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Corisk Report No 11, 2025

Russia's foreign trade and trade costs 2019-2024 (Revised)

The Cost of Trade puzzle

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Oslo, 28 April 2025

In this presentation

How to understand the cost of trade puzzle in 2024 ?

Exports' costs of trade declining substantially

Imports' costs of trade increasing radically

Unlikely that we have substantially wrong partner data, because in that case we would have too low partner export data and too high partner import data, which makes little sense with our use of long same-source data series that have yielded consistent results before second half of 2024.

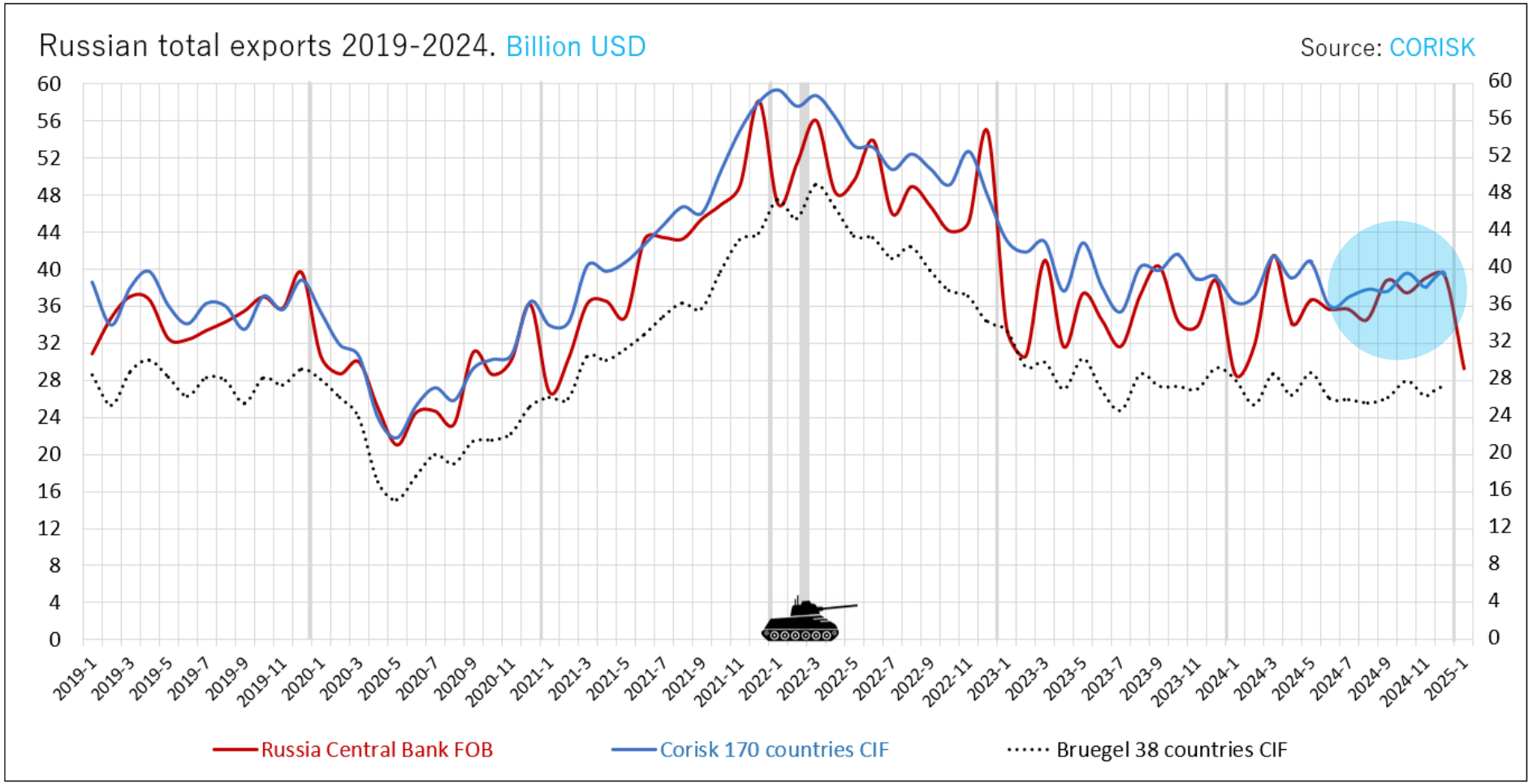
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CV = Coefficient of variation
R = Correlation

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Russia's exports: substantially improved cost of trade in 2024



