

KSE INSTITUTE RUSSIA CHARTBOOK

SANCTIONS ARE WORKING, BUT NO INFLECTION POINT IN SIGHT

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Executive Summary

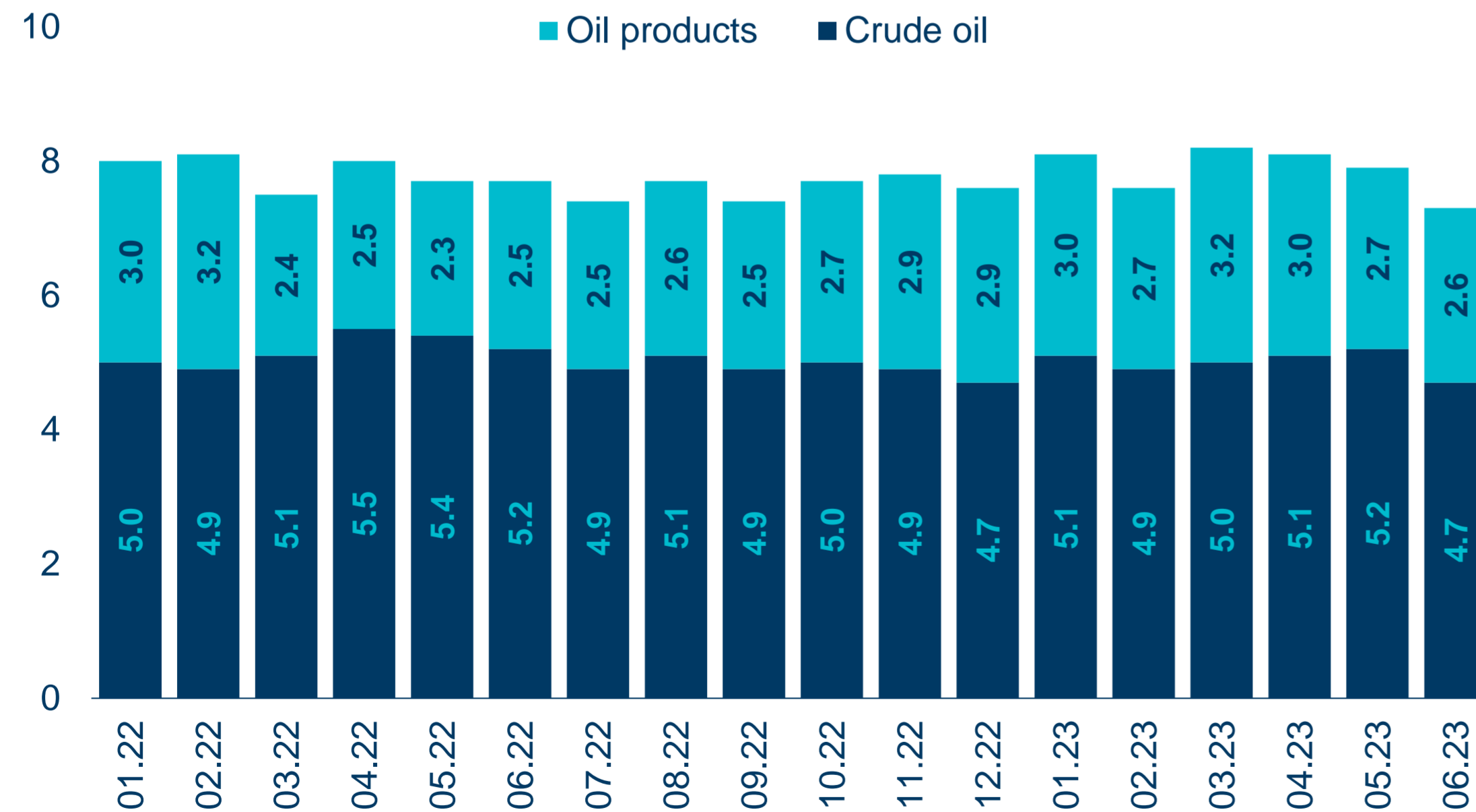
- 1. Russia's economy far from inflection point.** Sanctions continue to have an impact on the Russian economy, in particular external dynamics and budget revenues, but the country is not approaching any inflection point that would force it to stop its war of aggression in Ukraine in the near term. For this reason, Ukraine's allies should step up pressure significantly in the coming months.
- 2. Oil sanctions have effect, but more is needed.** International sanctions have significantly impacted Russia's exports and budget: Export earnings in H1 2023 were down one-third (both vs. H1 and H2 2022), while revenues from oil fell by 23% vs. H2 2022 and 46% year-over-year. However, Russia continues to earn large amounts of money from oil: \$425 million per day in January-June.
- 3. External environment increasingly challenging.** In line with lower oil sales, overall goods exports have fallen by one-third in H1 2023 (year-over-year). As imports are close to pre-sanctions levels, this means a dramatic decline in trade balance—\$54.3 billion in H1 2023 vs. \$179.8 billion a year ago (-70%)—and current account surplus—\$20.2 billion vs. \$147.6 billion (-86%).
- 4. Macro fundamentals drive Ruble depreciation.** At ₺90/\$ and ₺100/€, Russia's currency has lost a large share of its value since last fall—39% against the dollar and 47% against the euro. Significantly lower inflows of foreign currency due to the drop in exports are the key driver. The weaker ruble raises the risk of upside pressure on inflation as costs for imported goods increase.
- 5. Reduced spending leads to lower budget deficit.** The federal government deficit declined considerably—from 3.4 trillion rubles in January-April to 2.6 trillion in H1 2023. Revenues from oil and gas still underperform (-47% vs. H1 2022)—but other revenues are up, and authorities have managed to reduce spending. As a result, we lower our deficit forecast for full-2023 to ~5% of GDP.
- 6. Financing challenges reduced, buffers to last longer.** Should Russia manage to keep expenditures stable at current levels, withdrawals from the NWF and new issuance of domestic debt are unlikely to pick up significantly in coming months. With the NWF also benefiting from a weaker ruble via valuation effects, critical macro buffers will last longer than previously expected.
- 7. Russia's economy continues to recover.** Fundamentally, the economy is close to fully bouncing back from the initial sanctions shock—Q1 2023 real GDP is only down 1.8% year-over-year. While questions about the reliability of Russian data are legitimate, a variety of indicators—including high-frequency activity and sentiment measures—paint a consistent picture.

Oil sanctions are having an effect, but changes are needed to increase pressure.

Russian oil has remained on the global market.

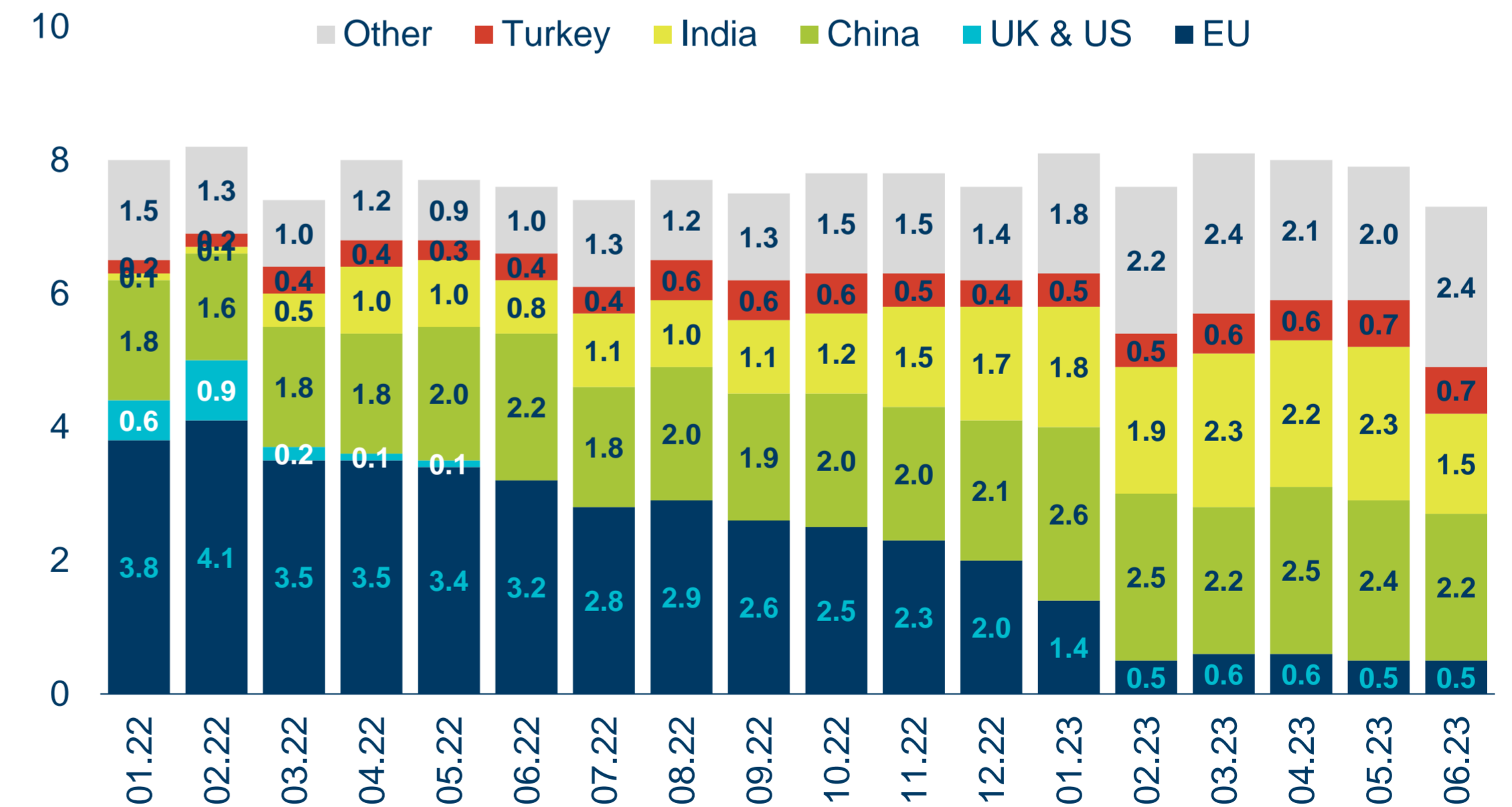
- Russian oil export volumes (crude and products) have remained broadly stable since the start of the full-scale invasion.
- India has emerged as the key new buyer; China and India together now account for almost 60% of total exports.
- Stable volumes mean that the sanctions coalition’s strategy to keep Russian oil on the global market has succeeded.

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

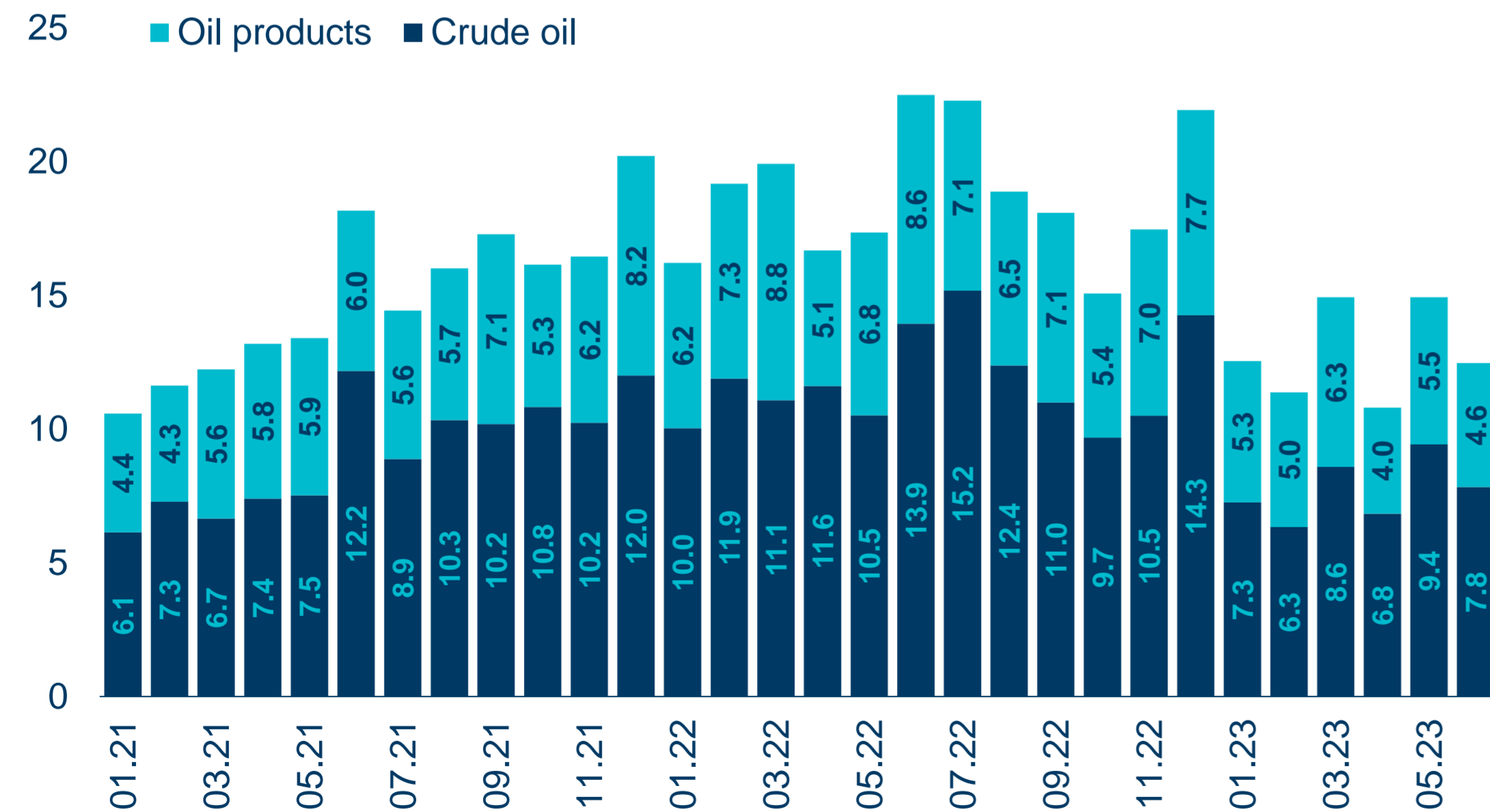


Source: International Energy Agency, KSE Institute

Oil export earnings and budget revenues are down, but they remain sizable.

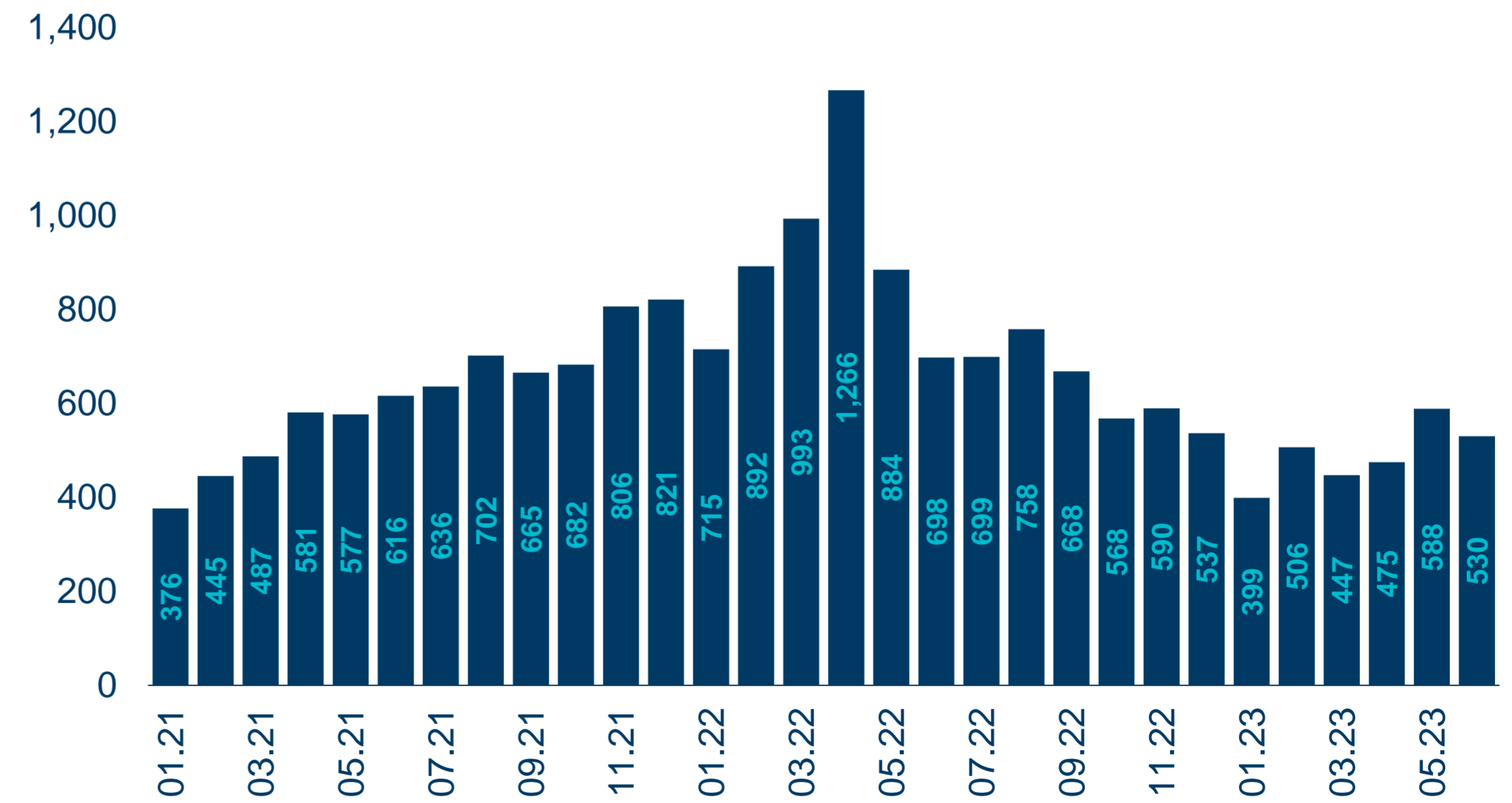
- The EU embargo on Russian crude oil initially widened discounts for Russian export prices and reduced earnings.
- However, as volumes remained broadly stable, Russia continues to take in large amounts of foreign currency from oil trade.
- In the first half of this year, the country earned \$425 million per day from exports of crude oil and oil products.

Oil export earnings, in U.S. dollar billion



Source: KSE Institute

Federal budget oil revenues, in ruble billion

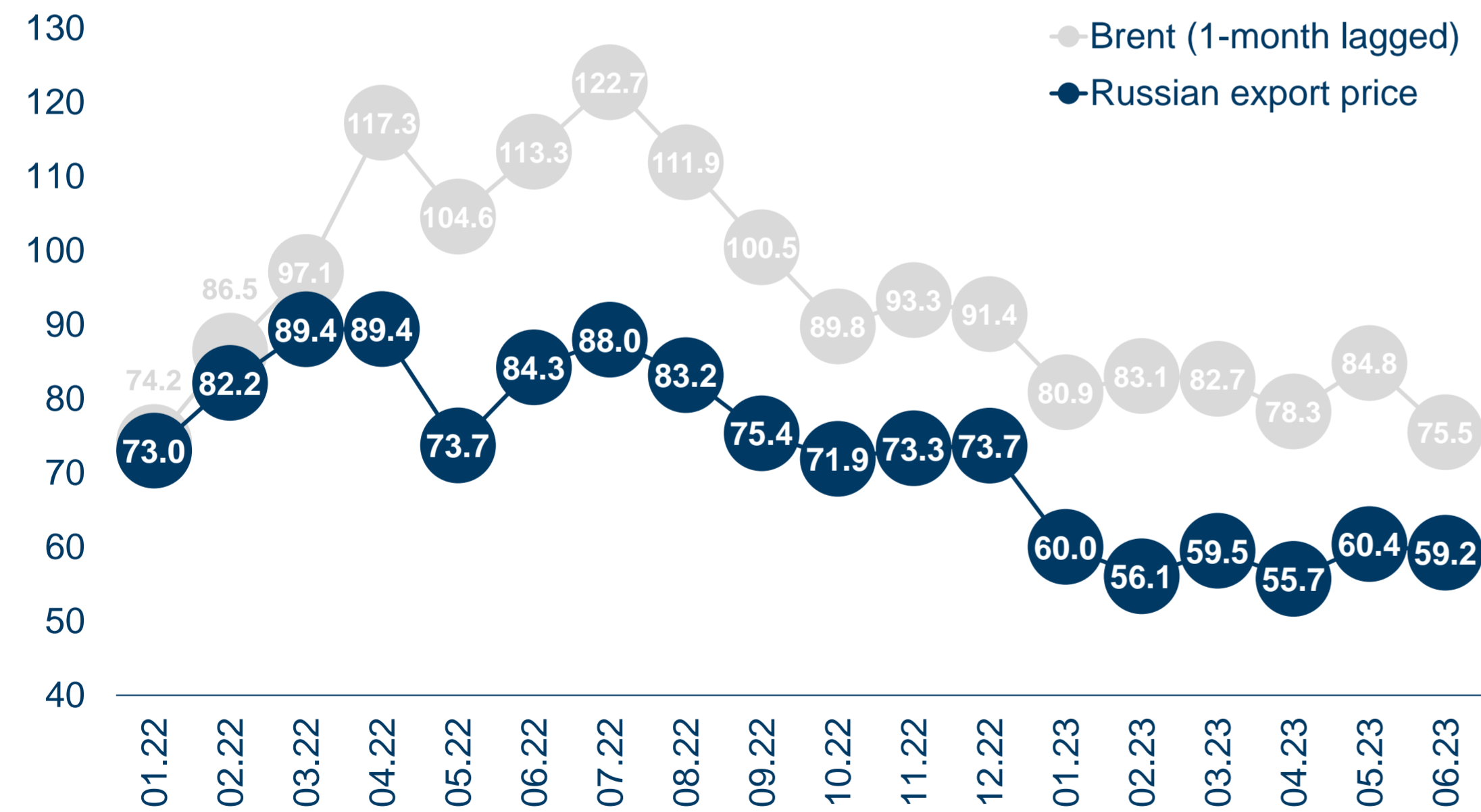


Source: Ministry of Finance, KSE Institute

Shrinking discounts on Russian oil are a concern.

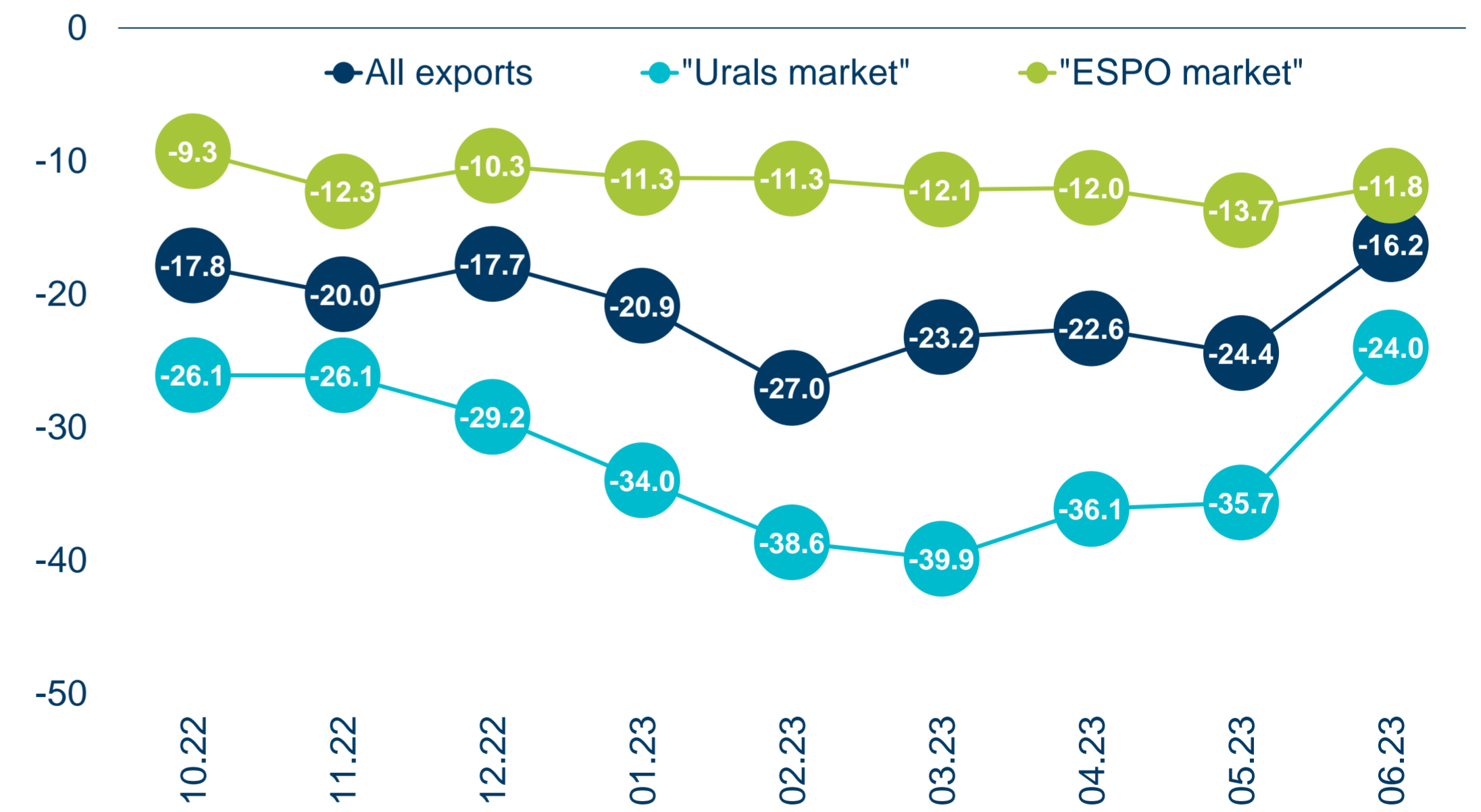
- Discounts on Russian crude oil have declined, especially in the market for Urals (exports from Baltic and Black Sea ports).
- Russia appears to have managed to keep prices for its crude oil stable while global prices started to weaken again.
- Every \$10/barrel in higher crude oil prices mean \$18.5 billion in higher export earnings per year (at ~5 million barrels/day).

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



Source: IEA, KSE Institute

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

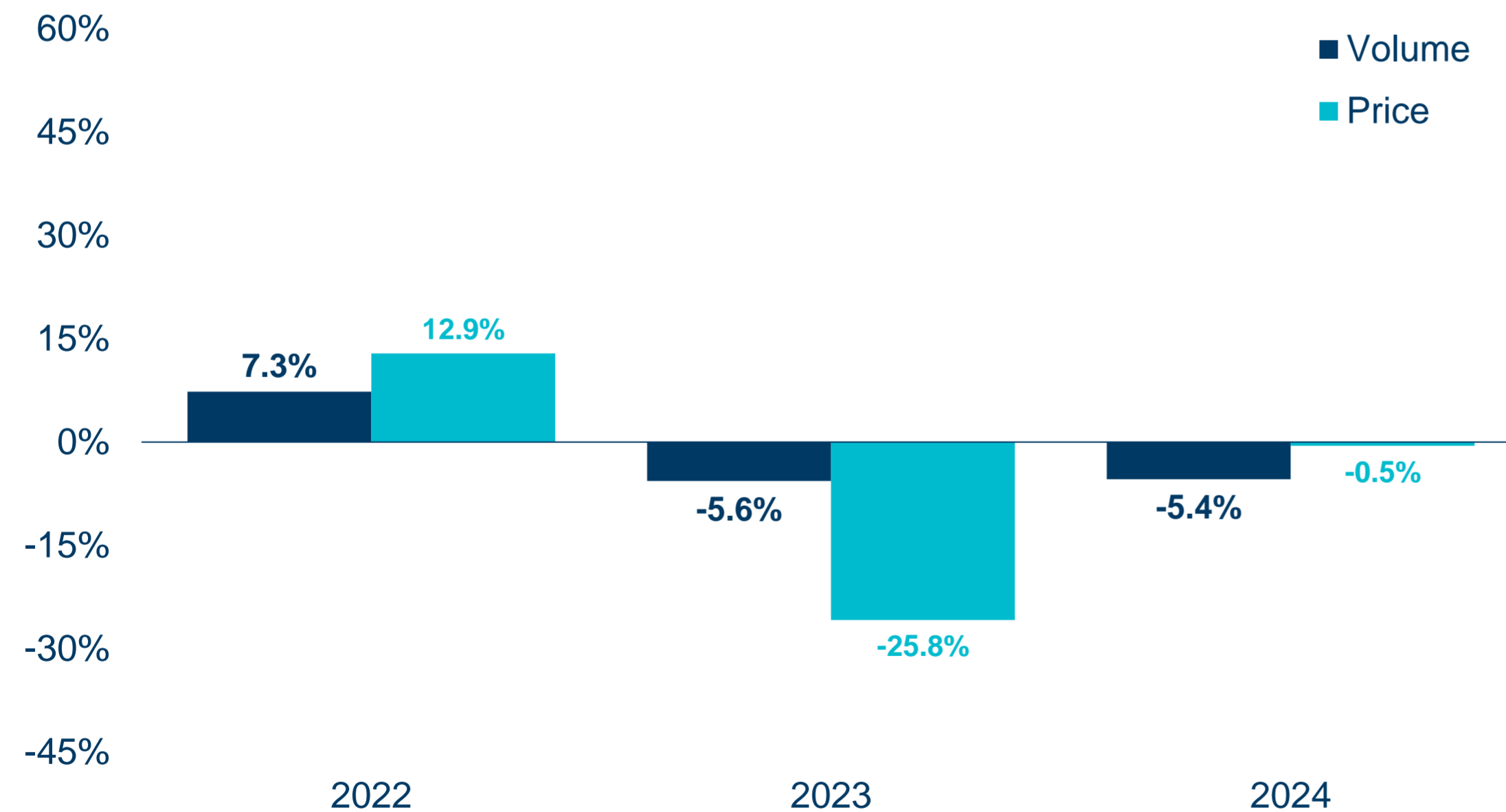


Source: IEA, KSE Institute *Brent price with 1-month lag

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

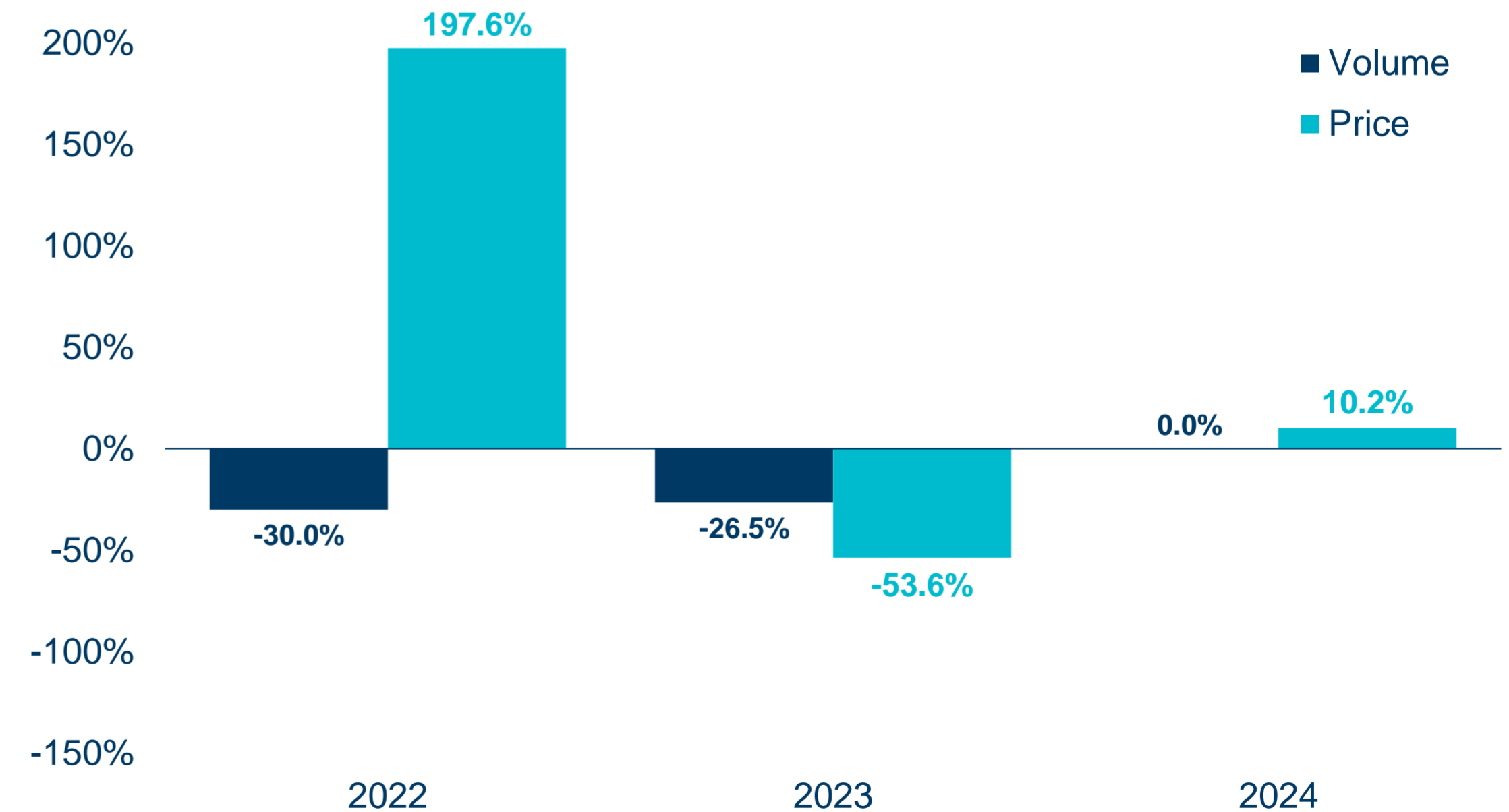
- We forecast a smaller drop of Russian oil export prices as global prices rose and discounts on Russian oil narrowed.
- As a result, export earnings from oil will reach \$152.6 billion in 2023, \$27.4 billion more than previously projected.
- If Russia does not fully implement the announced production cut, which we think is likely, earnings will be even higher.

