

# Discussion

THE ECONOMICS OF INTERNATIONAL SANCTIONS\*

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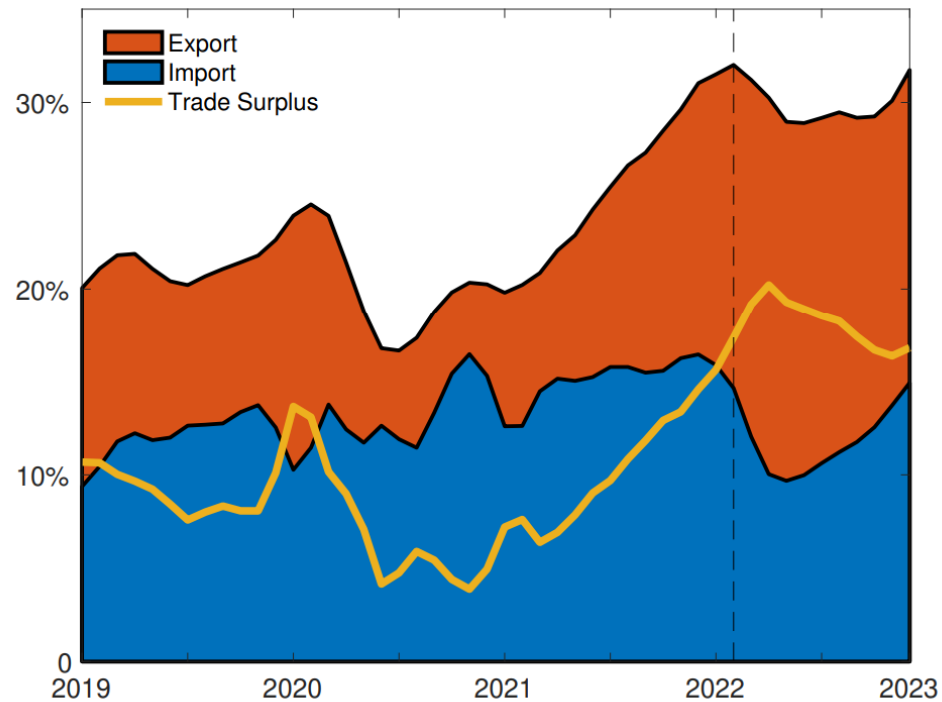
**By Elina Ribakova**  
**August 2023**

## Key results and contributions to the debate

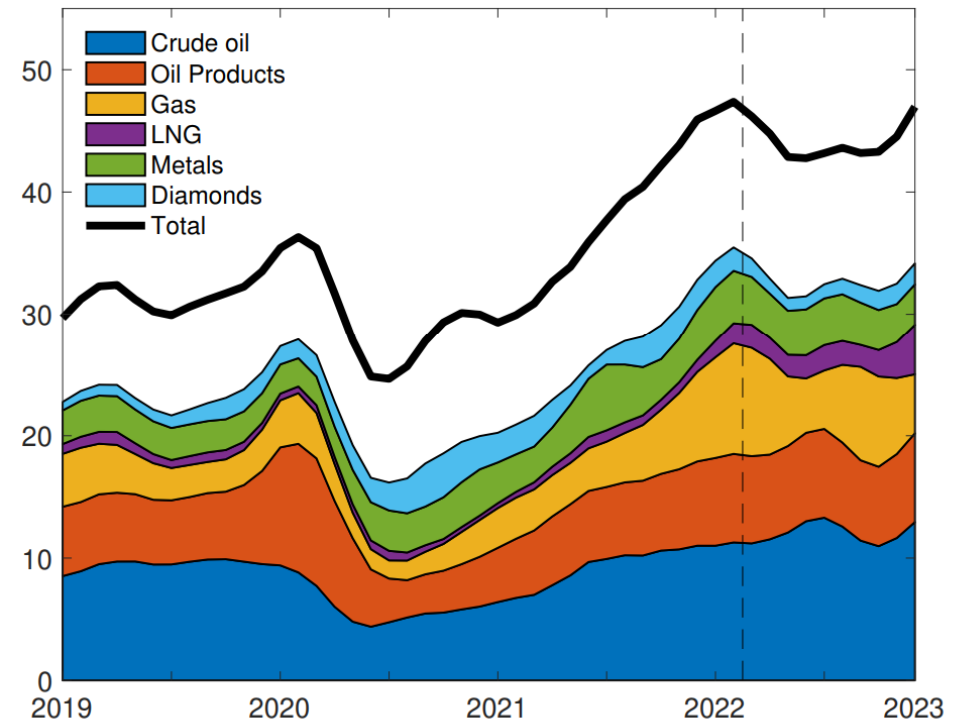
1. Temporary versus permanent. When sanctions are not uniform over time that is are not permanent, Lerner equivalence disappears. When Lerner symmetry does not work, interactions with trade and financial sector matter.
2. Interaction of trade measures and financial sector sanctions.
3. Explaining Ruble movements using an analytically sound framework.
4. Why sanctions create inflationary pressure via cost of imports and budget constraint.

# Russia: Trade flows

(a) Russian Exports and Imports (% of 2021 GDP)

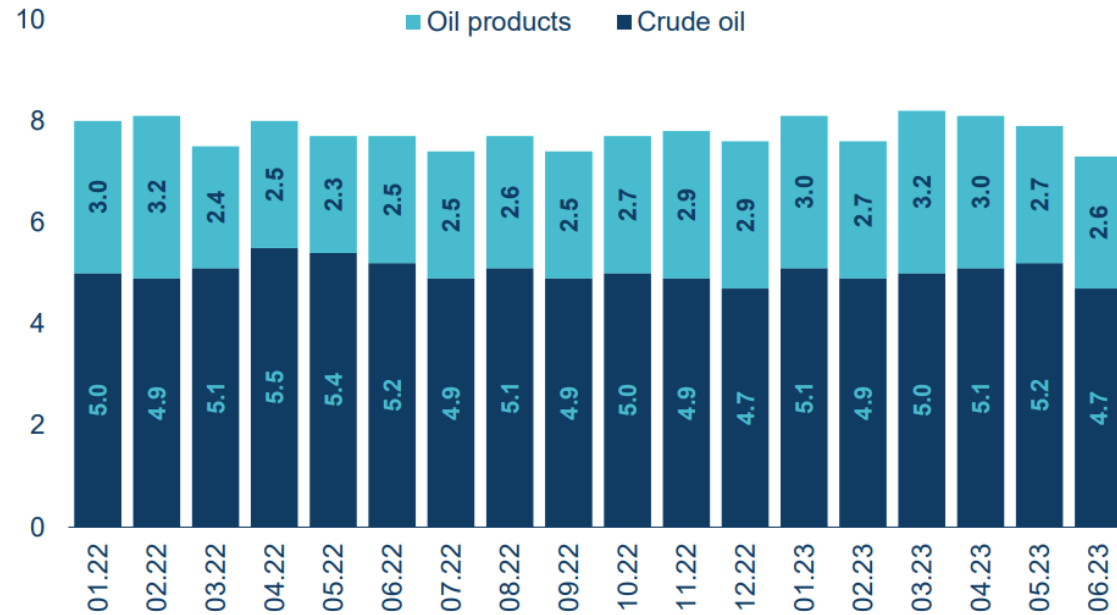


(b) Composition of Russian Exports (\$Bb/month)



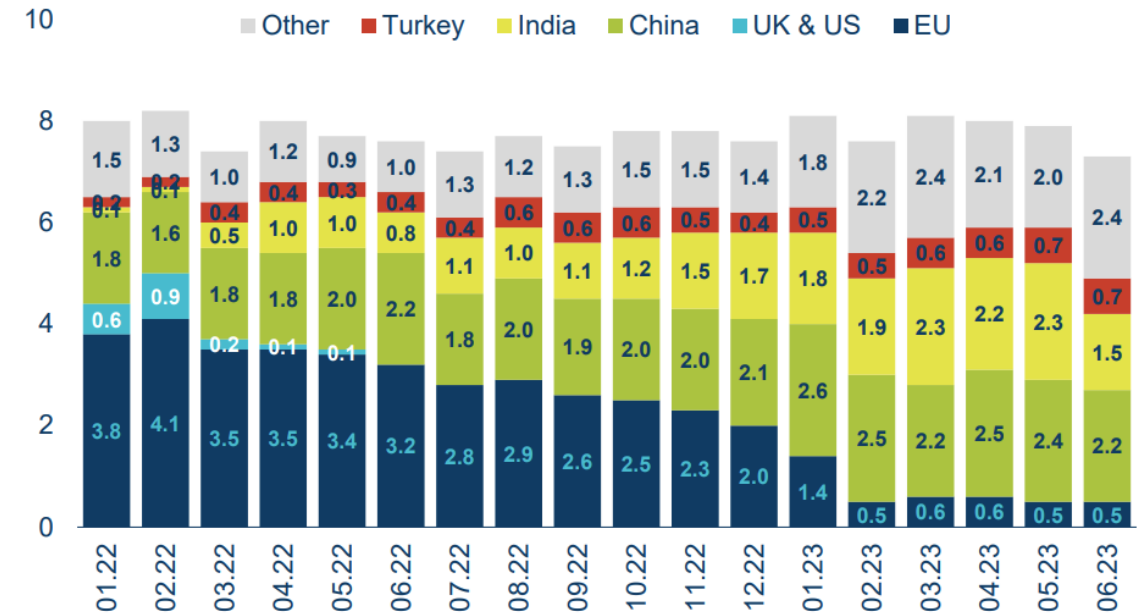
# Russia: Re-direction of exports and stable volumes