170 reporting countries

Exports **FOB** = what Russia earns

Peaked early 2022

Good correlation between the Russian BOP data and 170 partners' trade data

R 2019-2021 = + 0,9539

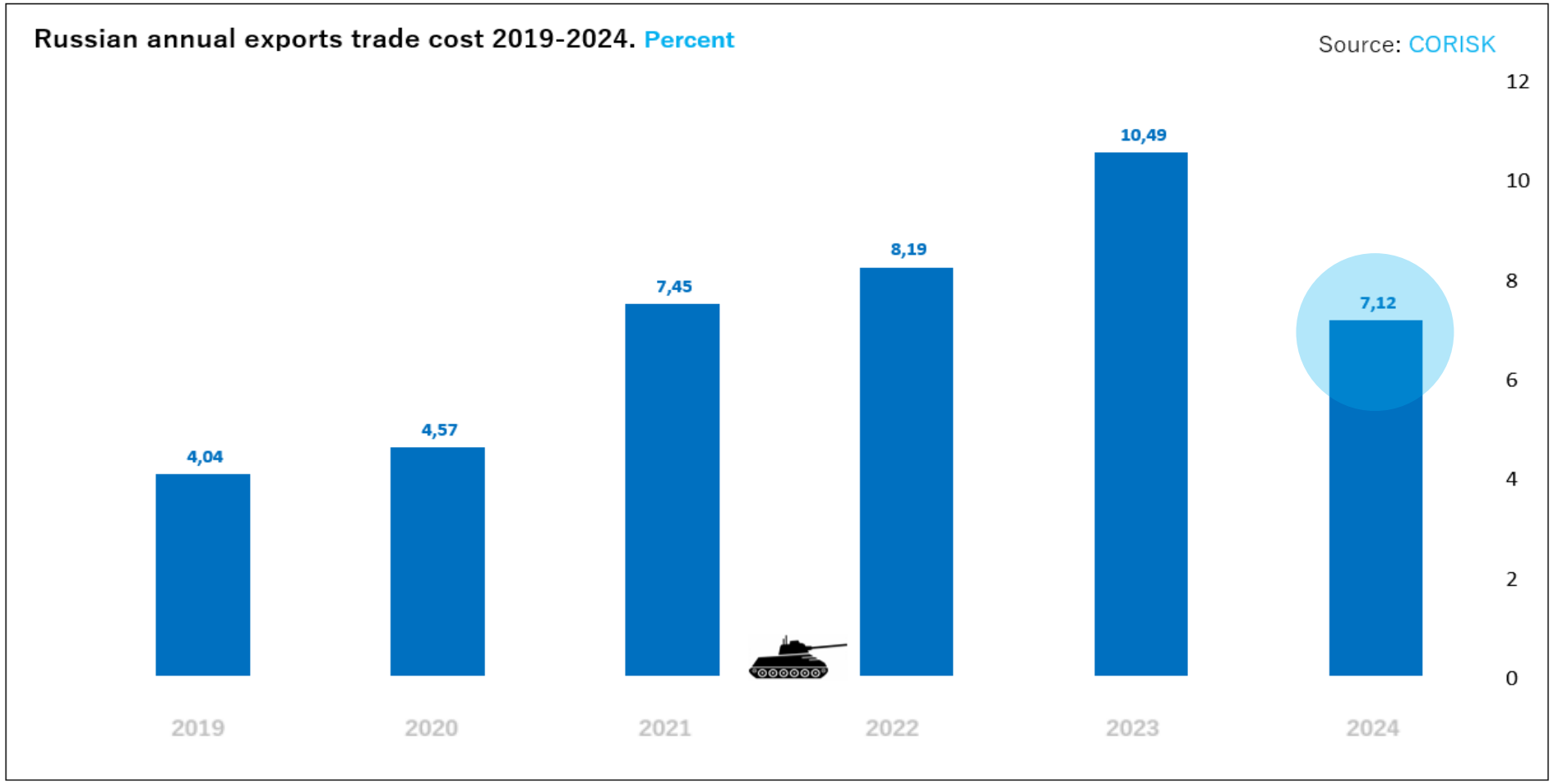
R 2023-2024 = + 0,3668

Supports impression of correct BOP data from Bank of Russia

Diminishing CIF-FOB residual, especially after April 2024

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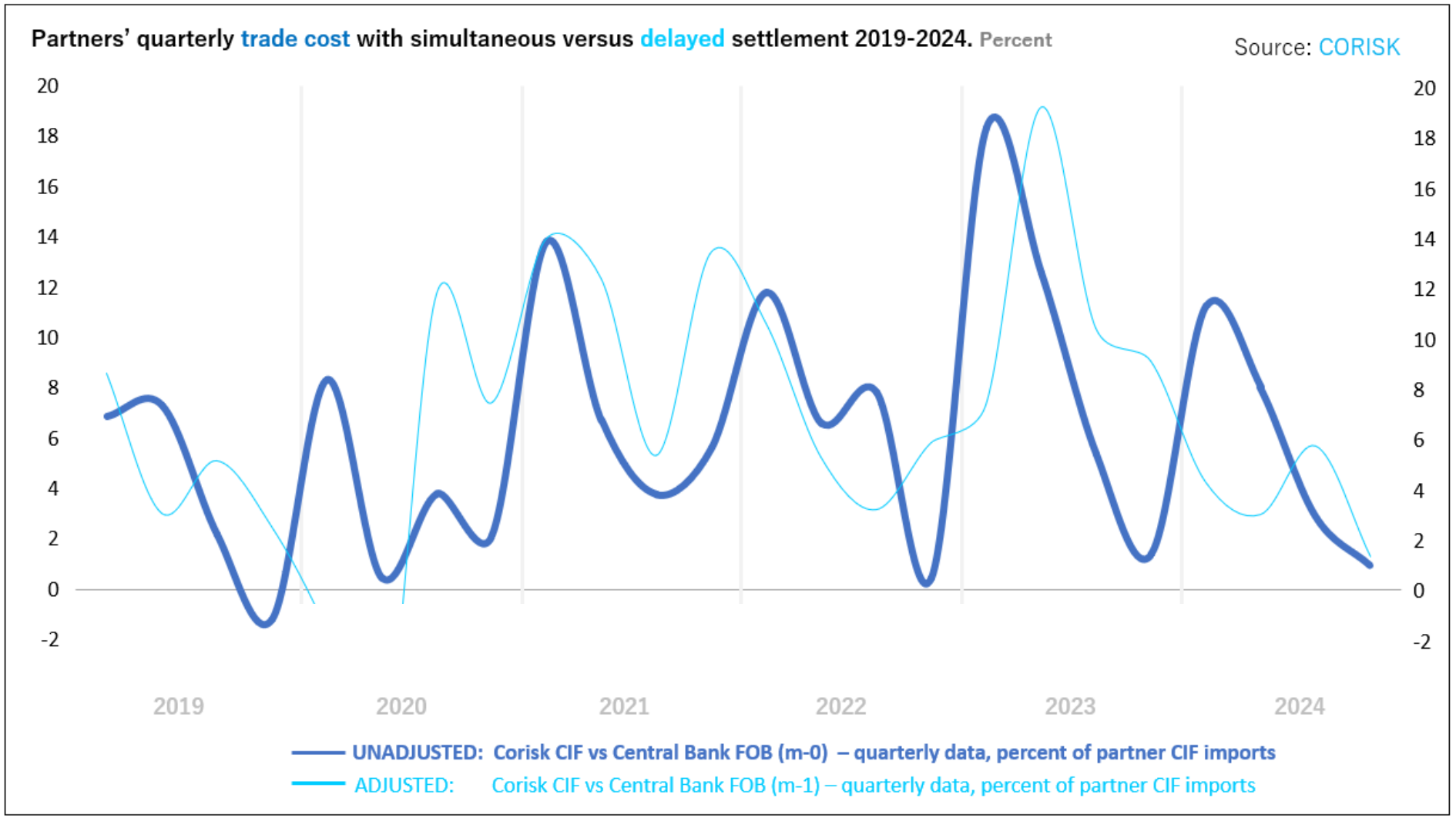
Russia’s exports: substantially improved cost of trade in 2024



