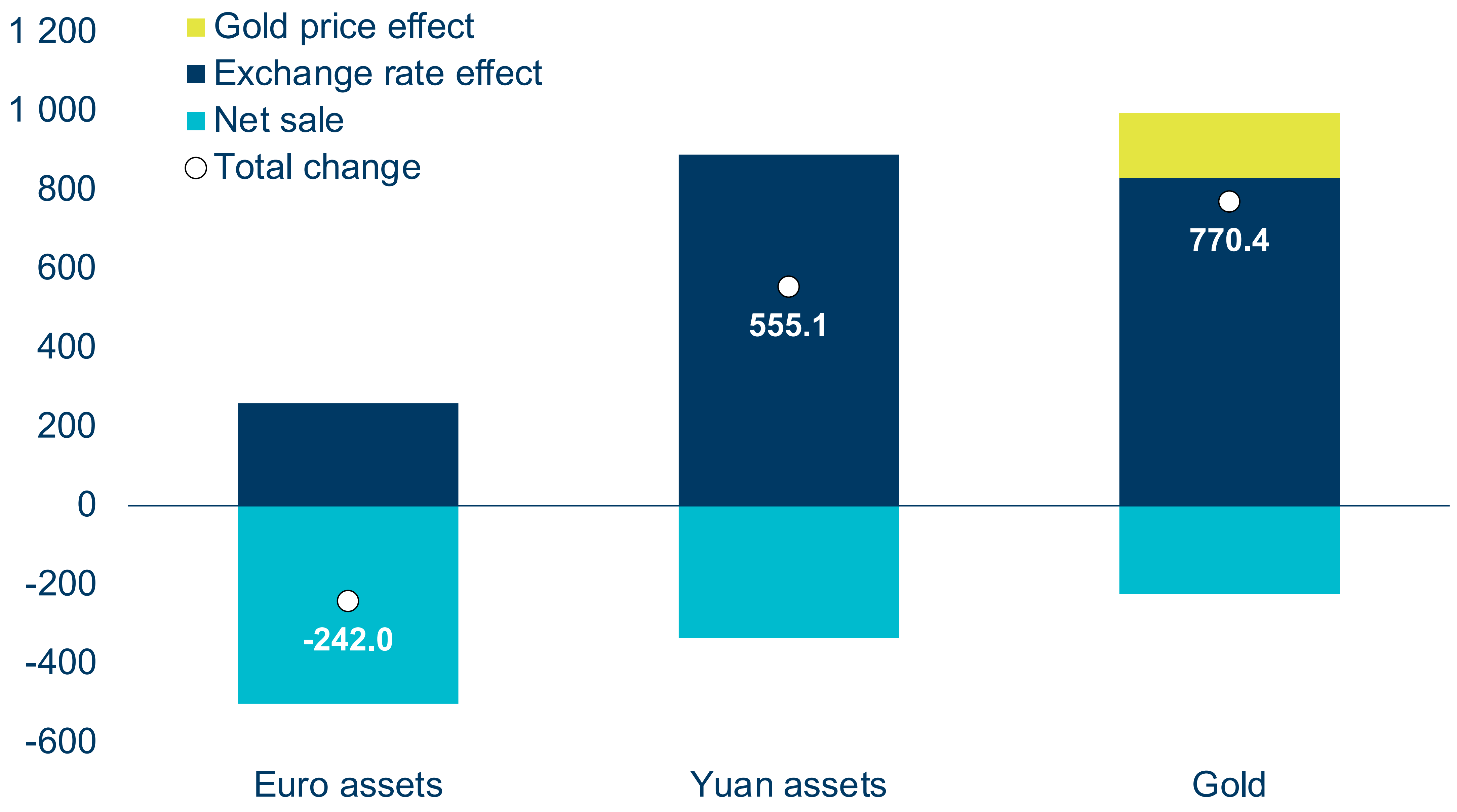
Russia will be able to rely on the NWF for financing for quite some time.

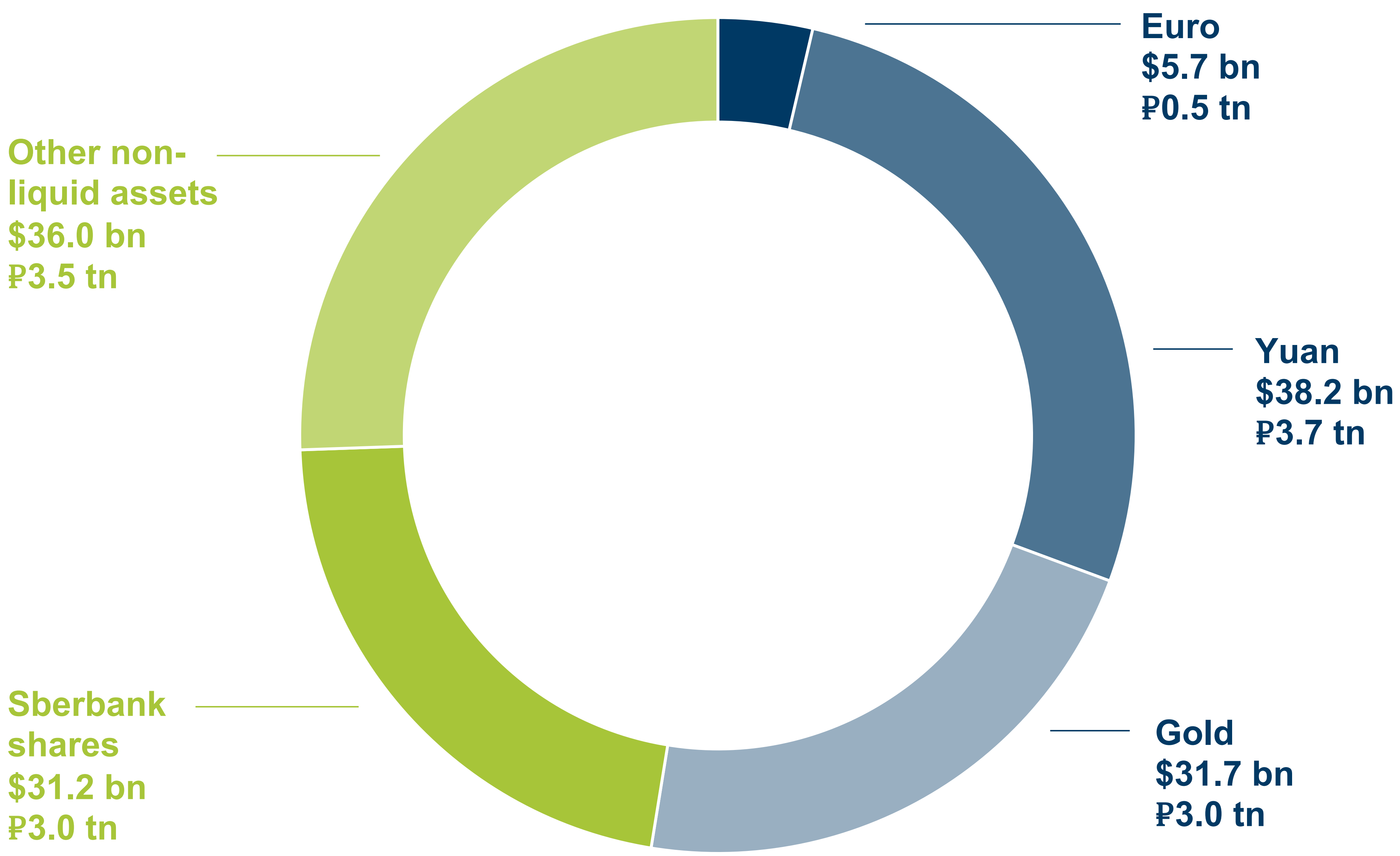
- Moderate net sales of euro/yuan assets and gold were offset by exchange rate, valuation effects.
- In the absence of a much wider deficit, withdrawals will likely remain moderate for the rest of the year.
- Therefore, Russia will be able to rely for longer than originally anticipated on the NWF for financing.

Change in assets (Aug. 2023 vs. Dec. 2022), in ruble billion*



Source: Ministry of Finance, KSE Institute *based on market exchange rates/prices

Composition of NWF assets as of September 1, 2023*



Source: Ministry of Finance, KSE Institute *based on market exchange rates/prices