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



Source: International Energy Agency, KSE Institute

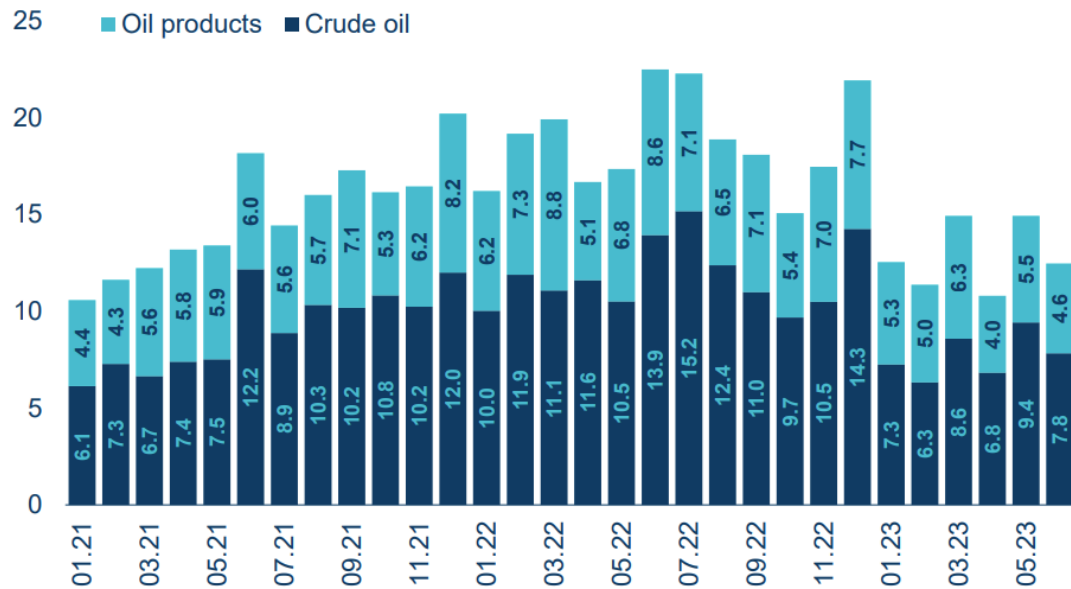
Russian oil export volume by destination, in million barrels/day



Source: International Energy Agency, KSE Institute

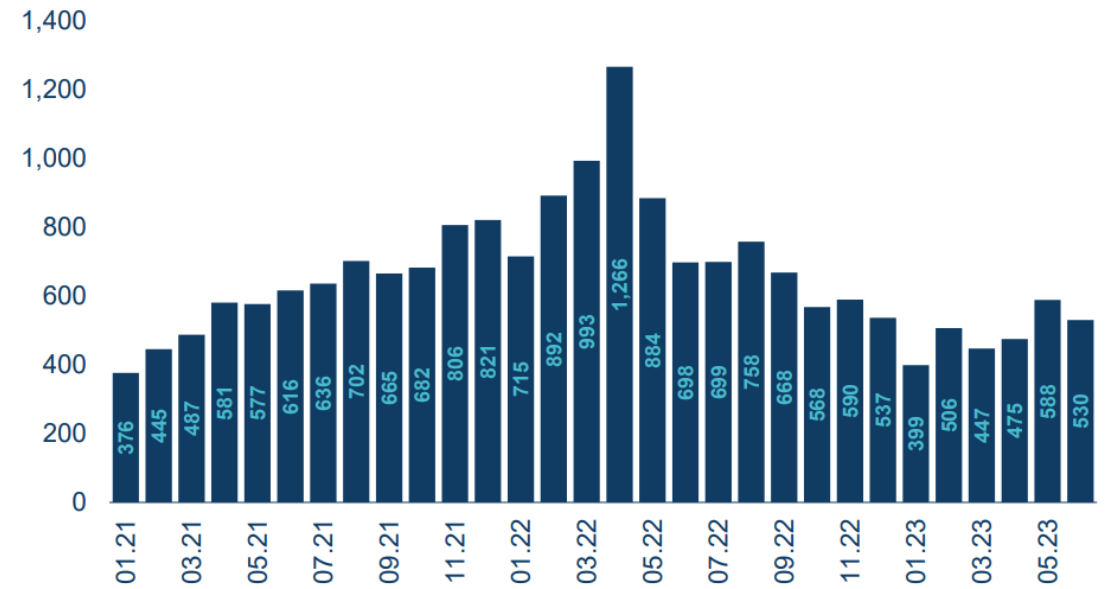
# Russia: Muted effect on the budget

## Oil export earnings, in U.S. dollar billion



Source: KSE Institute

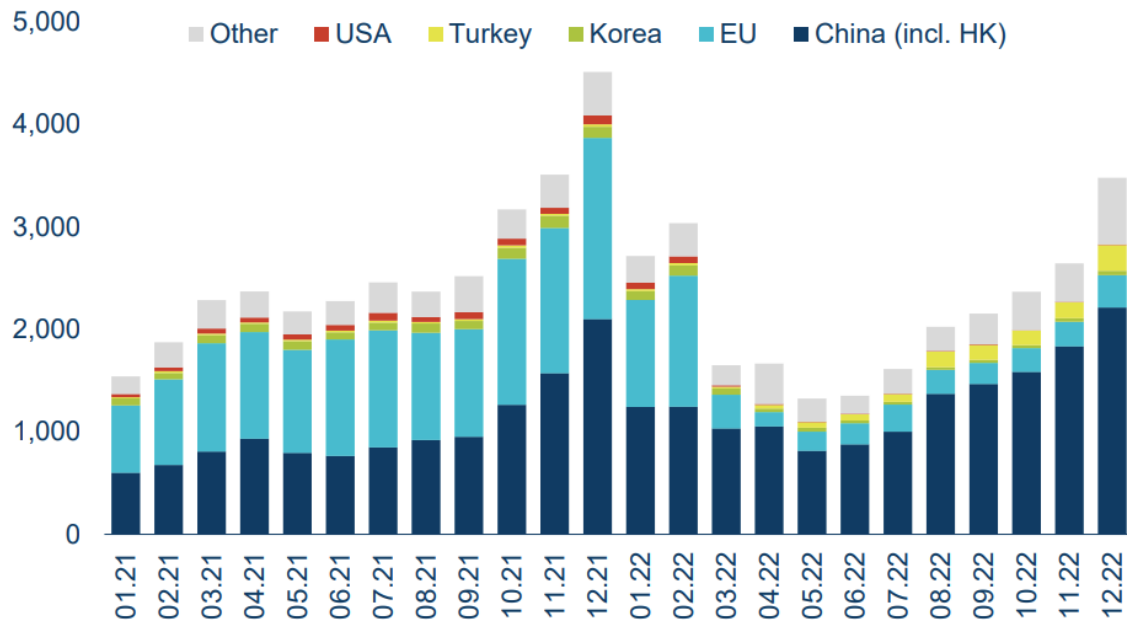
## Federal budget oil revenues, in ruble billion



Source: Ministry of Finance, KSE Institute

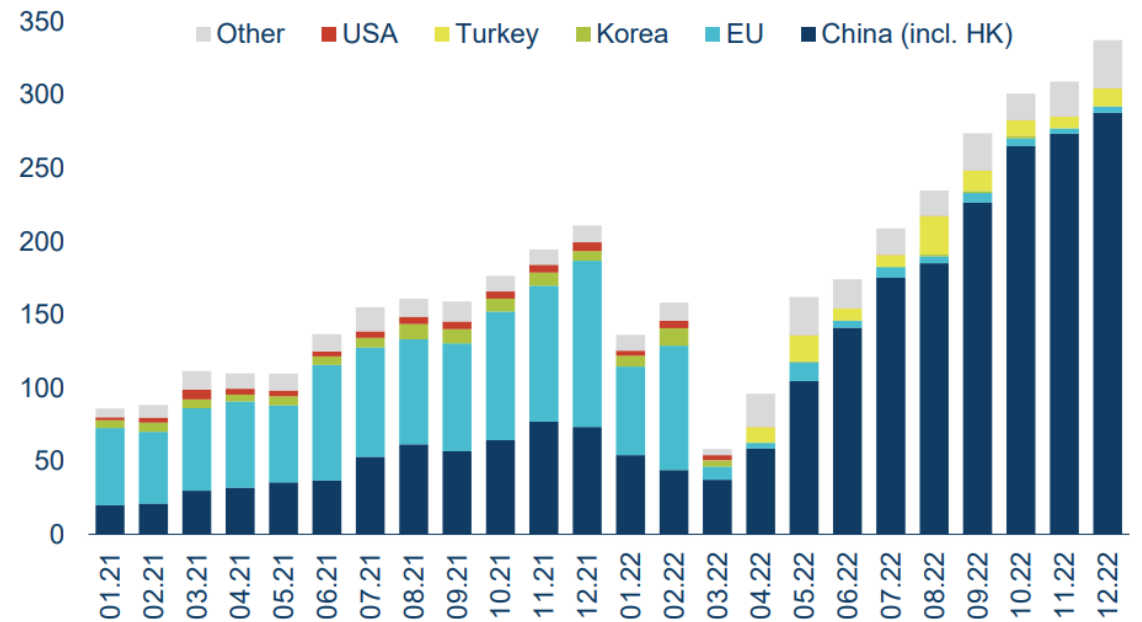
# Russia: Continued access to critical imports

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



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

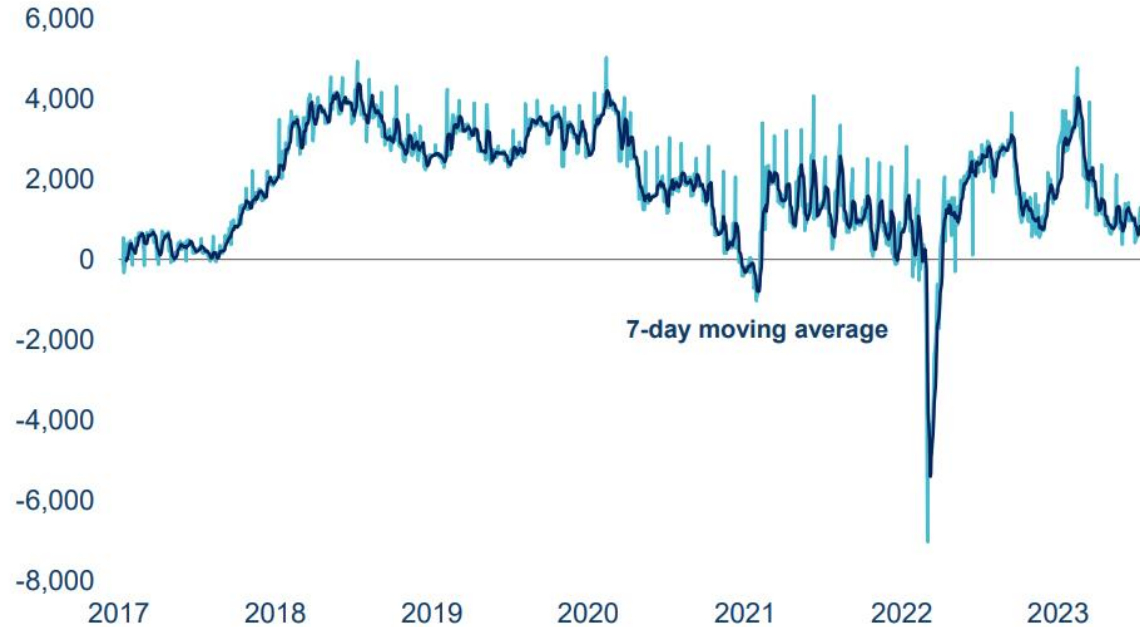
Semiconductor exports to Russia, in U.S. dollar million