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We keep our simultaneous partner trade cost approach, rather than delayed cost

EXPORTS



Data: Corisk CIF - Bank of Russia FOB

Keep settlement in same months in both ends (solid), rather than skewed by 1 month (dotted)

R = 0,39126

Consequences:

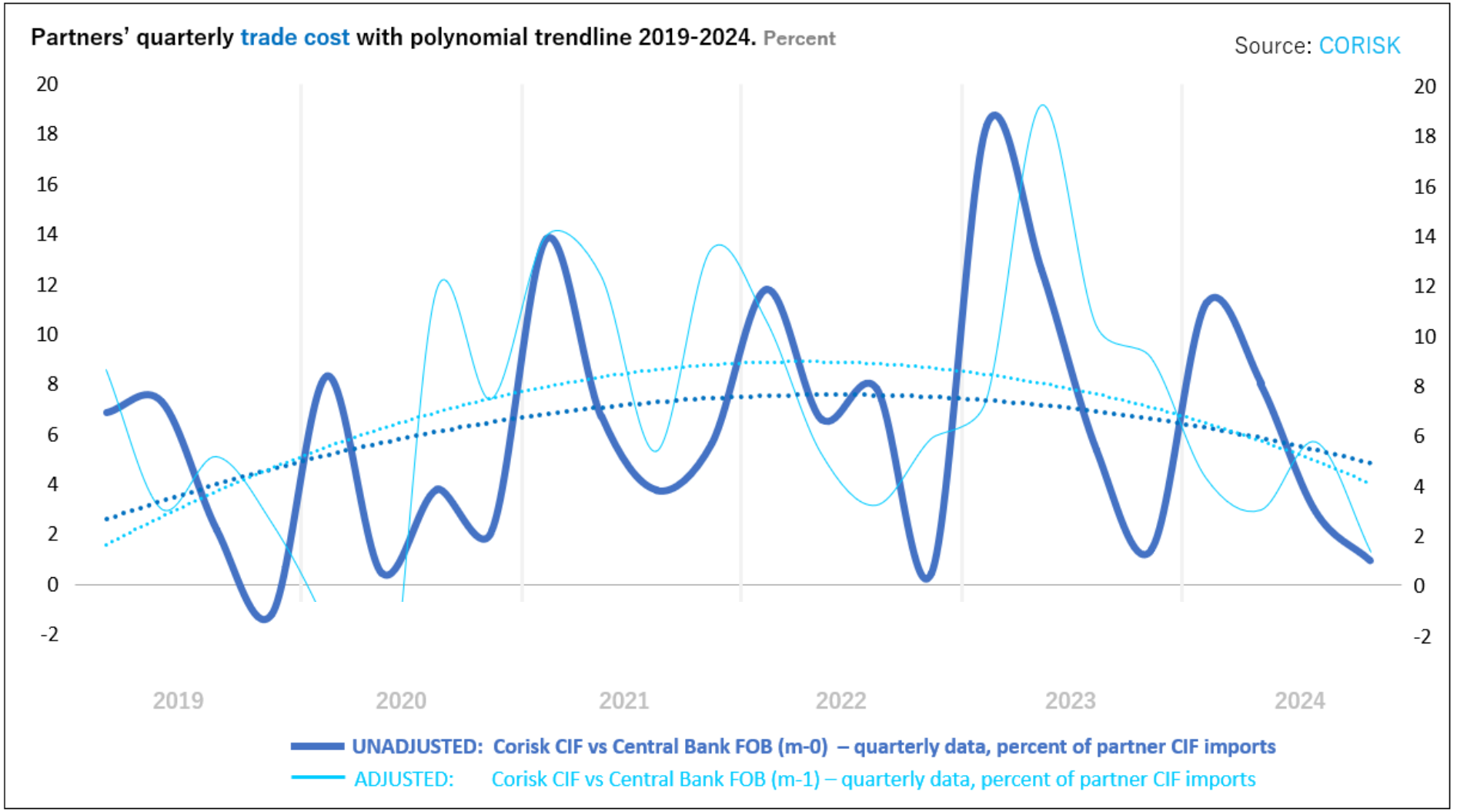
Avoid a more volatile curve, but still high volatility where direction of some quarterly trends are impacted by choice

Several effects delayed by one quarter as we apply same-month (simultaneous) trade settlement.