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



Source: KSE Institute

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



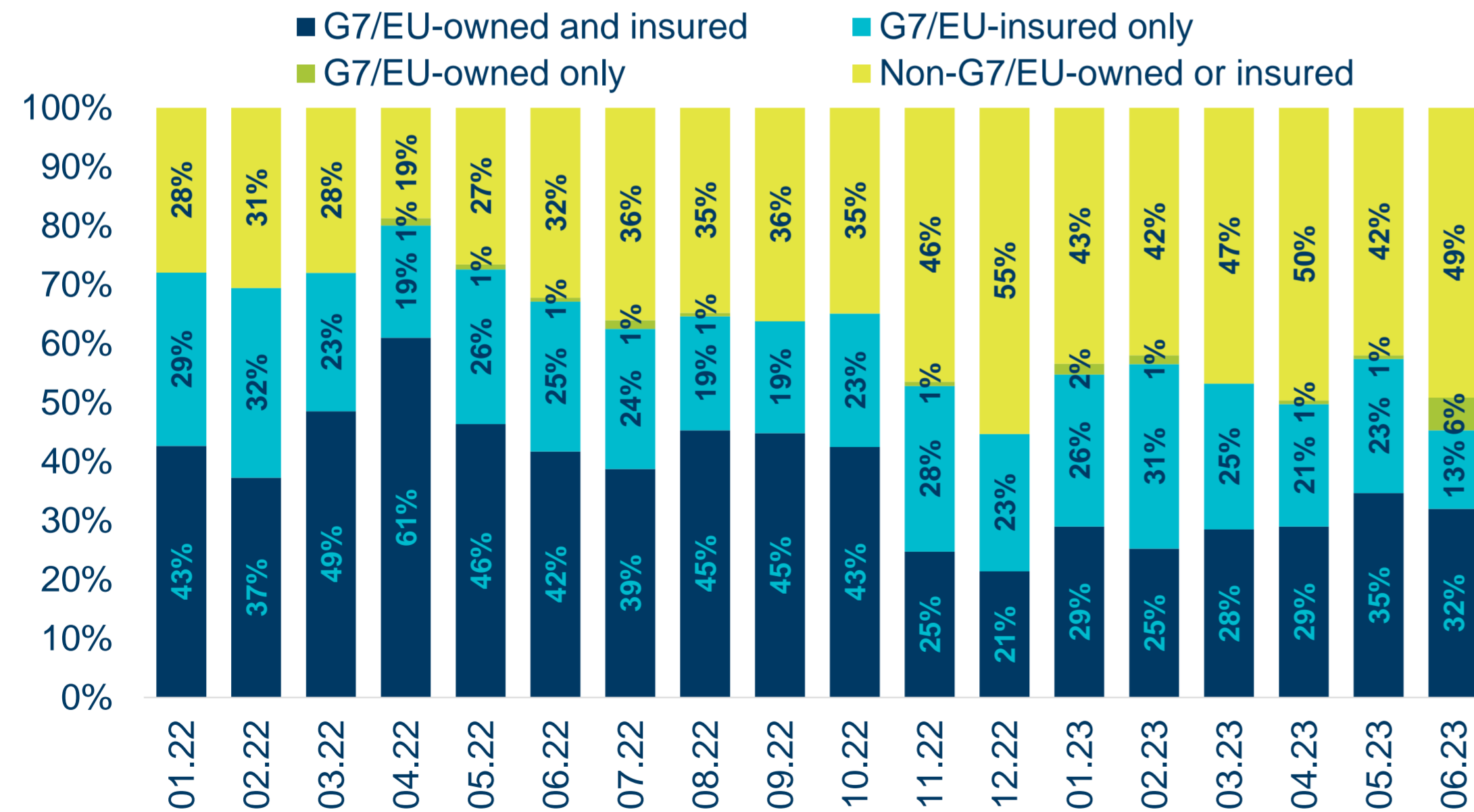
Source: KSE Institute

Tracking of oil exports illustrates challenges for price cap coalition.

- Russia is shifting vessels that operate without Western services to market segments with prices above the price cap.
- Overall, the share of non-G7/EU-owned/insured tankers is broadly stable, indicating that shadow fleet expansion is difficult.
- While these dynamics were expected, they reduce the sanction coalition’s ability to push down prices via the cap.

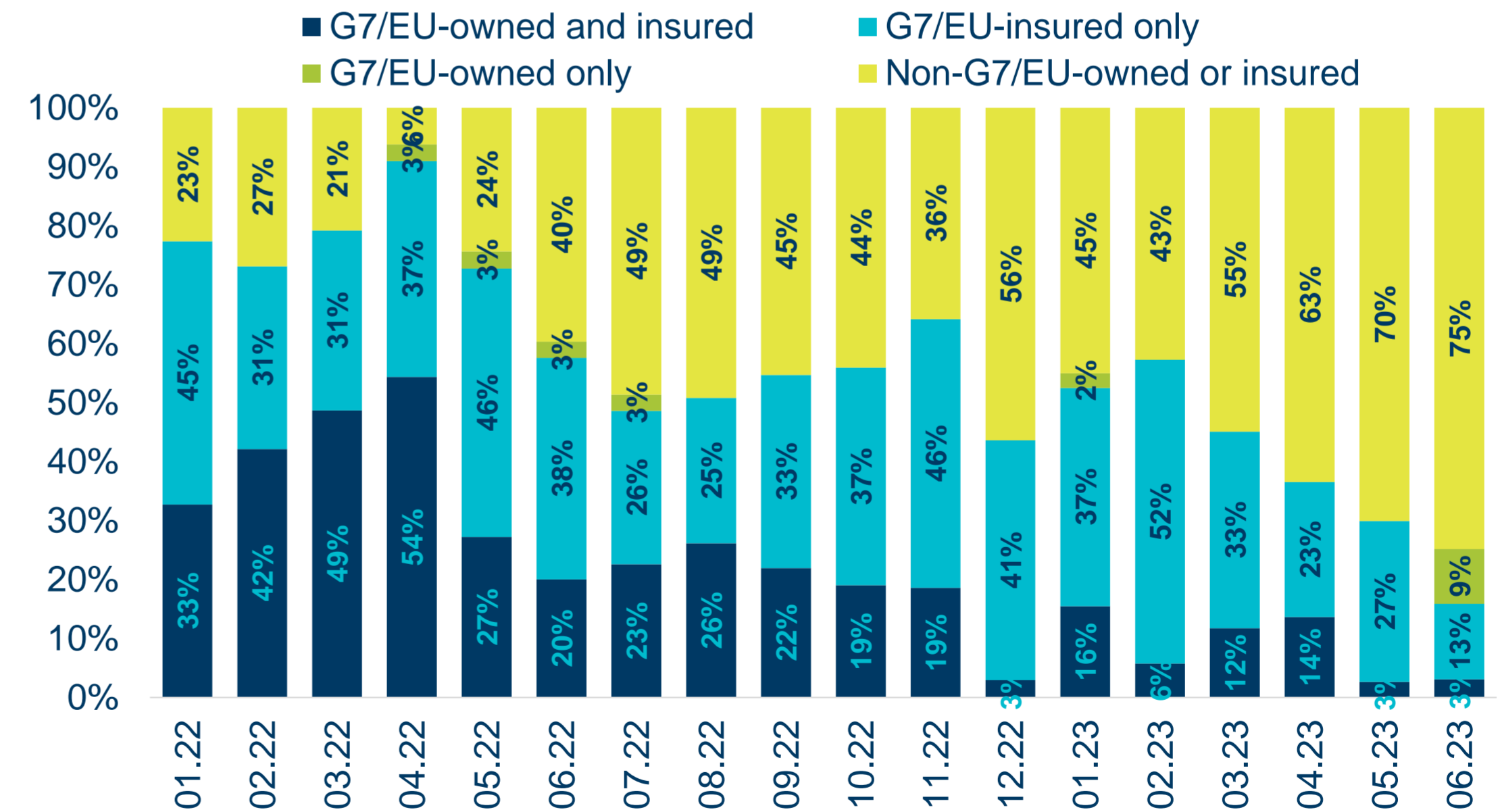
[Download KSE Institute’s latest “Russian Oil Tracker”](#)

Composition of Russian crude oil exports, in %



Source: KSE Institute

Composition of Russian crude oil exports from Kozmino, in %

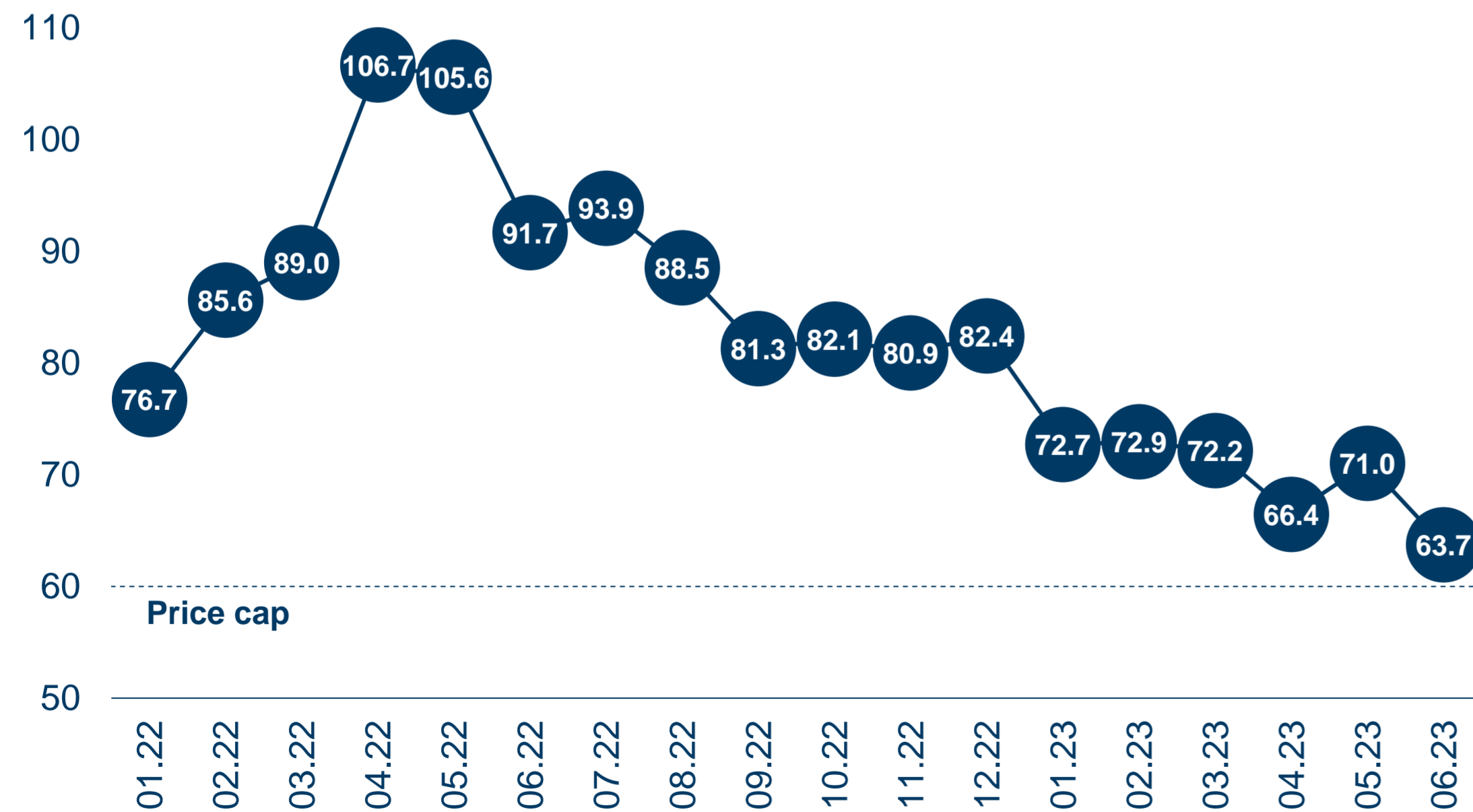


Source: KSE Institute

Compelling evidence for widespread price cap violations.

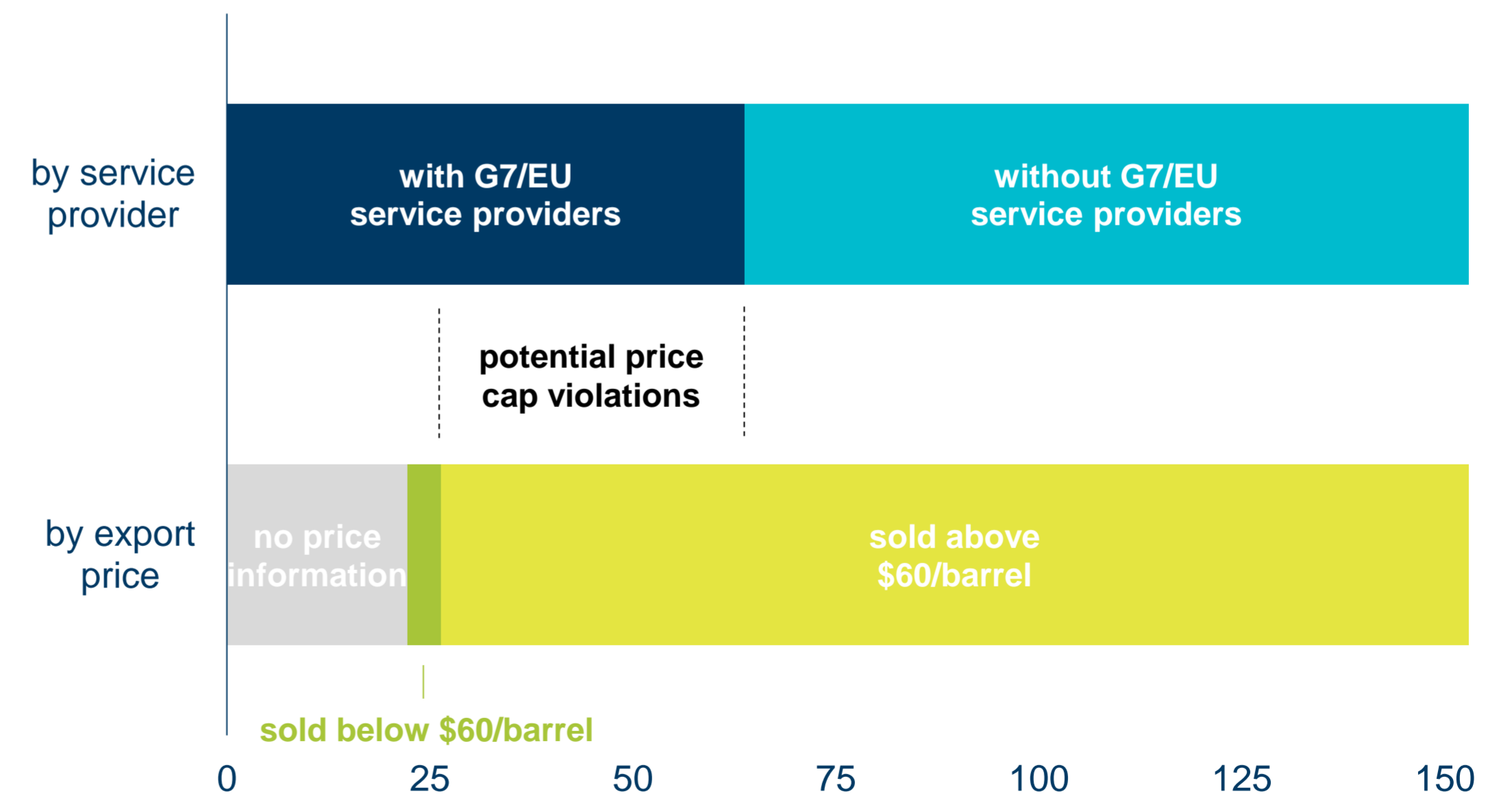
- In January-June, 97% of crude oil shipped from Kozmino (for which data is available) was sold above the \$60/barrel cap.
- At the same time, Western companies were involved in 42% of the shipments—pointing to widespread violations.
- We estimate that at least 37 million barrels violated the price cap—but the number could be as high as 59 million barrels.

Crude oil export price at Kozmino, in U.S. dollar/barrel



Source: KSE Institute

Estimate of price cap violations at Kozmino, in million barrels*

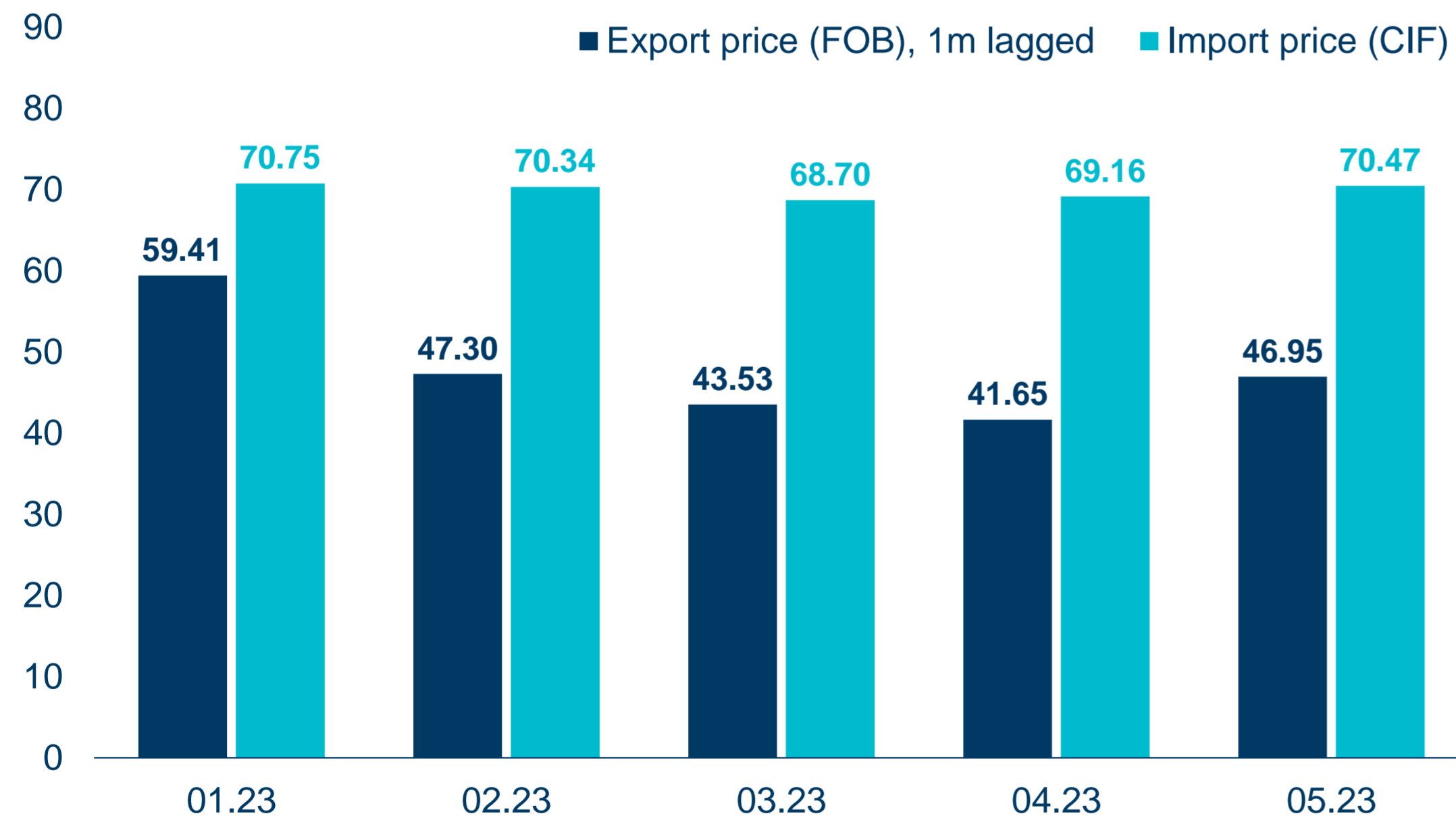


Source: KSE Institute *January-June 2023

Spreads point to price cap violations via inflated shipping costs.

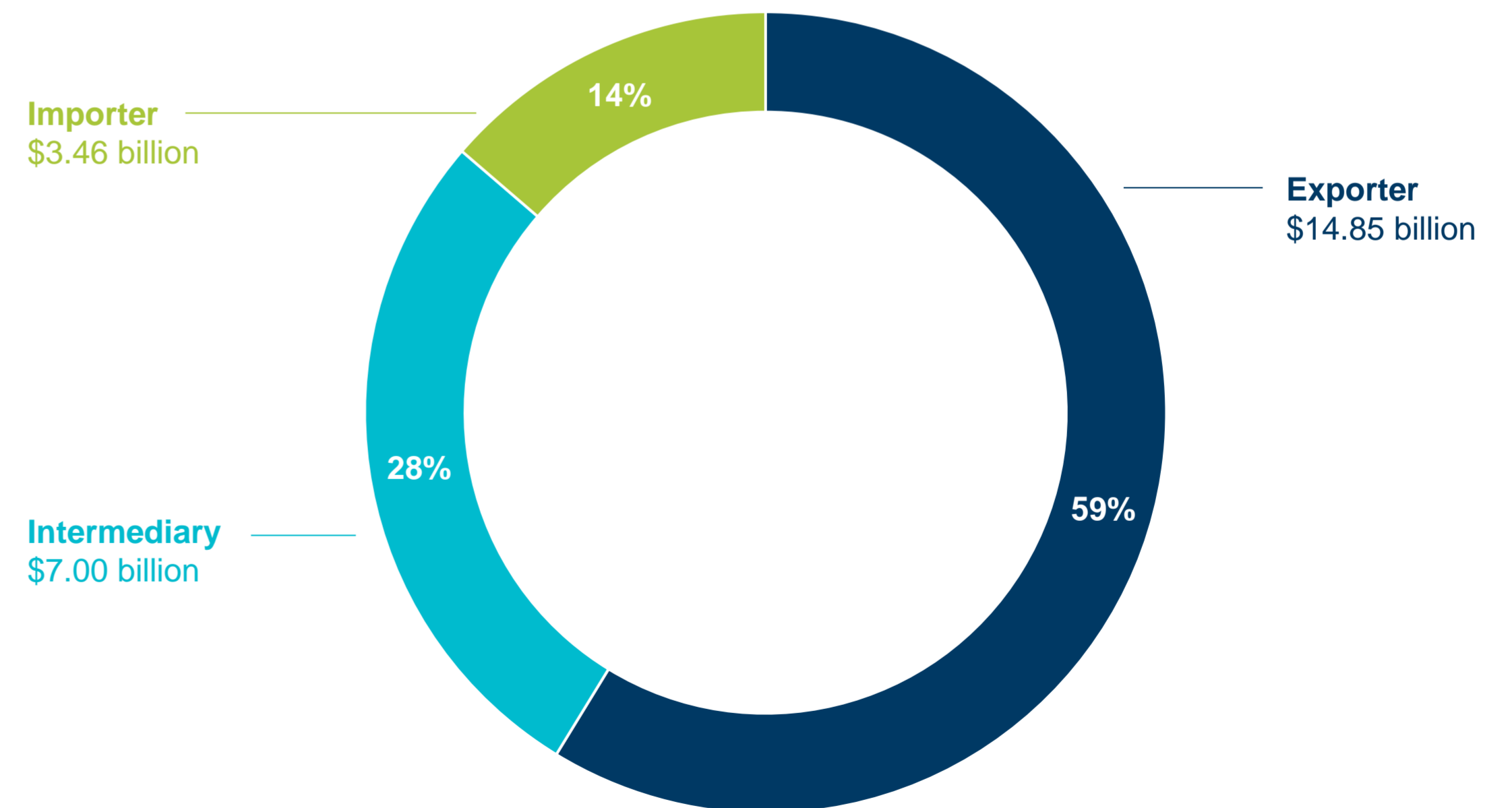
- The spread between FOB and CIF prices for crude oil exports to India averaged \$22/barrel in January-May 2023.
- This is significantly higher than the cost of shipping and allows intermediaries to capture oil market arbitrage.
- We estimate the spread's total value in January-May at \$7 billion, which could have partially gone to Russian companies.