Source: KSE Institute

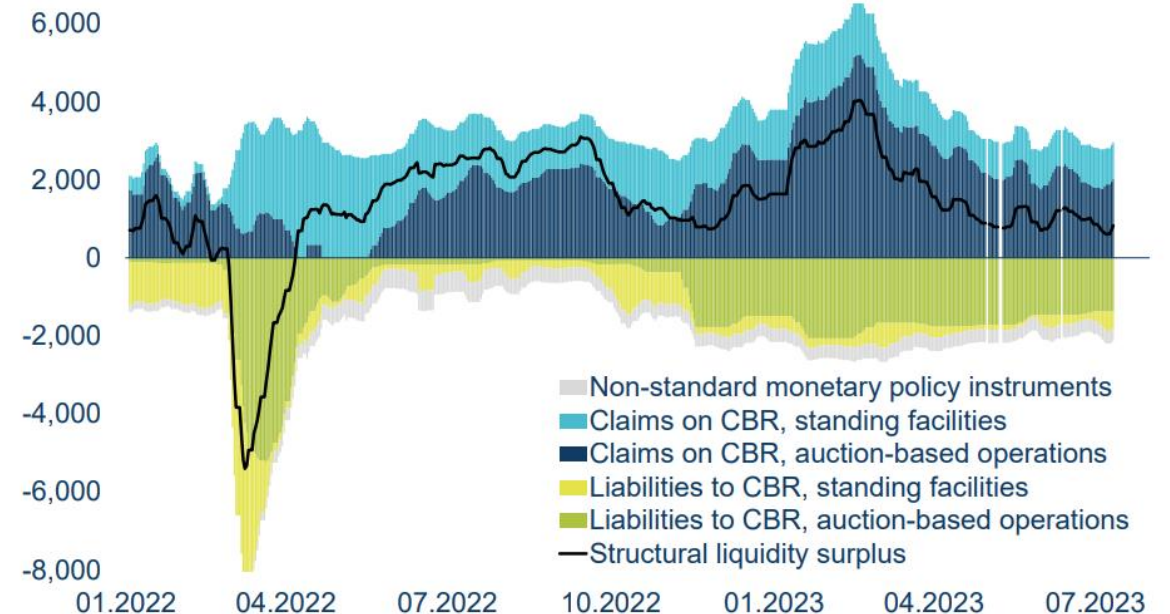
# Russia: Banking crisis that did not last

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

## Russia: Foreign companies' continued support

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

Source: Ministry of Finance, KSE Institute

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: B4Ukraine, KSE Institute



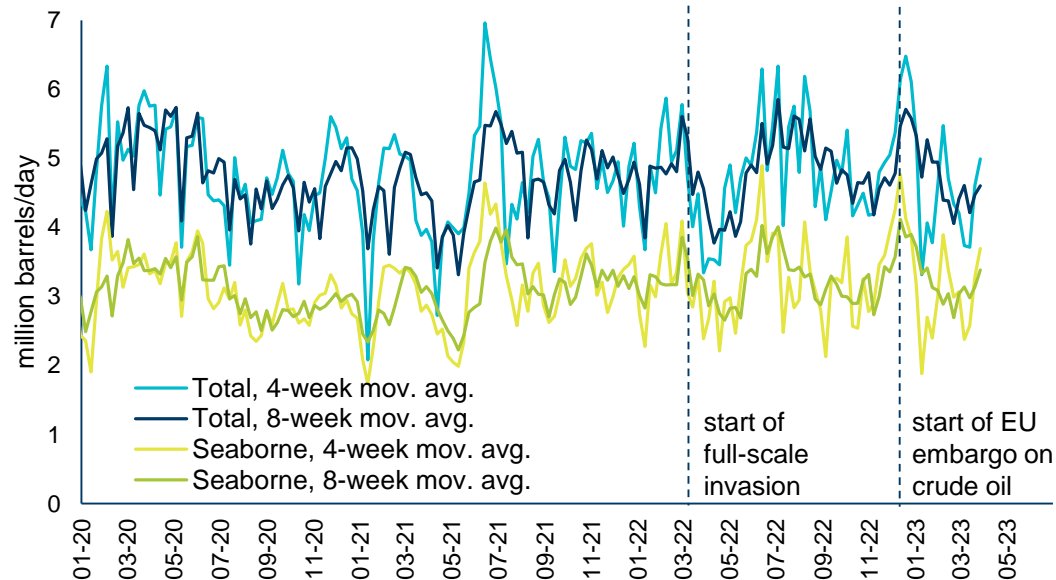
## Brilliant Paper: Wish list for further analysis

1. Link to cost of sender.
2. More explicit policy analysis and recommendation in the context of Russia.
3. Incorporating signaling effect or expectations' channel. Potential analysis of overcompliance.
4. Extending calibration to other country cases.

# 1. Russian oil remains on the market, export revenues drop

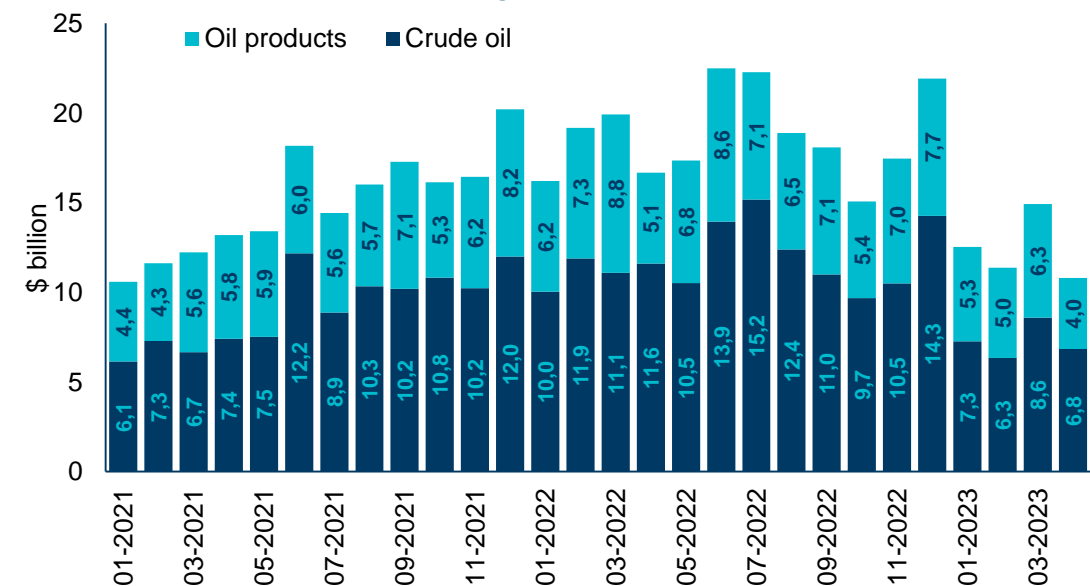
- No significant decline in export volumes  $\Rightarrow$  global prices did not rise
- Sharp decline in export earnings in Jan.-Apr. (**down 30%** vs. Jan.-Apr. 2022)
- Also, much lower budget revenues from oil & gas in Jan.-May (**down 50%** vs. Jan.-May '22)

Russian crude oil export volumes



Source: national authorities, KSE Institute

Russian oil export earnings

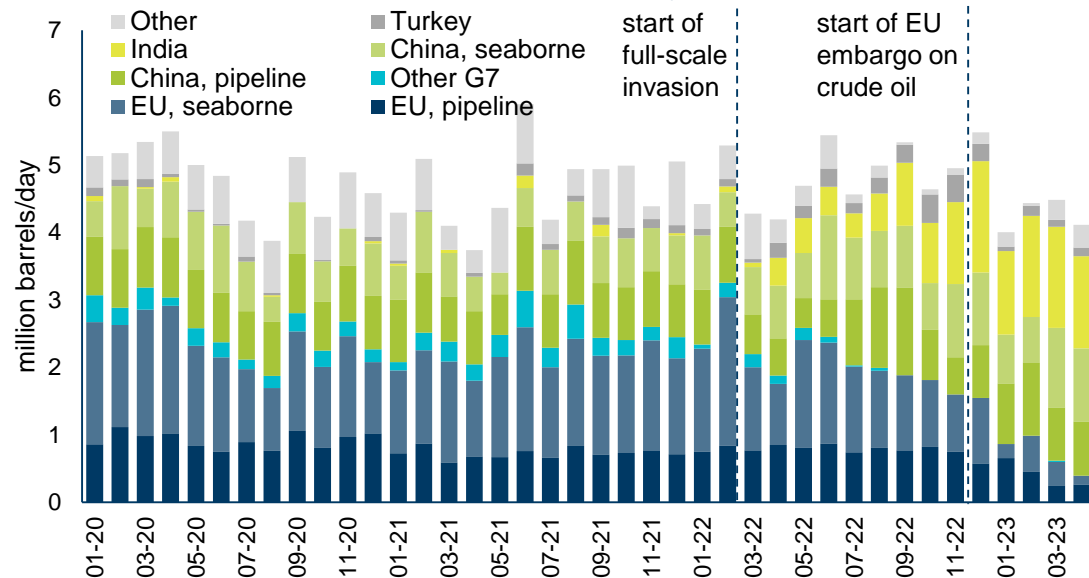


Source: national authorities, KSE Institute

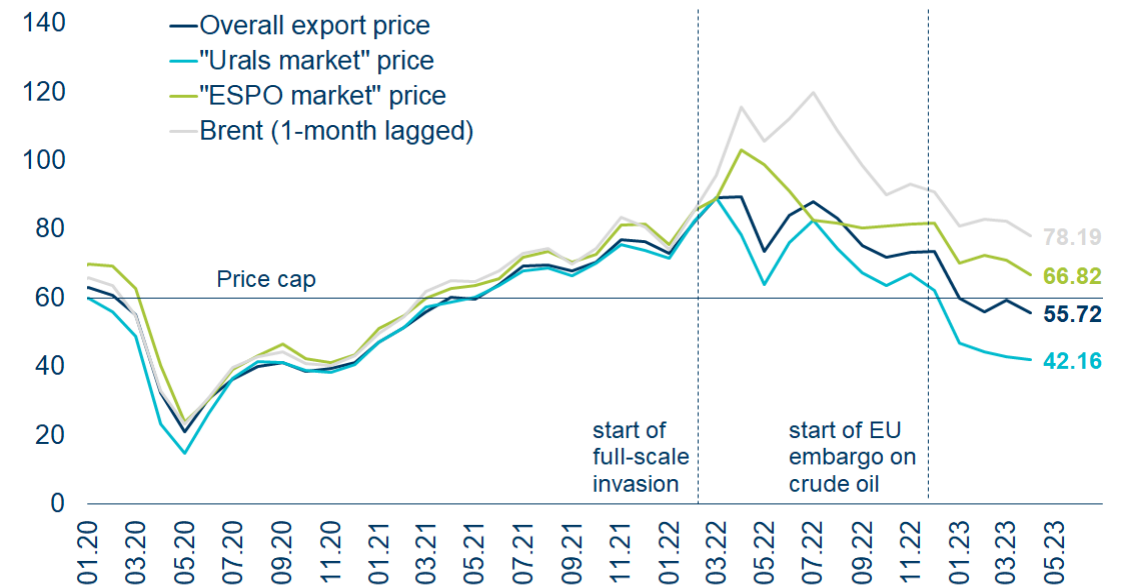
## 2. Increasing difficulty to sell oil, prices under pressure