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Trade partners' cost of trade in Russian exports is significantly declining

EXPORTS



Data: Corisk CIF - Bank of Russia FOB

Polynomial trendline with 2 coefficients:

$\mathbf{y} = 0{,}0286x^2 + 0{,}8118x + 1{,}8166$

$\mathbf{R^2 = 0{,}0859}$

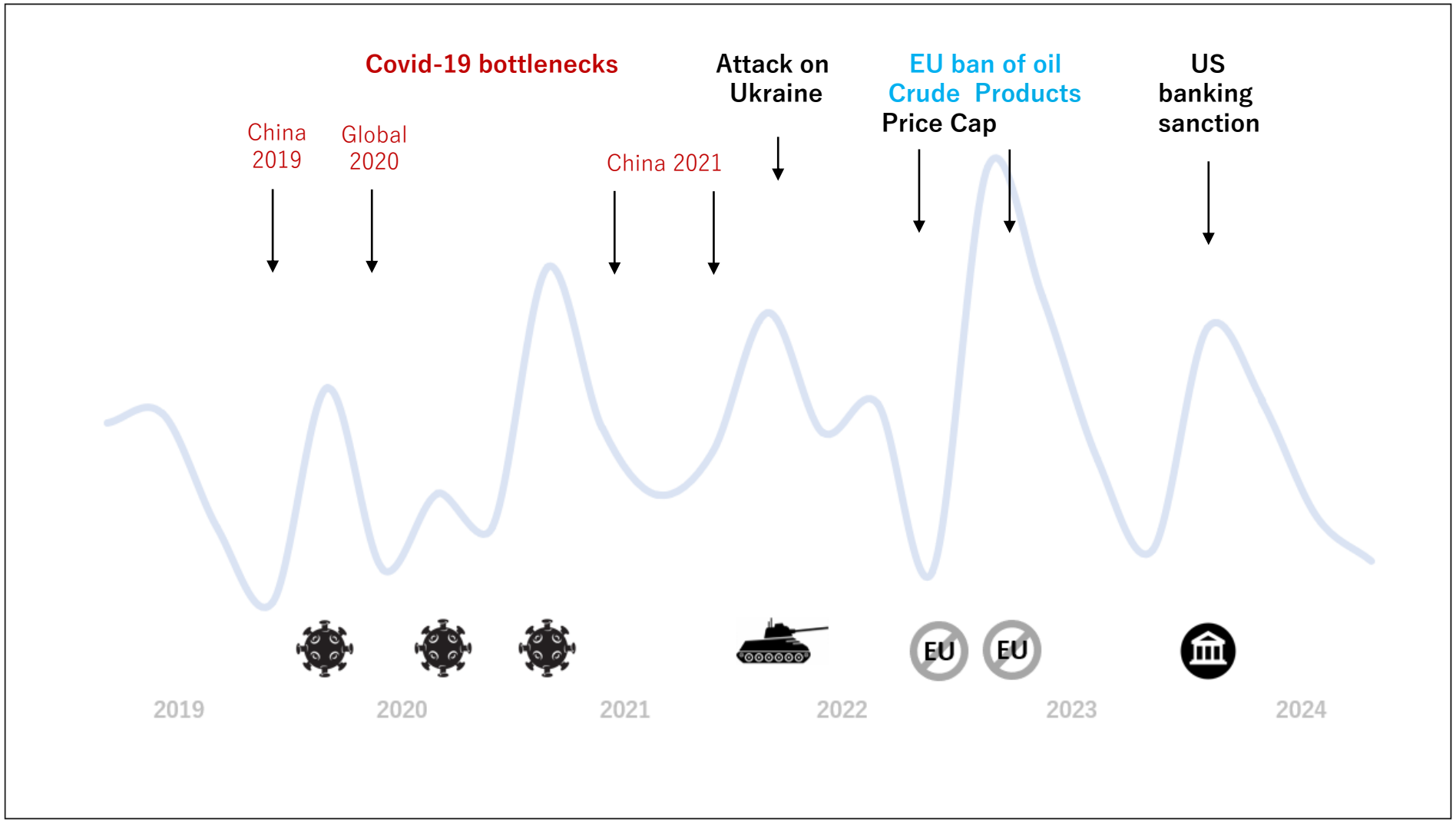
Interpretation:

Costs of exports are declining after 2022,irrespectively of temporal adjustment, and irrespectively of the number of coefficients in the polynomial trendline.