Prices for Russian crude oil exports to India, in U.S. dollar/barrel*



Source: KSE Institute *export prices are lagged by one month to account for time at sea

Distribution of value of Russian crude oil exports to India*

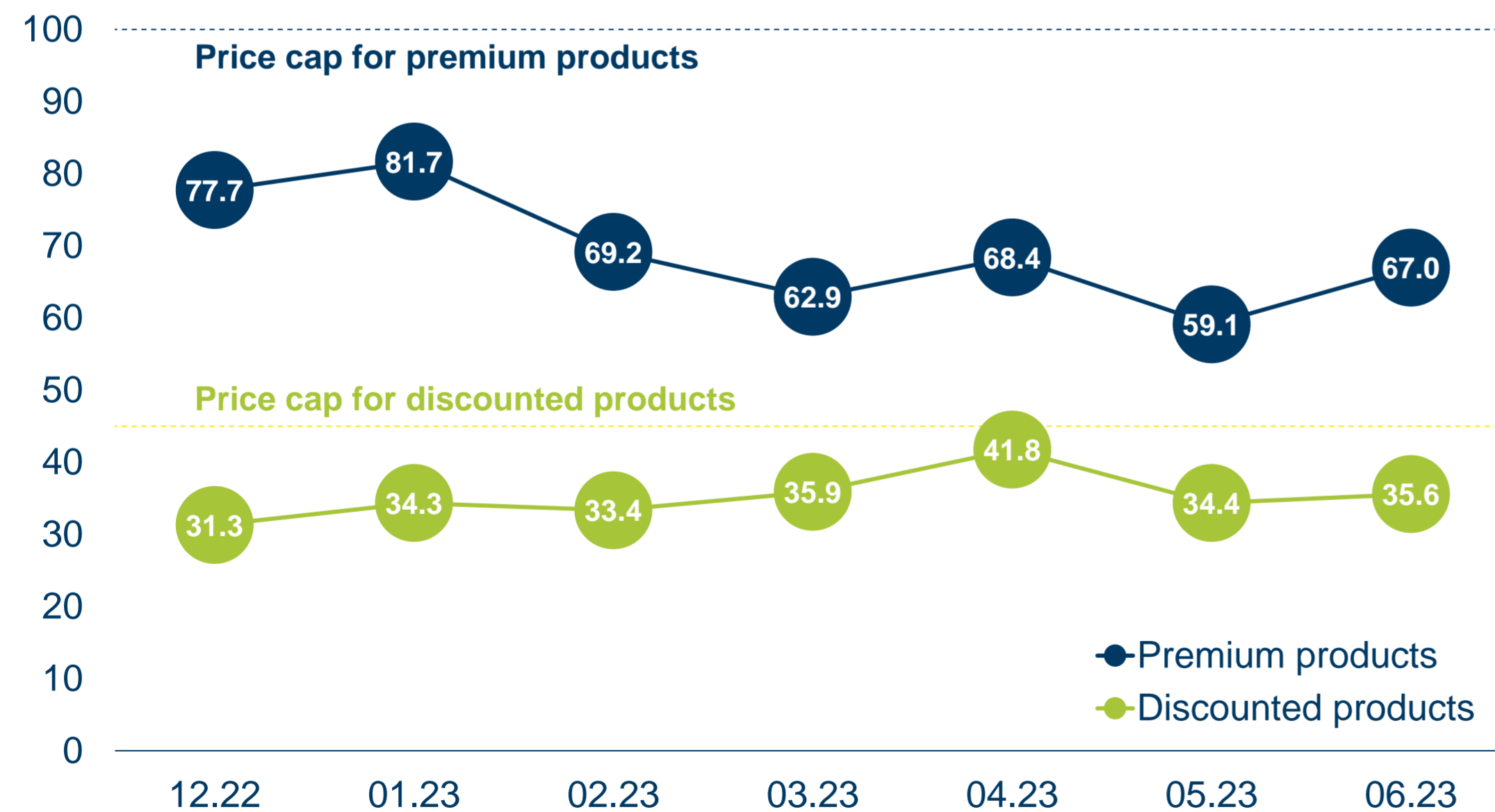


Source: KSE Institute *January-May 2023; total value calculated using Brent price

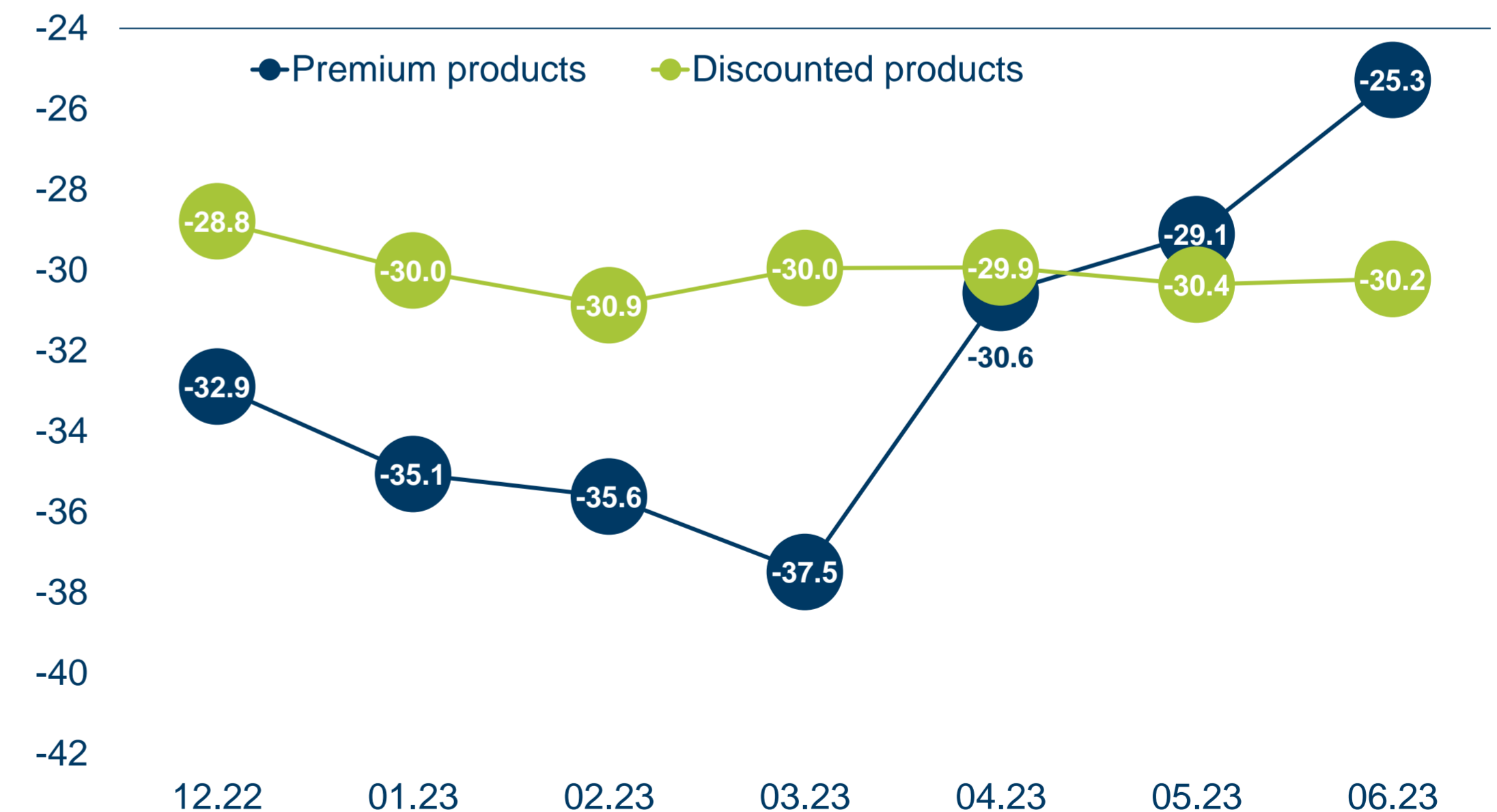
Price caps on Russian oil products have not been effective.

- Discounts on Russian oil products did not widen after the taking effect of the price caps in February.
- For premium products, including diesel, discounts have, in fact, narrowing considerably in April-June.
- Export prices significantly below the respective thresholds indicate that the price caps are set too high.

Prices for Russian oil products, in U.S. dollar/barrel*



Prices for Russian oil products vs. benchmark, in U.S. dollar/barrel*



Source: IEA, KSE Institute *premium products: diesel, gas oil, gasoline, vacuum gas oil; discounted products: fuel oil, naphtha

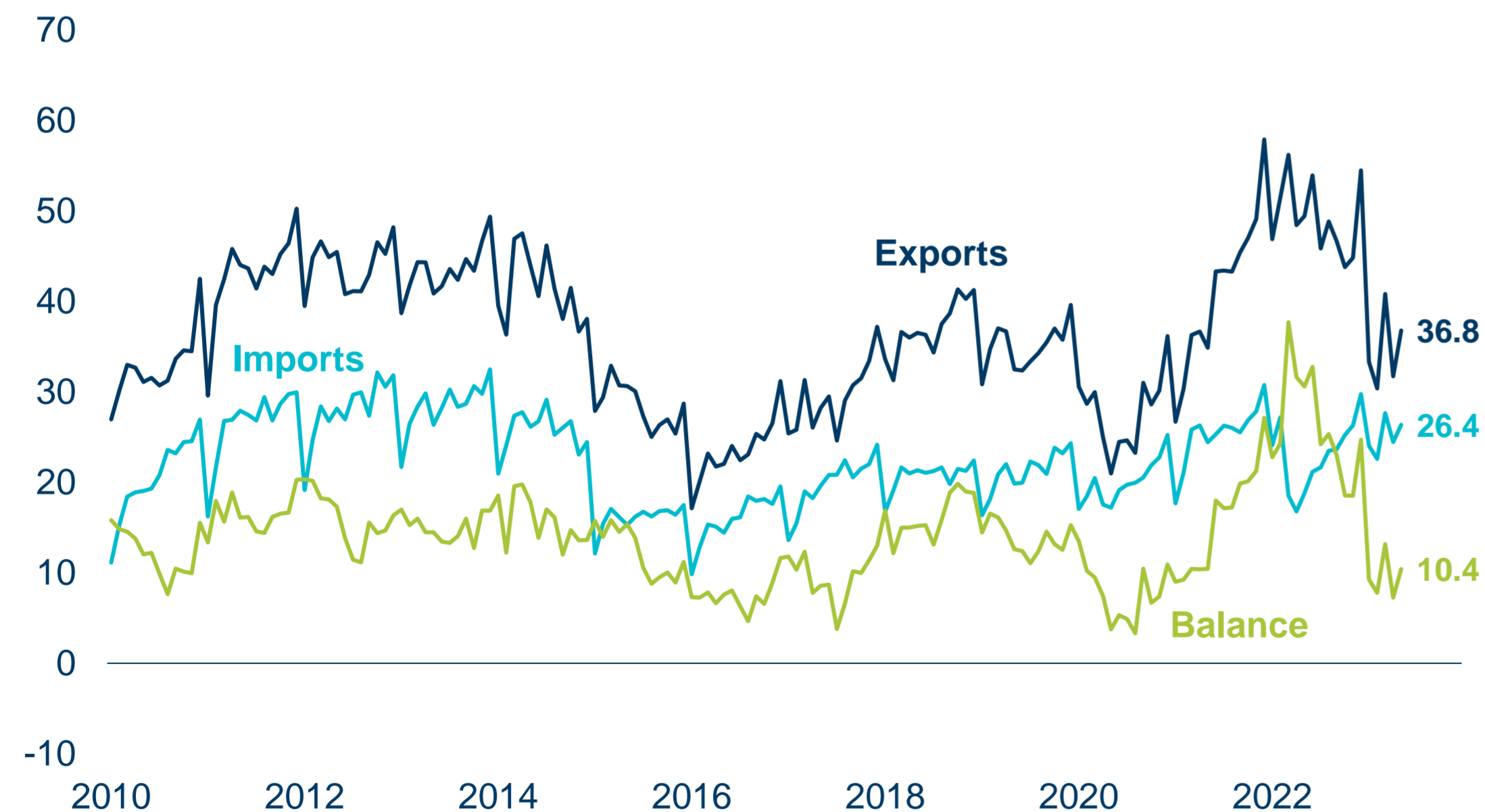
Source: IEA, KSE Institute *European benchmark prices used for analysis

**External environment is turning
increasingly challenging.**

The trade surplus has dropped significantly from its 2022Q2 peak.

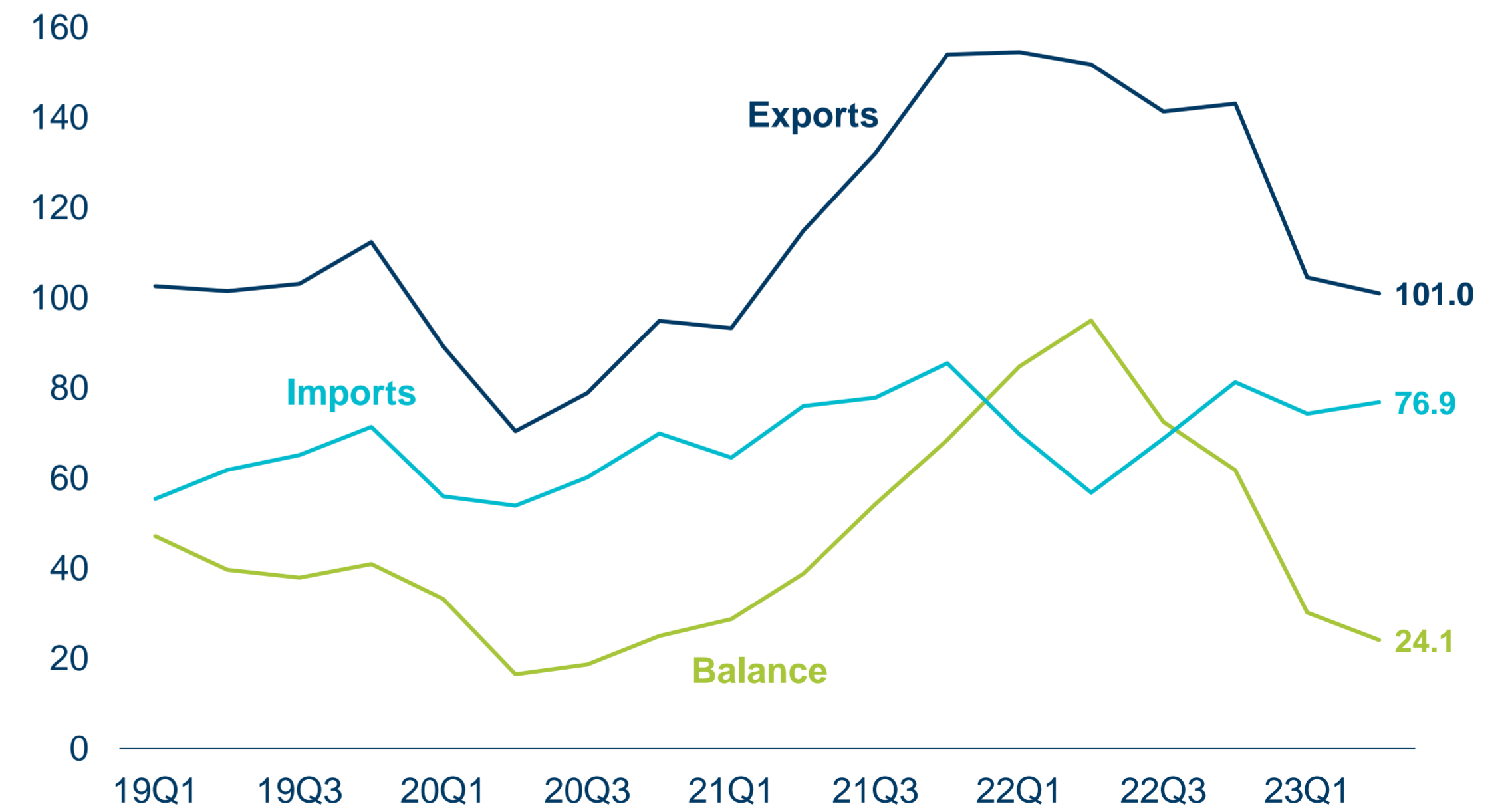
- Total goods exports reached \$205.6 billion in 2022H1 (-33% year-over-year) and imports \$151.2 billion (+19%).
- The downward shift in exports since end-2022 is striking, while imports are essentially back to the pre-sanctions period.
- A 2023Q2 trade surplus of \$24.1 billion means a 75% decline since the 2022Q2 peak and is the smallest since 2020Q3.

Monthly trade statistics, in U.S. dollar billion



Source: Bank of Russia, KSE Institute

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

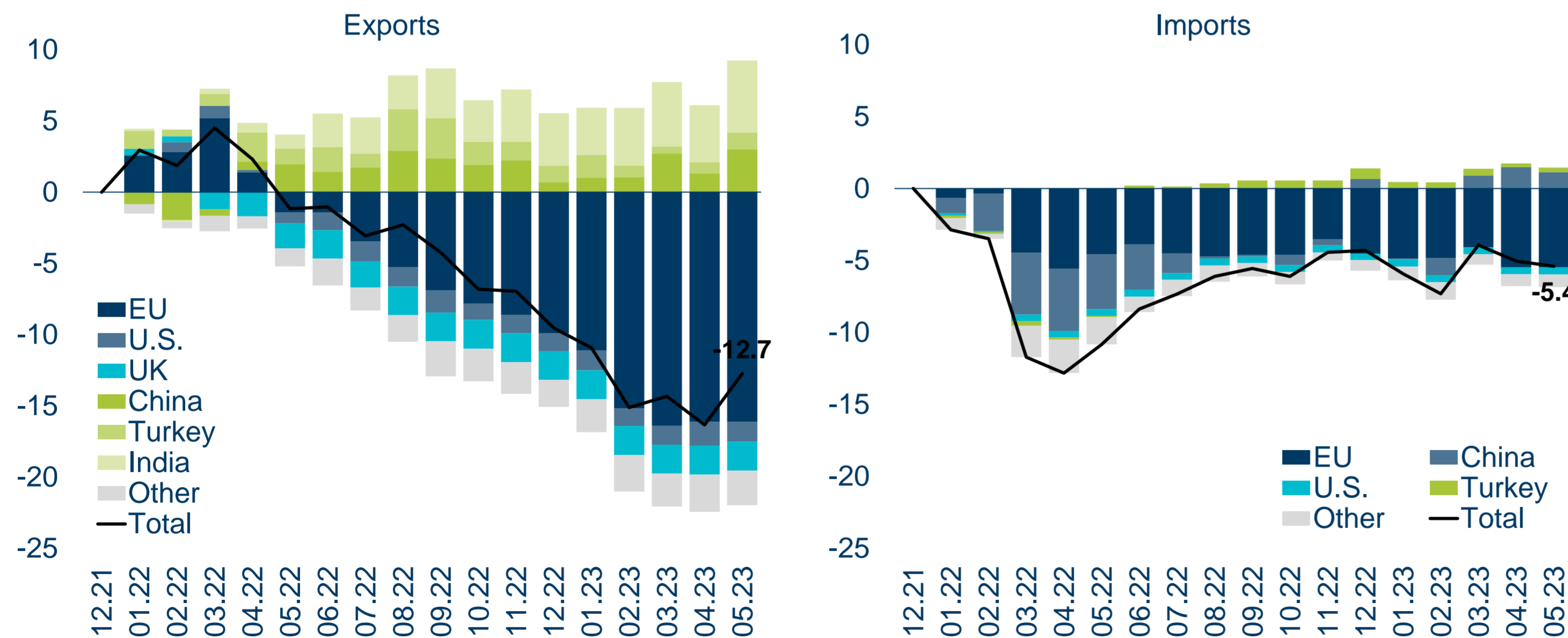


Source: Bank of Russia, KSE Institute

New export markets have only partially offset the effect of sanctions.

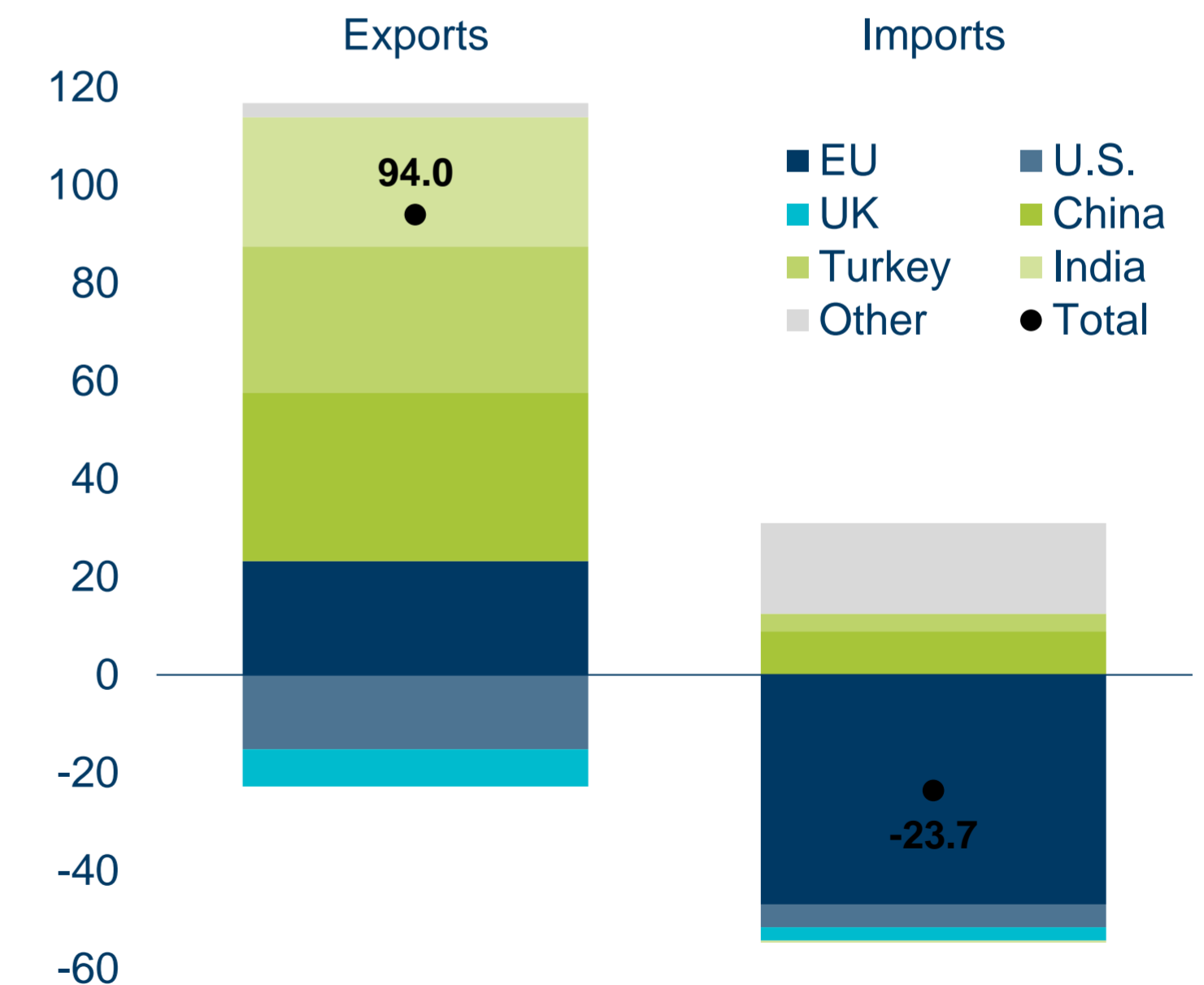
- Higher prices for key goods—and redirection to alternative buyers—supported Russian exports for parts of 2022.
- But total exports have weakened since 2022Q4 as energy prices moderated and additional sanctions took effect.
- On the imports side, Russia has not been able to replace EU and US trade with supplies from or via China.

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



Source: national authorities, KSE Institute

Change 2022 vs. 2021, in U.S. dollar billion



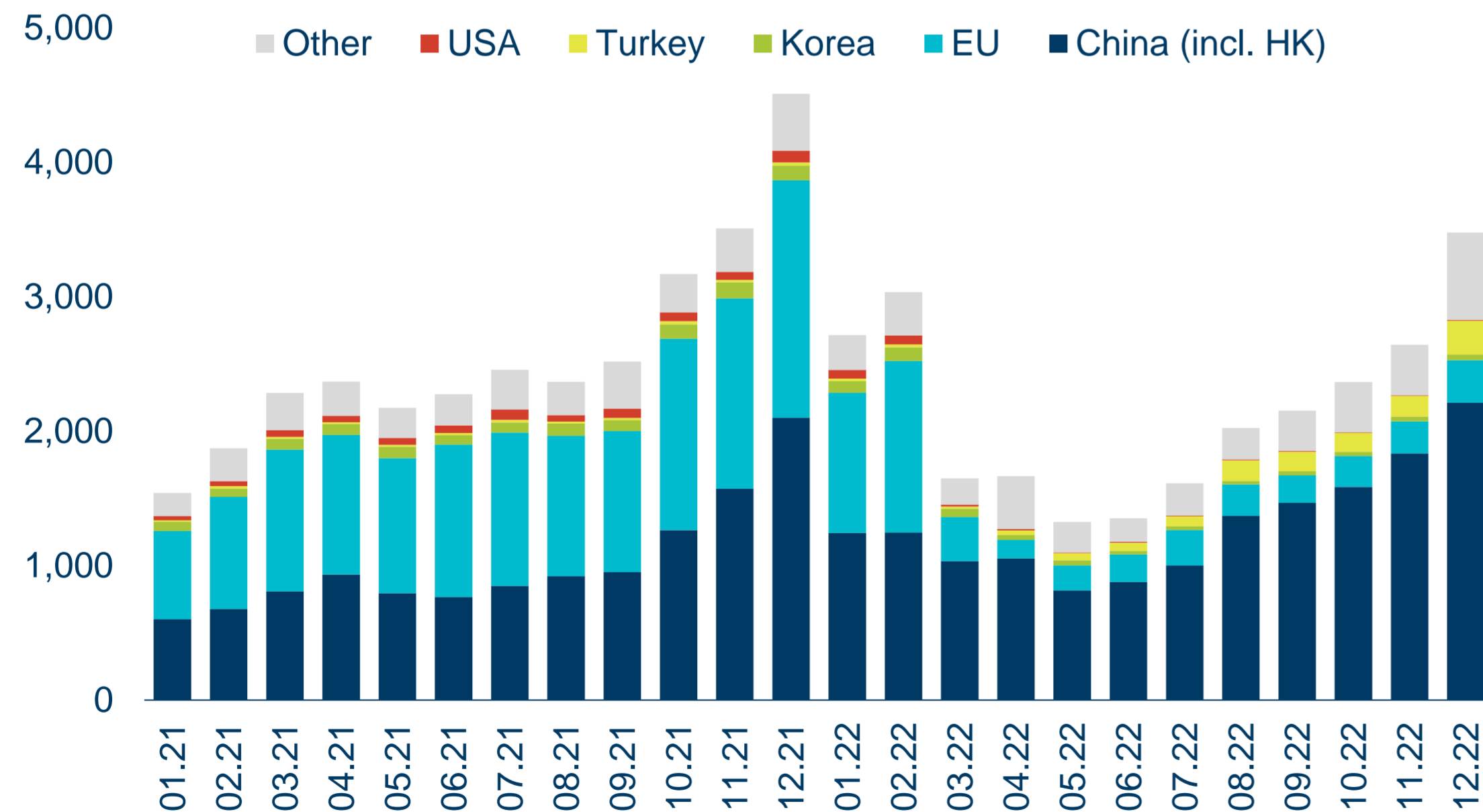
Source: national authorities, KSE Institute

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

- While robust imports are generally a welcome development as they leads to FX outflows, certain goods are problematic.
- We find that Russia continues to have access to certain components that may be used for its military production.
- China plays a critical role as both producer and intermediary for such imports, in particular those of semiconductors.

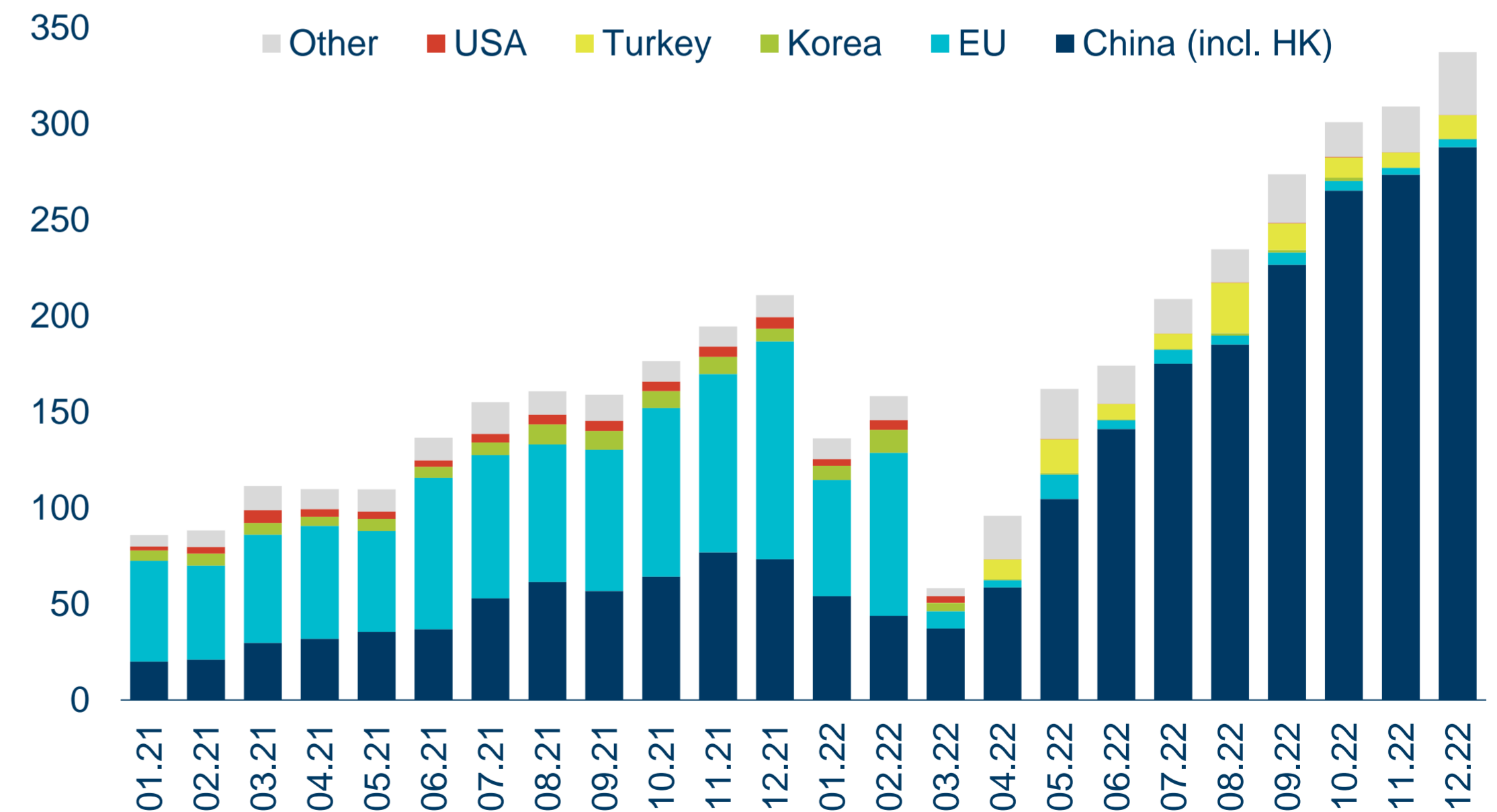
[Download KSE Institute’s study “Russia’s Military Capacity and the Role of Imported Components”](#)

Critical component exports to Russia, in U.S. dollar million*



Source: KSE Institute *for the definition of “critical components” see [here](#).

Semiconductor exports to Russia, in U.S. dollar million

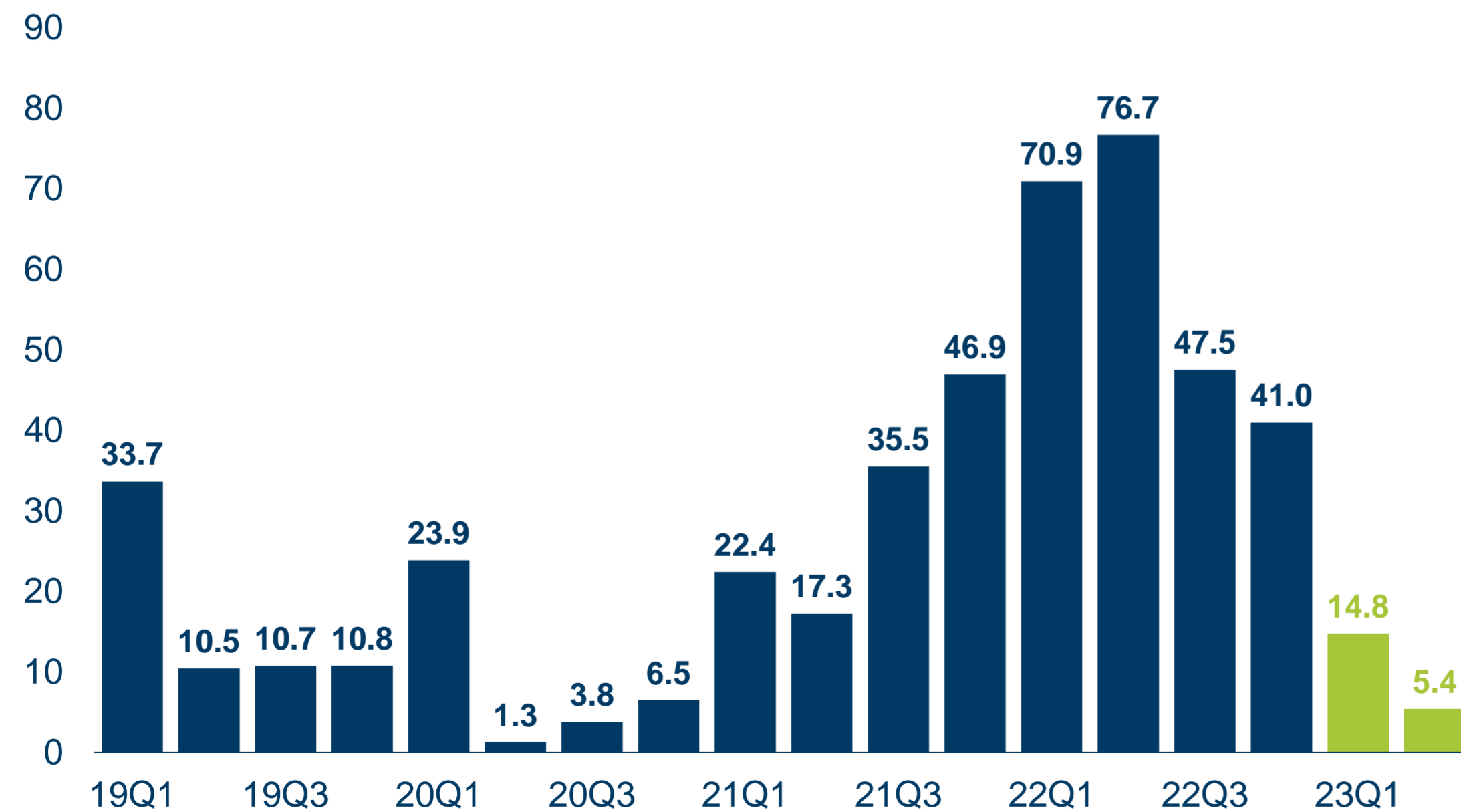


Source: KSE Institute

The external environment is turning increasingly challenging.