- Full redirection of crude oil exports to alternative buyers seems to hit limits
- Finding in line with more Russian oil on the water, production cut decision
- Discount on Russian crude widened (~\$6-7/bbl) post embargo; later narrowed again

Russian crude oil export volumes by destination



Export price discount for Russian crude oil



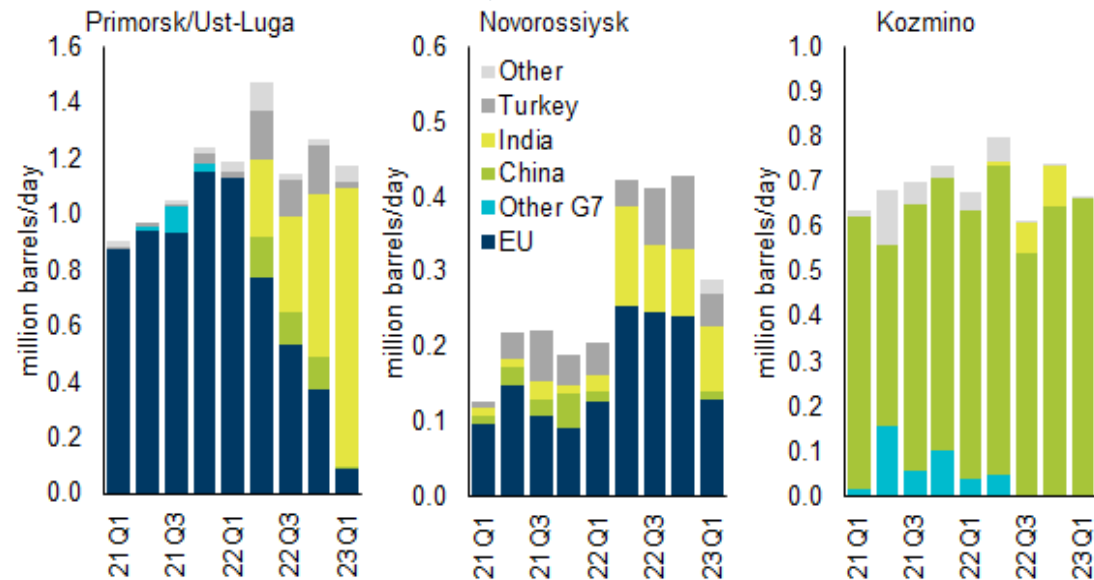
Source: national authorities, KSE Institute

Source: IEA, national authorities, KSE Institute

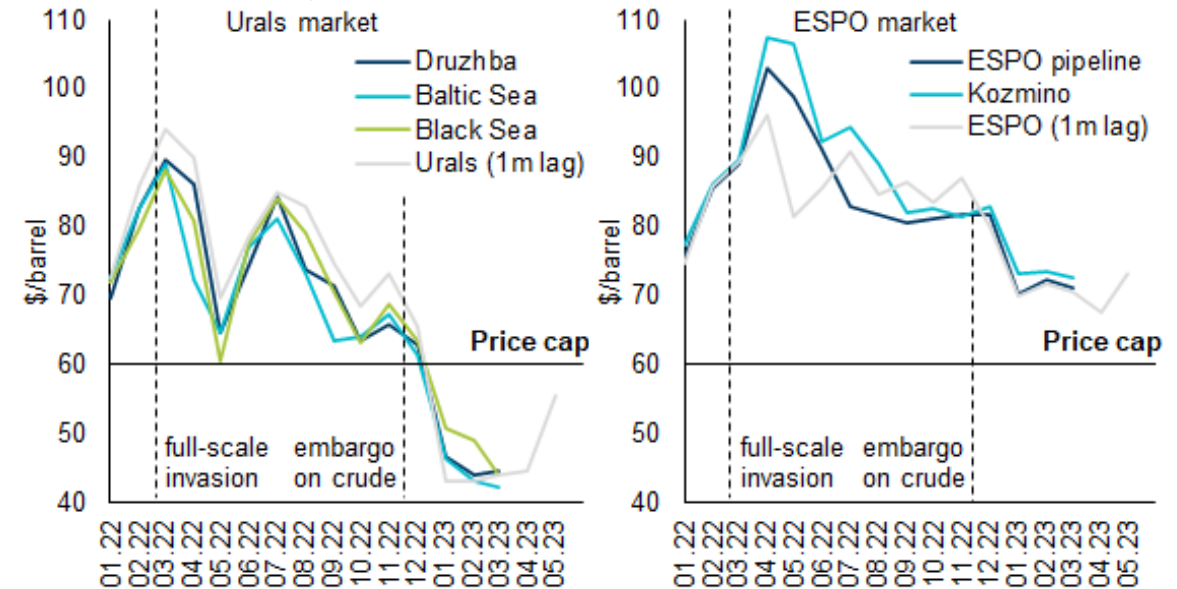
### 3. Embargo has led to market fragmentation

- Substantial change in demand conditions in some sectors of the market
- Where European buyers have disappeared ⇒ downward pressure on prices (**\$20-25/bbl**)
- Where demand has not changed markedly ⇒ prices moving with Brent (**\$10-12/bbl**)
- Urals and ESPO dynamics indicate higher Russian export prices in May-June.

Composition of exports by location



Export prices by location



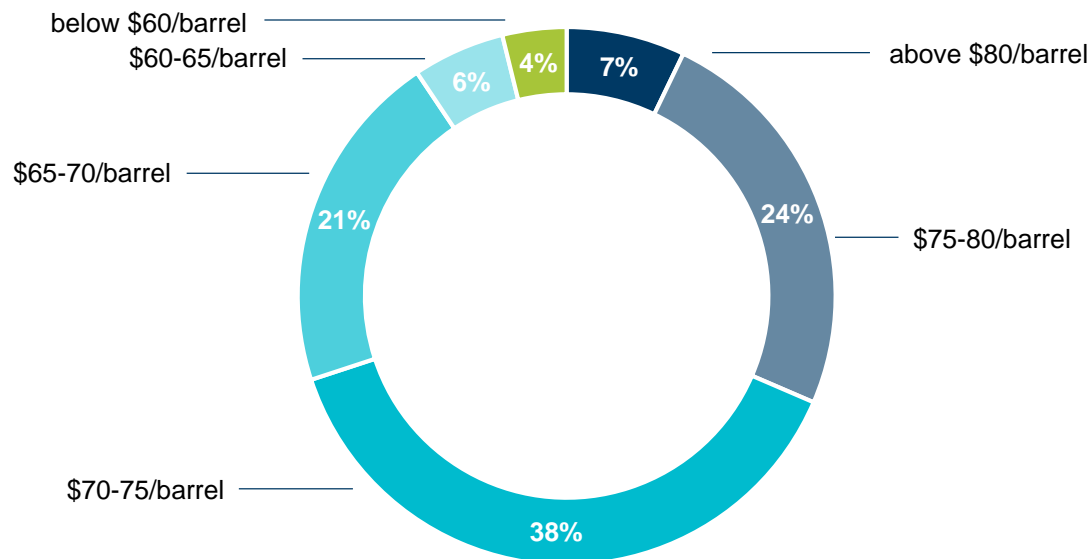
Source: national authorities, KSE Institute

Source: IEA, national authorities, KSE Institute

## 4. Potential price cap violations

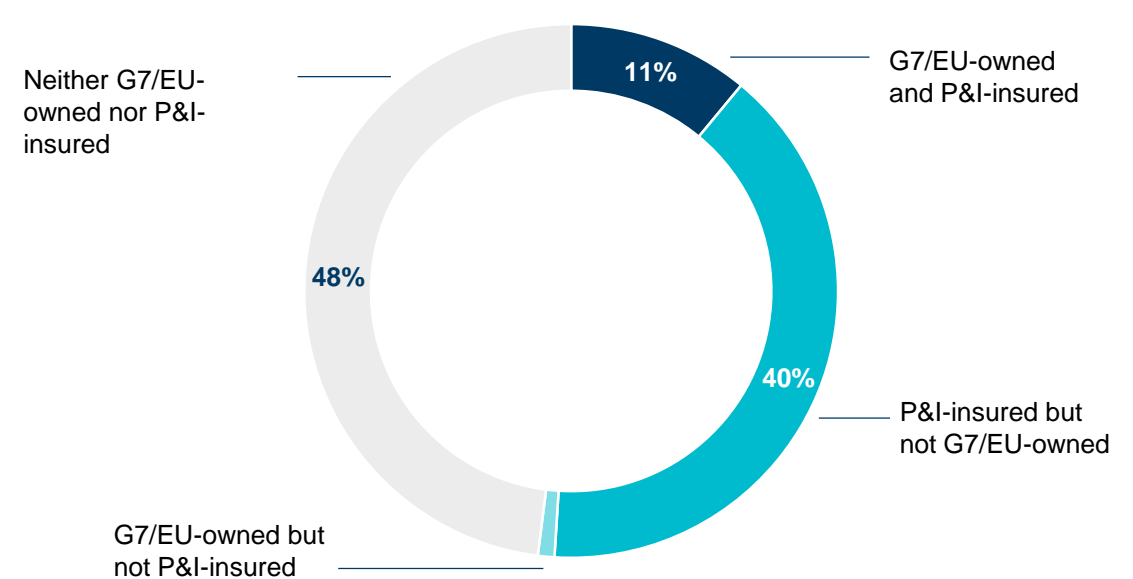
- Linking of customs declarations to ship tracking data difficult
- Also: some differences regarding data coverage
- But: 96% of volume above price cap AND 52% with Western involvement
- At least 24 million barrels in Jan.-Apr. should have fallen under cap but were sold above