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Some important physical and regulatory developments around Russia's exports

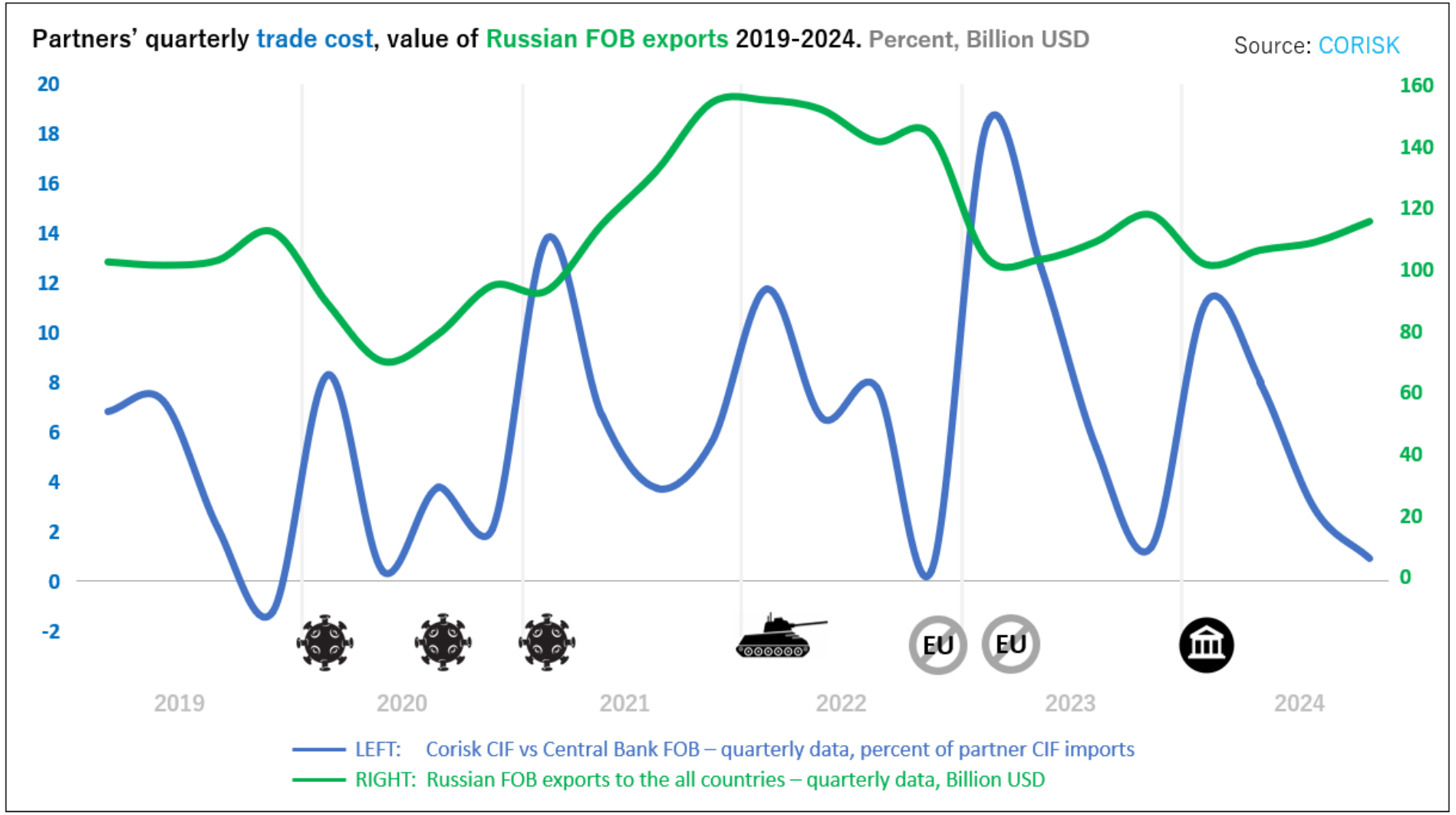
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Value of exports: from weak positive to negative correlation with trade cost