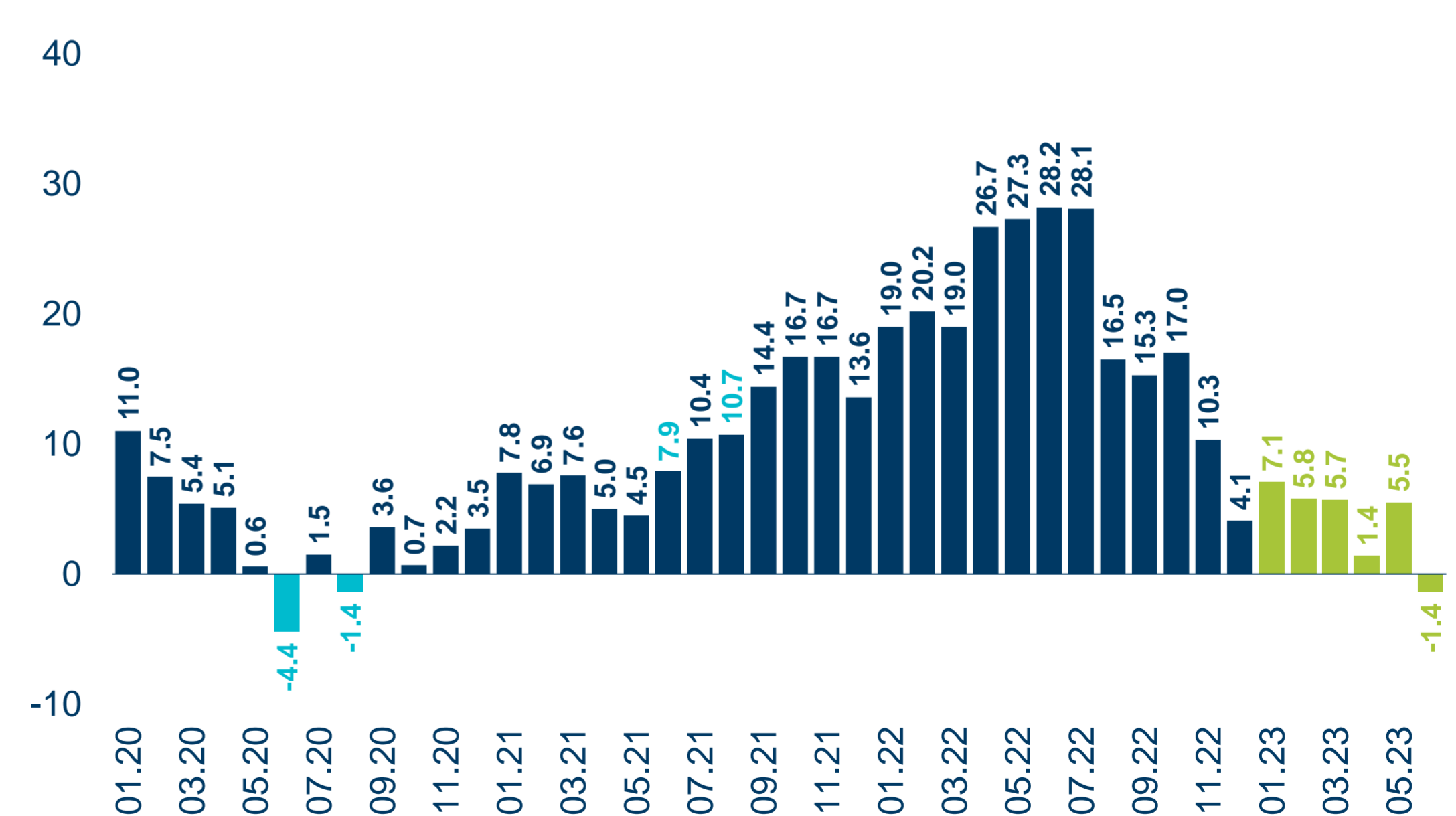
- The EU embargo on crude oil and products, Europe’s moving away from Russian gas, and lower prices clearly take a toll.
- The current account surplus has fallen sharply from \$41.0 billion in Q4 2022 to \$14.8 billion in Q1 and \$5.4 billion in Q2.
- With goods exports remaining weak, the current account shifted into a deficit in June for the first time since the pandemic.

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



Source: Bank of Russia, KSE Institute

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

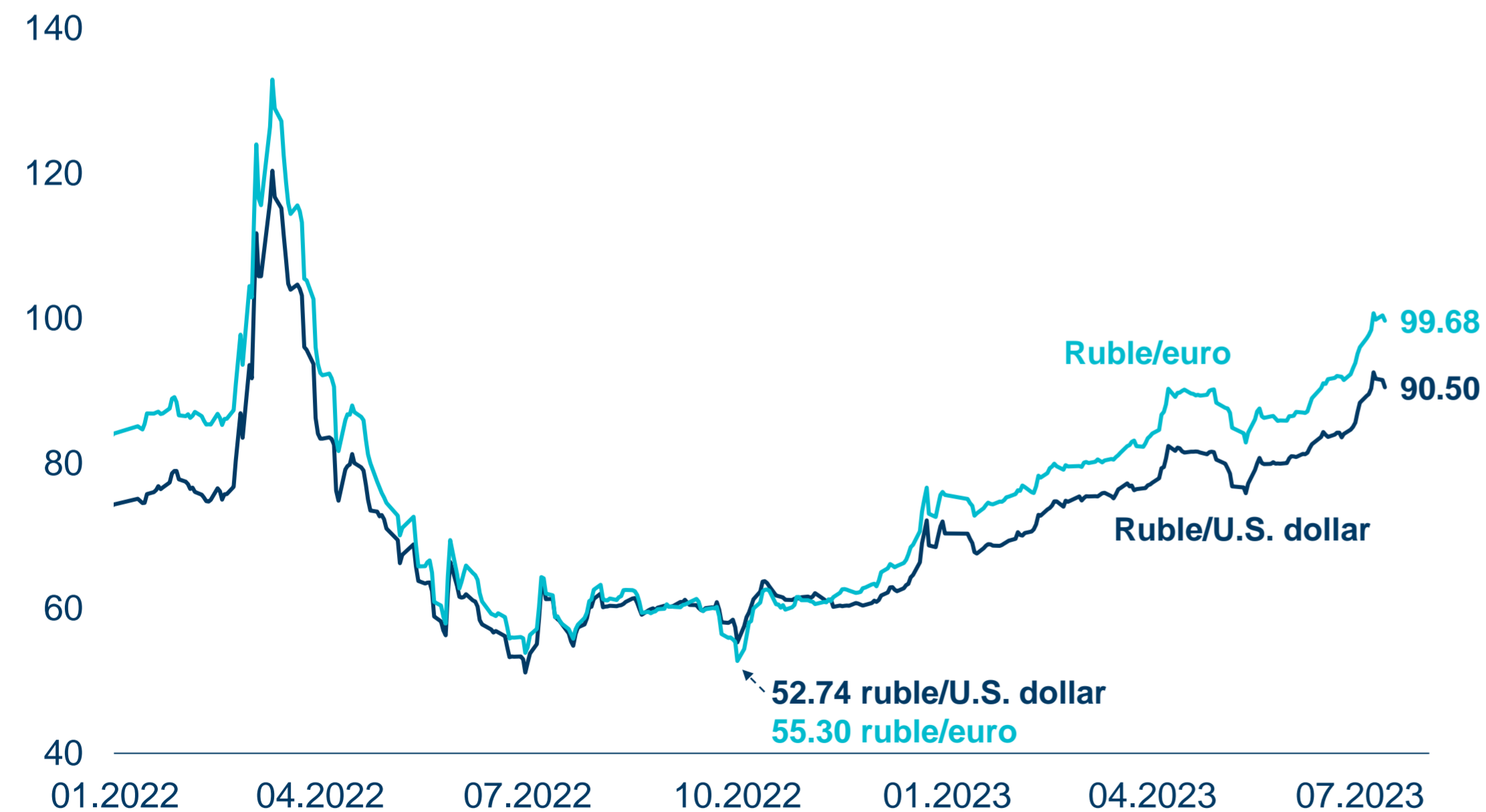


Source: Bank of Russia, KSE Institute *monthly and quarterly data do not always fully align

The ruble has lost half of its value against the euro in recent months.

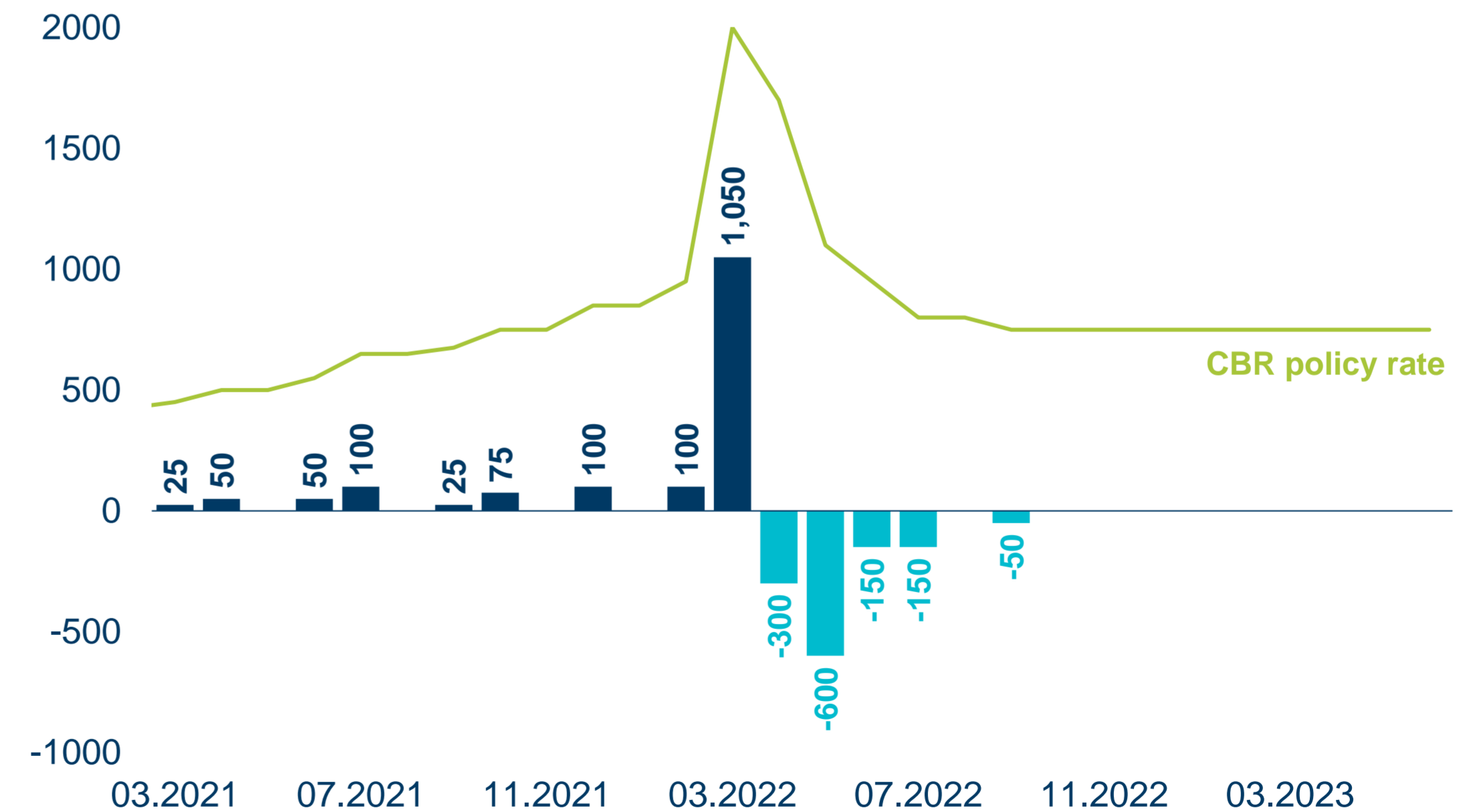
- Due to the much less supportive external environment, the ruble has weakened against the U.S. dollar and euro.
- At ~90 ₺/\$ and ~100 ₺/€, the Russian currency has lost 39% and 47% of its value, respectively, since early October.
- We expect that the CBR will have to respond to the weaker ruble and risks of higher inflation by tightening policies.

Ruble-U.S. dollar exchange rate



Source: Bank of Russia, KSE Institute

CBR policy rate and MPC decisions, in bps

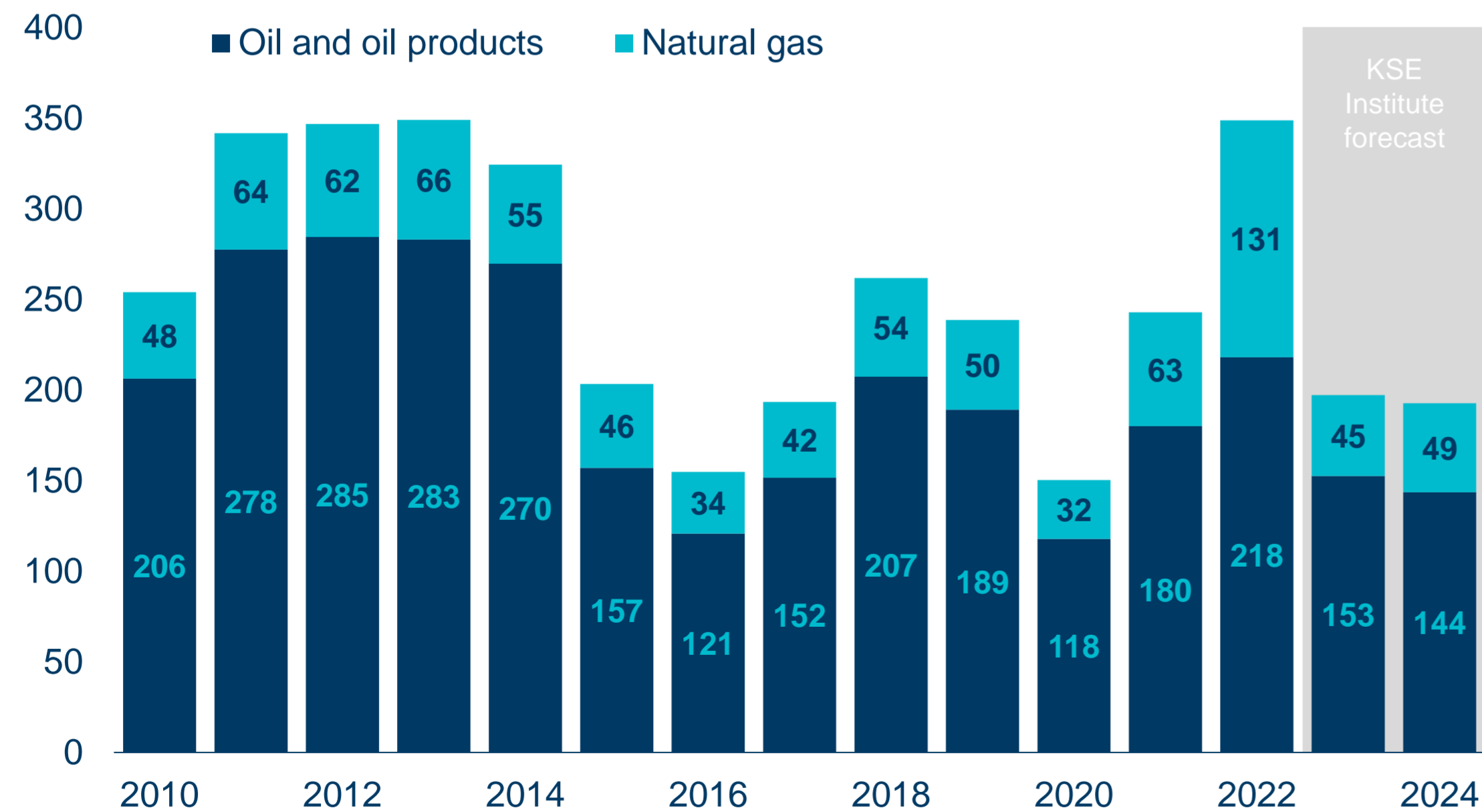


Source: Bank of Russia, KSE Institute

Higher oil and gas export earnings, lower current account surplus.

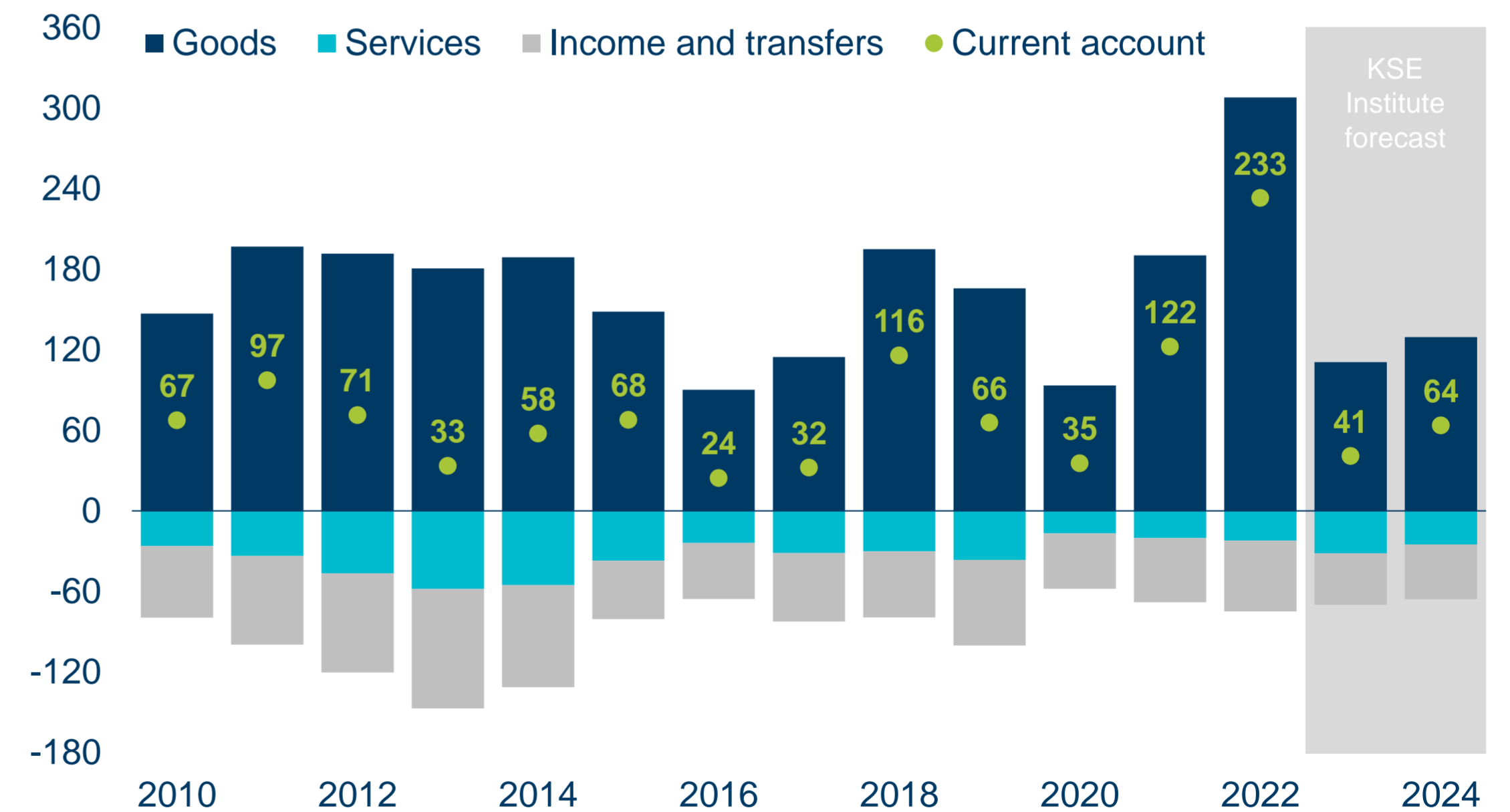
- Due to higher prices, we revise upward our forecast of oil export earnings in 2023 (+\$24.1 billion) and 2024 (+\$34.6 billion).
- Smaller other good exports, higher imports, and a larger service/income/transfers balance more than offset this, however.
- For 2023, we lower our current account forecast to \$41 billion (-\$22 billion); the projection for 2024 is largely unchanged.

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



Source: Bank of Russia, KSE Institute

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



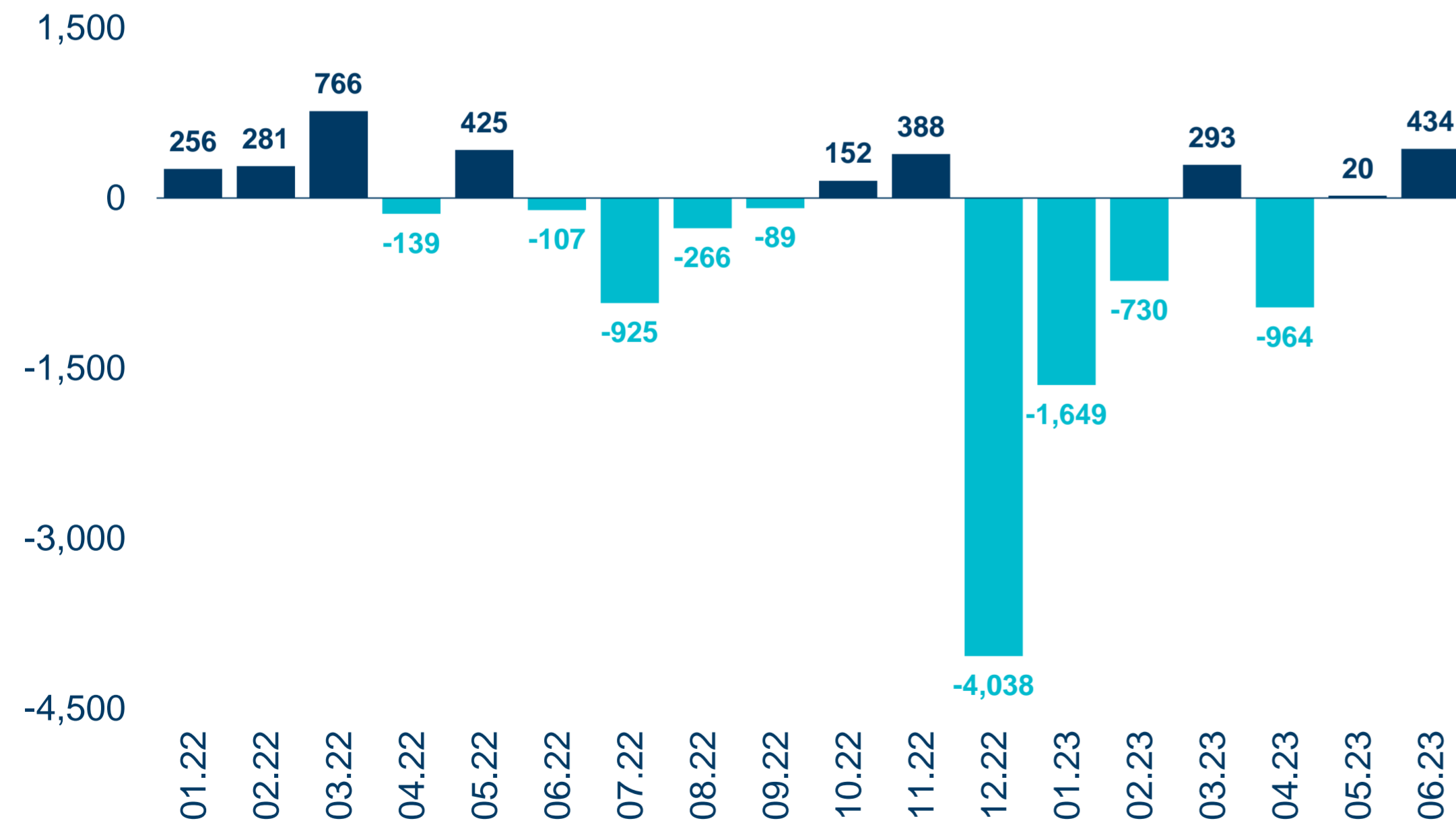
Source: Bank of Russia, KSE Institute

**Lower expenditures have led
to budgetary improvements.**

Russia's budget deficit has declined markedly in May-June.

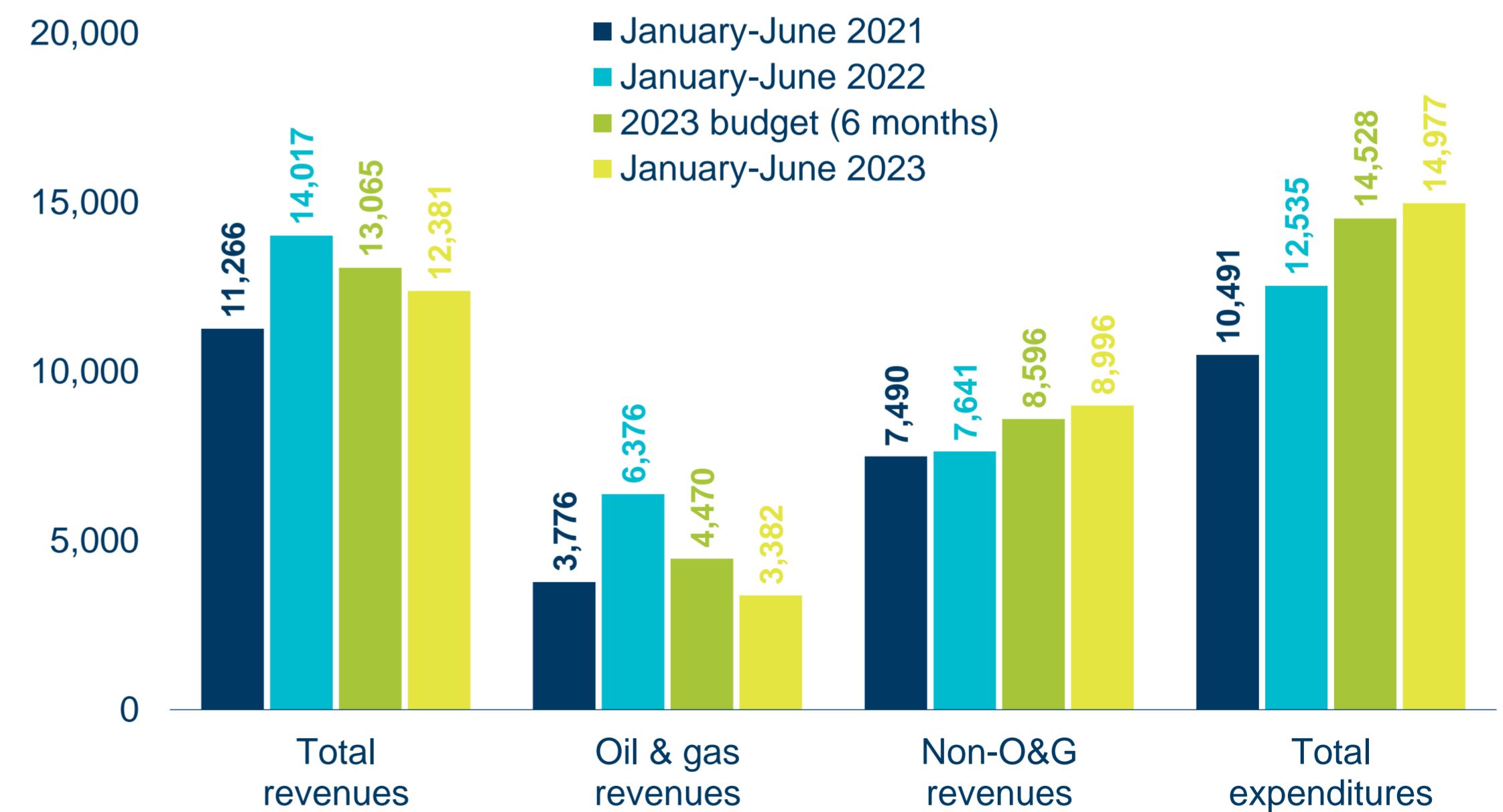
- The H1 2023 budget deficit came in at 2.6 trillion rubles, a noticeable improvement from January-April (3.4 trillion*).
- This is close to 90% of the plan for the full year; thus, Russia will most likely miss its deficit target by a fair amount.
- Two factors are responsible for the overall improvement: stronger non-oil and gas revenues and lower spending.