Jan-Apr. 2023 crude exports from Kozmino by price



Source: national authorities, KSE Institute

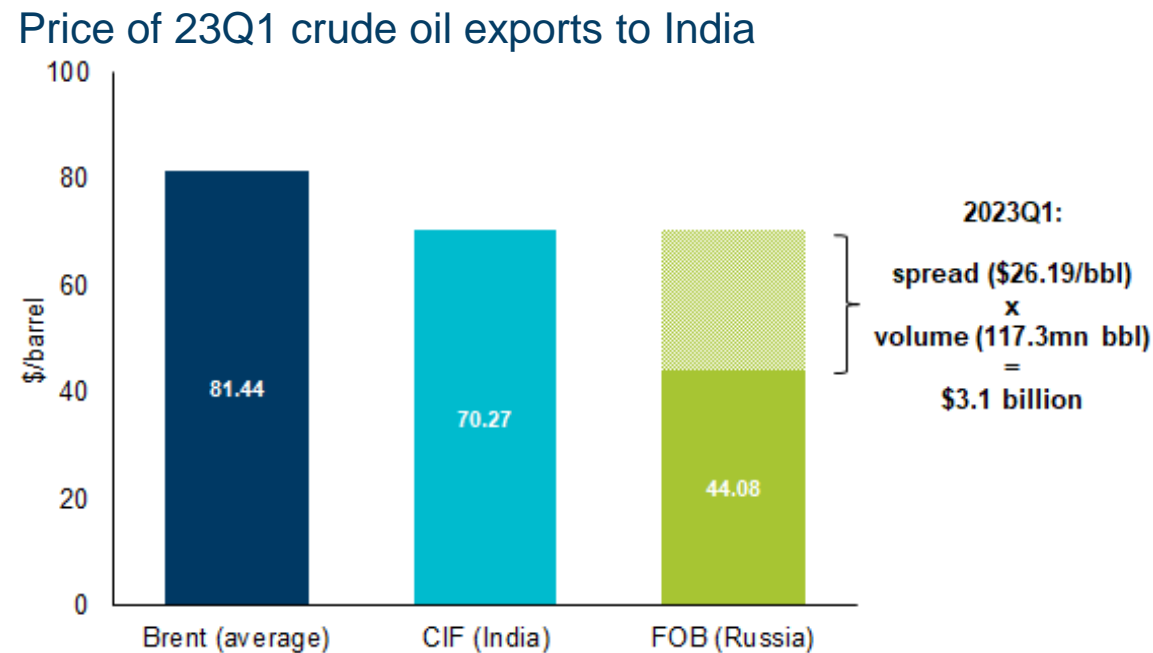
Jan-Apr. 2023 crude exports from Kozmino by service



Source: Equasis, Kpler, KSE Institute

## 5. Potential price cap violations

- Evidence for more-complex schemes to violate price cap
- Elevated FOB vs. CIF spread may allow to capture arbitrage
- In 23Q1, spread represented \$3.1 billion



Source: national authorities, IEA, KSE Institute

## 6. Policy recommendations

### 5.1. Improving attestations system

- Risk-based audits of attestations
- Requirement for all actors to retain evidence, including contracts with pricing information
- Requirement for all actors to notify authorities of participation in Russian oil transactions
- Enforcement on “strict liability” basis

### 5.2. Strengthening sanctions regime

- Align penalties across jurisdictions and increase fines, lock out periods
- Impose penalties on companies outside of direct G7/EU jurisdiction for violations

### 5.3. More effective monitoring

- Leverage G7/EU role in the global financial system to improve transparency; possibly restrict channels for transactions
- Investigate more complex schemes of price cap violations/circumvention, e.g., exaggerated shipping costs (FOB vs. CIF)

### 5.4. Lowering of oil price cap(s)

- Avoid upward pressure on Russian export prices following OPEC production cuts
- Russian production costs are low (\$10-20/bbl) making supply shock in oil market unlikely

# Russia Macro Overview



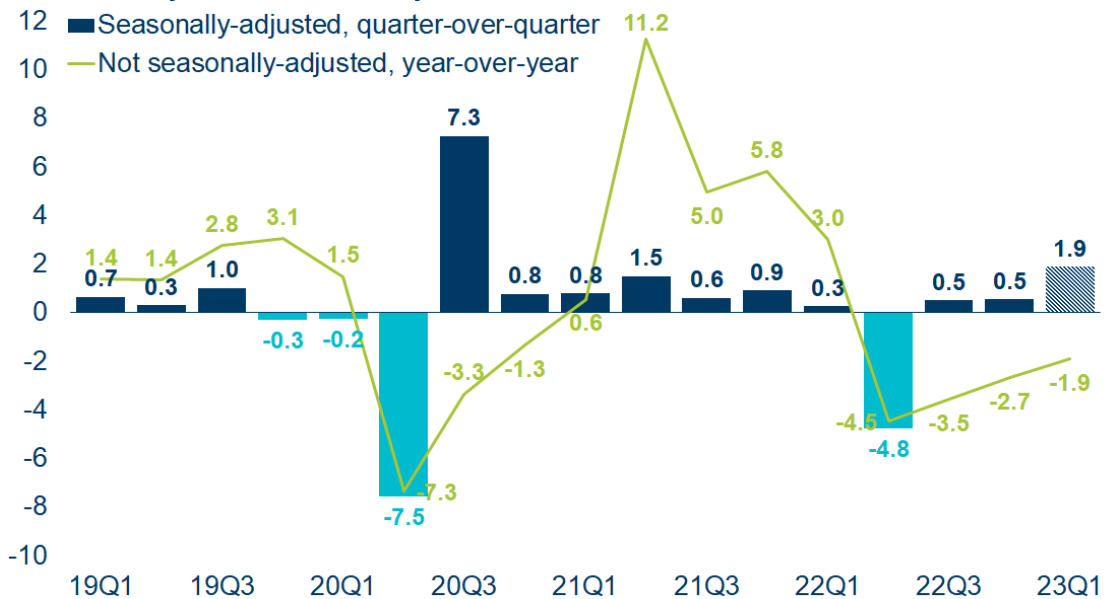
## Contents

1. Macroeconomic developments - overview
2. Oil sanctions monitoring - price cap violations
3. Dual-use goods - foreign components in Russian weapons

## Overall resilience

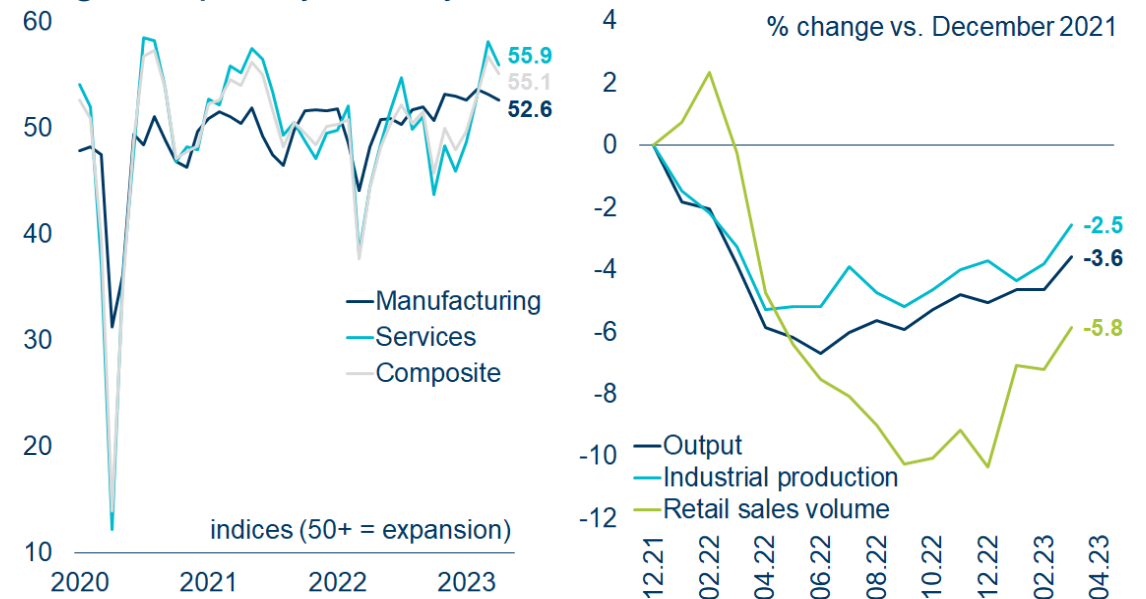
- Russia's economy has shown resilience; output decline limited to 2.1% in 2022
- Reasons: absence of financial crisis, higher government spending, war economy
- Data integrity in question, but multitude of indicators show consistent picture