EXPORTS



Data: Bank of Russia BOP exports data

R 2019-2024 = + **0,0063**

R 2019-2021 = + 0,2293

R 2019-2022 = + 0,1742

R 2023-2024 = - 0,8307

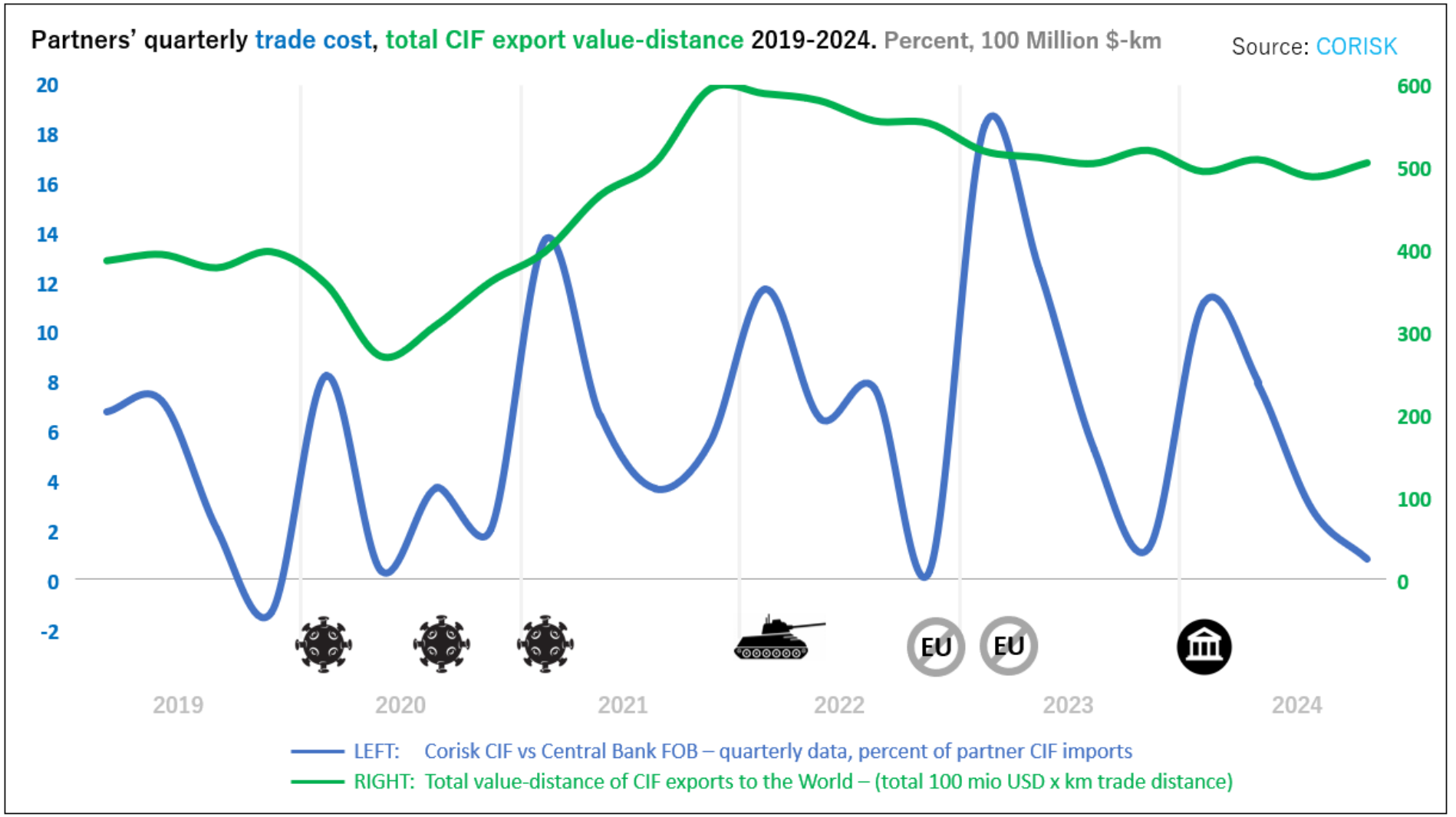
Interpretation: Total export variably related to trade costs, with inverse relation 2023-2024.

EU product ban in Q1 2023 may have raised costs of exports, and sparked expansion of the shadow fleet with gradually declining relative shipment and insurance costs for importing partners?

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Distance of exports: modest correlation with trade cost

EXPORTS



Data: 170 partners' official trade data. No per-country Russian BOP data exist

CEPII GeoDist km distance to Moscow, against inland city distances and share of population