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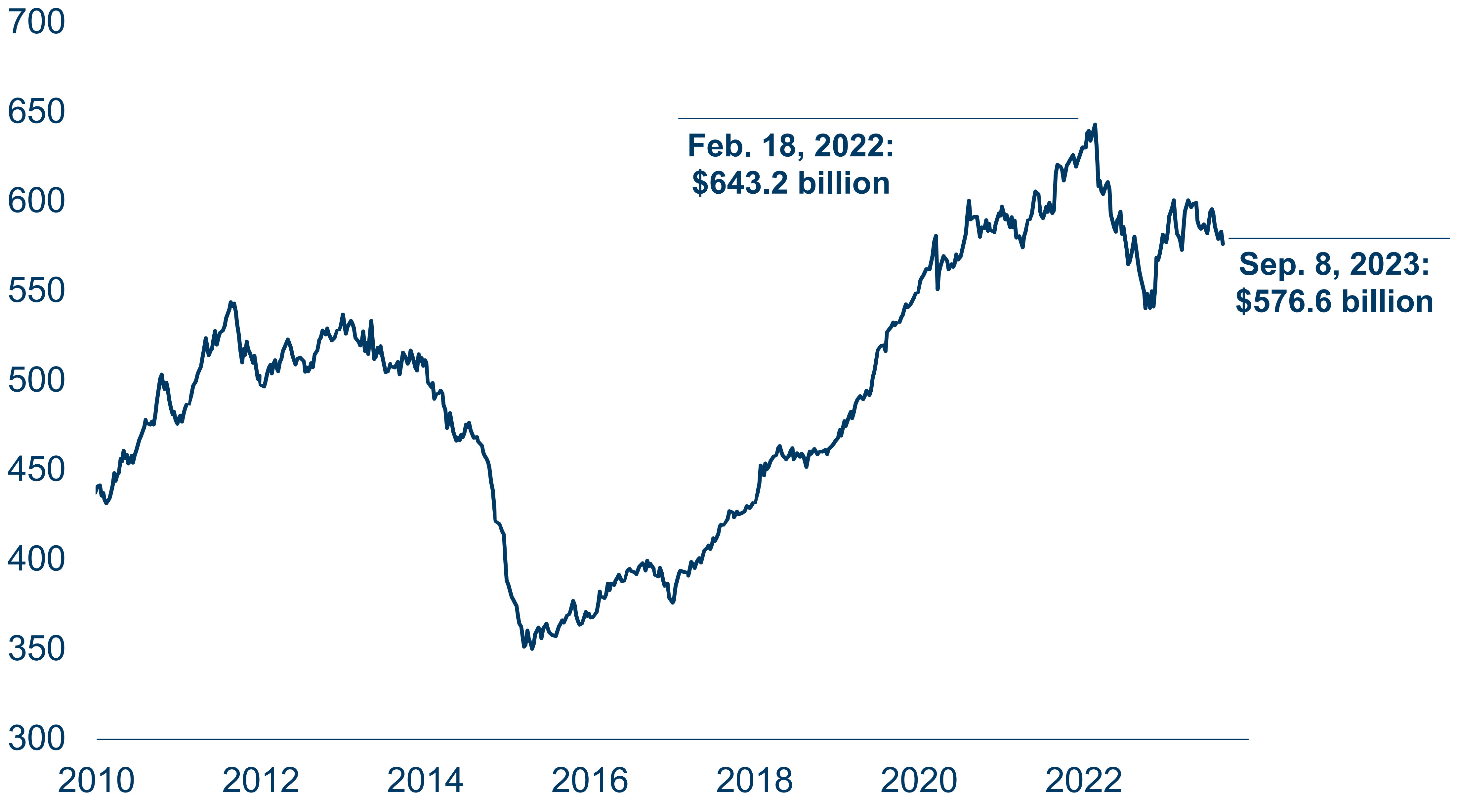
A substantial share of international reserves have been immobilized.

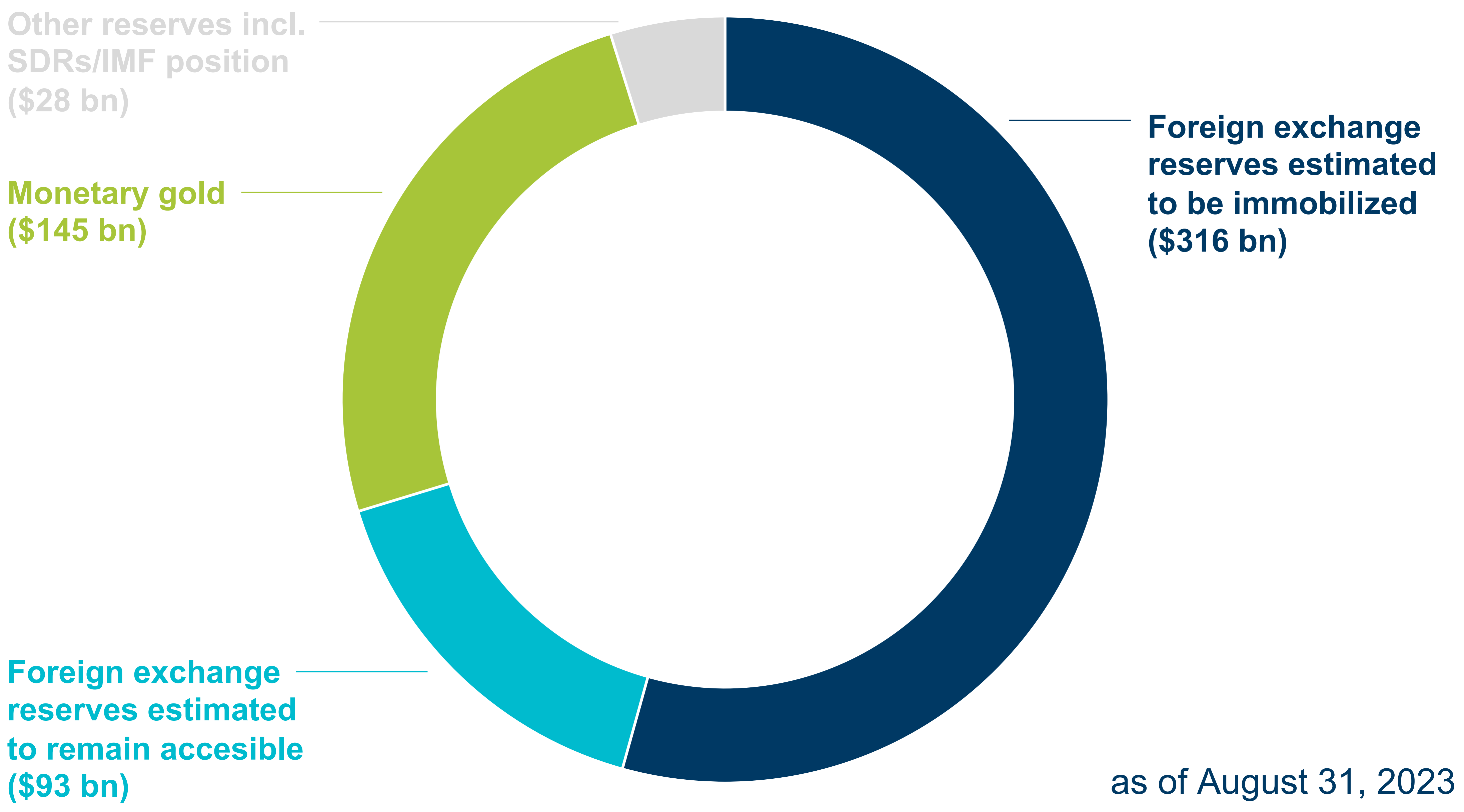
- Before the invasion, Russia held $634 billion in international reserves, part of what is described as *“Fortress Russia”.*
- We estimate that around $316 billion are currently immobilized due to international sanctions on CBR and NWF.
- This leaves Russia with access to $145 billion in monetary gold and roughly $93 billion in FX assets (largely yuan).

Total reserves, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

Estimated composition of reserves, in U.S. dollar billion

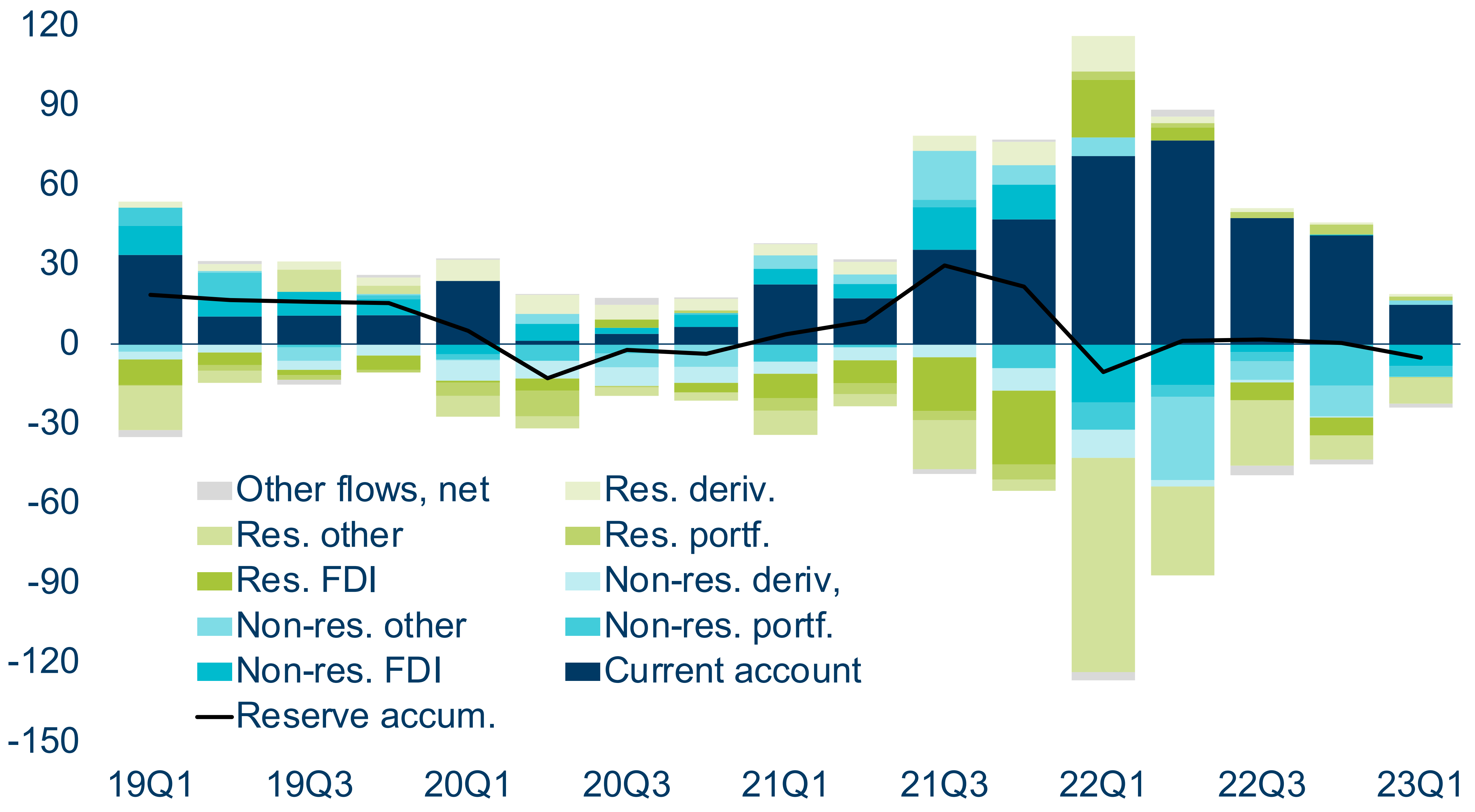


Source: Bank of Russia, KSE Institute

Significant accumulation of new foreign assets in 2022-23.