### Quarterly real GDP dynamics, in %



Source: Rosstat, KSE Institute

### High-frequency activity indicators

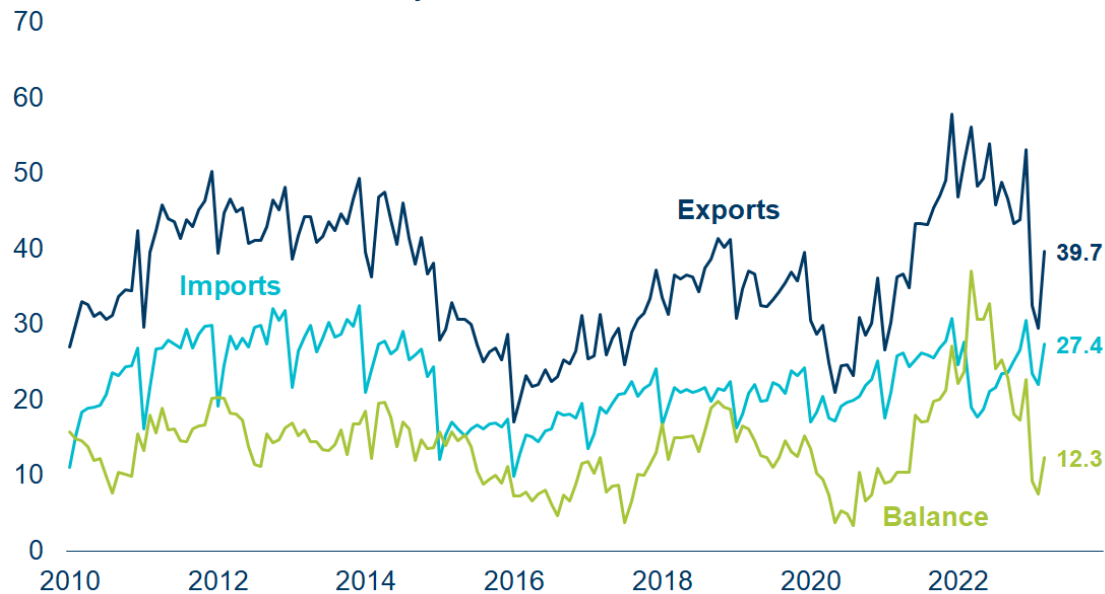


Source: Rosstat, KSE Institute

## External dynamics

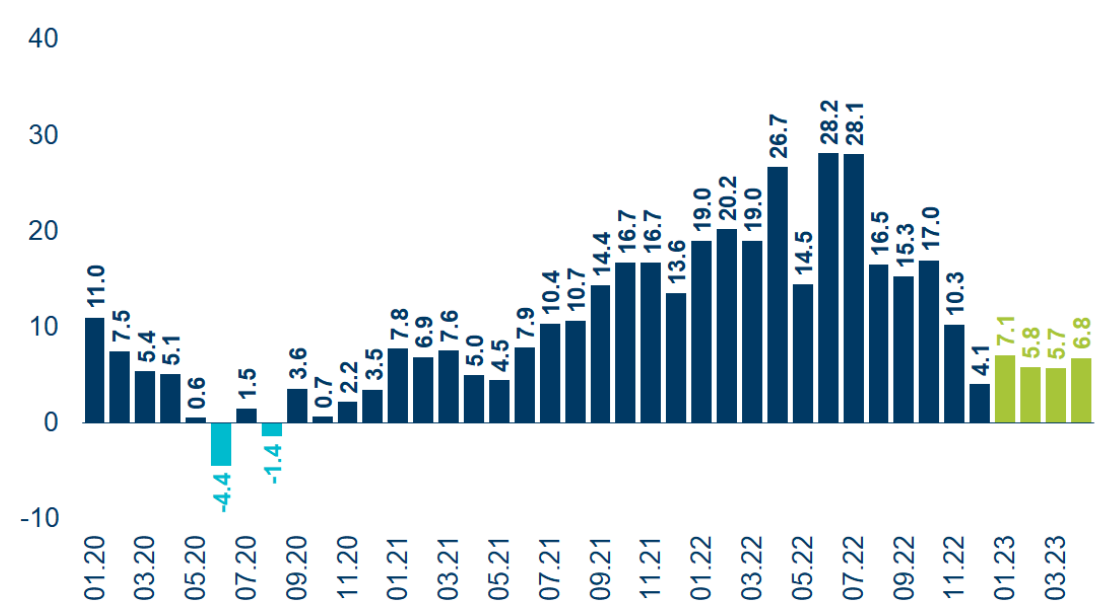
- Lower exports + recovery in imports  $\Rightarrow$  smaller trade/current account surplus
- Key drivers: lower export prices (e.g., oil and gas) + partially lower volumes
- Trade balance  $\square$  **75%** and current account surplus  $\square$  **84%** in January-April 2023

Goods trade summary, in \$ billion



Source: Bank of Russia, KSE Institute

Current account balance, in \$ billion

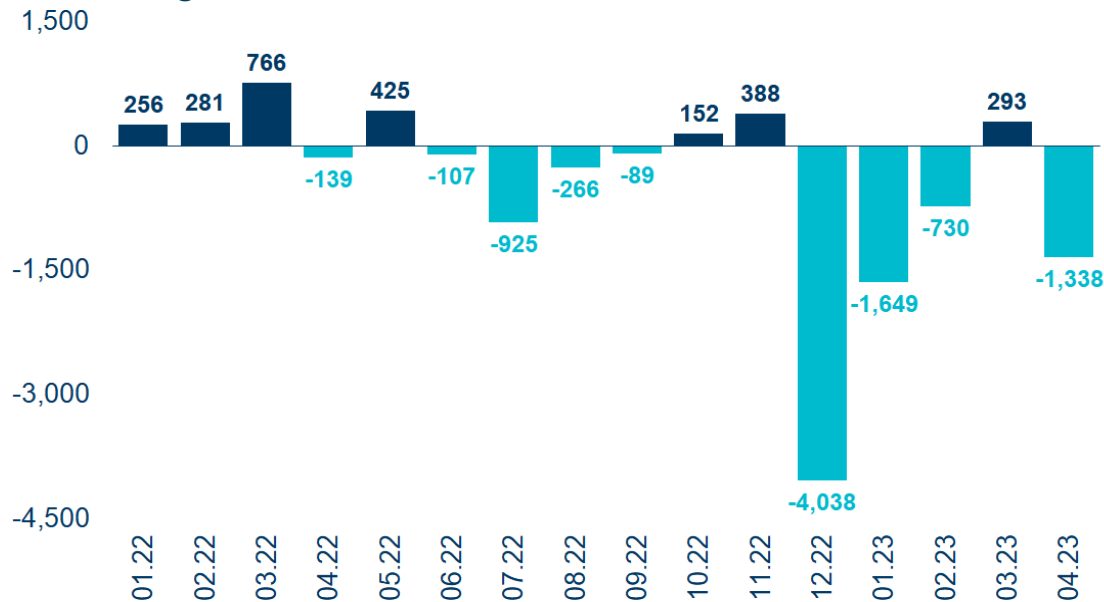


Source: Bank of Russia, KSE Institute

## Budget dynamics

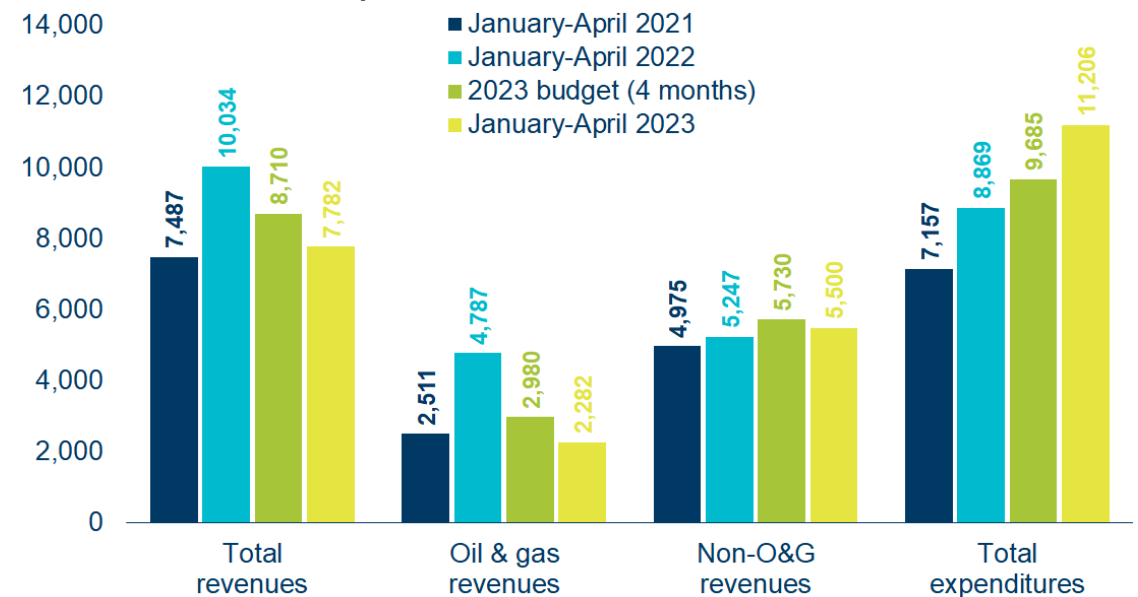
- Federal government budget deficit of **3.4 trillion rubles** in January-April
- More than full-year deficit in 2022 and **+17%** more than planned for 2023
- Key drivers: oil & gas revenue underperformance + sharply higher spending