R 2019-2024 = + **0,2669**

R 2019-2021 = + 0,2076

R 2019-2022 = + 0,2805

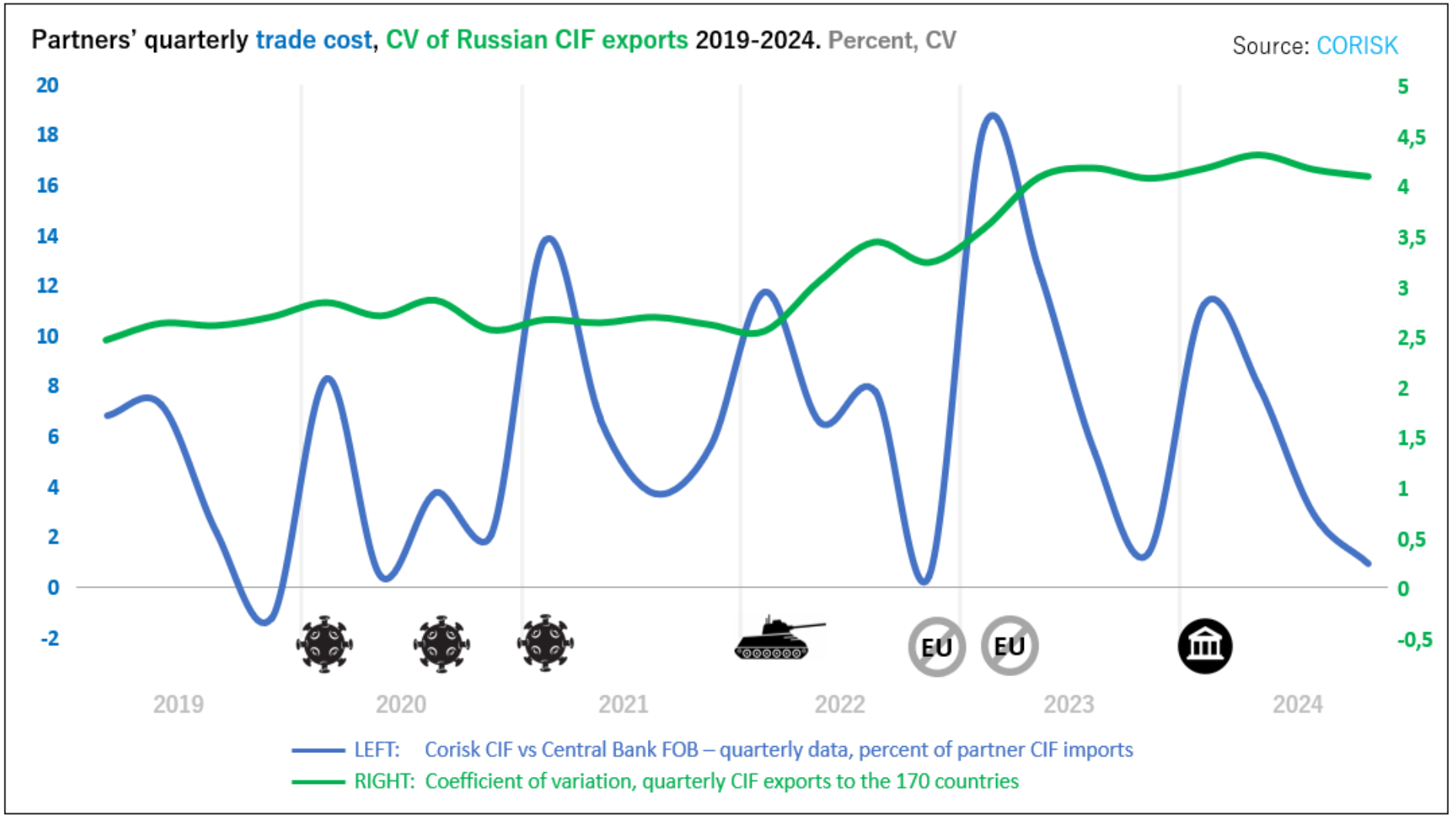
R 2023-2024 = + 0,2878

Interpretation: *Ceteris parabus*, trade distance is correlated with export cost, which is logical for ship and pipeline exports ? **Weakness**: Aggregate Russian FOB data, no country-pairs.

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Change of partners: from neutral to negative correlation with trade cost

EXPORTS



Data: 170 partners' official trade data. No per-country Russian BOP data exist

R 2019-2024 = + 0,1123

R 2019-2021 = - 0,0256

R 2019-2022 = - 0,0811

R 2023-2024 = - 0,6028

Interpretation:

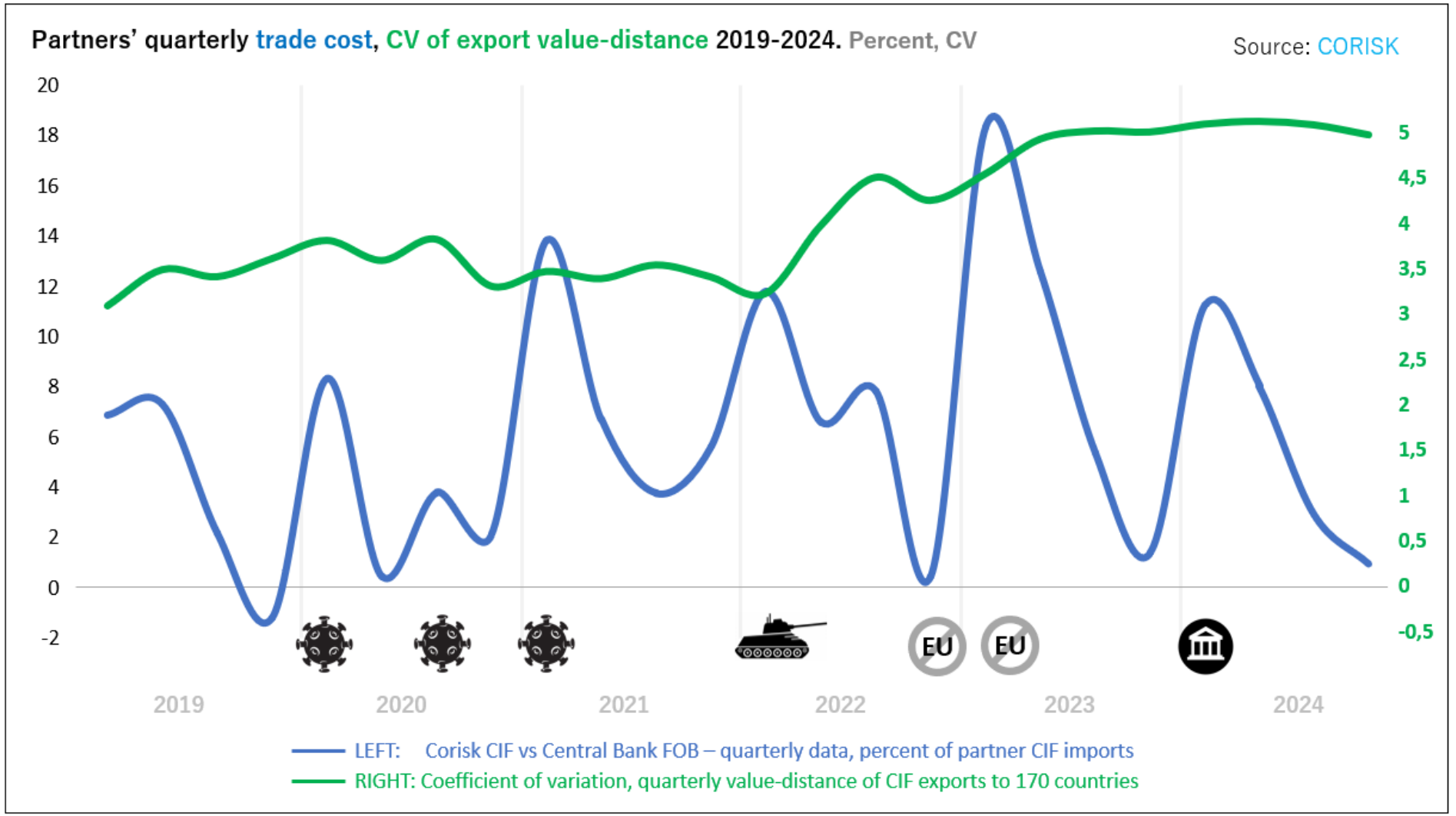
Measures volatility among trade partners, ignores geography. Falling costs conditional on shifts towards non-Western customers that are being served by the shadow fleet ?

Weakness: Aggregate Russian FOB data, no country-pair data.