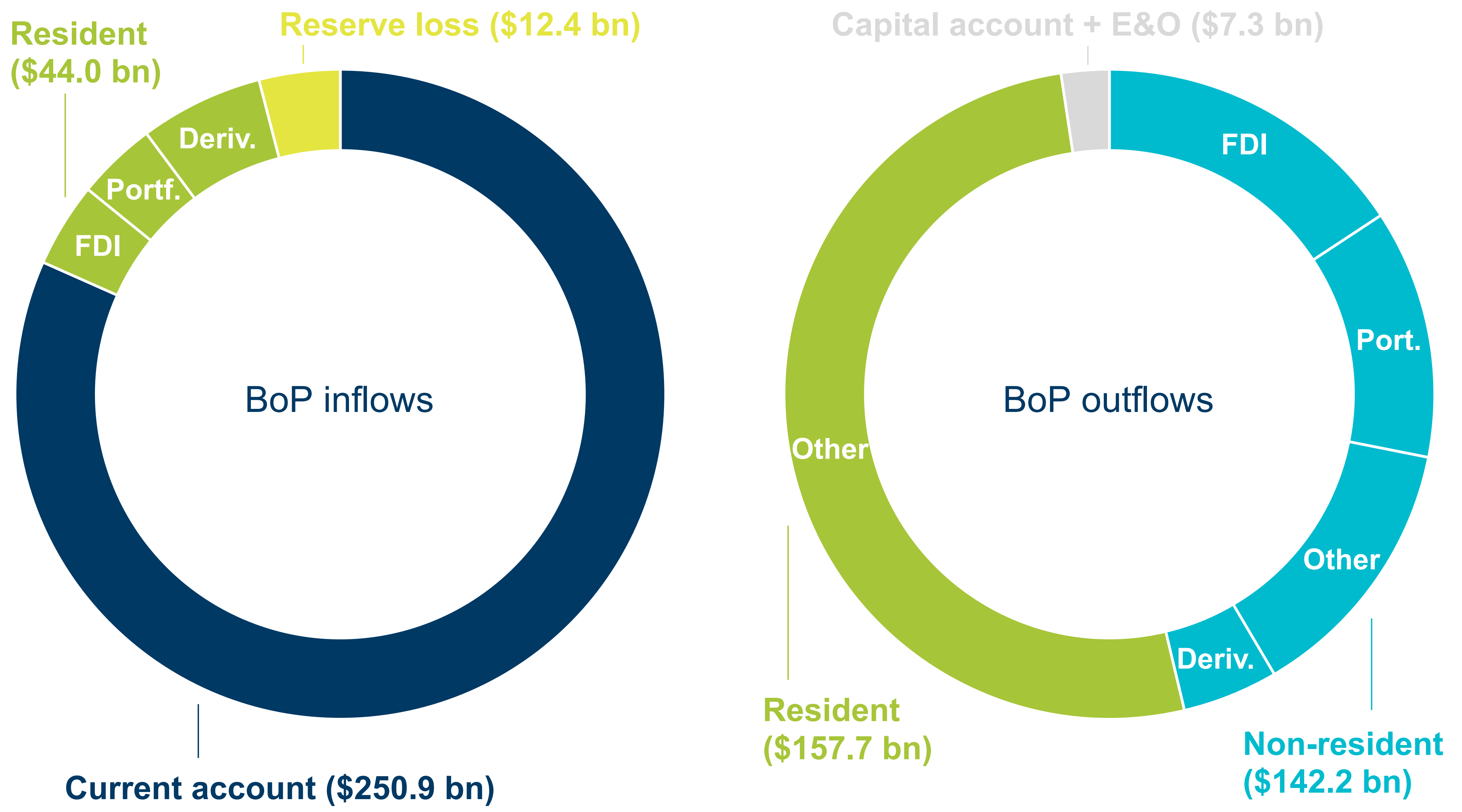
- It is time to focus attention on foreign assets that Russia has been able to accumulate due to favorable BoP dynamics.
- Non-resident capital outflows partially ate up the large current account surplus and resident inflows in 2022Q1-2023Q1.
- But Russian banks and corporates were able to acquire $158 billion in assets abroad, which need to be kept out of reach.

Balance of payments, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

2022Q1-2023Q1 balance of payments flows, in U.S. dollar billion

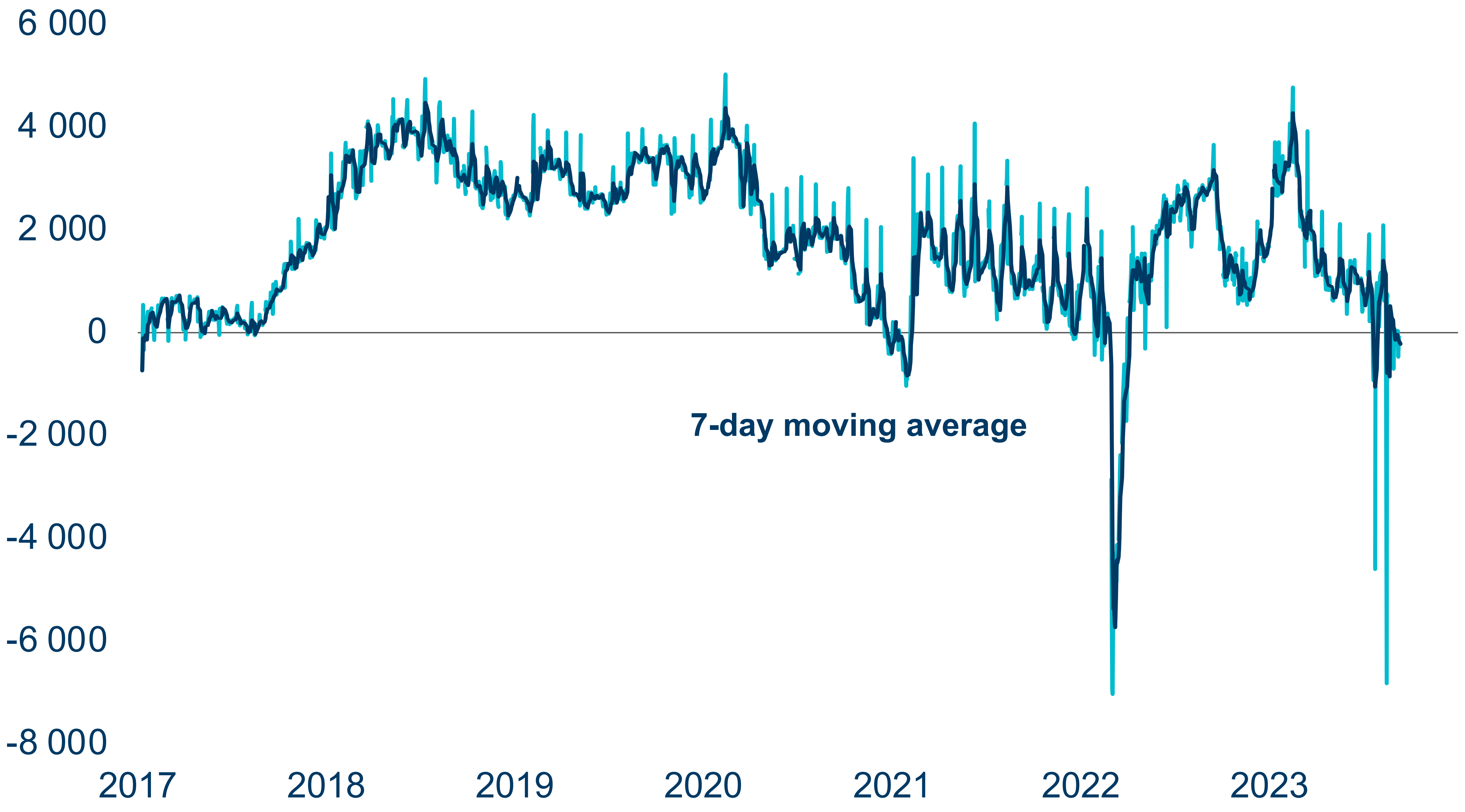


Source: Bank of Russia, KSE Institute

Banking system liquidity has declined in recent weeks.