Federal government balance, in ruble billion*



Source: Ministry of Finance, KSE Institute *includes revisions for recent months

Revenues and expenditures, in ruble billion

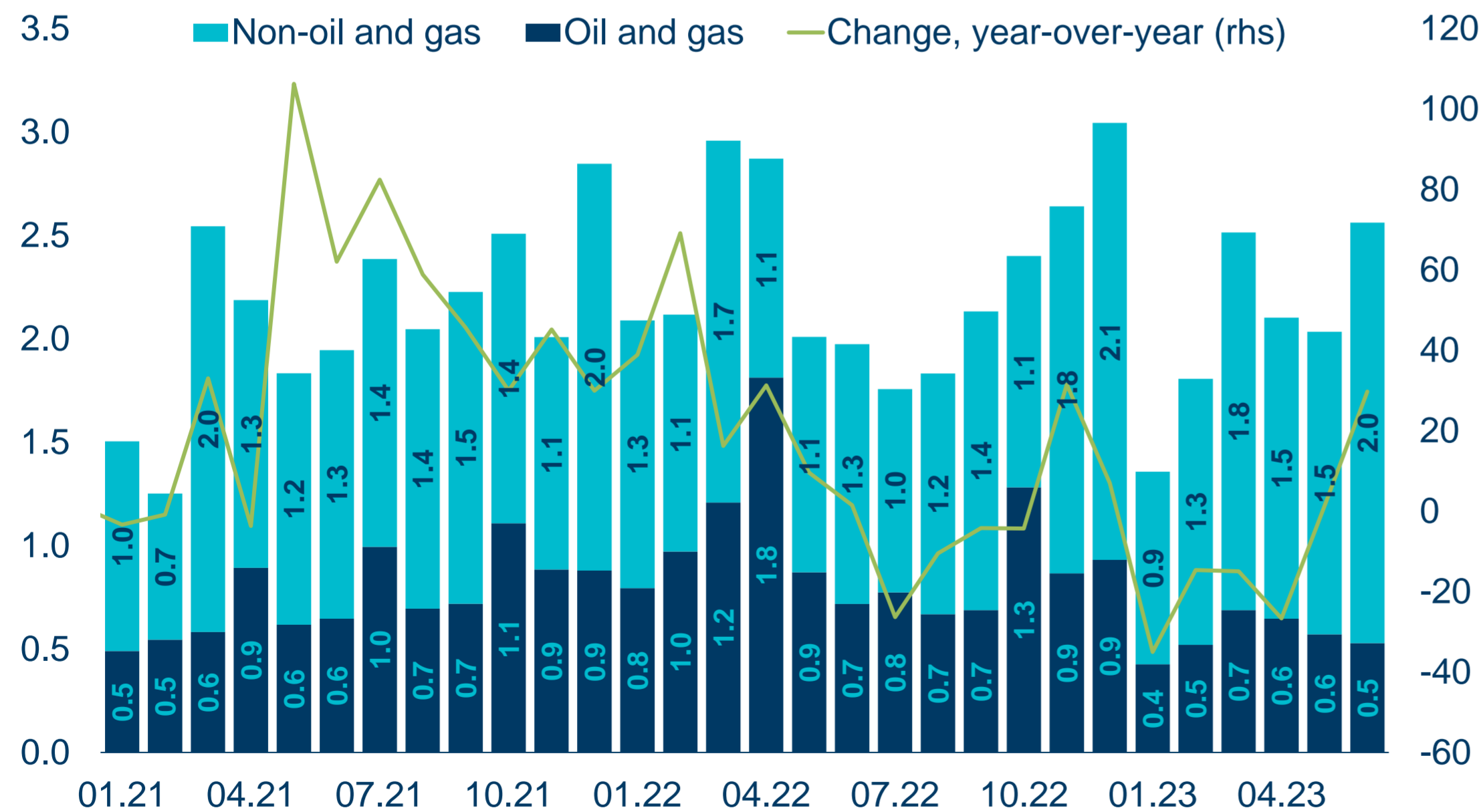


Source: Ministry of Finance, KSE Institute

Sanctions continue to have a noticeable impact on oil and gas revenues.

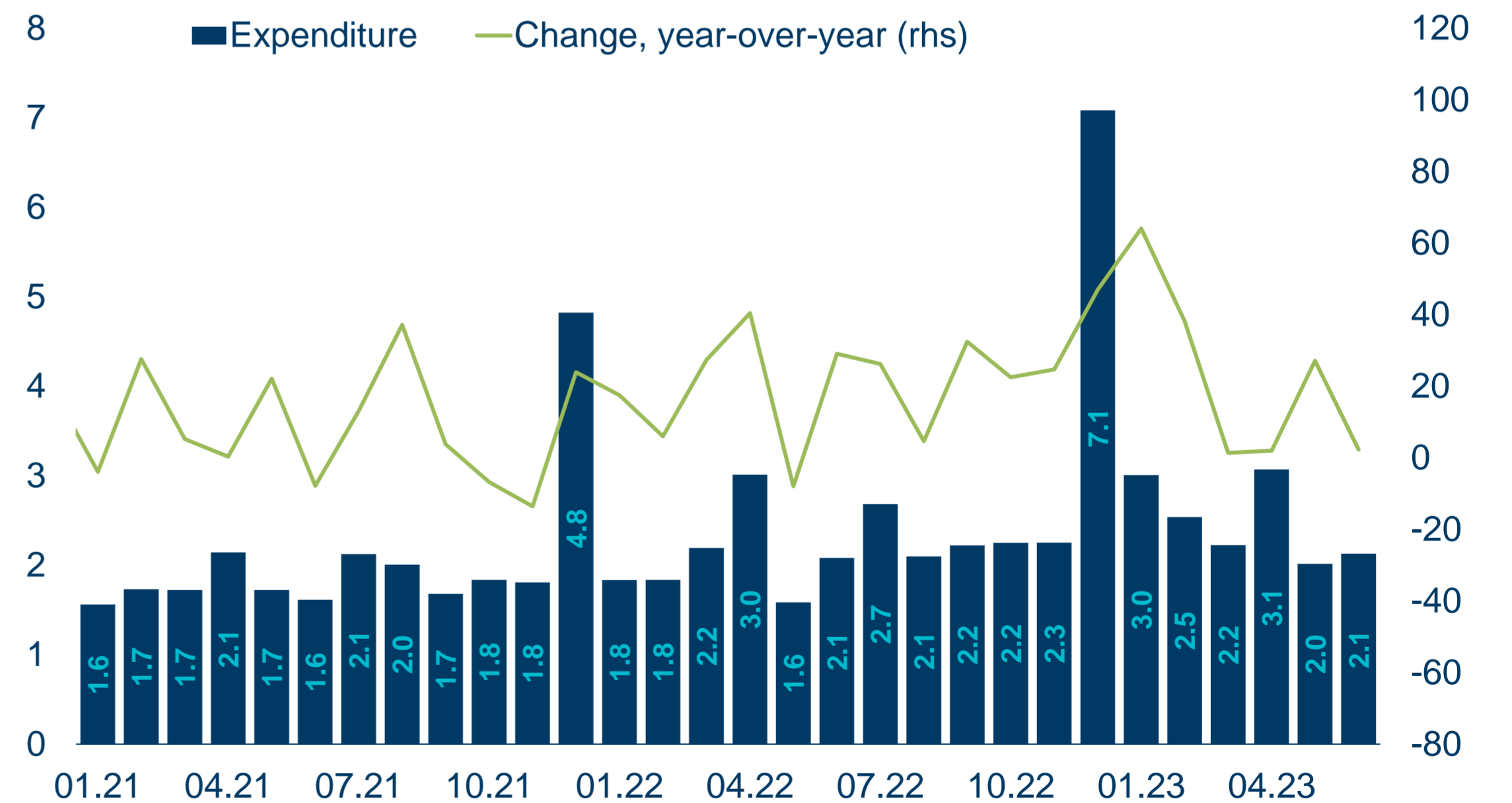
- Oil and gas revenues continue to be weak; in H1 2023, at 3.4 trillion rubles, they were down 47.0% y/y.
- Other revenues have recovered in H1 2023 compared to last year, though, with a plus of 17.8%.
- Most importantly, expenditures are stable around 2 trillion rubles per months, exceptional items aside.

Federal budget revenues, in ruble trillion



Source: Ministry of Finance, KSE Institute

Federal budget expenditures, in ruble trillion

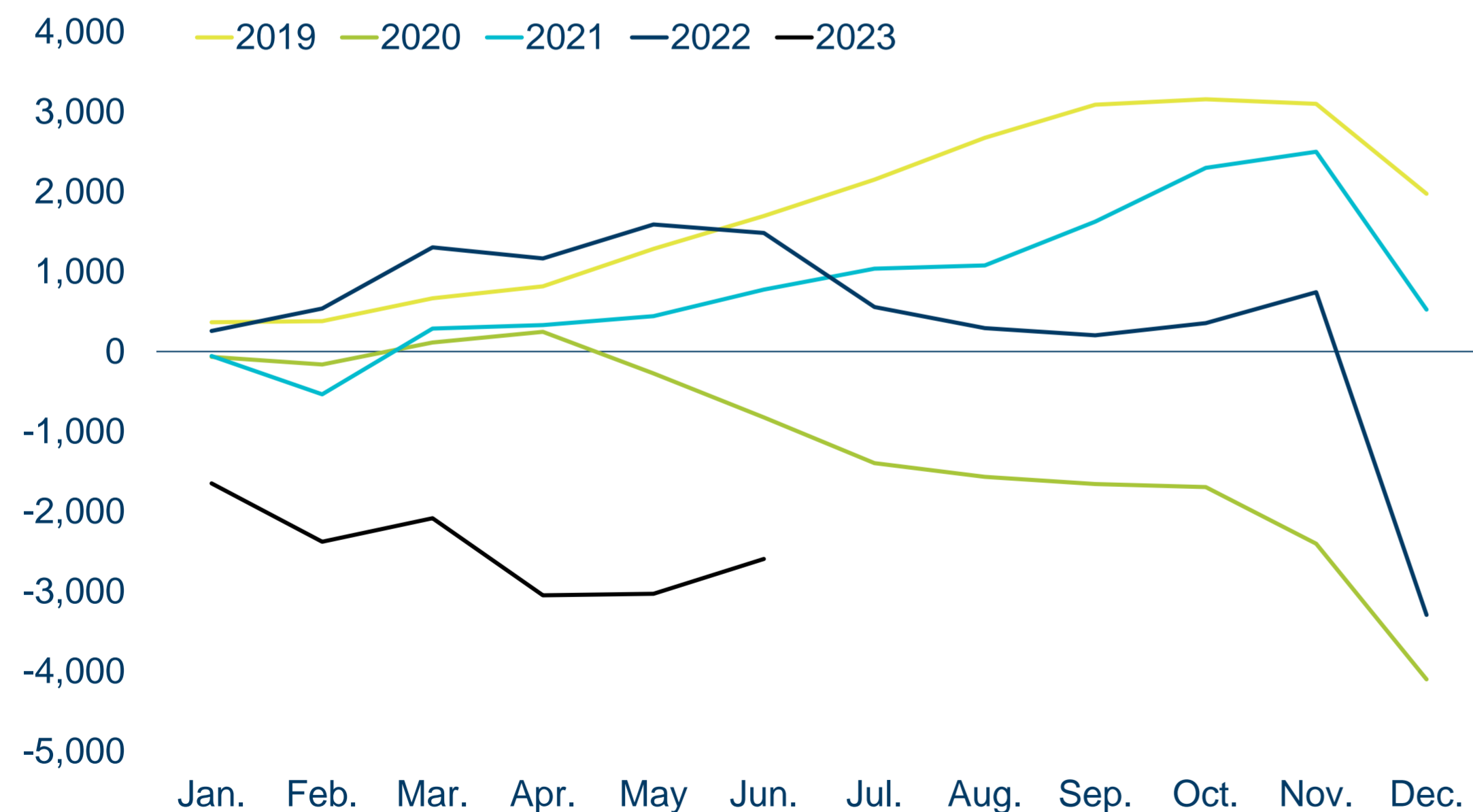


Source: Ministry of Finance, KSE Institute

Forecast for full-year deficit revised down to around 5% of GDP.

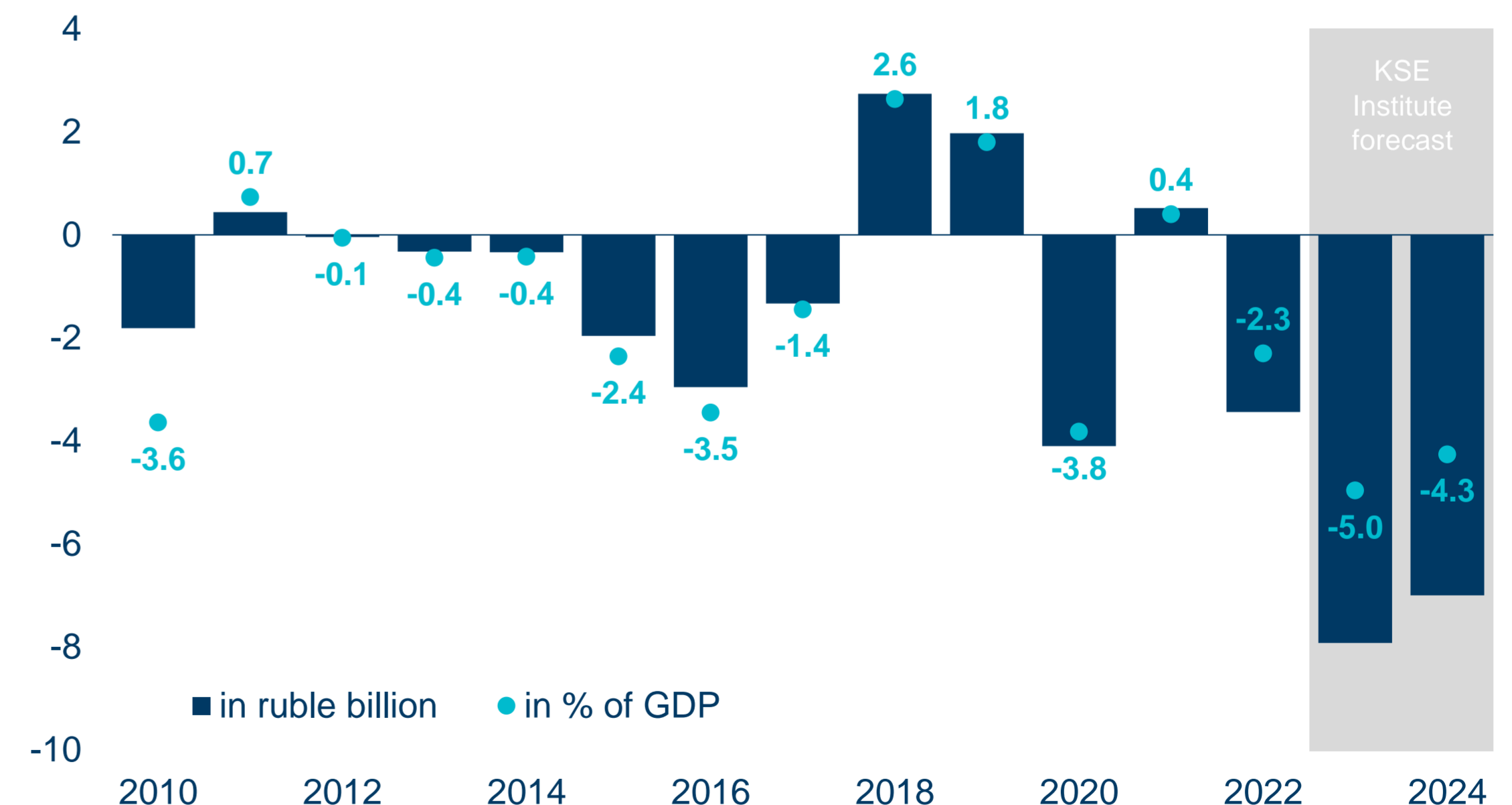
- Due to the outturn in recent months, we lower our deficit forecast for 2023 to around 8 trillion rubles (or 5% of GDP).
- While the deficit will be larger than originally planned, this does not lead to any immediate financing problems.
- The most important question is if Russian authorities will be able to prevent a rebound in expenditures going forward.

Cumulative federal budget balance, in ruble billion



Source: Ministry of Finance, KSE Institute

Federal budget balance, in ruble trillion and % GDP

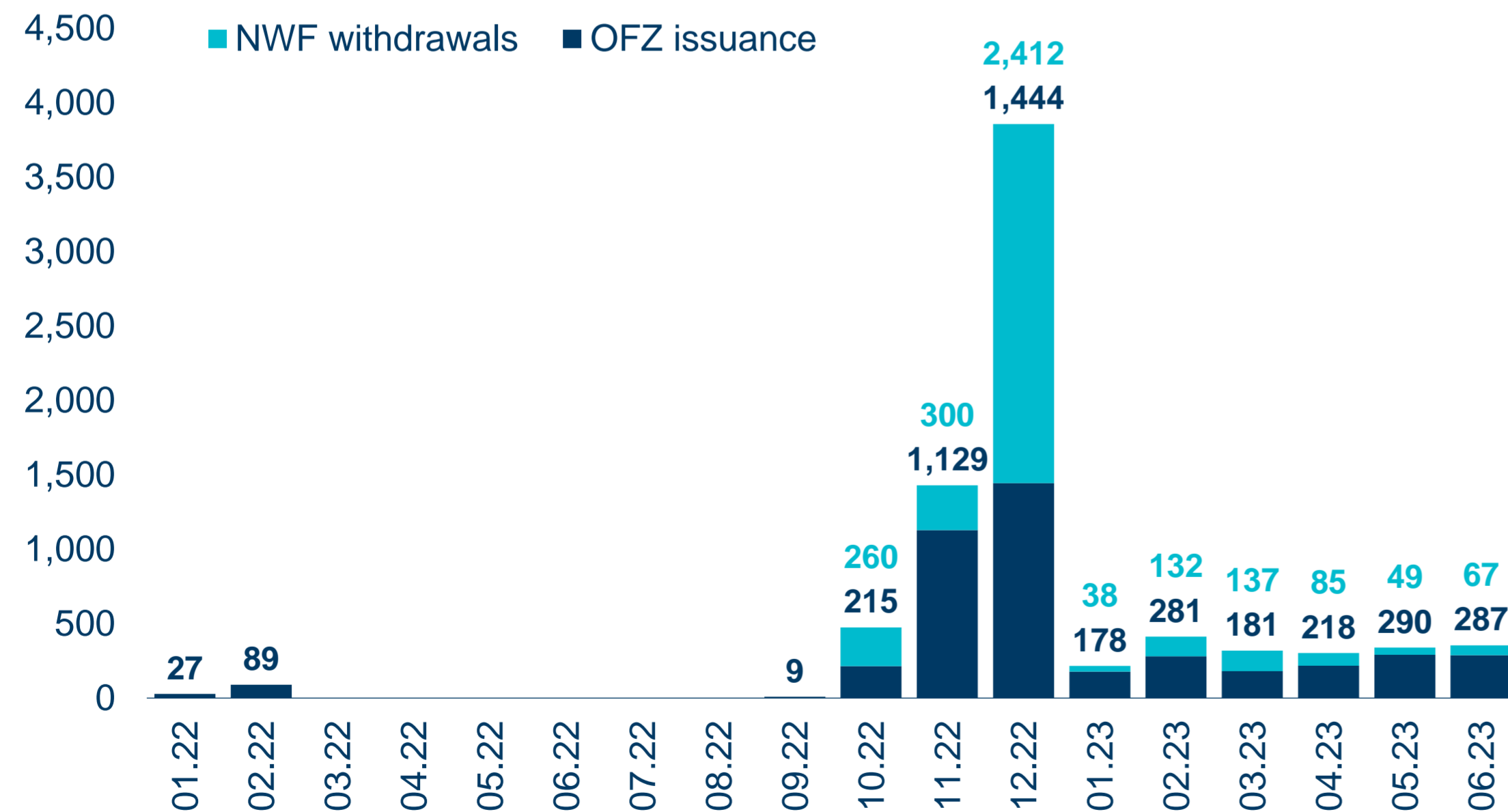


Source: Ministry of Finance, KSE Institute

Reliance on NWF and OFZ issuance sharply lower in H1 2023.

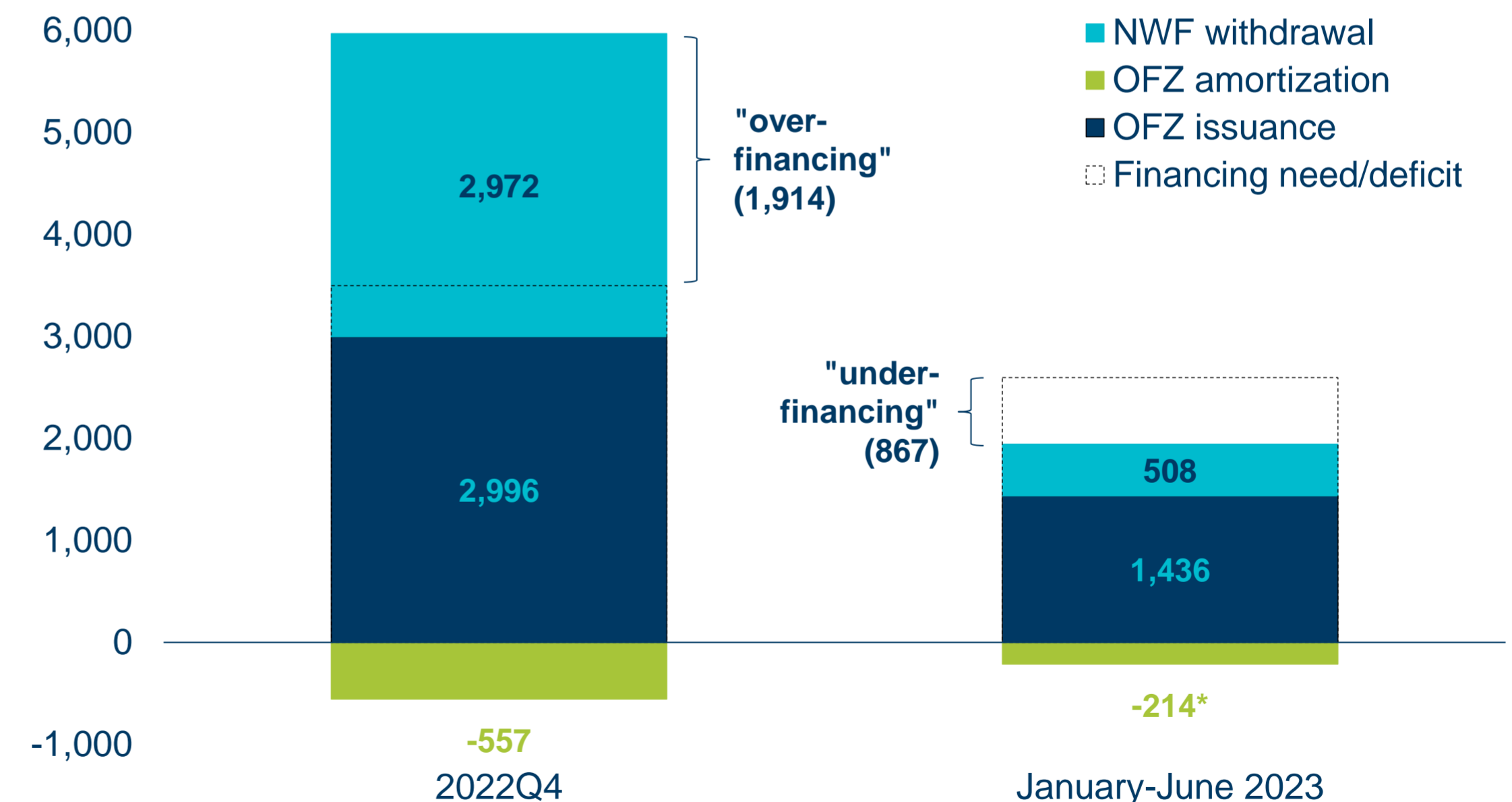
- Russia relied less on its two key financing channels—NWF withdrawals and OFZ issuance—in H1 2023.
- “Overfinancing” from 2022Q4 played a key role here as well as improved budget performance in May-June.
- Should authorities manage to keep spending constrained, we do not foresee any sharp pickup going forward.

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 *estimated as the difference between total 2023 amortization as of December 1, 2022, and remaining 2023 amortization as of July 1, 2023.

Foreign companies continue to support the Russian budget.

- In 2022, foreign companies paid \$3.5 billion in profit taxes in Russia according to a KSE Institute & B4Ukraine analysis.
- U.S.-based entities were the biggest contributors, followed by companies from Germany, Switzerland, Japan, and the UK.
- As companies contribute in several ways to budget revenues, profit taxes only constitute the tip of the iceberg.

[Download the study “The Business of Staying” by KSE Institute and B4Ukraine](#)

Revenues and profit taxes paid in 2022, in U.S. dollar billion

Country of HQ	% of staying	Revenue in 2022, \$ bn	Profit tax paid in 2022, \$ mln
USA	44%	40	712
Germany	69%	23	402
Switzerland	53%	14	275
Japan	65%	9	205
United Kingdom	36%	13	205
China	95%	10	184
France	64%	19	118
Netherlands	54%	9	110
South Korea	84%	8	99
Sweden	32%	4	90

Current status and revenues in 2022 by company, in U.S. dollar billion

Company name	Status	Revenue in 2022, \$ bn
Philip Morris	Staying	8
Japan Tobacco International	Staying	7
Leroy Merlin	Staying	5
Pepsi	Staying	5
British American Tobacco	Leaving	4
VEON	Leaving	4
Auchan	Staying	3
Metro AG	Staying	3
Danone	Staying	3
Hyundai	Leaving	3

Source: Ministry of Finance, KSE Institute

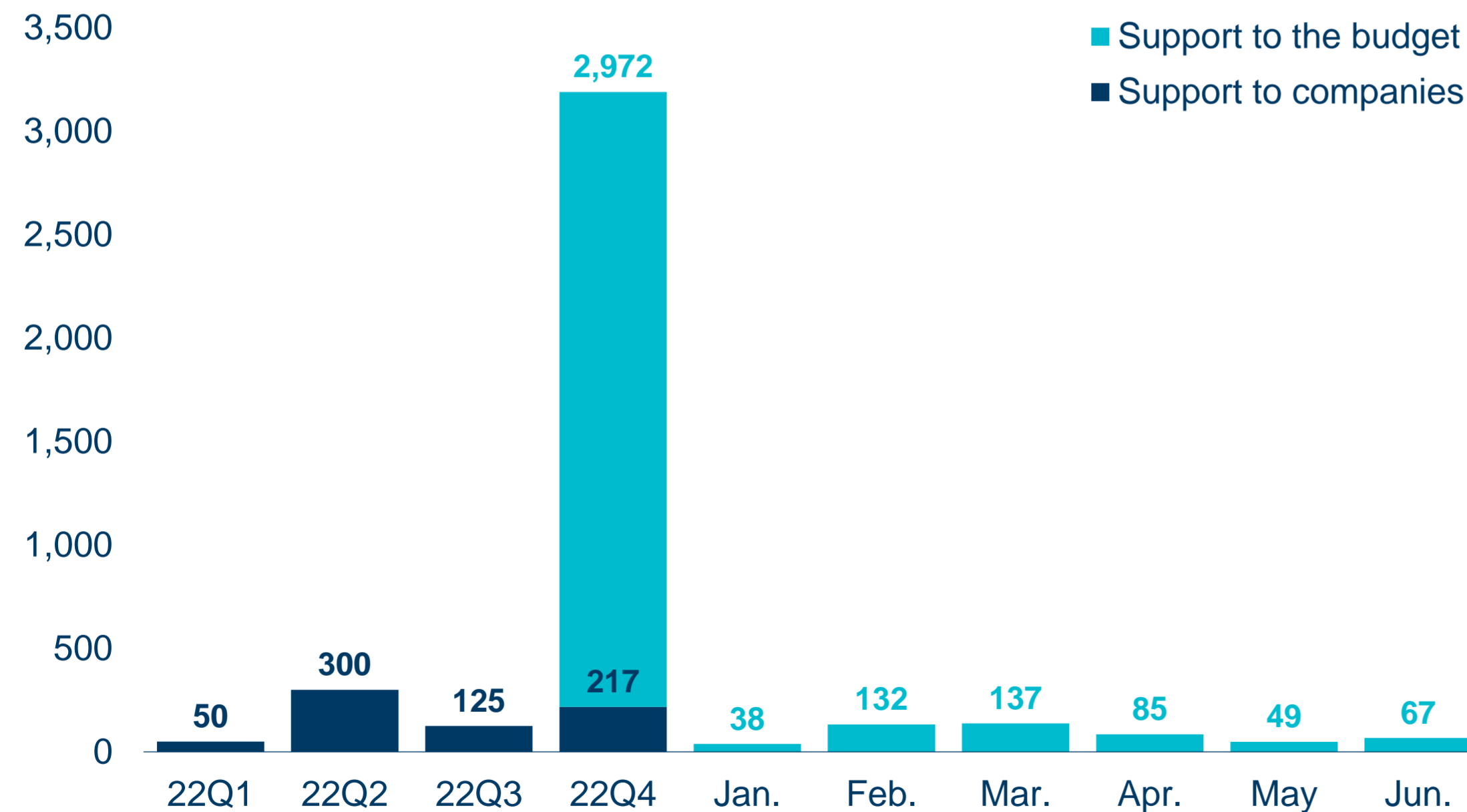
Source: B4Ukraine, KSE Institute

**Improved budget situation
reduces financing pressure**

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

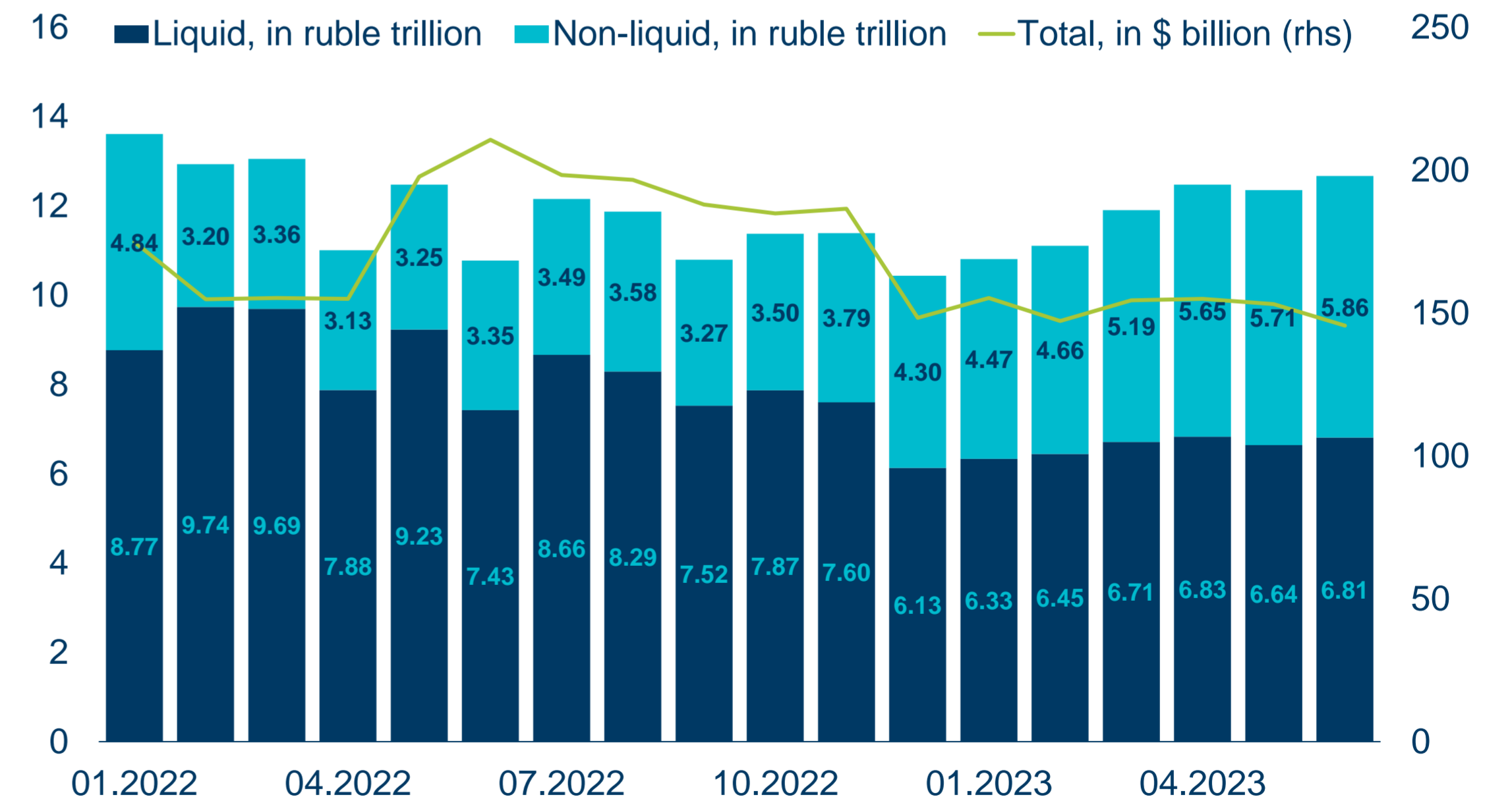
- Russia has spent 4.2 trillion rubles (~\$63 billion) to support the budget and companies since February 2022.
- The NWF has benefitted from valuation/FX effects in recent months and currently stands at 12.7 trillion rubles.
- Of its total assets (\$145.6 billion or 8.4% of GDP), roughly 45% are not liquid and cannot easily be repurposed.