Federal government balance, in ruble billion



Source: Ministry of Finance, KSE Institute

Revenues and expenditures, in ruble billion

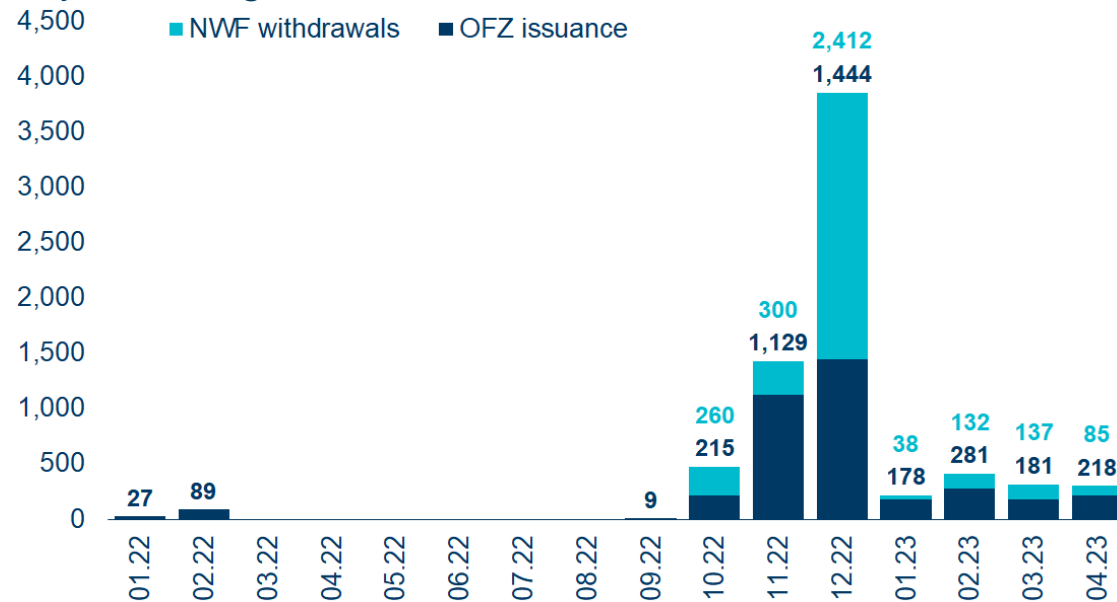


Source: Ministry of Finance, KSE Institute

## Fiscal Financing

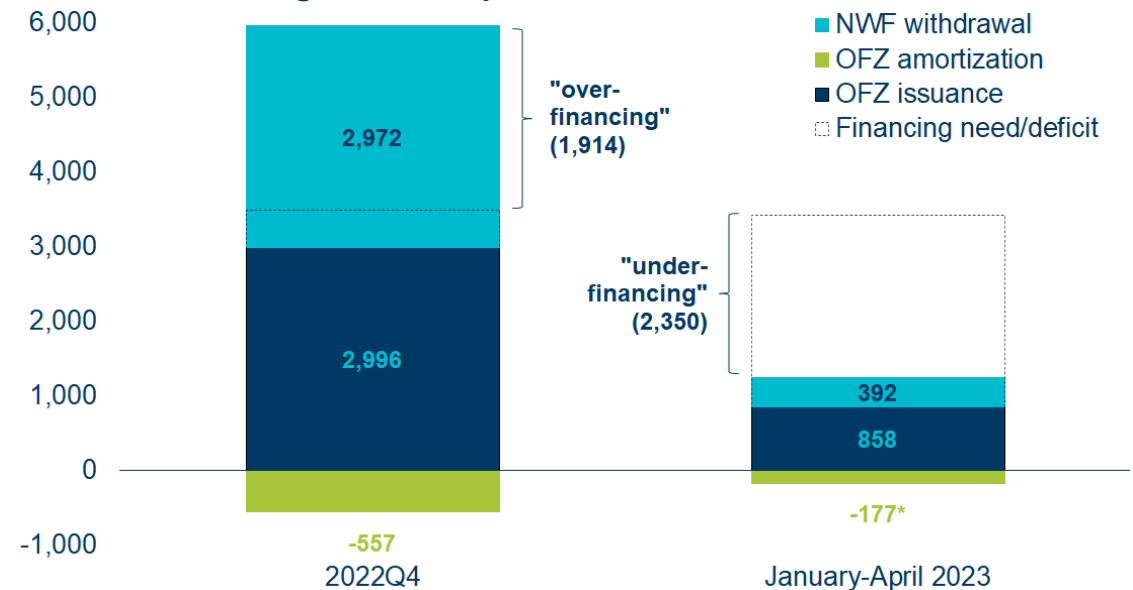
- Heavy reliance on NWF and domestic borrowing in late 2022
- January-April: using up of “over-financing” from last year
- Persistent deficits  $\Rightarrow$  financing via NWF and OFZ issuance to pick up

Key financing channels, in ruble billion



Source: Ministry of Finance, KSE Institute

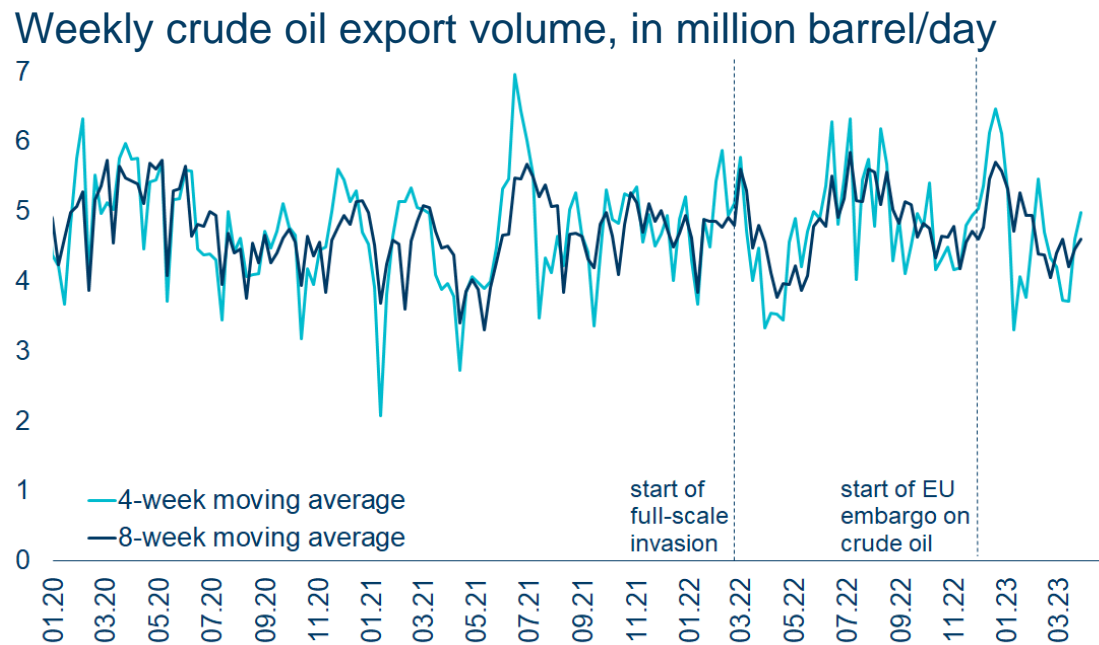
Fiscal financing summary, in ruble billion



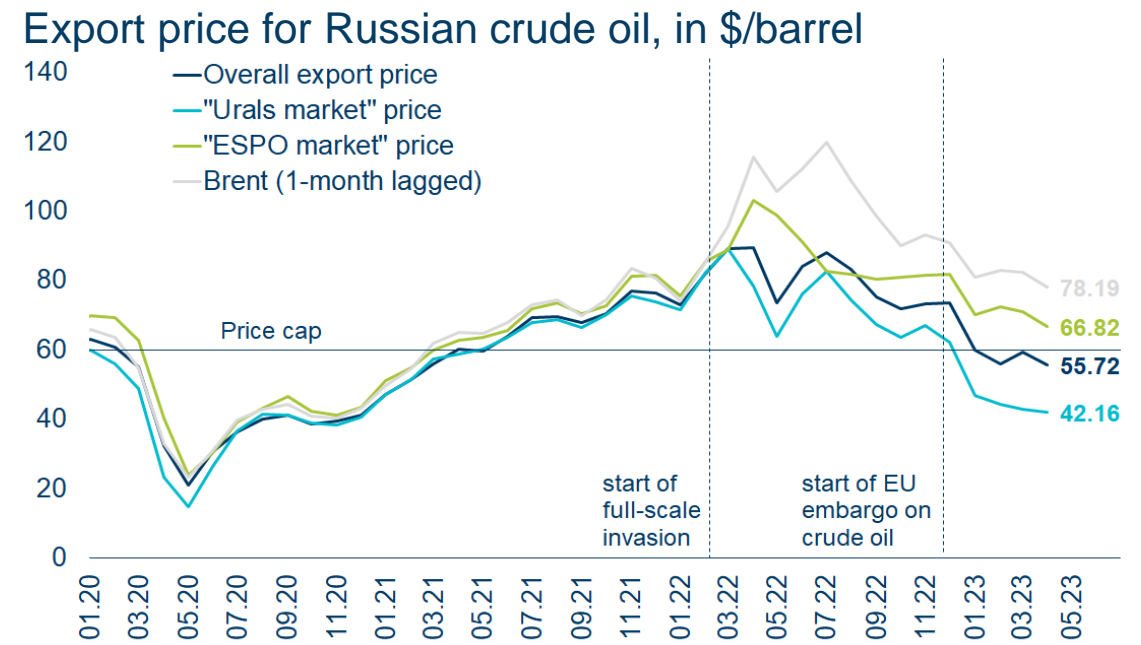
Source: Ministry of Finance, KSE Institute \*estimate

## Oil export dynamics

- Russian crude oil remained on the global market  $\Rightarrow$  stable prices
- Discount on Russian oil widened  $\Rightarrow$  impact on export earnings, budget revenues
- But: leading indicators (Urals & ESPO series) point to higher prices in May



Source: national authorities, KSE Institute

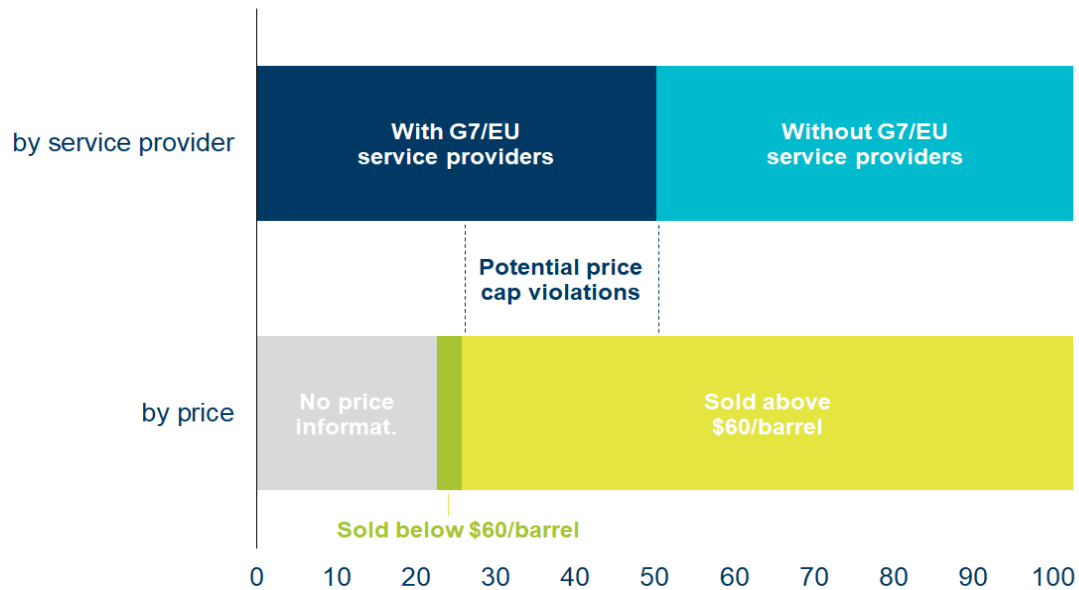


Source: IEA, national authorities, KSE Institute

# Oil price cap “red flags”

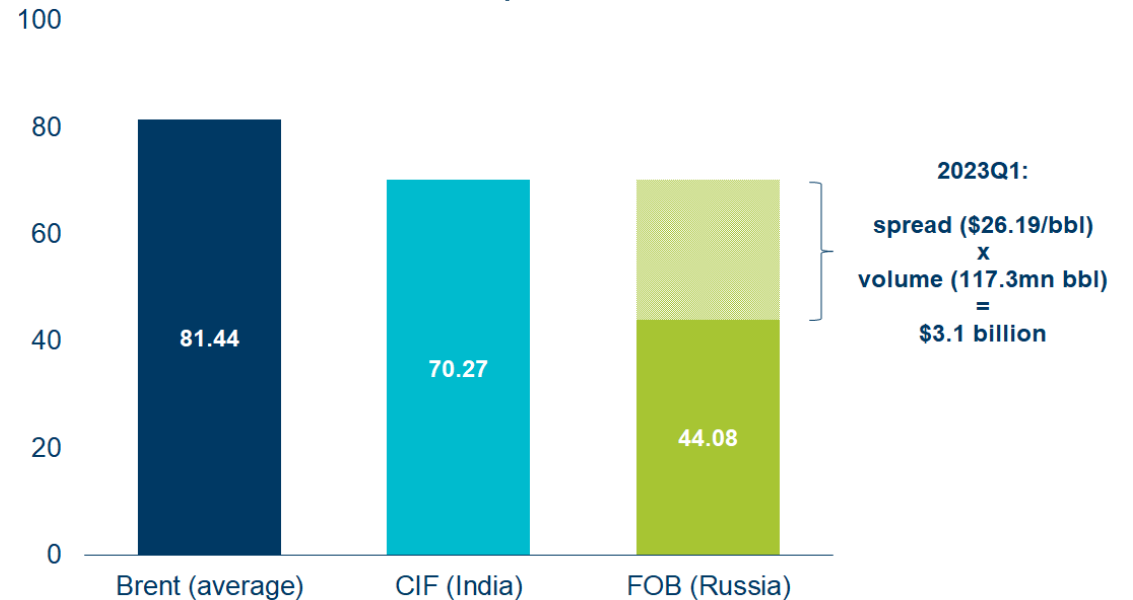
- Evidence for potentially widespread price cap violations at Kozmino
- ~50% of crude oil transported with G7/EU services, almost all exports above \$60/barrel
- More complex schemes: elevated spread between FOB and CIF prices