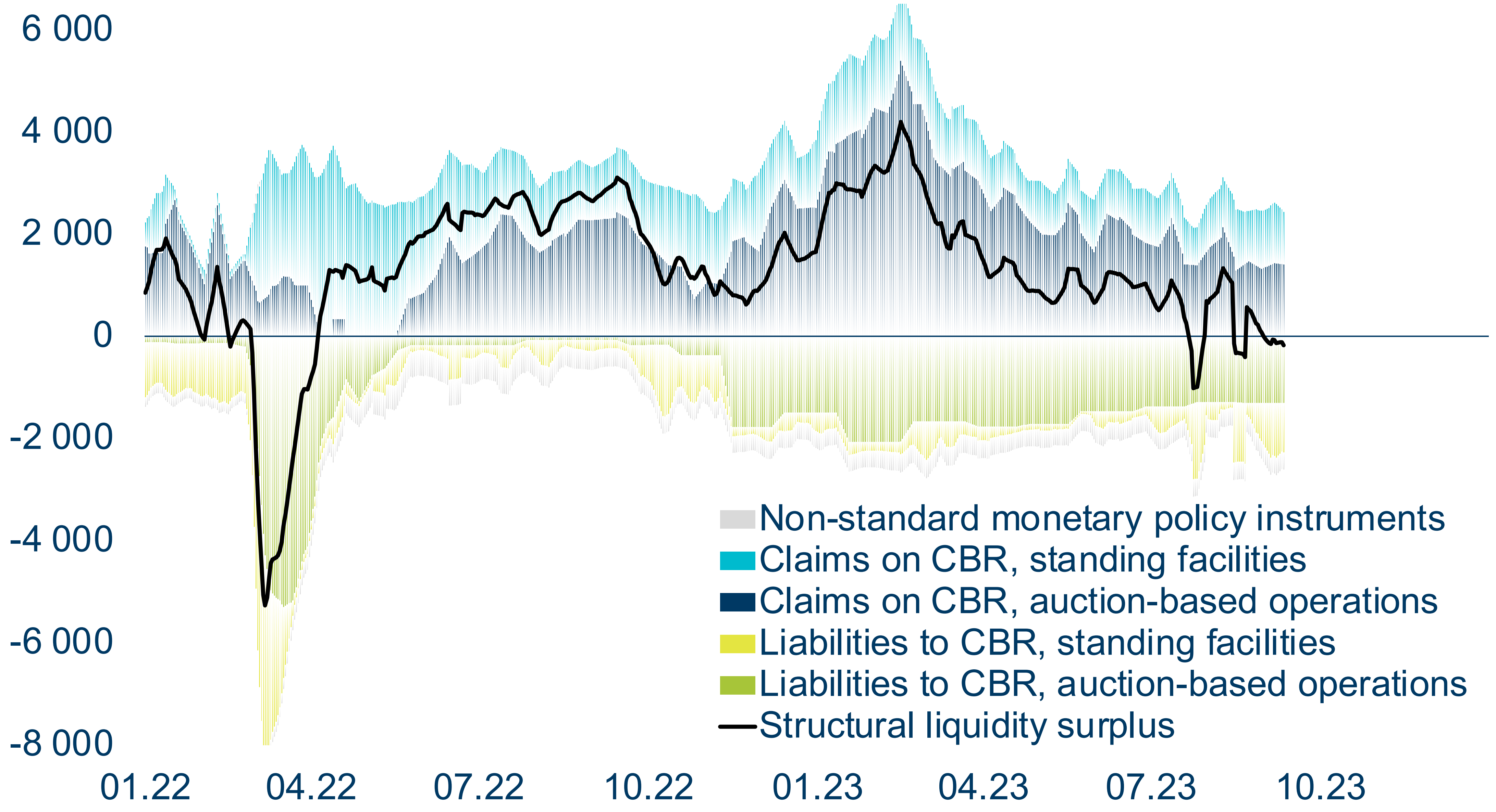
- Liquidity conditions recovered quickly after the initial war/sanctions shock in early-2022.
- However, the structural liquidity surplus has essentially disappeared in recent weeks.
- A closer look at its composition also points to some stress in the interbank market.

Banking system structural liquidity surplus, in ruble billion



Source: Bank of Russia, KSE Institute

Composition of structural liquidity surplus, in ruble billion*



Source: Bank of Russia, KSE Institute *7-day moving average

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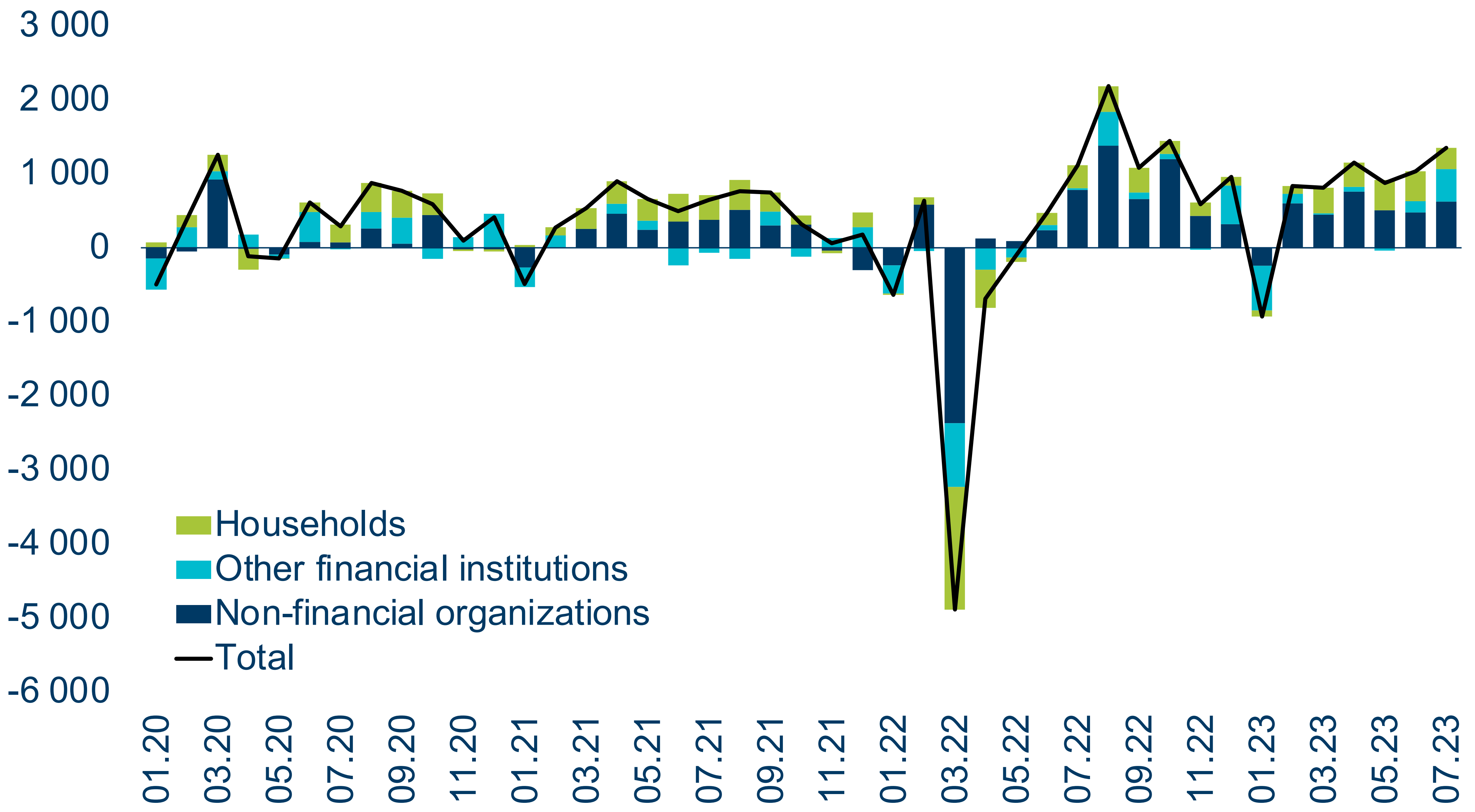
Private sector credit growth robust for the moment.

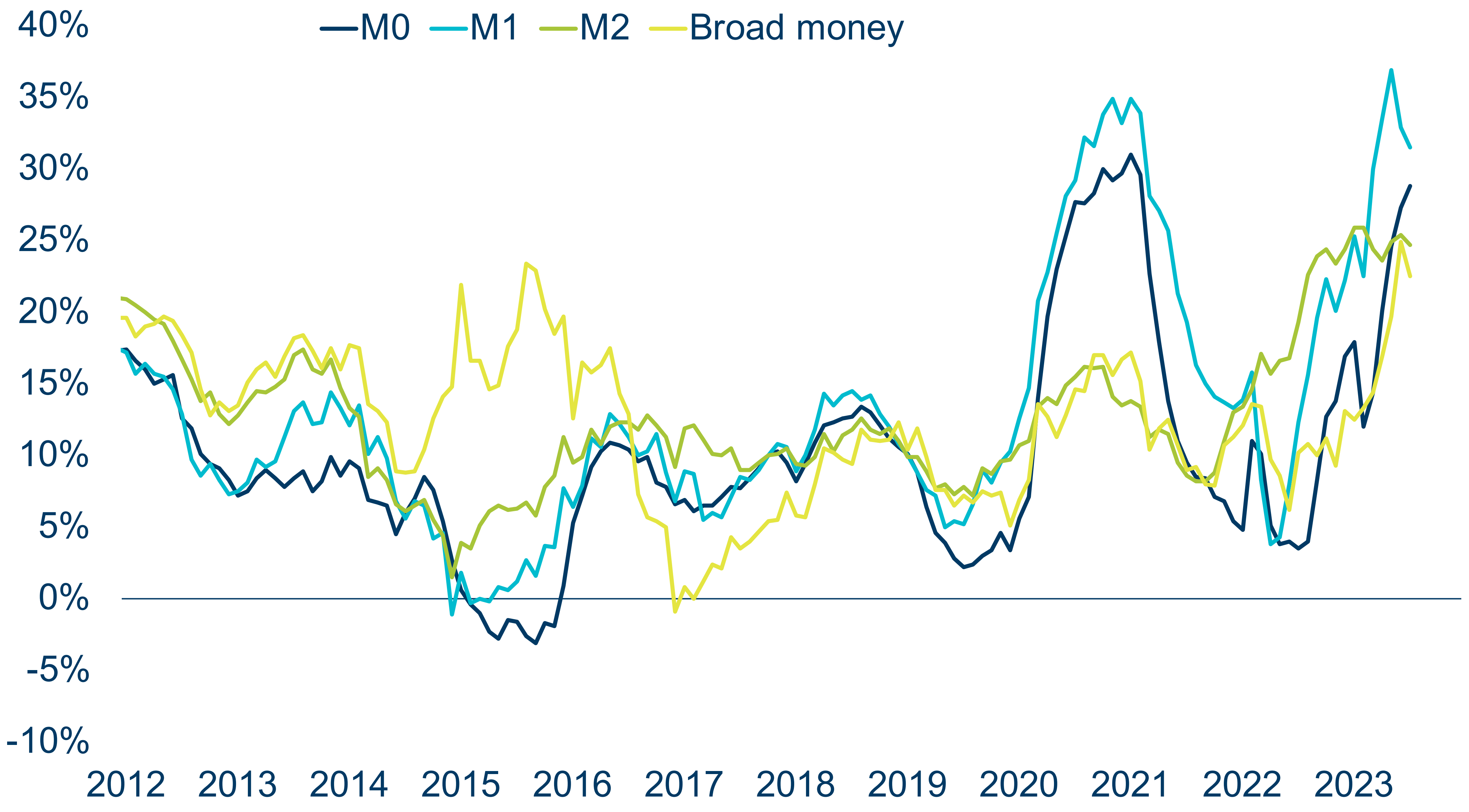
- Due to the provision of sufficient liquidity by the CBR, banks have been able to provide the private sector with credit.
- The CBR was able to simultaneously address monetary and financial stability in 2022 due to the supportive environment.
- With FX inflows down and the ruble under pressure, conflicts between the two objectives will increasingly emerge again.