Utilization of the NWF, in ruble billion



Source: Ministry of Finance, KSE Institute

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

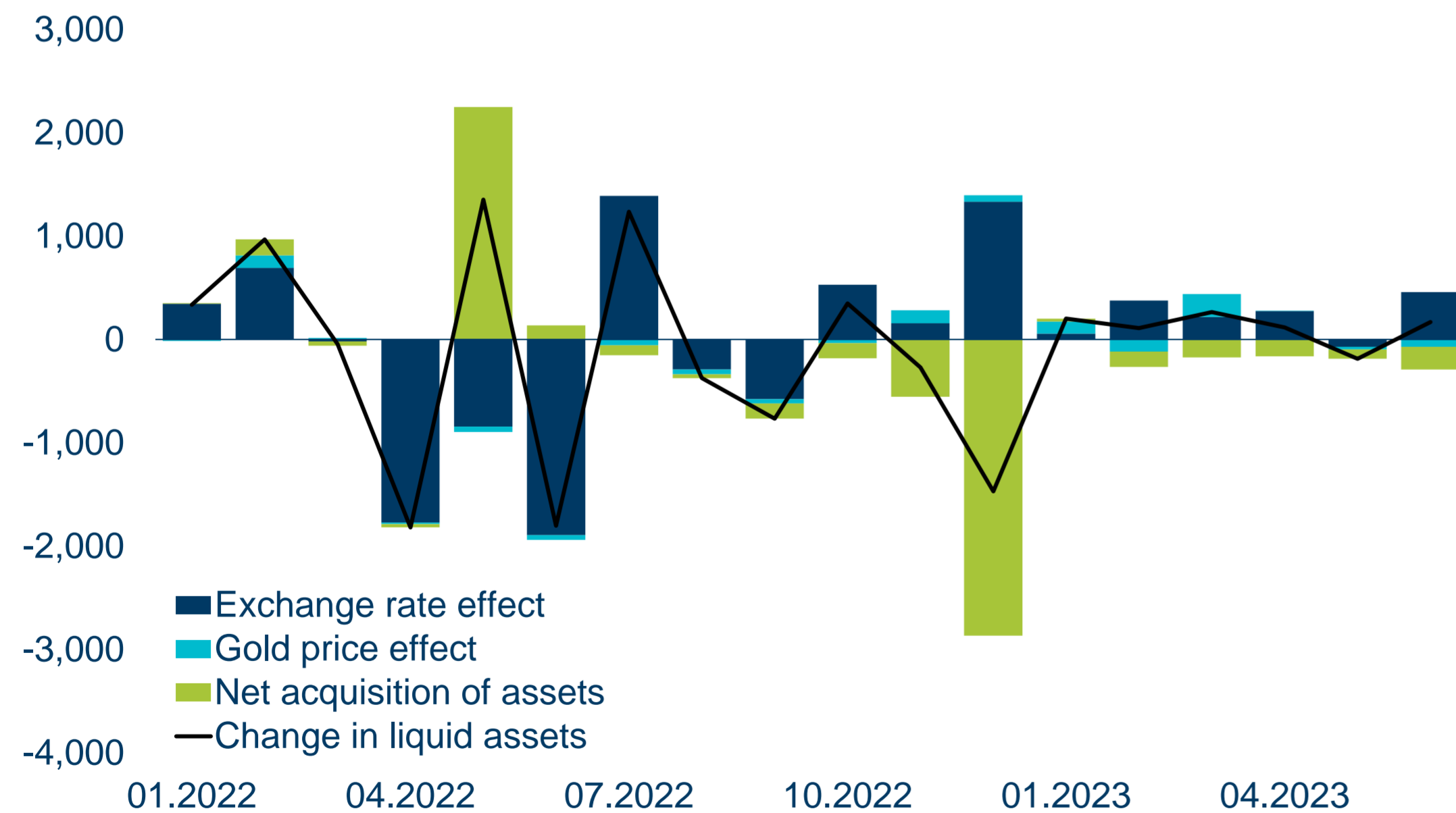


Source: Ministry of Finance, KSE Institute

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

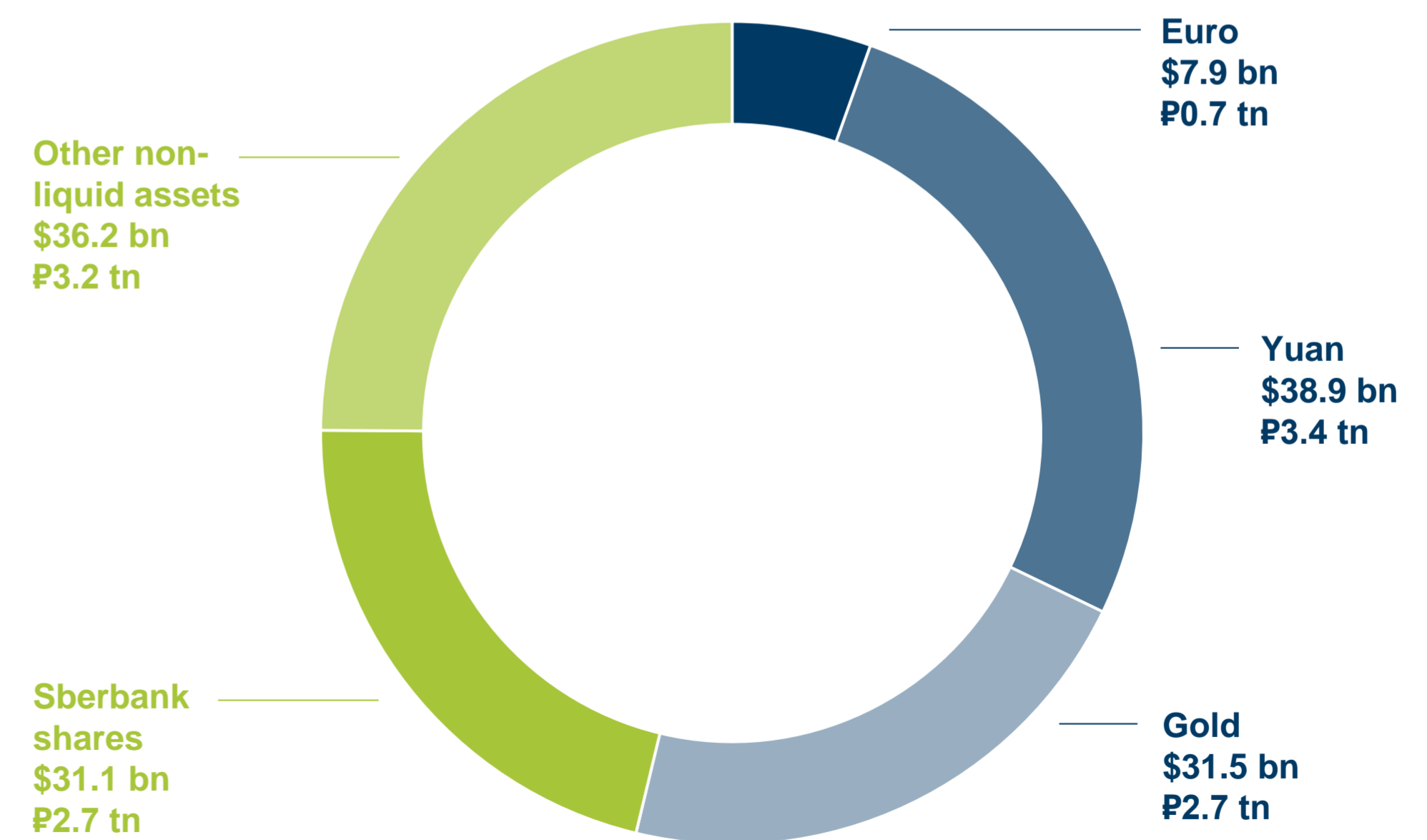
- The liquid portion of the NWF now consists largely of gold any yuan-denominated assets.
- In the absence of a much wider deficit, withdrawals will likely remain moderate for the rest of the year.
- Therefore, Russia will be able to rely for longer than originally anticipated on the NWF for financing.

Change in liquid NWF assets, in ruble billion*



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

Composition of NWF assets as of July 1, 2023*

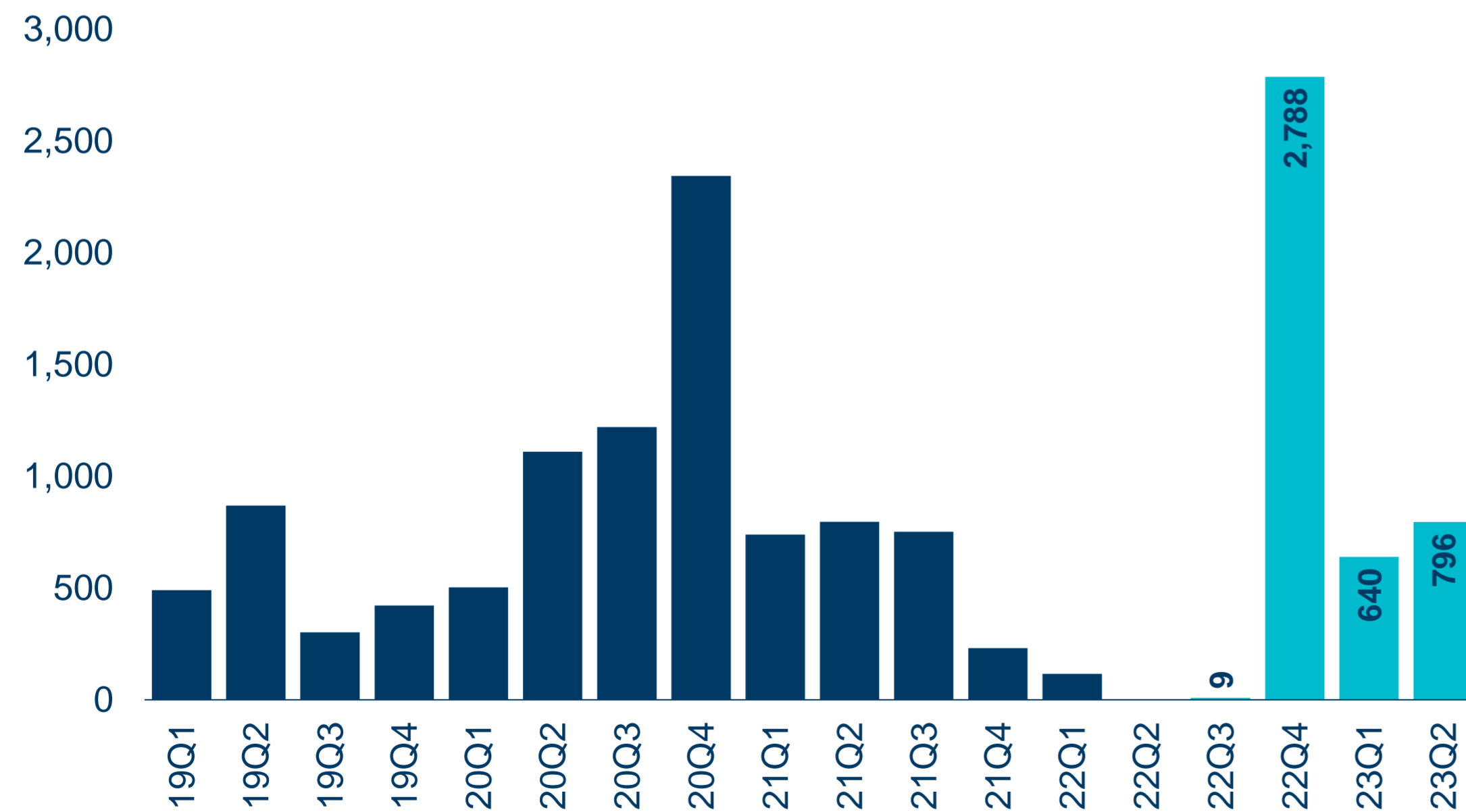


Source: Ministry of Finance, KSE Institute *based on market exchange rates/prices

Domestic borrowing will likely continue at H1 2023 pace.

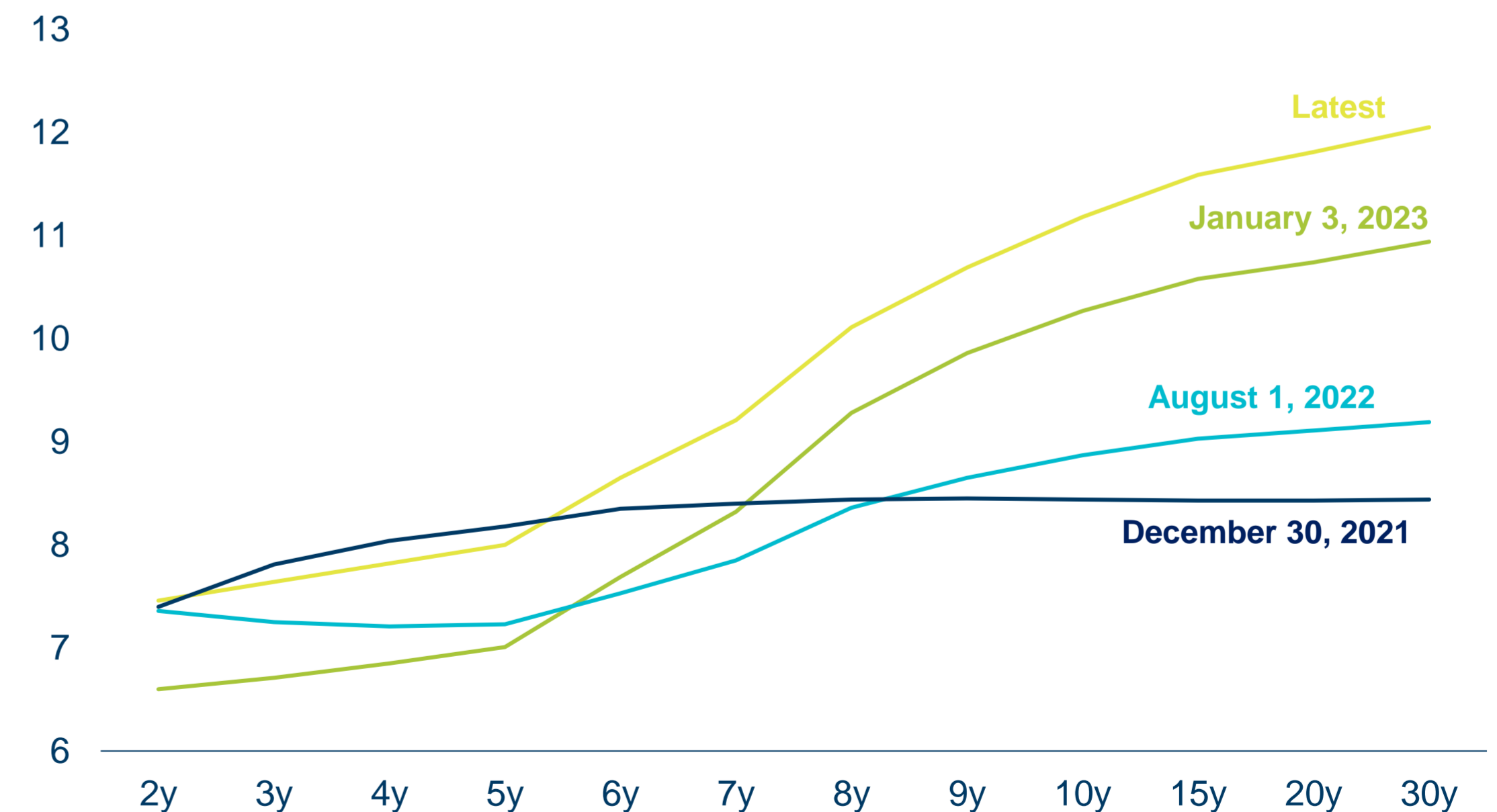
- Domestic borrowing played a key role for deficit financing towards the end of last year—to the tune of 2.8 trillion rubles.
- Issuance in H1 2023 was much lower as authorities were able to rely on “overfinancing” from the end of last year.
- Due to the improved fiscal picture, we do not expect a significant increase in auction volumes in H2 2023.

New domestic debt (OFZ) issuance, in ruble billion



Source: Ministry of Finance, KSE Institute

OFZ yield curves, in %

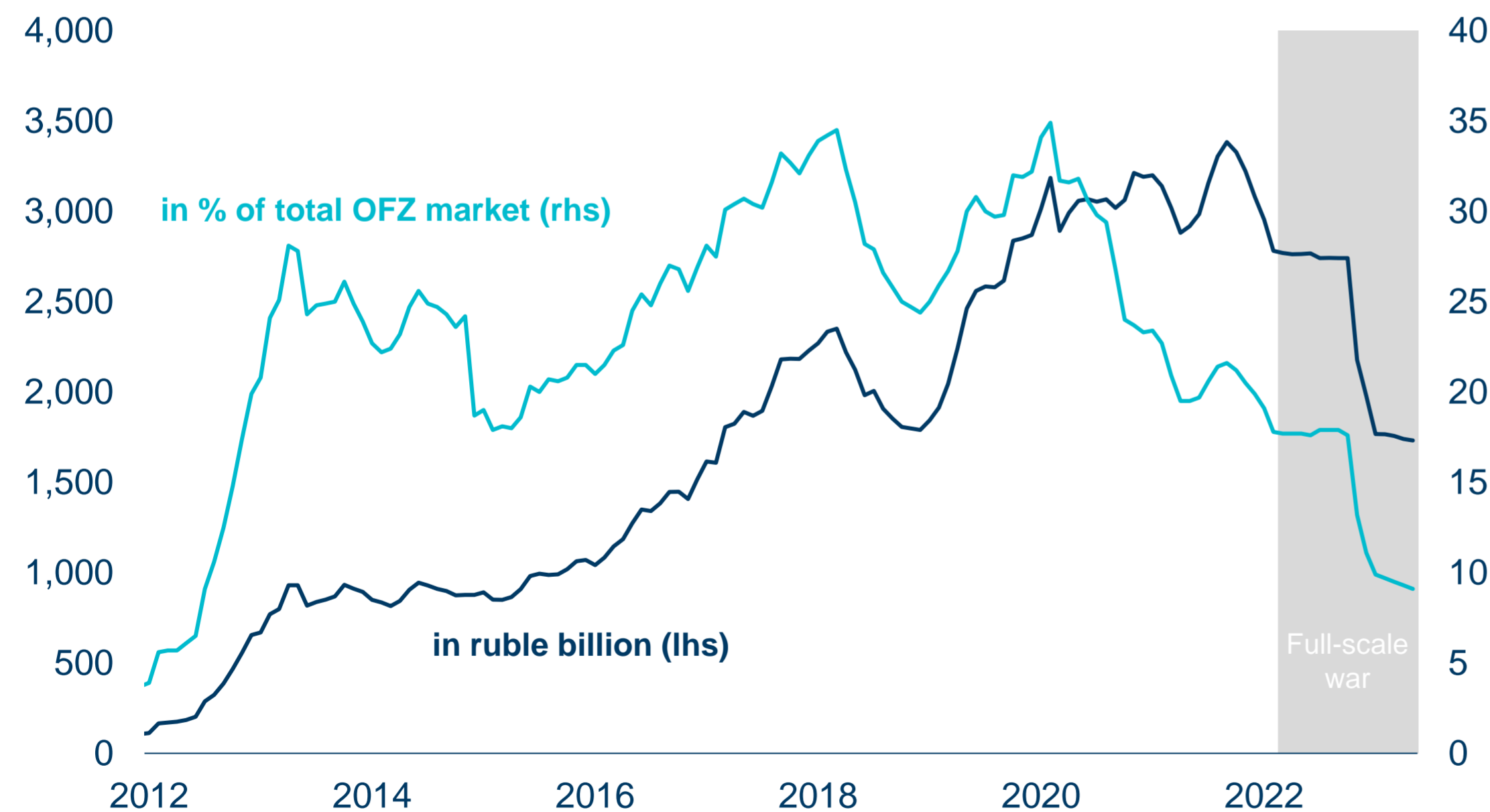


Source: Bank of Russia, KSE Institute

The banking system will have to provide most of domestic financing.

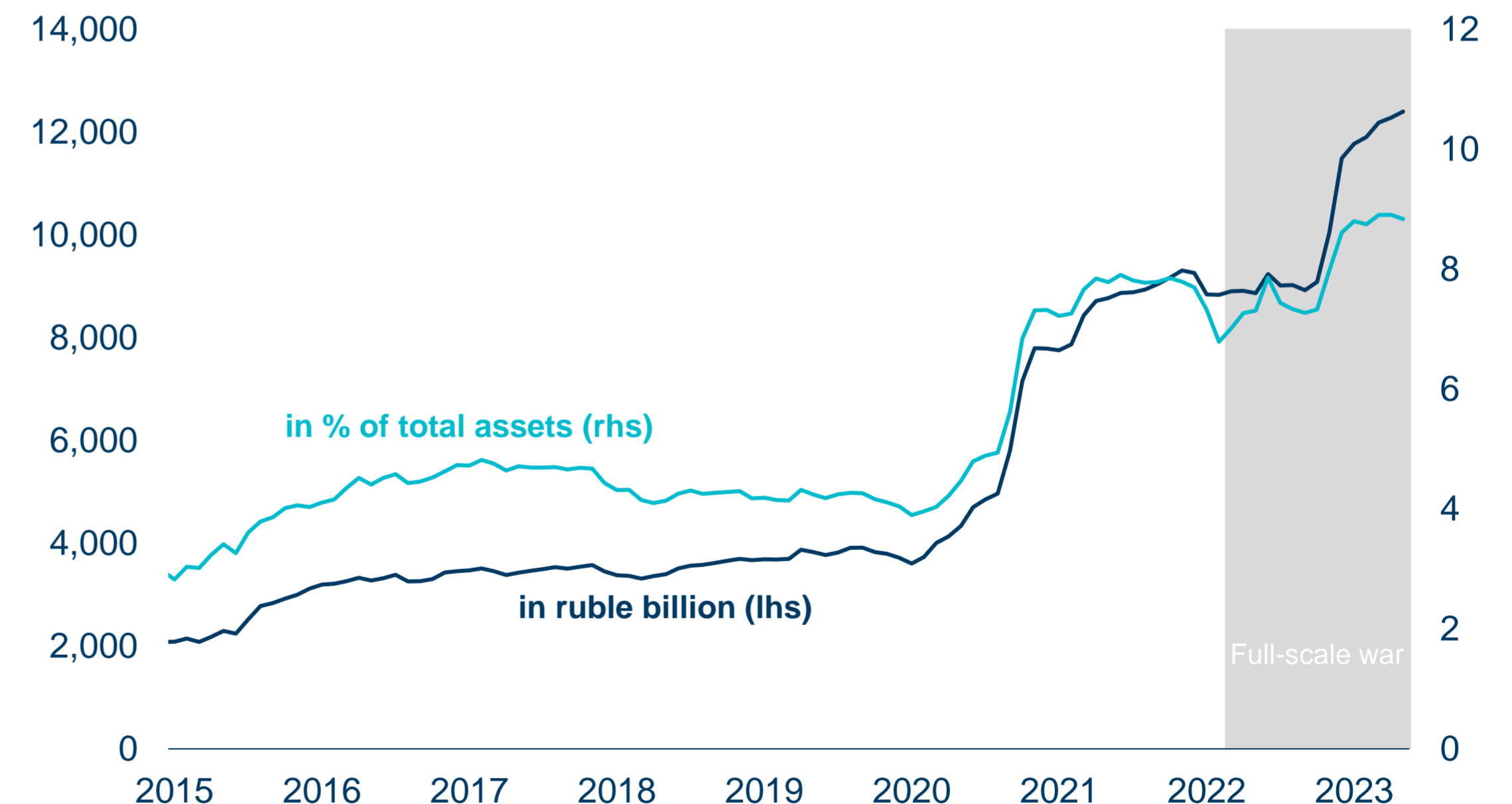
- Foreigners have largely disengaged from the Russian sovereign debt market since the start of the war.
- Following a period with little movement, remaining holdings have dropped sharply since November (by ~37%).
- With foreigners no longer participating, domestic banks will need to absorb essentially all new issuance.

Non-resident OFZ holdings



Source: Bank of Russia, KSE Institute

Credit institutions OFZ holdings

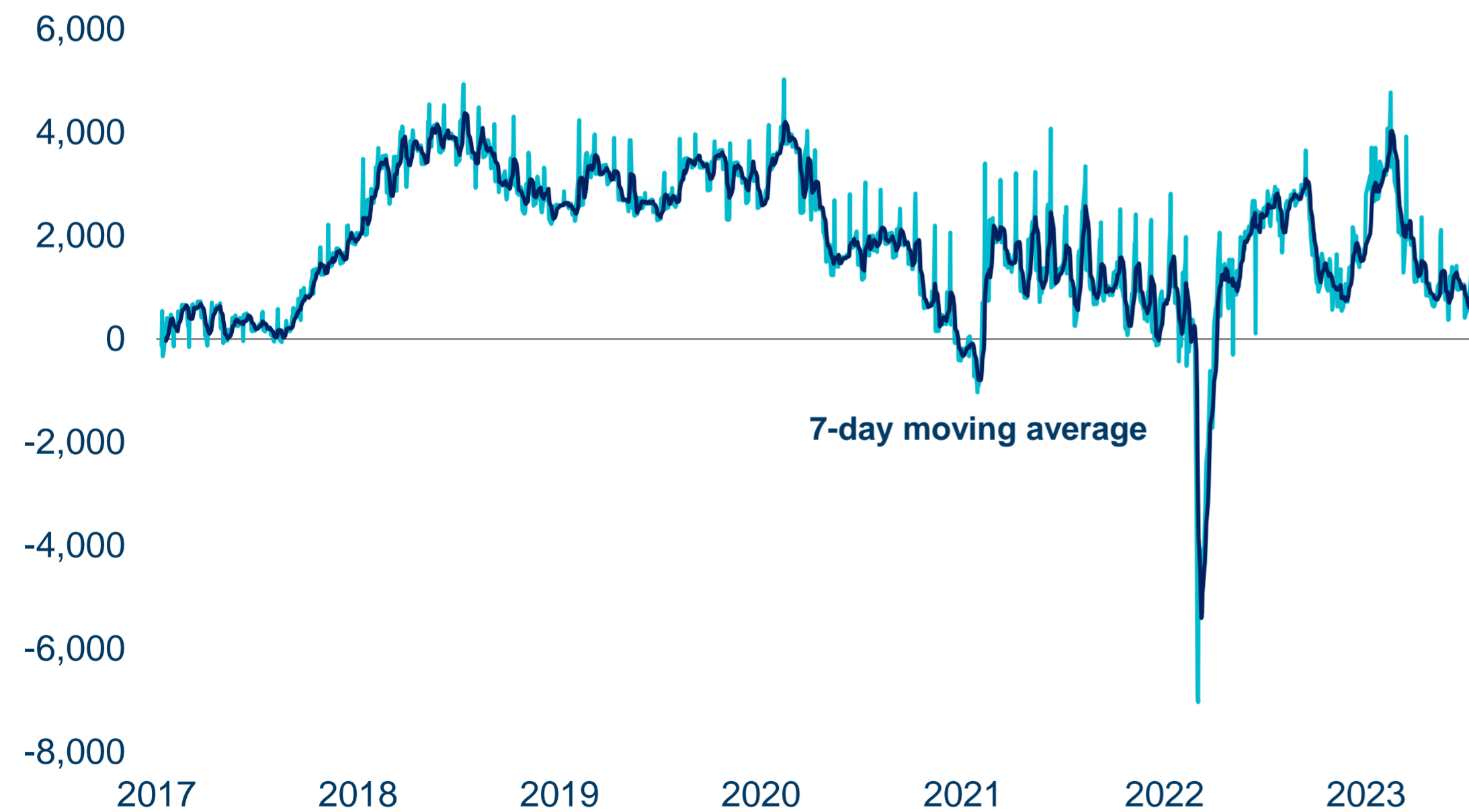


Source: Bank of Russia, KSE Institute

Financial sector sanctions did not trigger a systemic crisis.