Jan.-Apr. 2023 crude exports from Kozmino, in million bbl



Source: Equasis, Kpler, national authorities, KSE Institute

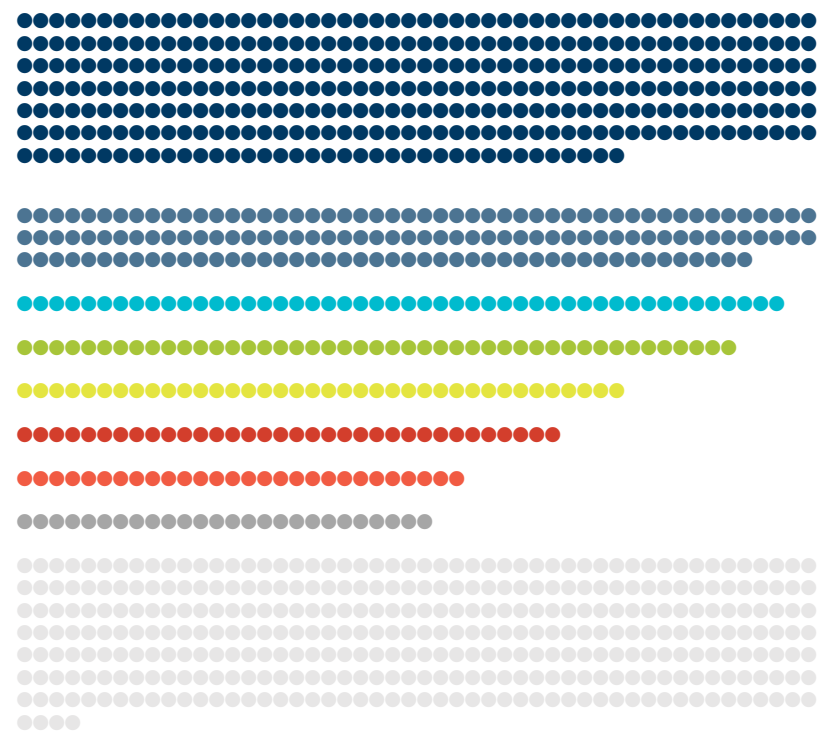
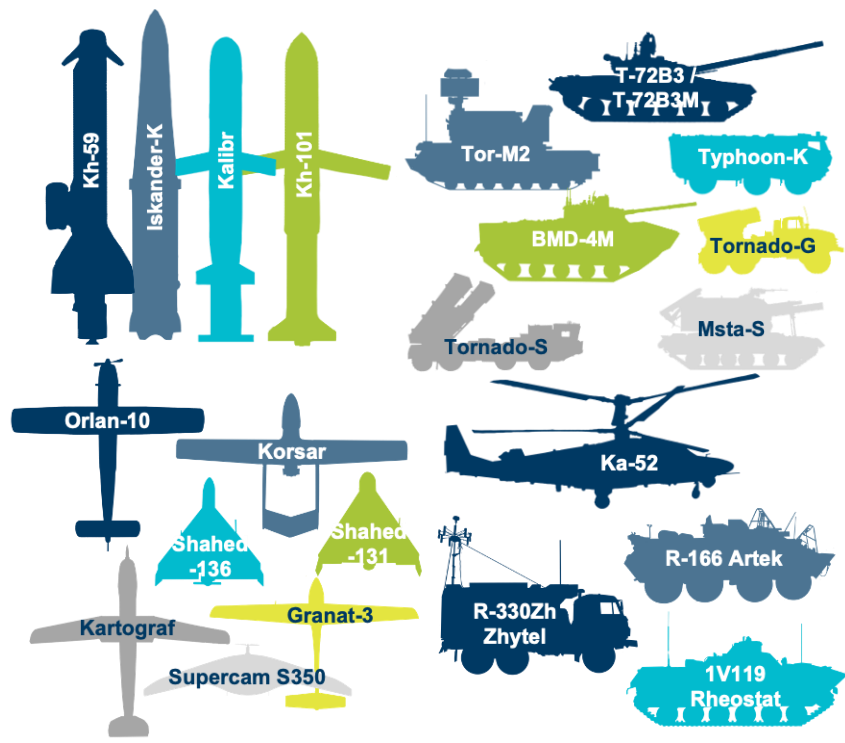
Price of 2023Q1 crude exports to India, in \$/barrel



Source: IEA, national authorities, KSE Institute

# Foreign components in Russian weapons

- Several types of weapons used by the Russian military were analyzed
- Altogether, 1,057 Western components were found (many are microchips, processors)



Microchip

Processor / microprocessor

Transistor

Memory device

Voltage regulator

Capacitor

Transceiver

DC-to-DC converter

Other

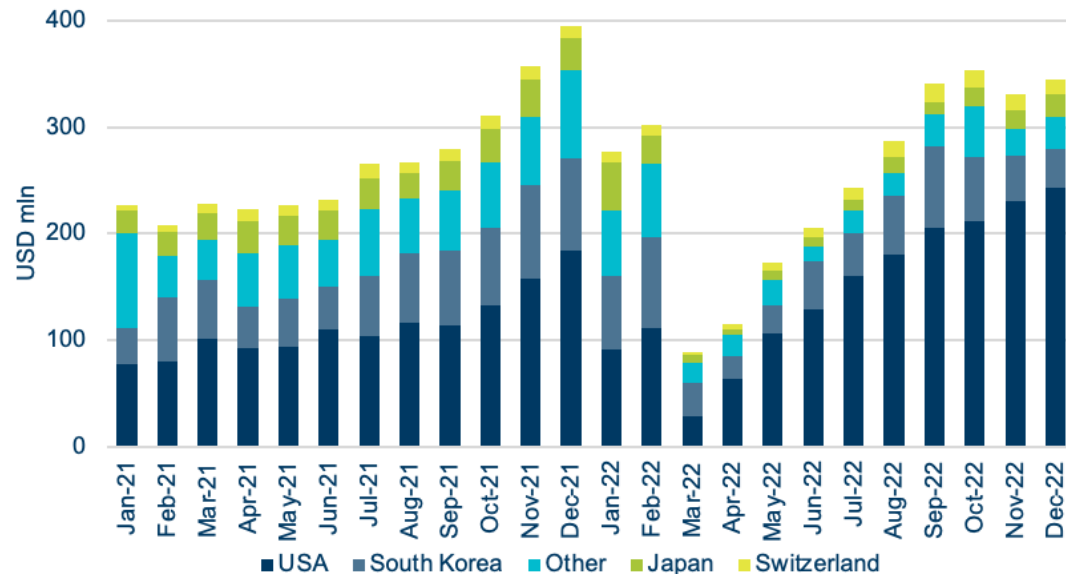
Source: KSE Institute



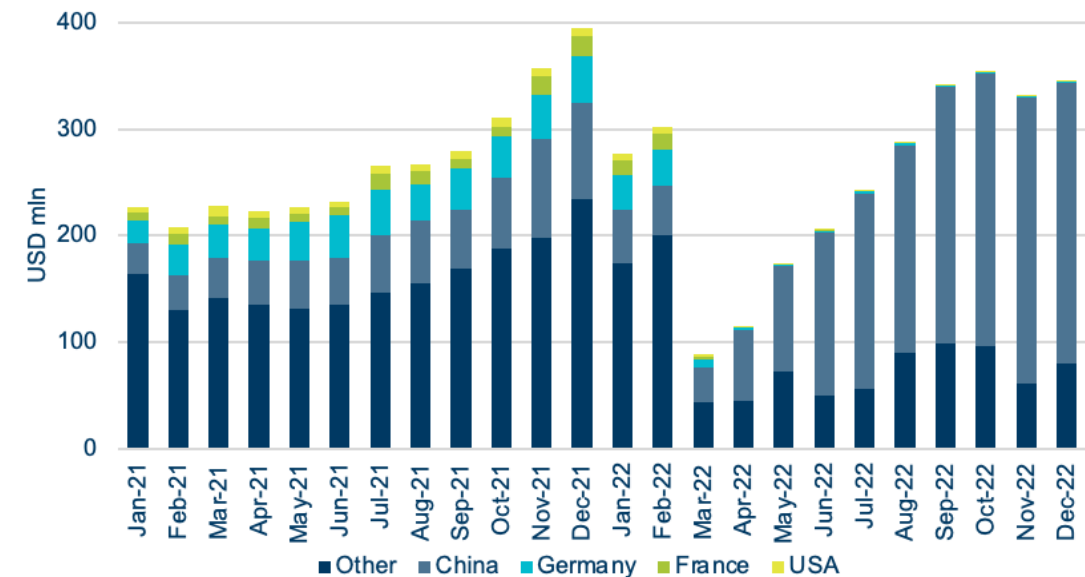
## Trade in dual-use goods

- Imports have fully recovered after 71% drop in March 2022; y/y decline only 5%
- Total imports of selected goods was \$21.5 billion in March-December 2022
- Western components largely reach Russia via Chinese intermediaries

Imports of critical components by country of origin\*



Imports of critical components by country of delivery\*



Source: KSE Institute \*captures subset of companies

Source: KSE Institute \*captures subset of companies