New ruble-denominated credit, in 2020 ruble billion*



Source: Bank of Russia, KSE Institute *deflated using CPI

Growth of monetary aggregates, in % year-over-year



Source: Bank of Russia, KSE Institute

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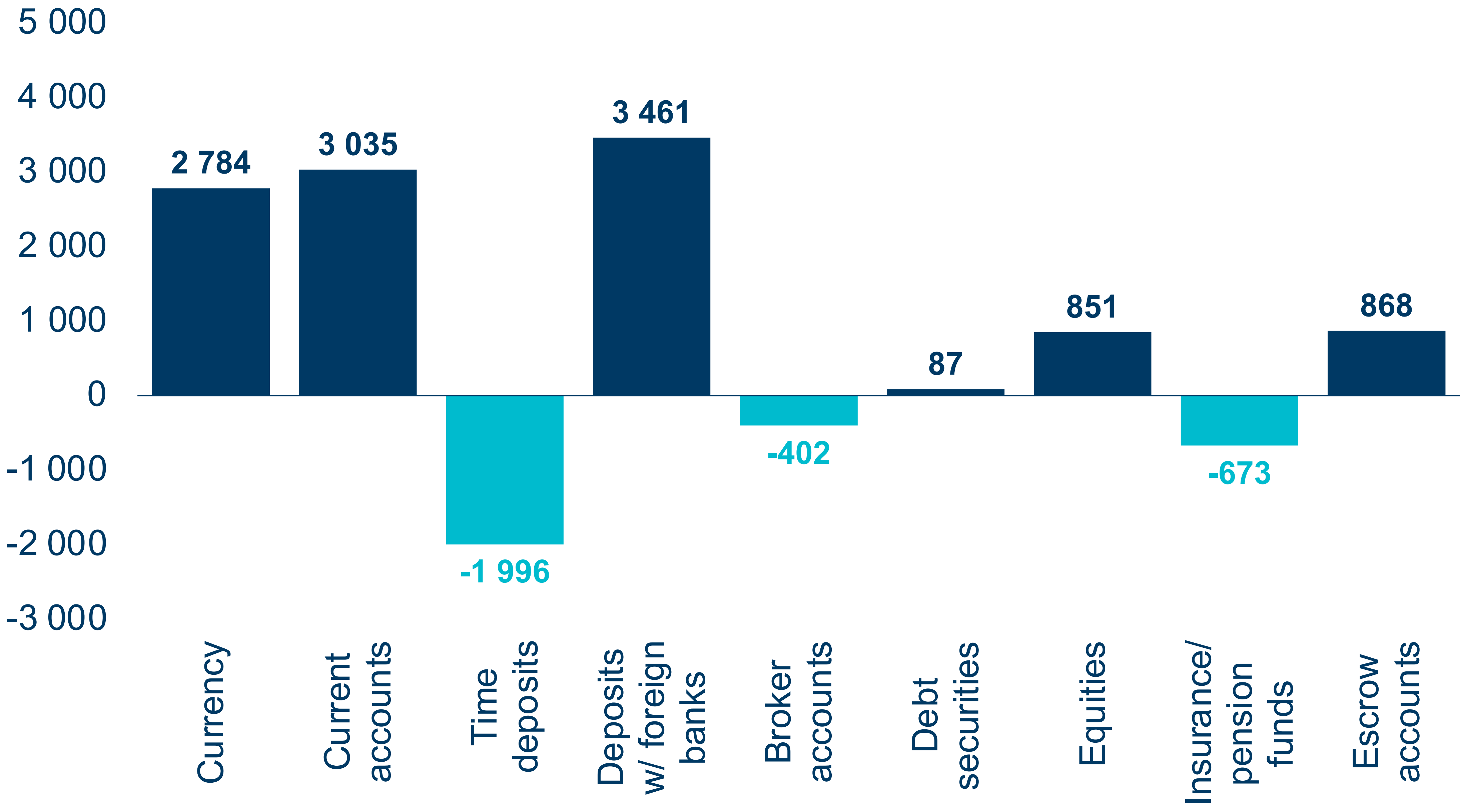
Underlying financial vulnerabilities remain and could resurface quickly.

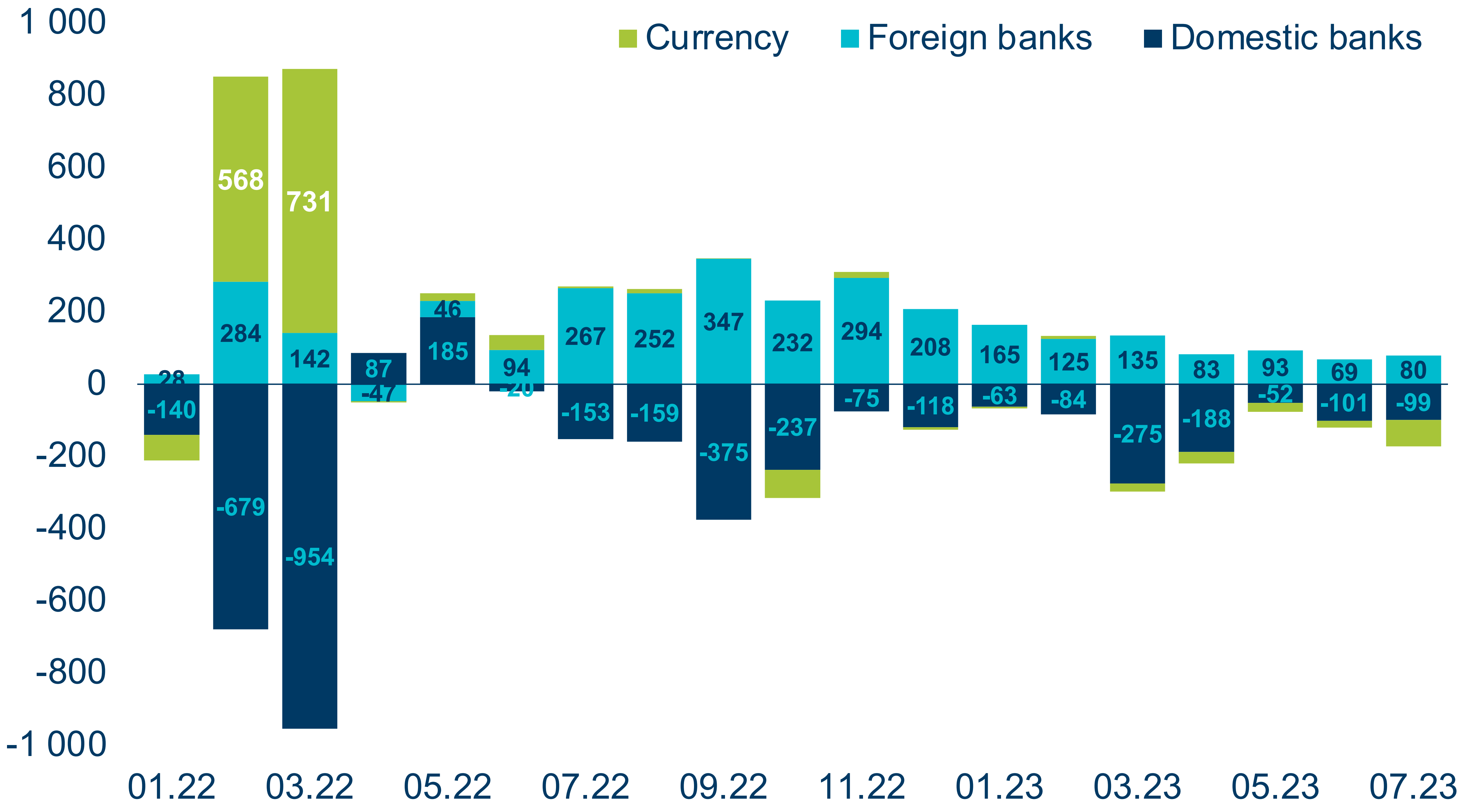
- While a systemic financial crisis was avoided, clear signs of vulnerabilities exist, including household asset movements.
- For instance, households moved funds from longer-term investments to cash holdings, current accounts, and foreign banks.
- As in previous crises, foreign currency was pulled from domestic banks—at the start of the war and surrounding mobilization.