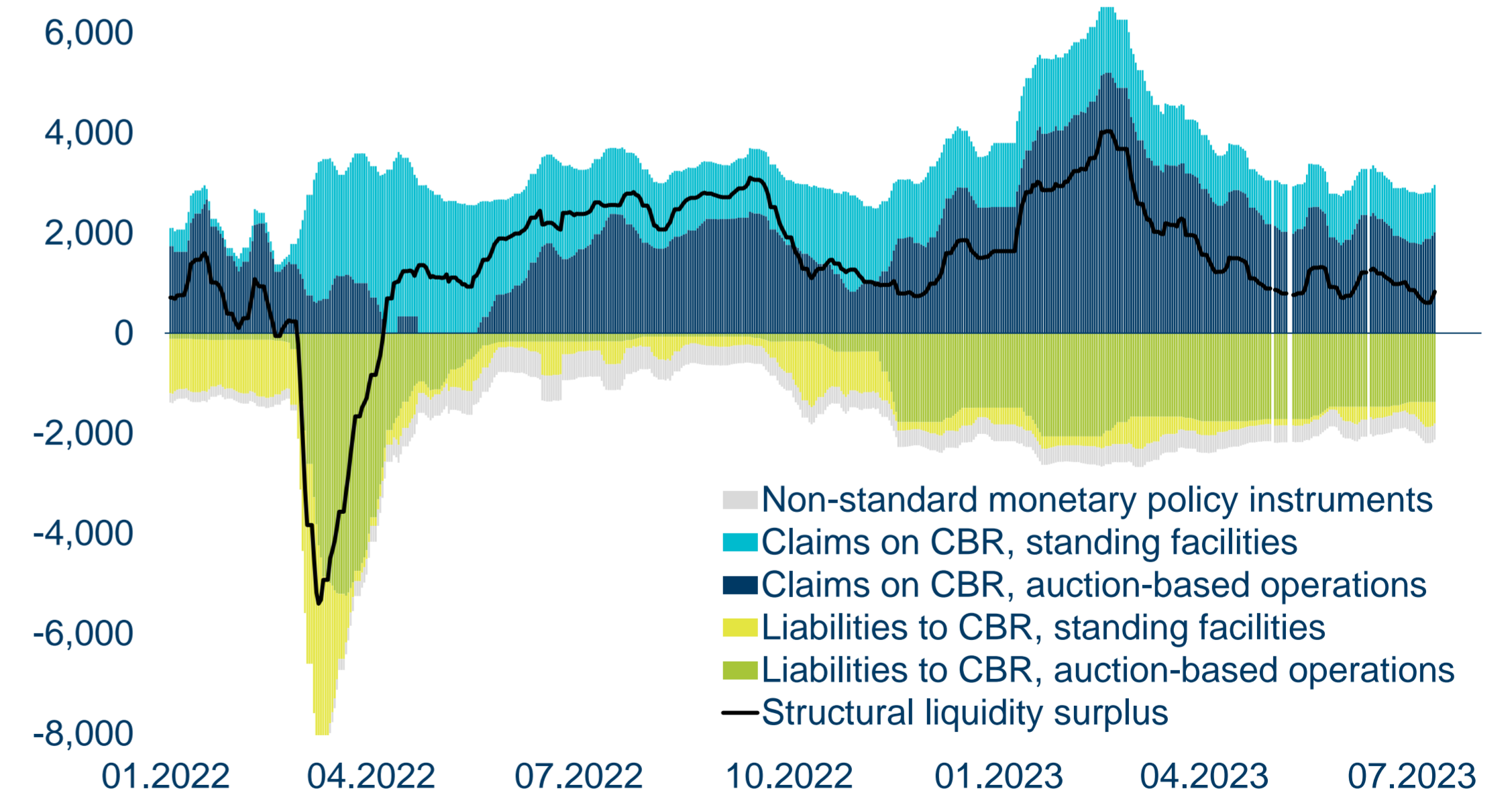
- Liquidity conditions recovered quickly after the initial shock from the war and the imposition of sanctions.
- However, a closer look at the composition of the structural surplus points to some stress in the interbank market.
- Additional financial sanctions could trigger another stress episode – at a time of reduced policy space for the CBR.

Banking system structural liquidity surplus, in ruble billion



Source: Bank of Russia, KSE Institute

Composition of structural liquidity surplus, in ruble billion

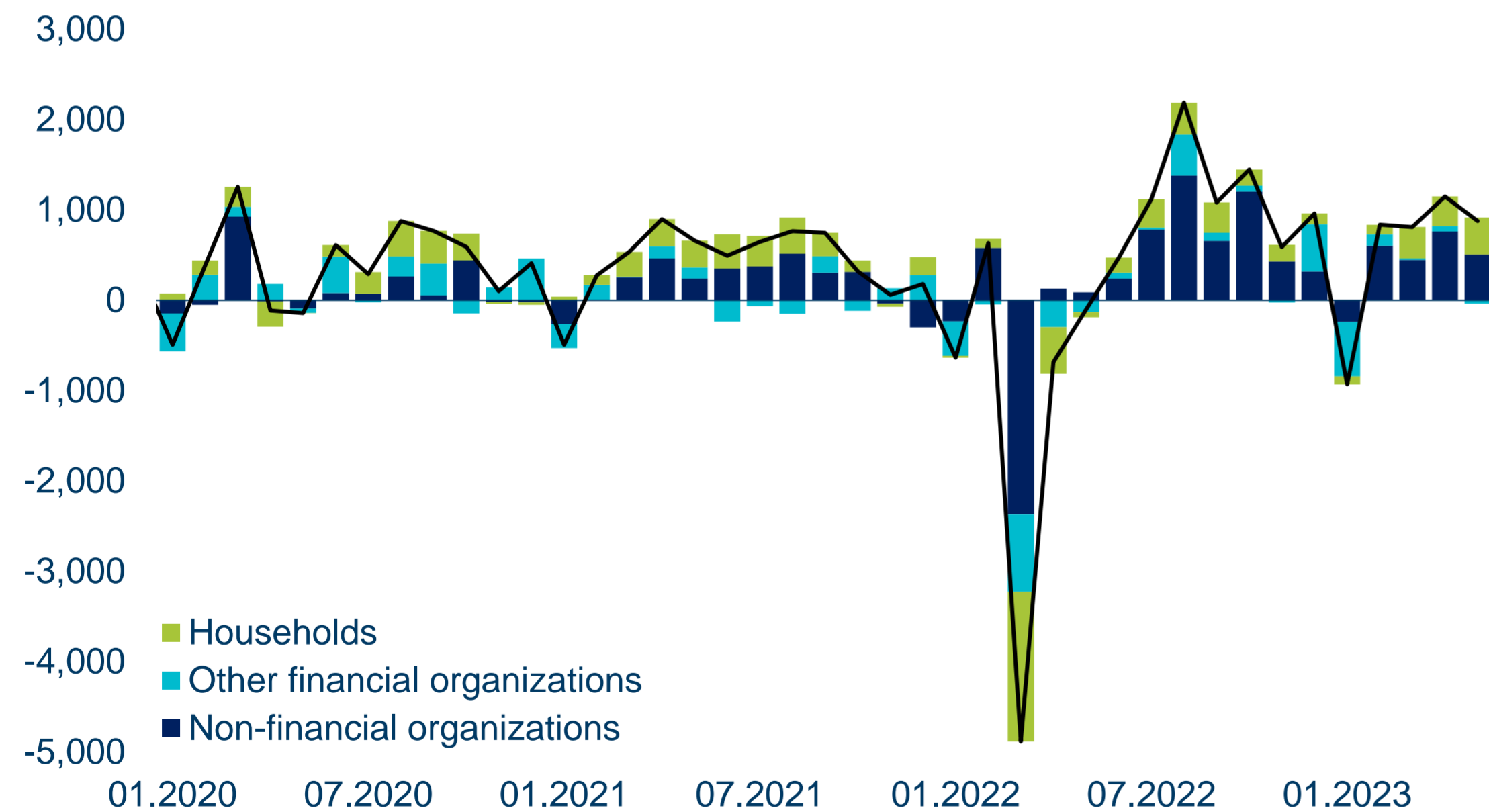


Source: Bank of Russia, KSE Institute

Robust private sector credit and no spill-overs into the real economy.

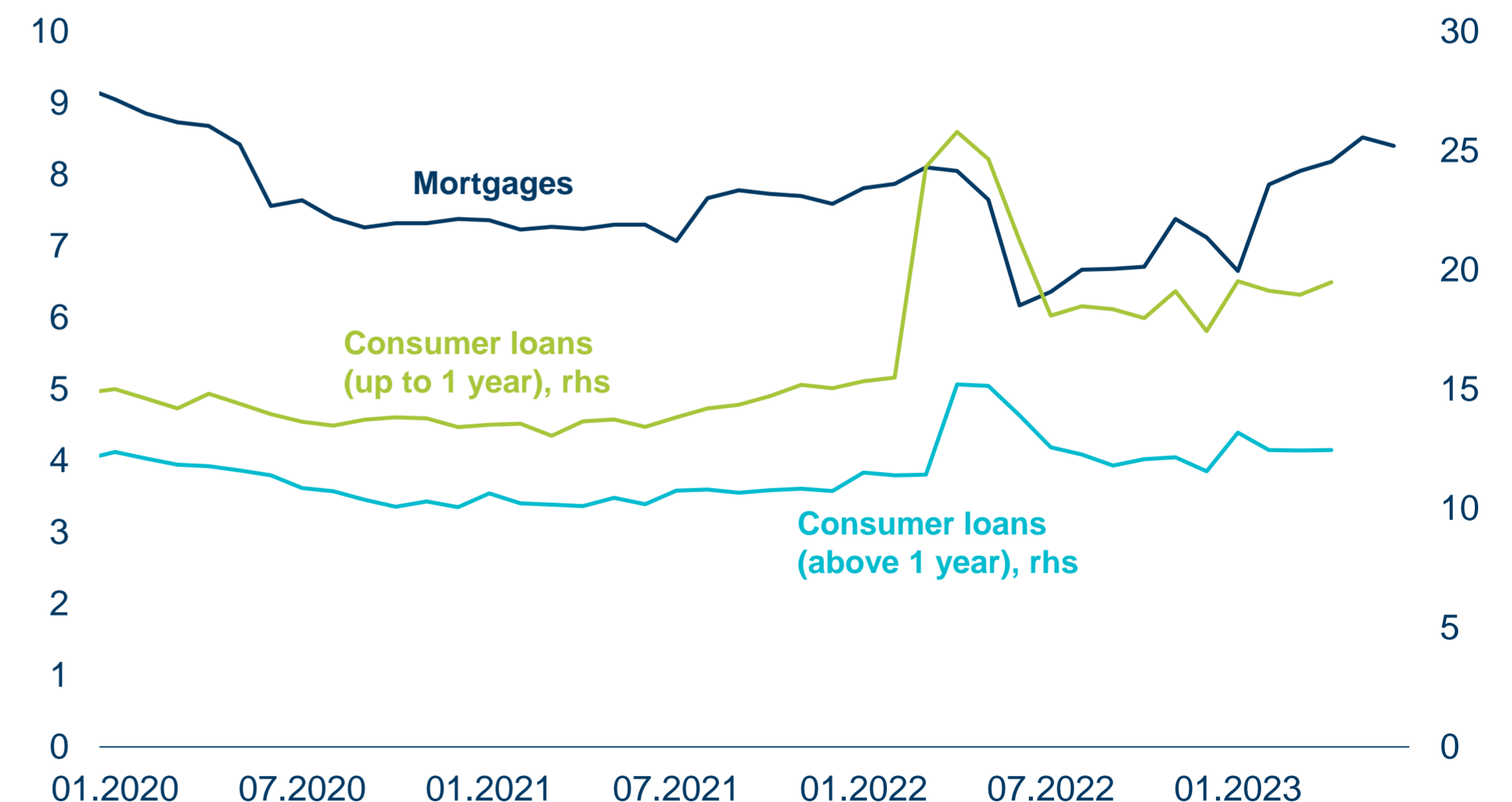
- Due to the provision of sufficient liquidity by the CBR, banks have been able to provide the private sector with credit.
- This is one of the main reasons for the Russian economy's outperformance of initial expectations in 2022.
- Rising interest rates on rate-sensitive credit types such as mortgages show some underlying vulnerabilities.

New ruble-denominated credit, in 2020 ruble billion*



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

Average weighted interest rates, in %

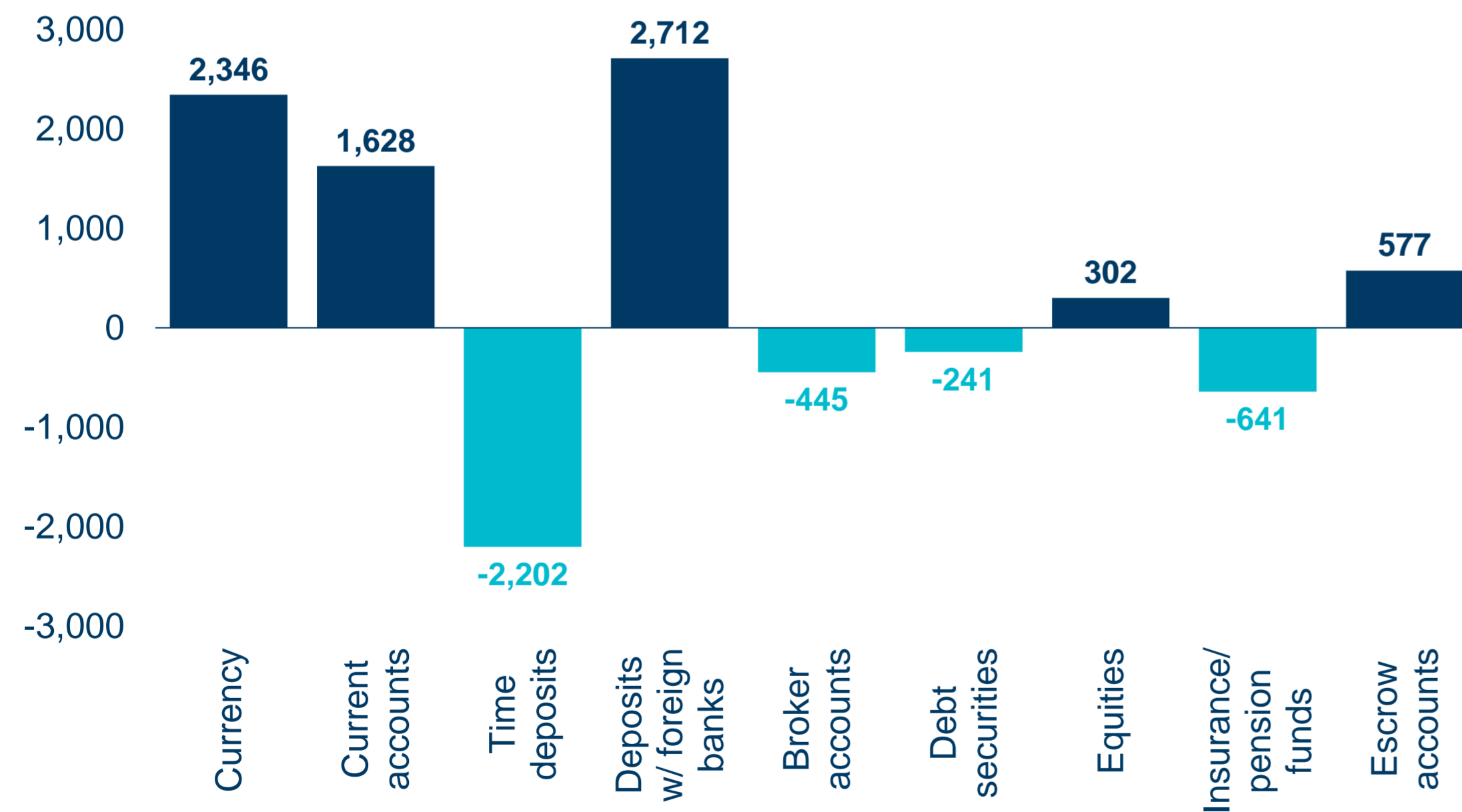


Source: Bank of Russia, KSE Institute

Underlying vulnerabilities remain and could resurface quickly.

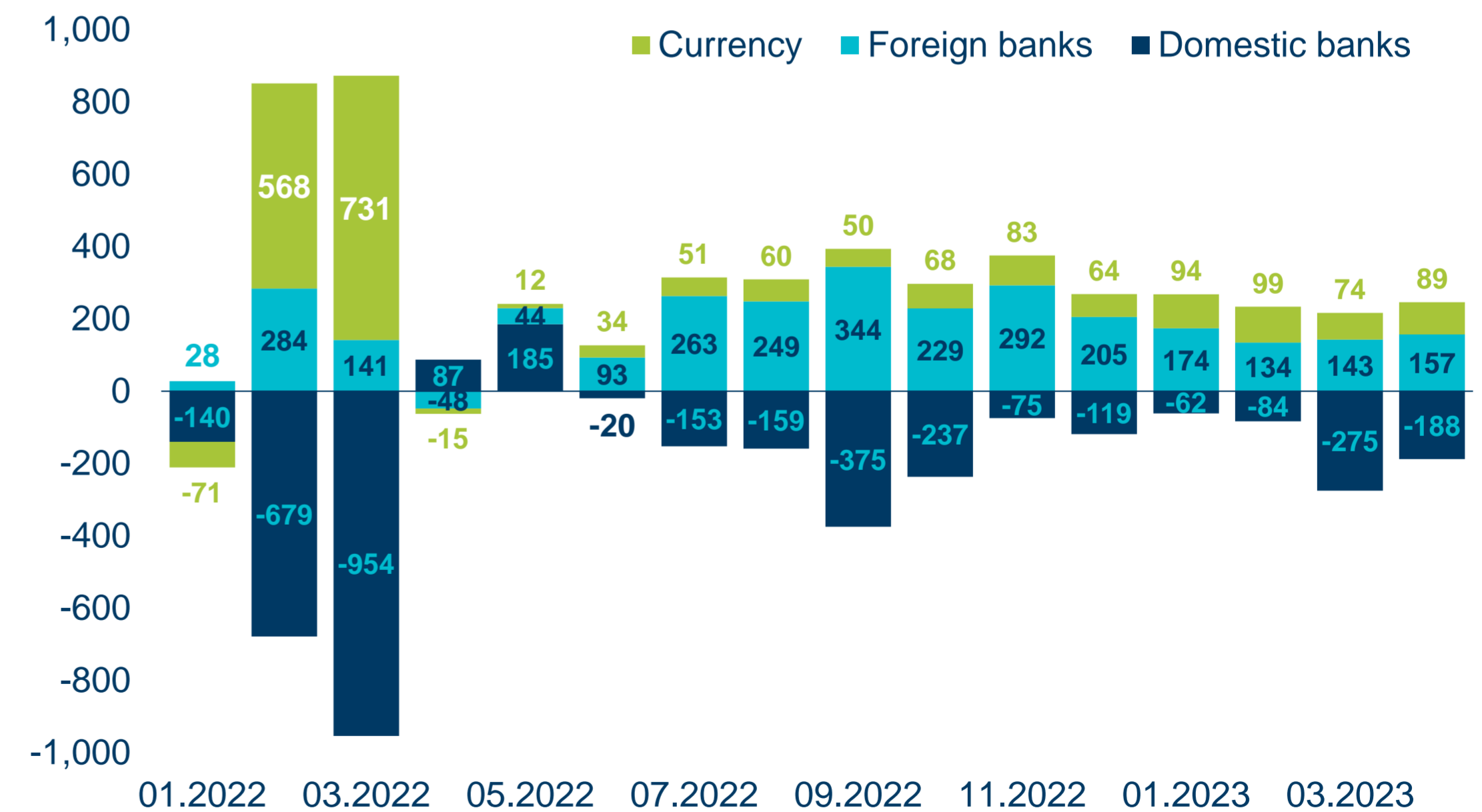
- While a systemic financial crisis was avoided, clear signs of vulnerabilities exist, including household asset movements.
- For instance, households moved funds from longer-term investments to cash holdings, current accounts, and foreign banks.
- As in previous crises, foreign currency was pulled from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



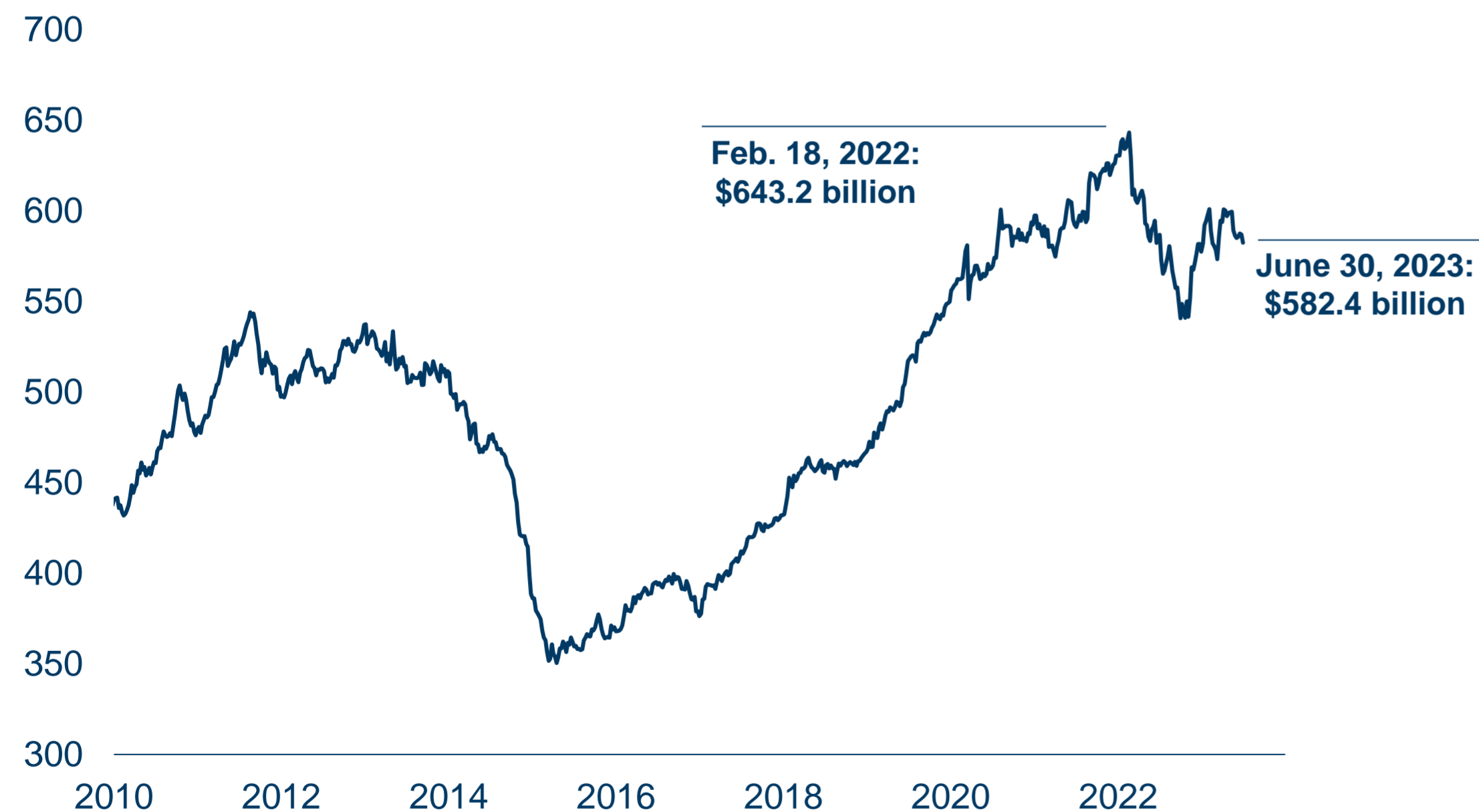
Source: Bank of Russia, KSE Institute

**Official reserves immobilized,
new foreign assets on the rise.**

A substantial share of international reserves have been immobilized.

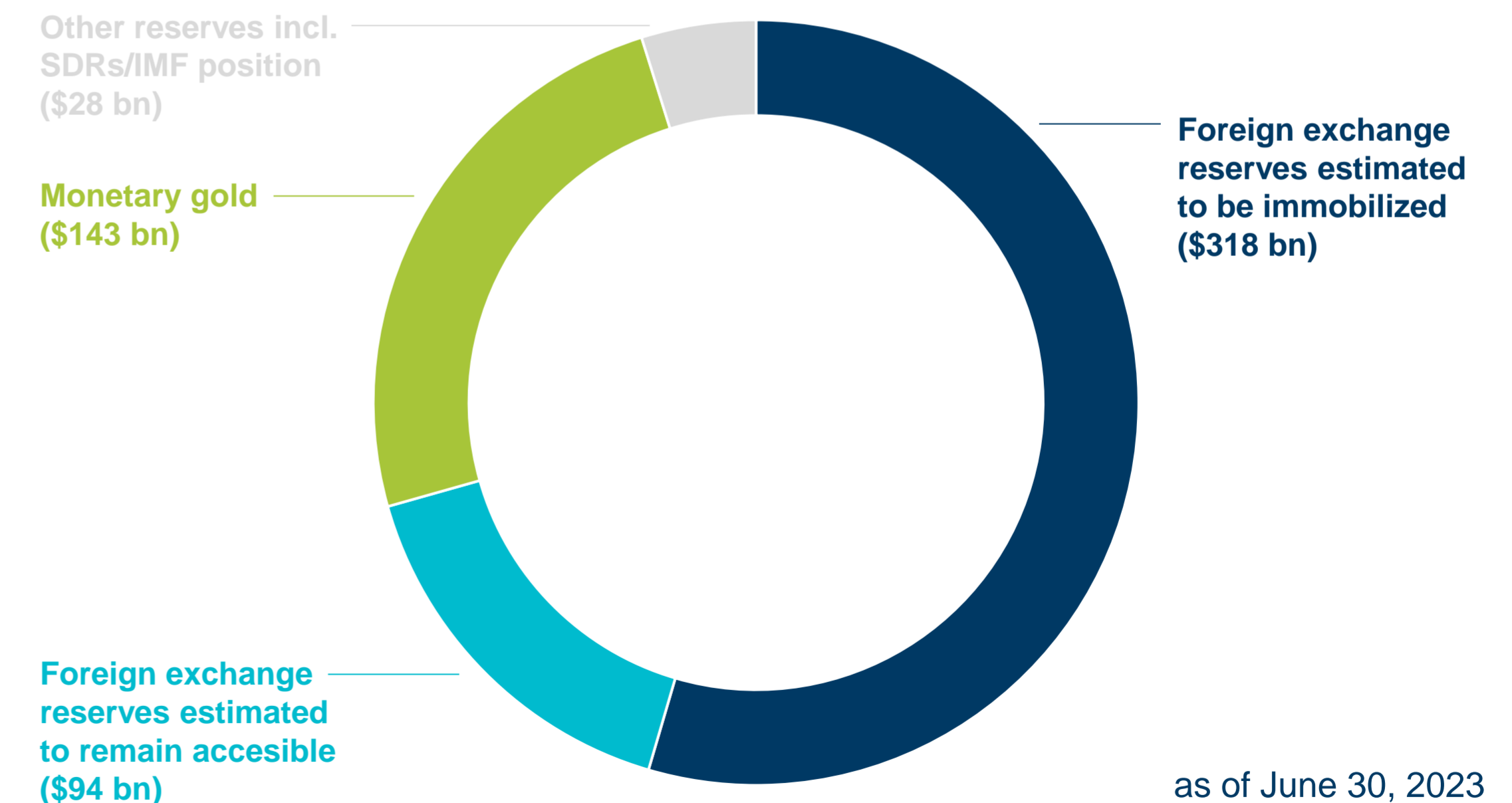
- Before the invasion, Russia held \$634 billion in international reserves, part of what is described as “Fortress Russia”.
- We estimate that around \$318 billion are currently immobilized due to international sanctions on CBR and NWF.
- This leaves Russia with access to \$143 billion in monetary gold and roughly \$94 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



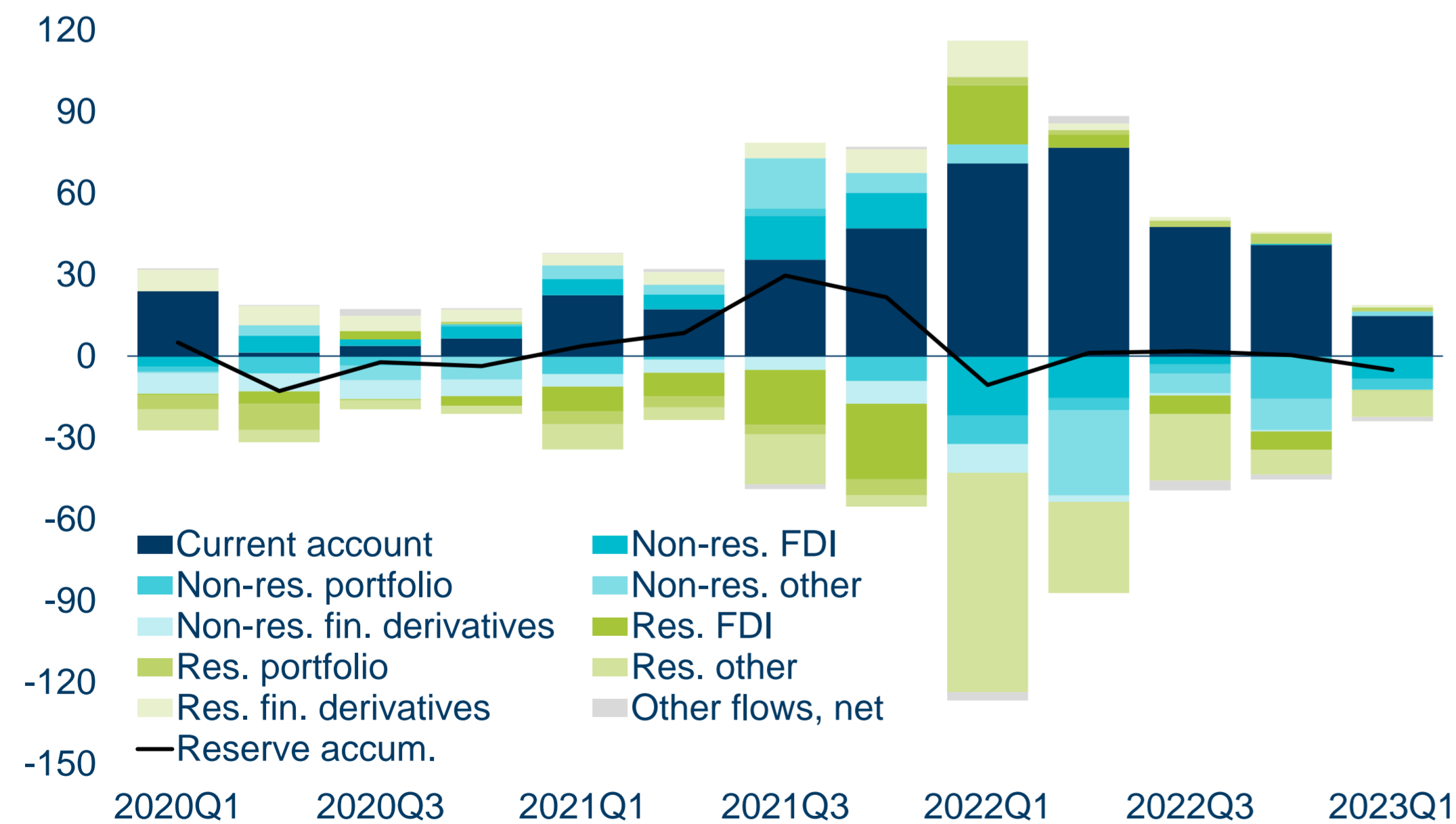
Source: Bank of Russia, KSE Institute

as of June 30, 2023

Significant accumulation of new foreign assets in 2022-23.