Real change in household assets vs. February 2022, in ruble billion



Source: Bank of Russia, KSE Institute *deflated using CPI

Change in foreign currency cash and deposits, in ruble billion



Source: Bank of Russia, KSE Institute

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Economic activity: return to growth in 2023, but dire prospects in the medium-/long-term

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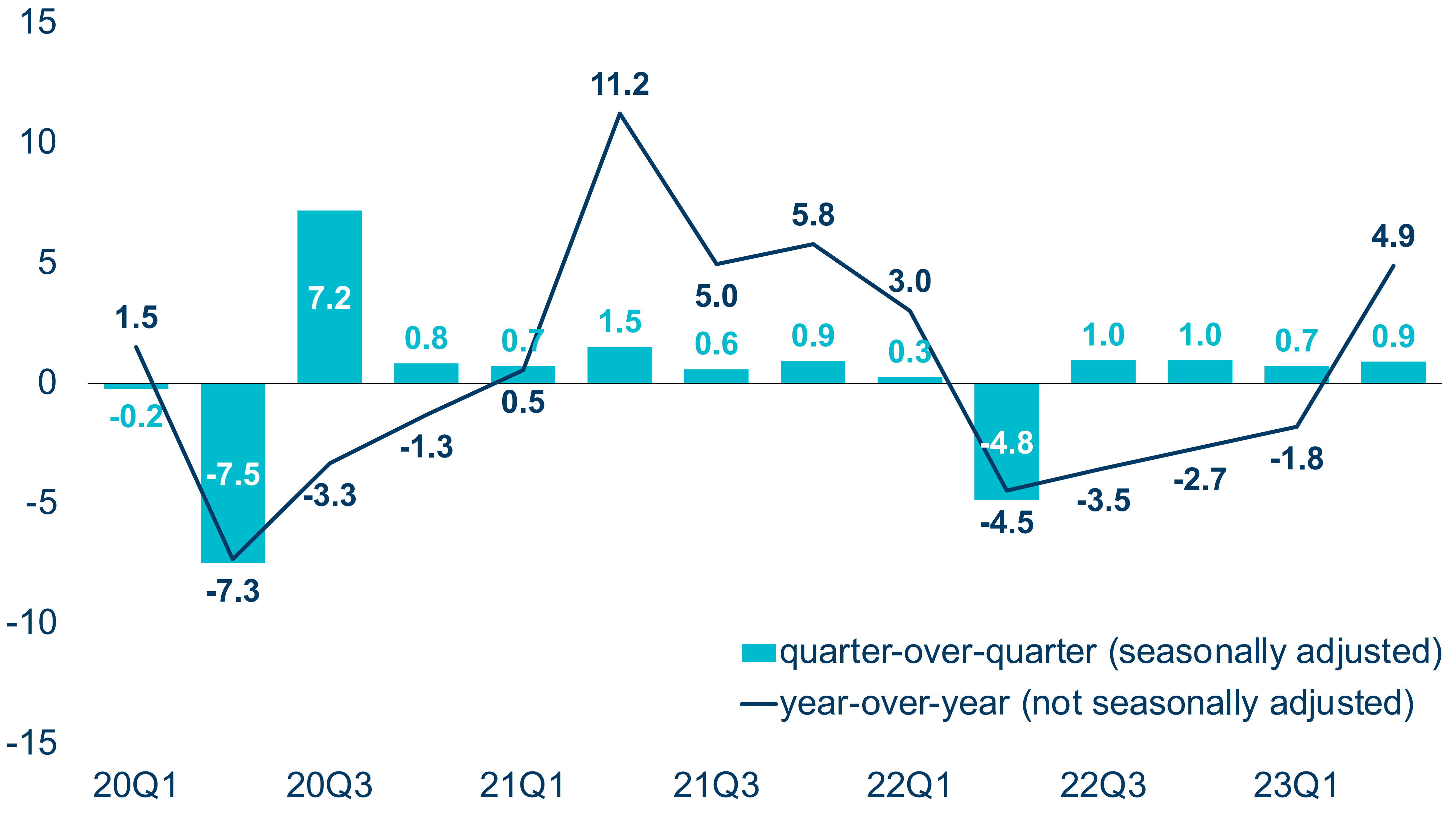
Russia's economy is on track for robust growth in 2023-24.

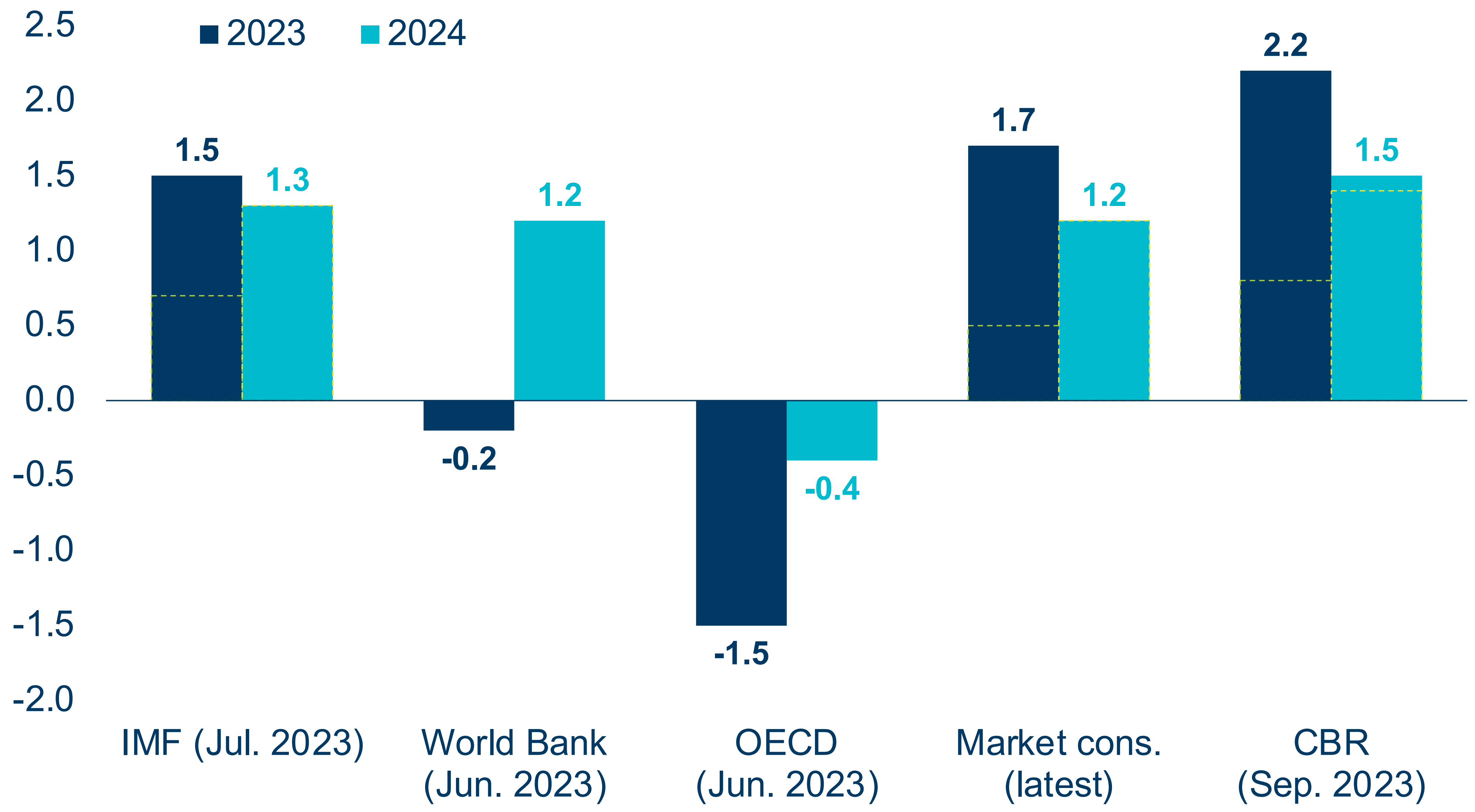
- Rosstat reported an ongoing recovery in H1 2023, resulting in 4.9% year-over-year growth in Q2 due to base effects.
- For the full year, the economy is expected to growth at 1.5-2.2% with forecasts revised upward in recent months.
- Key factors for the recovery: robust private sector credit growth and strong fiscal stimulus from high defense spending.