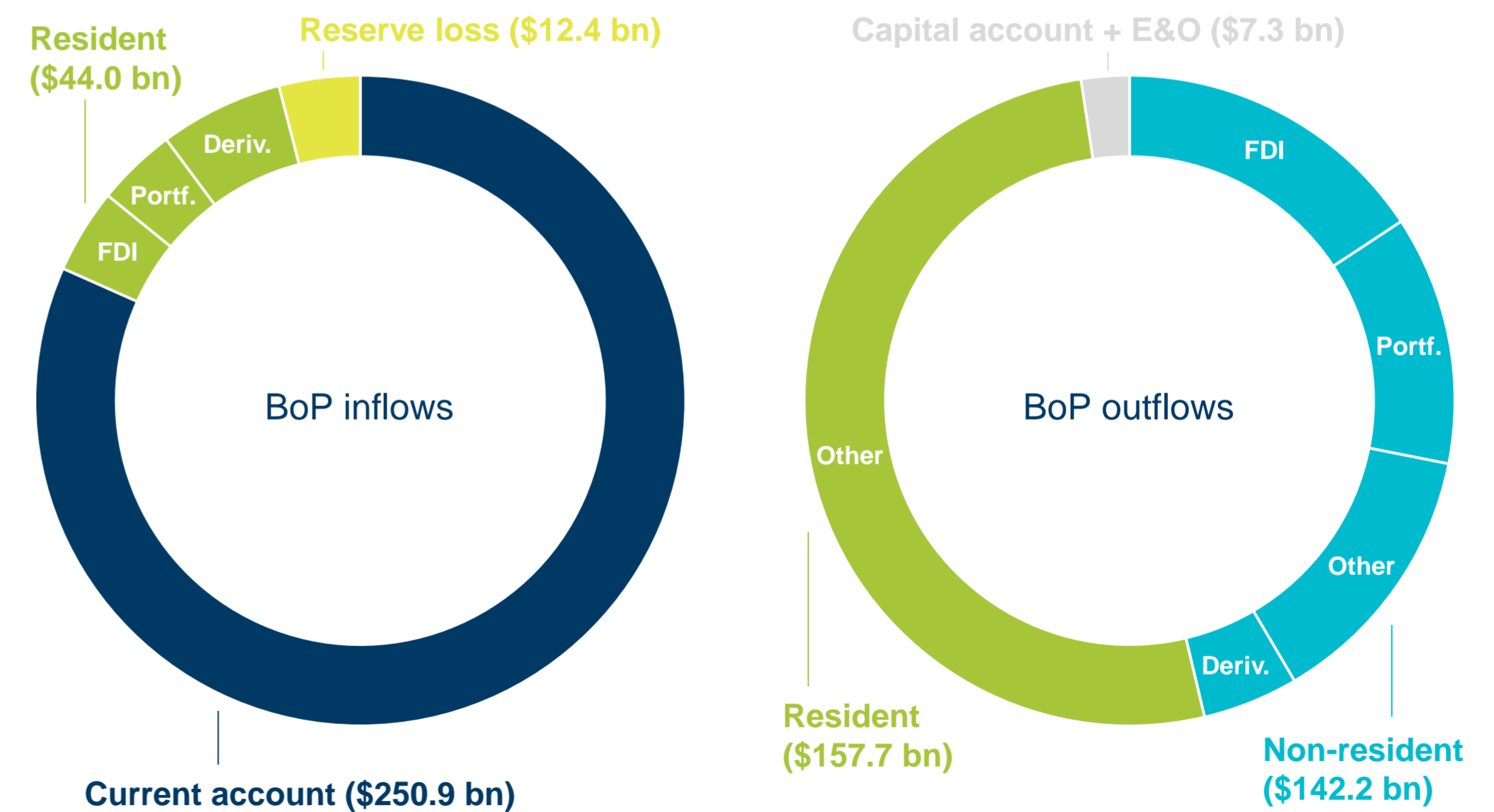
- It is time to focus attention on foreign assets that Russia has been able to accumulate due to favorable BoP dynamics.
- Non-resident capital outflows partially ate up the large current account surplus and resident inflows in 2022Q1-2023Q1.
- But Russian banks and corporates were able to acquire \$158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

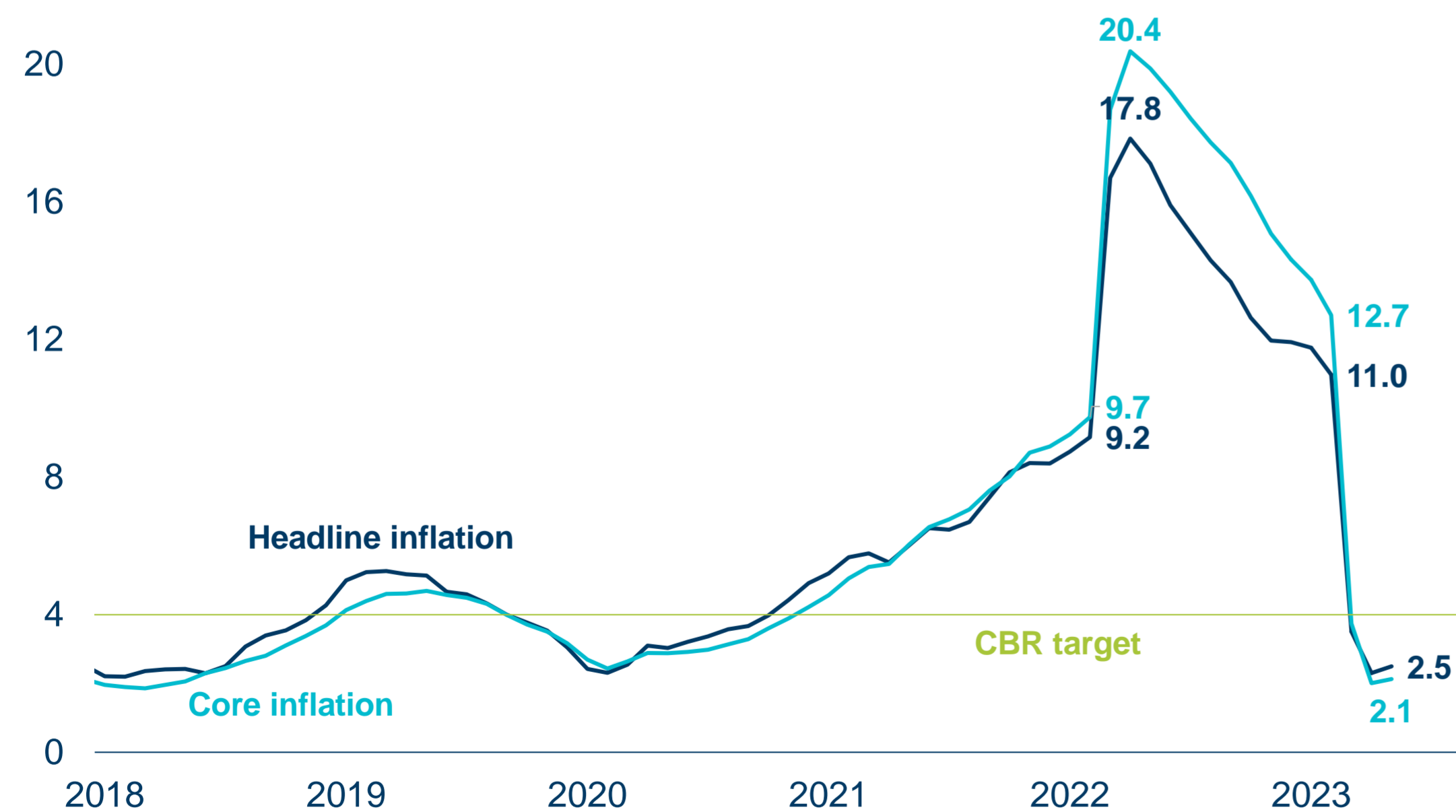


Source: Bank of Russia, KSE Institute

Inflation measures fall sharply due to base effects.

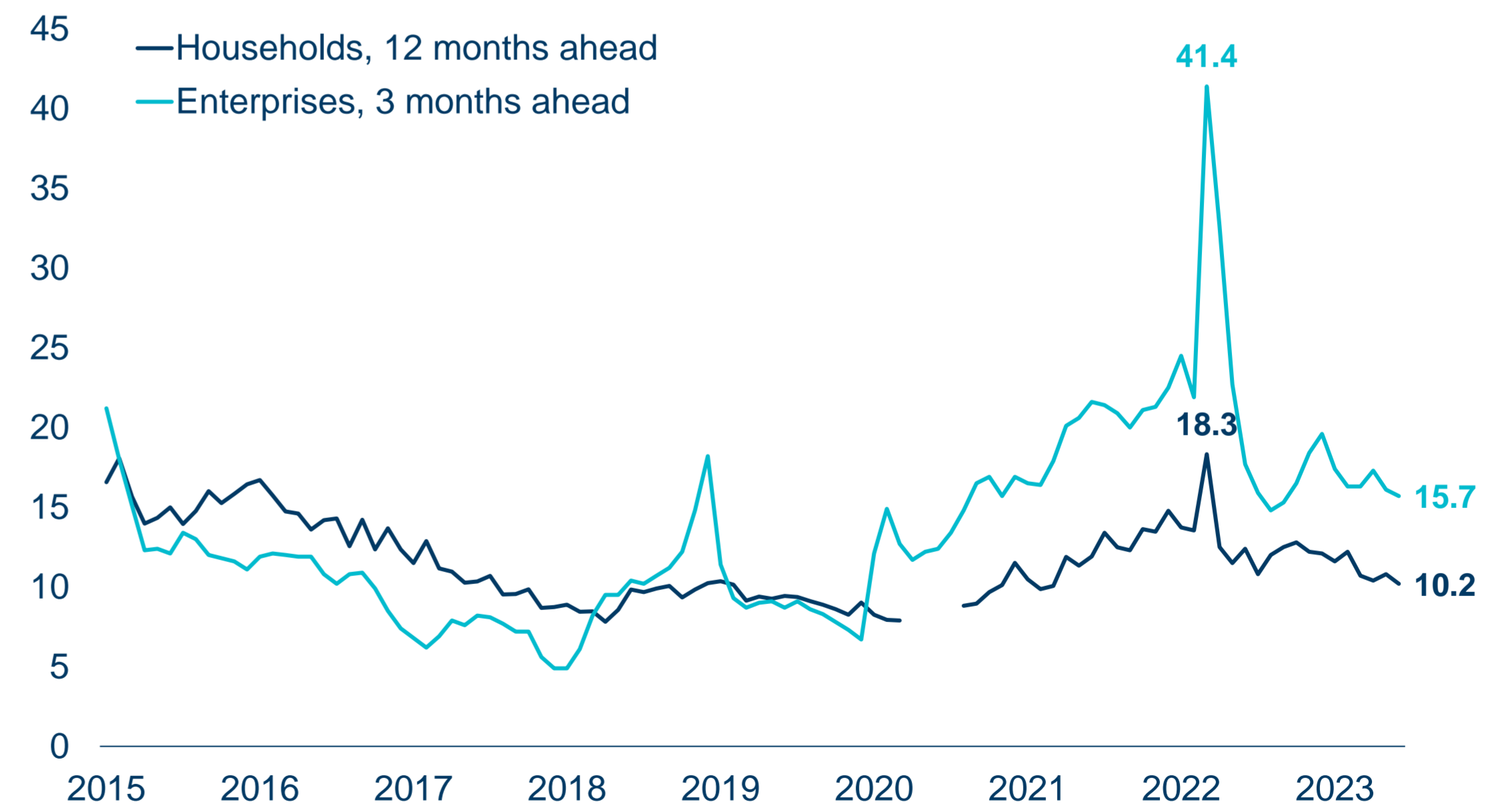
- Both headline and core inflation dropped sharply in March-May due to the disappearance of base effects from 2022.
- But we expect that the weaker external environment will weigh on the ruble and, in turn, increase inflationary pressures.
- Inflation expectations do not point to increased concerns among households and enterprises over price dynamics yet.

Inflation, in % year-over-year



Source: Bank of Russia, KSE Institute

Inflation expectations, in %



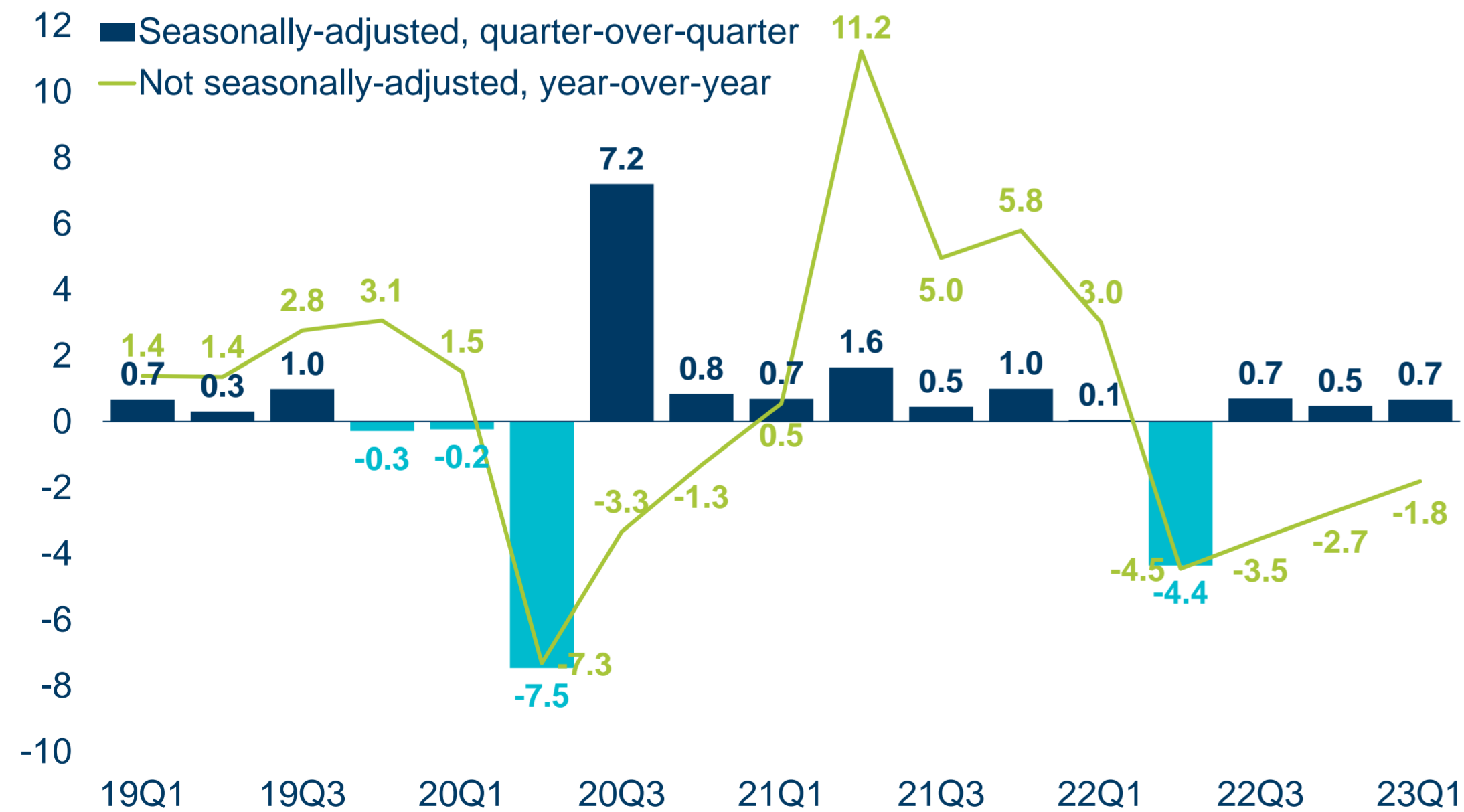
Source: Bank of Russia

**Most indicators show an
economy on recovery path**

Russia's economy continued to recover in 2023Q1.

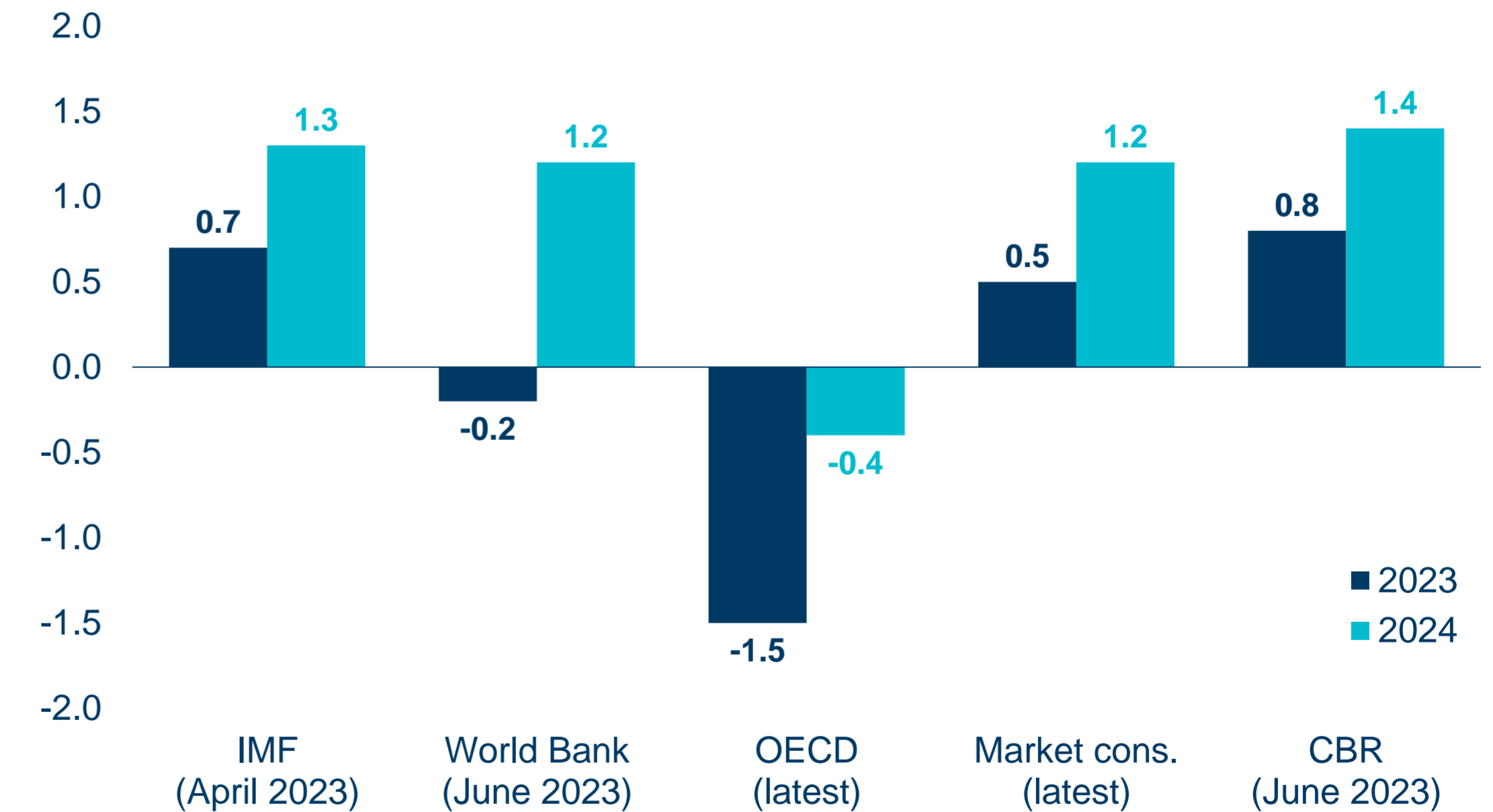
- Real GDP was down only 1.8% y/y in 2023Q1 according to Rosstat, which represents robust q/q growth (+0.7%).
- Even under the assumption of stagnation in Q2-Q4, growth would be positive at 0.3% in 2023 due to base effects.
- Most forecasts assume a small contraction or below-1% growth this year, followed by 1.0-1.5% growth in 2024.

Quarterly real GDP dynamics, in %



Source: Rosstat, KSE Institute

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

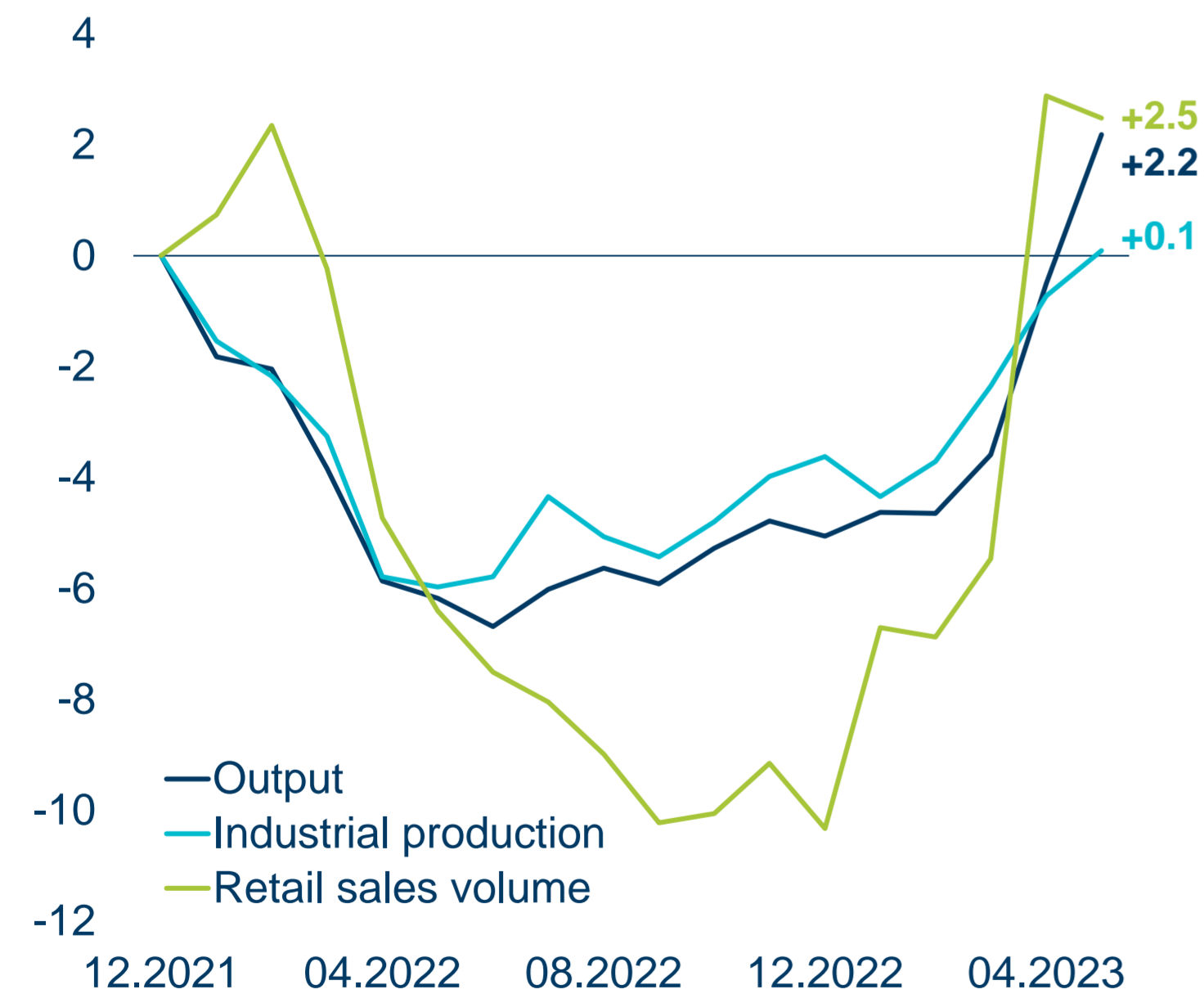


Source: Bank of Russia, Bloomberg, IMF, OECD, World Bank

Broad range of indicators provides consistent picture.

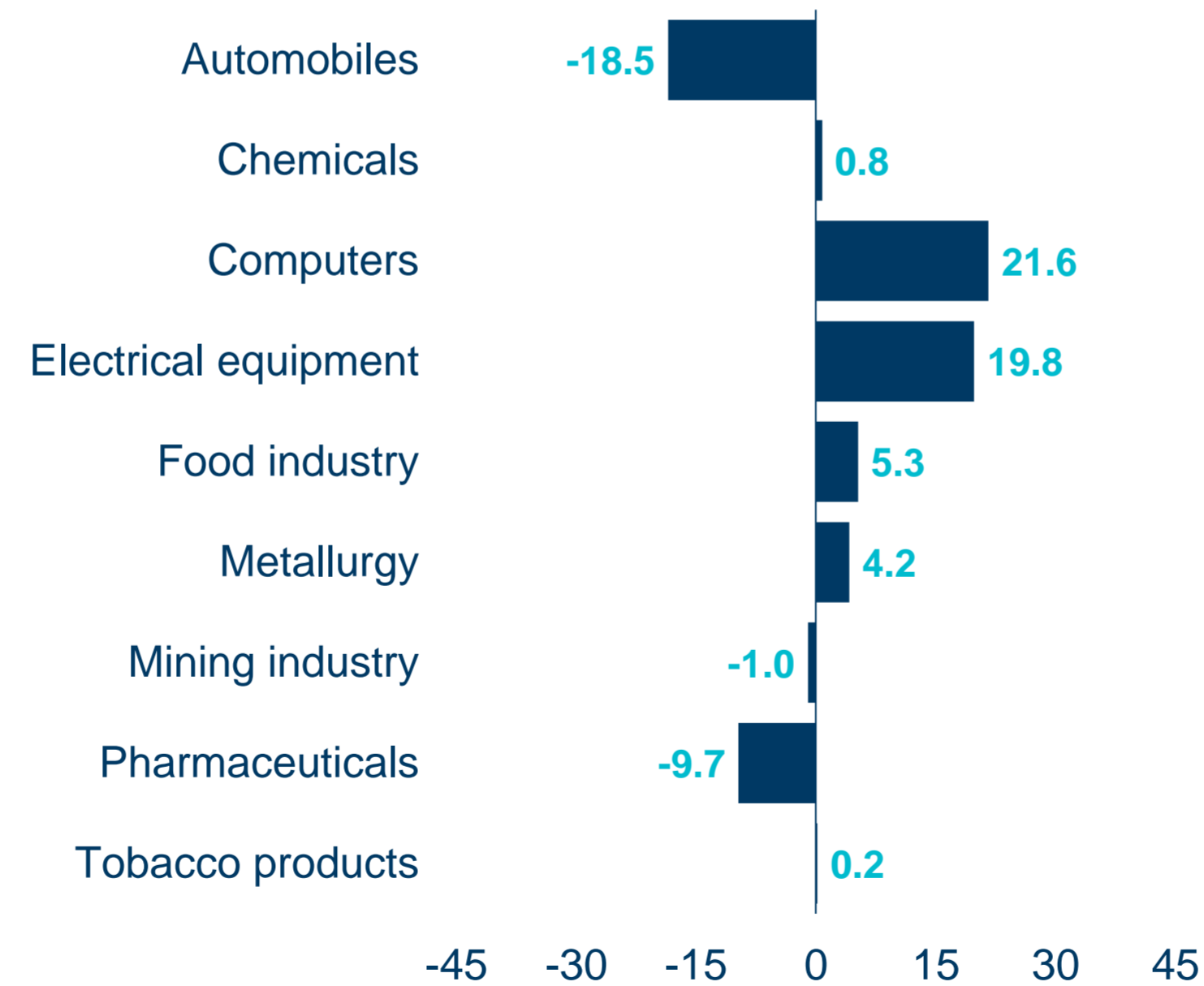
- Questions about the reliability of Russian GDP data are legitimate and pose challenges for any forecasting exercise.
- But a variety of indicators provide the consistent picture of an economic recovery that has essentially been completed.
- This is true for activity measures such as industrial production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

Activity indicators vs. December 2021, in %



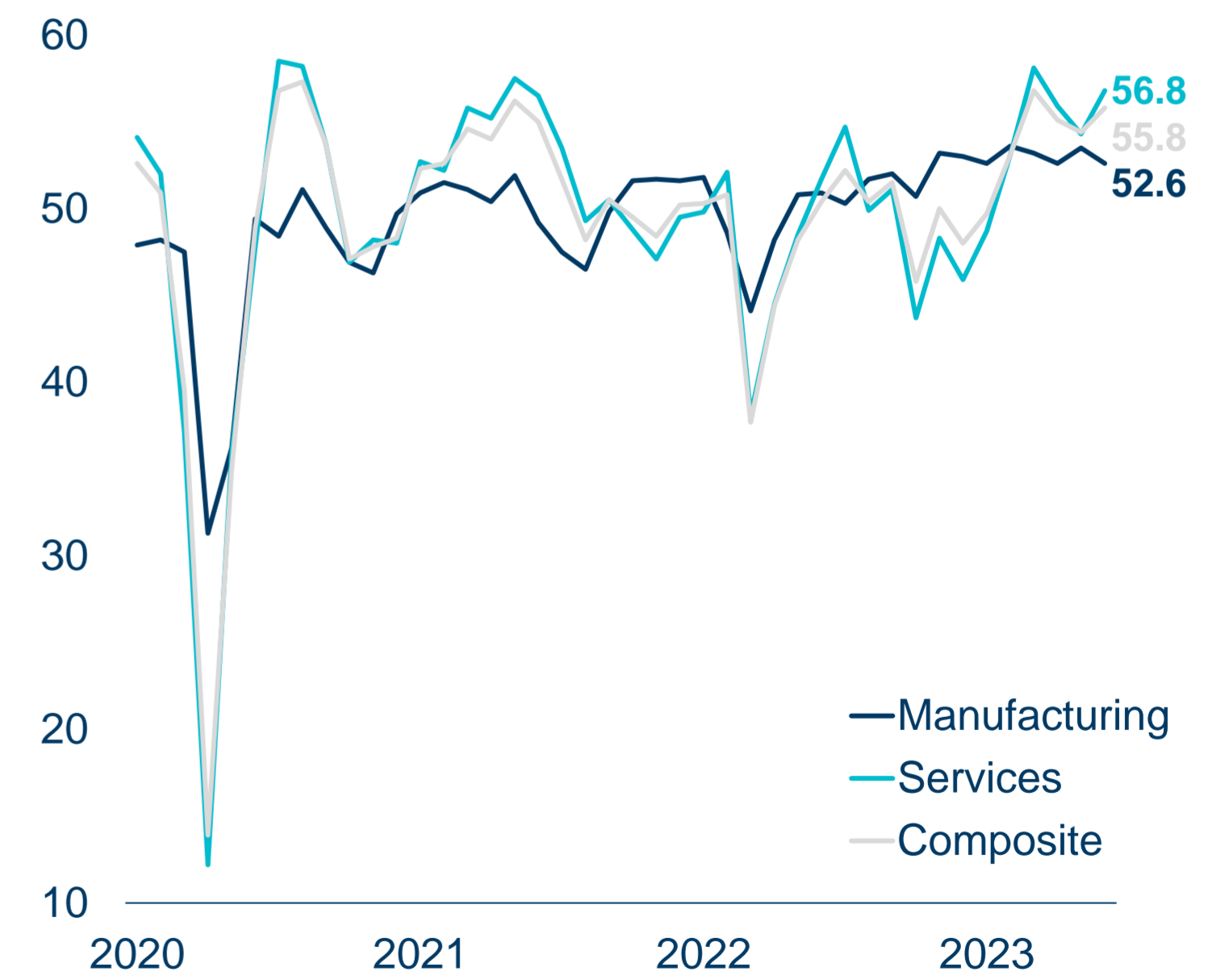
Source: Rosstat, KSE Institute

Sectoral production, in % year-over-year*



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

PMIs, index (50+ = expansion)



Source: S&P Global, KSE Institute