Quarterly real GDP dynamics, in %



Source: Rosstat, KSE Institute

2023-24 forecasts for Russian real GDP, in % year-over-year*



Source: Bank of Russia, Bloomberg, IMF, OECD, World Bank

*dotted lines denote previous forecast (as shown in July edition of the chartbook)

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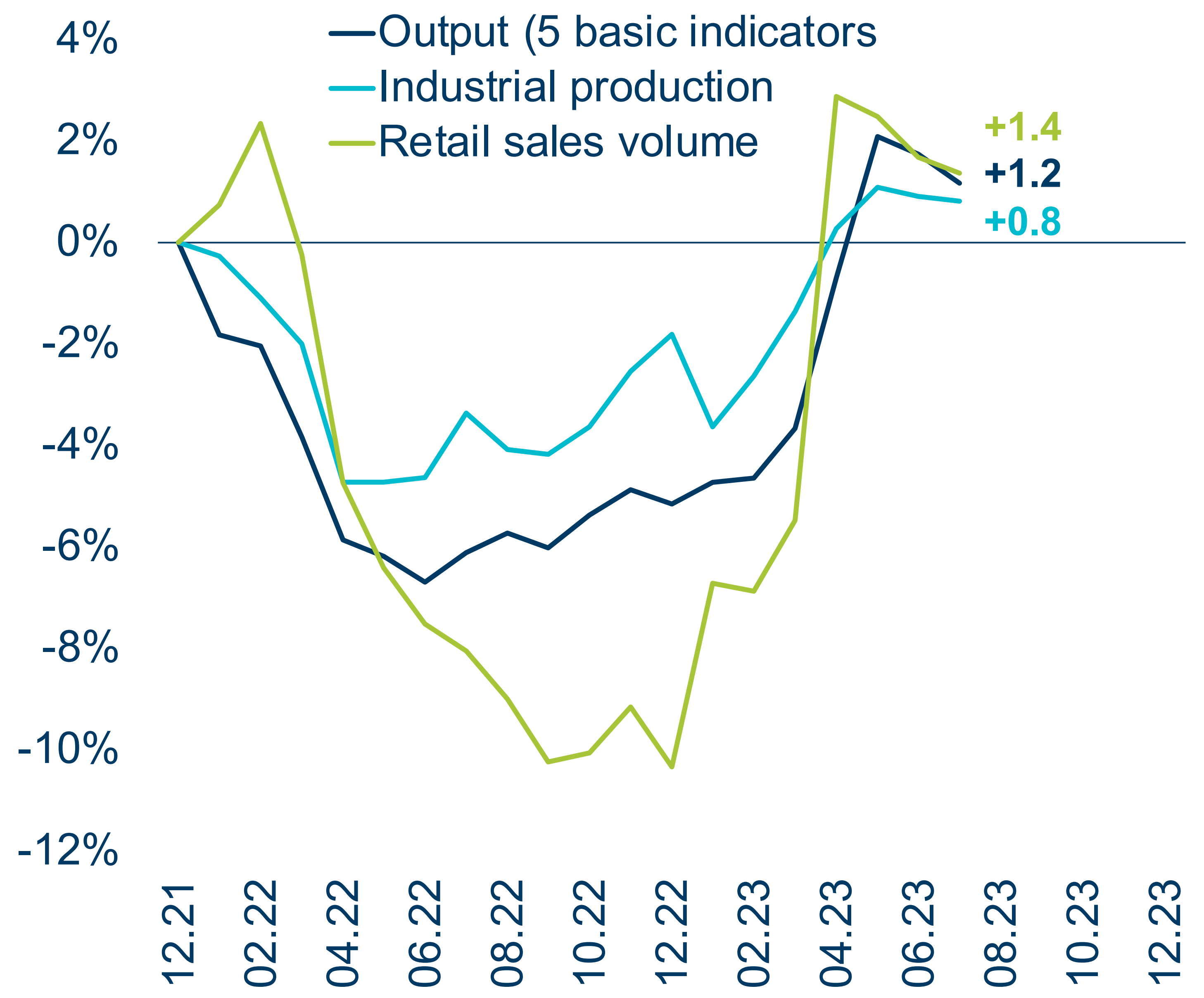
Broad range of indicators provides a consistent picture.

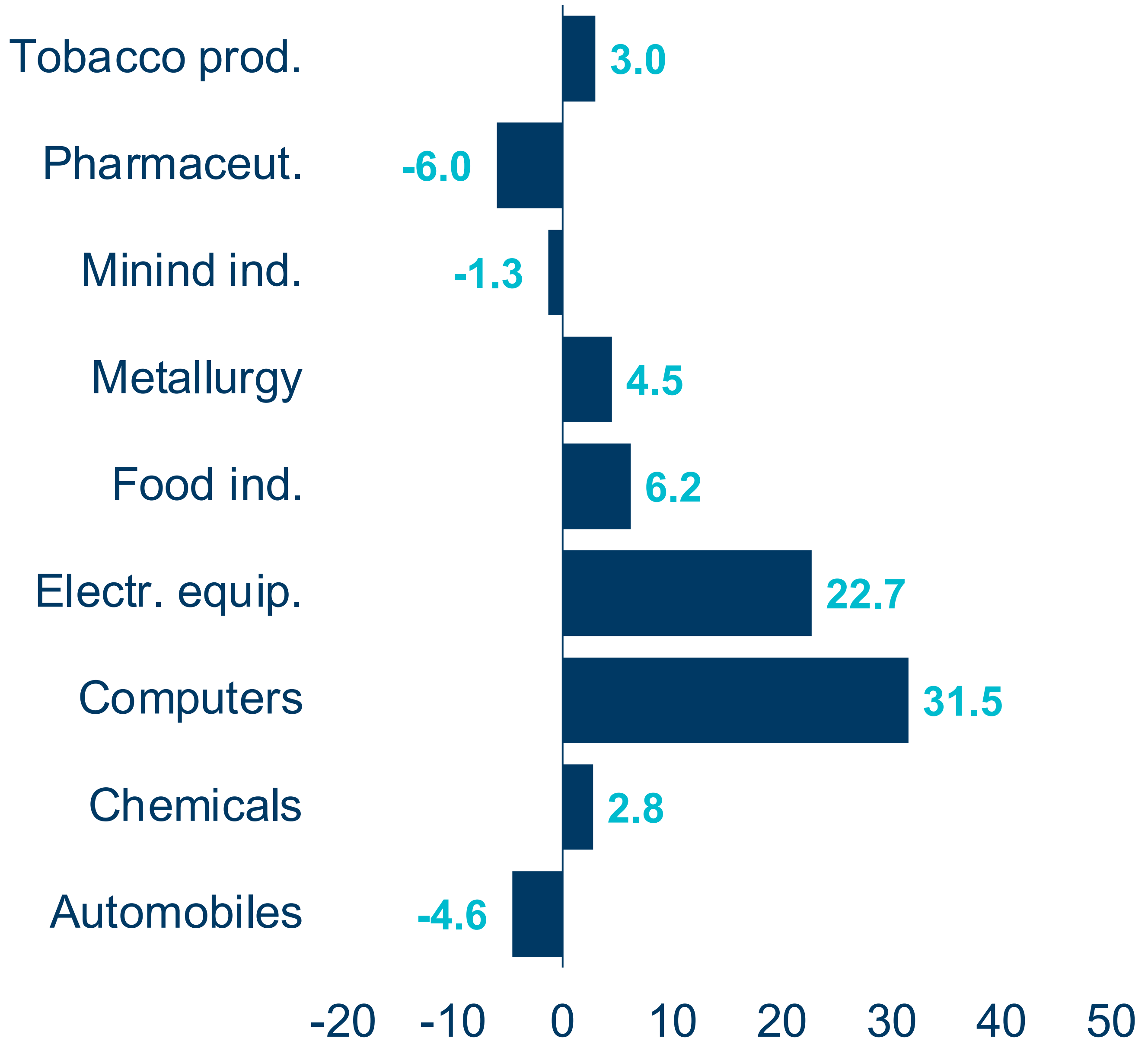
- Questions about the reliability of Russian GDP data are legitimate and pose challenges for any forecasting exercise.
- But a variety of indicators provide the consistent picture of an economic recovery that has essentially been completed.
- This is true for activity measures such as industrial production and retail sales, but also sentiment indicators like PMIs.

Activity indicators vs. December 2021, in %



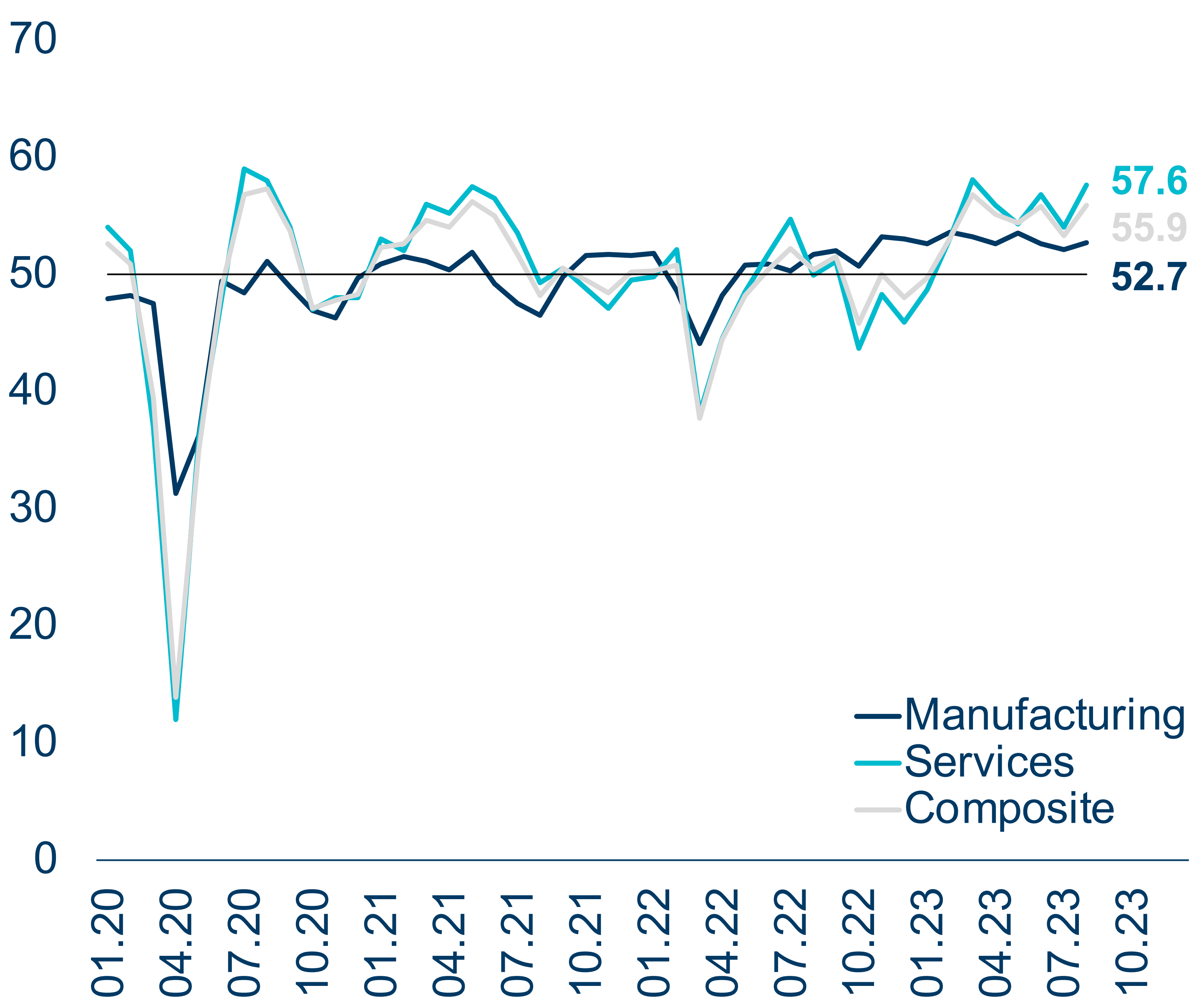
Source: Rosstat, KSE Institute

Sectoral production, in % year-over-year*



Source: Rosstat, KSE Institute *for January-July 2023

PMIs, index (50+ = expansion)

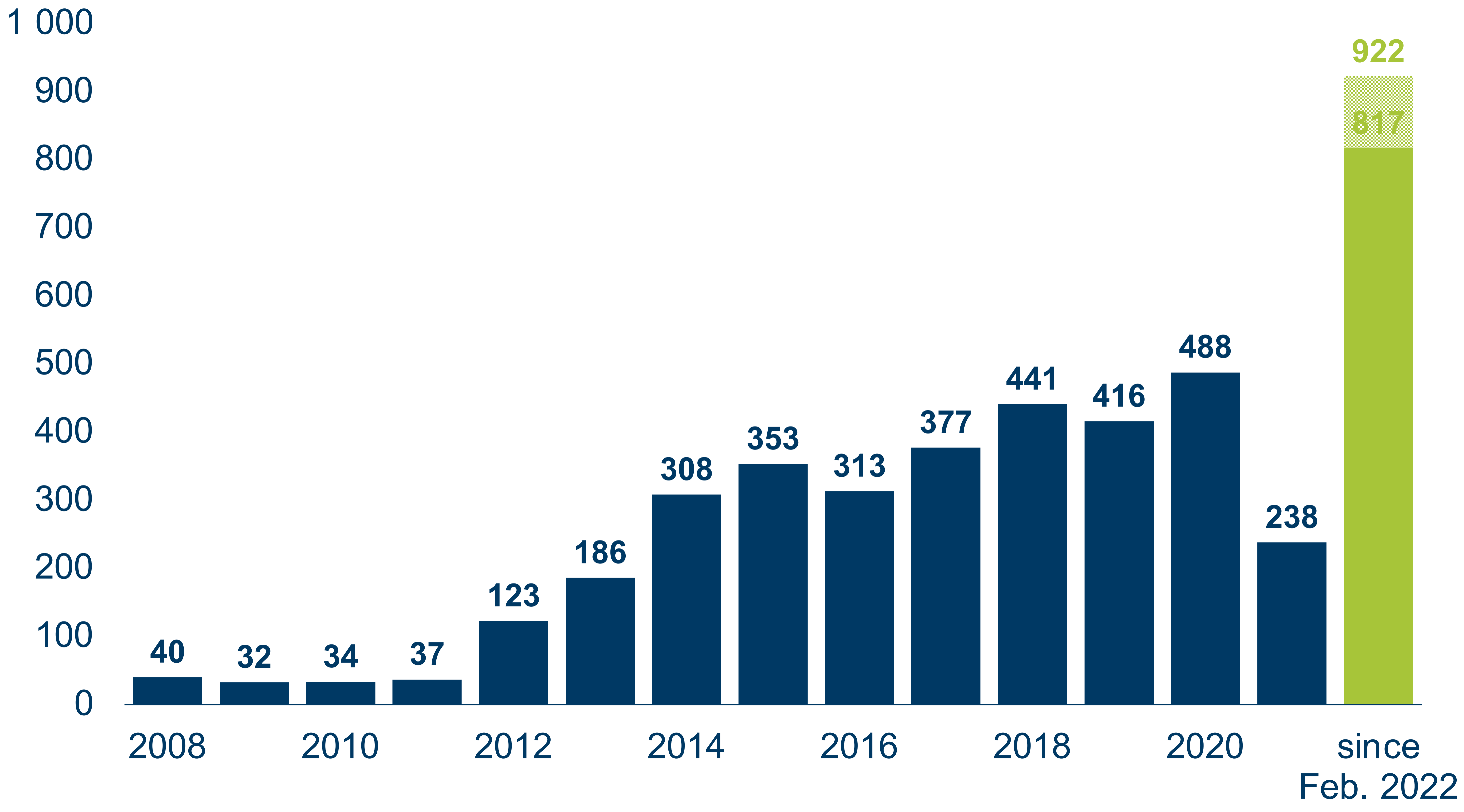


Source: S&P Global, KSE Institute

Medium- to long-term prospects of the economy are dire.

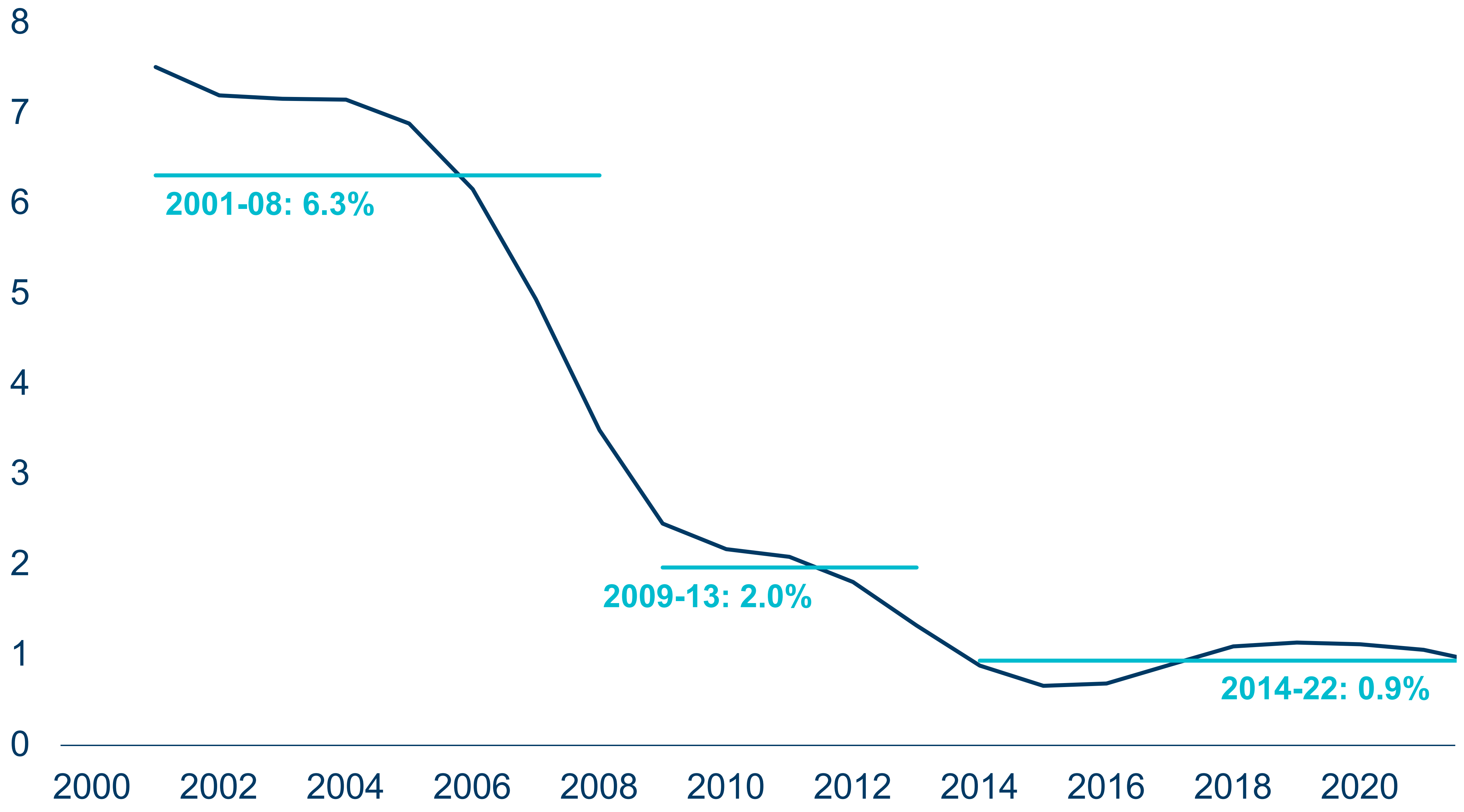
- Emigration is estimated to have picked up considerably since February 2022—to 817,000-922,000.
- Thus, an economy with previously abysmal potential growth is facing a significant shortage of (skilled) labor.
- Furthermore, once fiscal stimulus is withdrawn, the economy's fundamental weaknesses will surface.

Emigration from Russia, in thousand persons



Source: Re:Russia, Rosstat, KSE Institute

Potential GDP growth, in % year-over-year*



Source: Rosstat, KSE Institute *calculated using H-P filter