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Change in geography: from neutral to negative correlation with trade cost

EXPORTS



Data: 170 partners' official trade data. No per-country Russian BOP data exist

CEPII GeoDist

R 2019-2024 = + **0,0894**

R 2019-2021 = - 0,1111

R 2019-2022 = - 0,1498

R 2023-2024 = - 0,6535

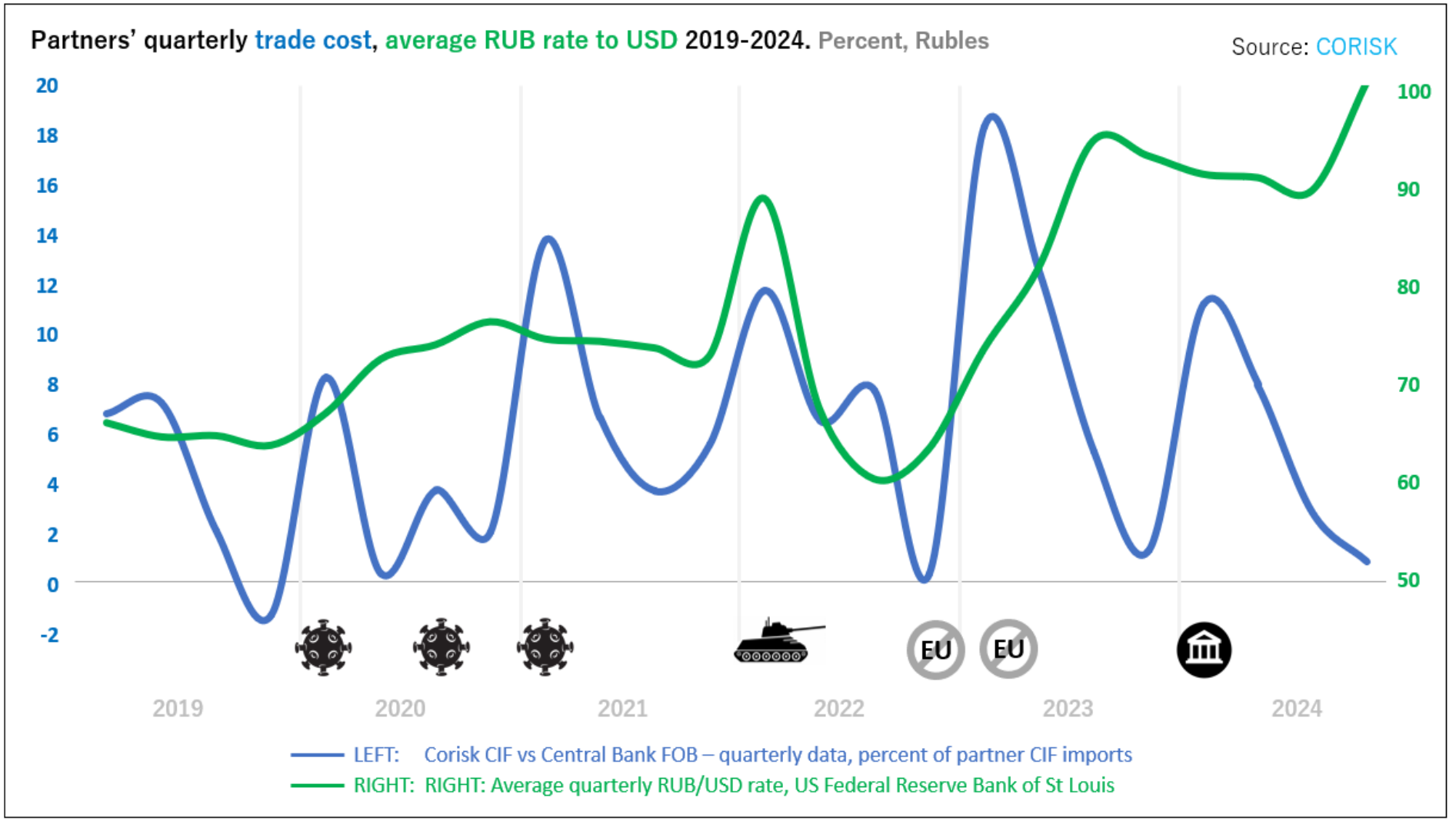
Interpretation:

Little change in geography (distance) 2019-2022, probably much stable pipeline exports. More negative correlation from 2023 may indicate shift to remote countries served by lower-cost shadow fleet ?

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Ruble depreciation: from positive to negative correlation with trade cost

EXPORTS



Data: 170 partners' official trade data

St Louis Fed, 2025

R 2019-2024 = + **0,0544**

R 2019-2021 = + 0,1656

R 2019-2022 = + 0,3679

R 2023-2024 = - 0,8735

Interpretation:

Value of the Ruble positively correlated with trade cost before 2022, strongly reverse relation from 2023.

Lower USD export costs with Ruble depreciation indicates Russian control with shadow fleet and key costs in Rubles ?

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Cost of exports: Preliminary conclusions

After 2022, costs of exports seem to turn from positive to negative correlation with the total **extent** of trade, with changes and **volatility** in the composition of Russia's export markets, and with the real **distance of exports** (visible from value-distance metrics).

Distance itself modestly drives export costs of trade. The EU oil product ban in early 2023 probably increased relative costs of exports, but sparked expansion of a shadow fleet with gradually declining relative shipment costs of the total export volume.

From 2023, longer trade distances correlate with declining trade costs in exports, perhaps to be explained by the reduced shipment and insurance costs in shipping.

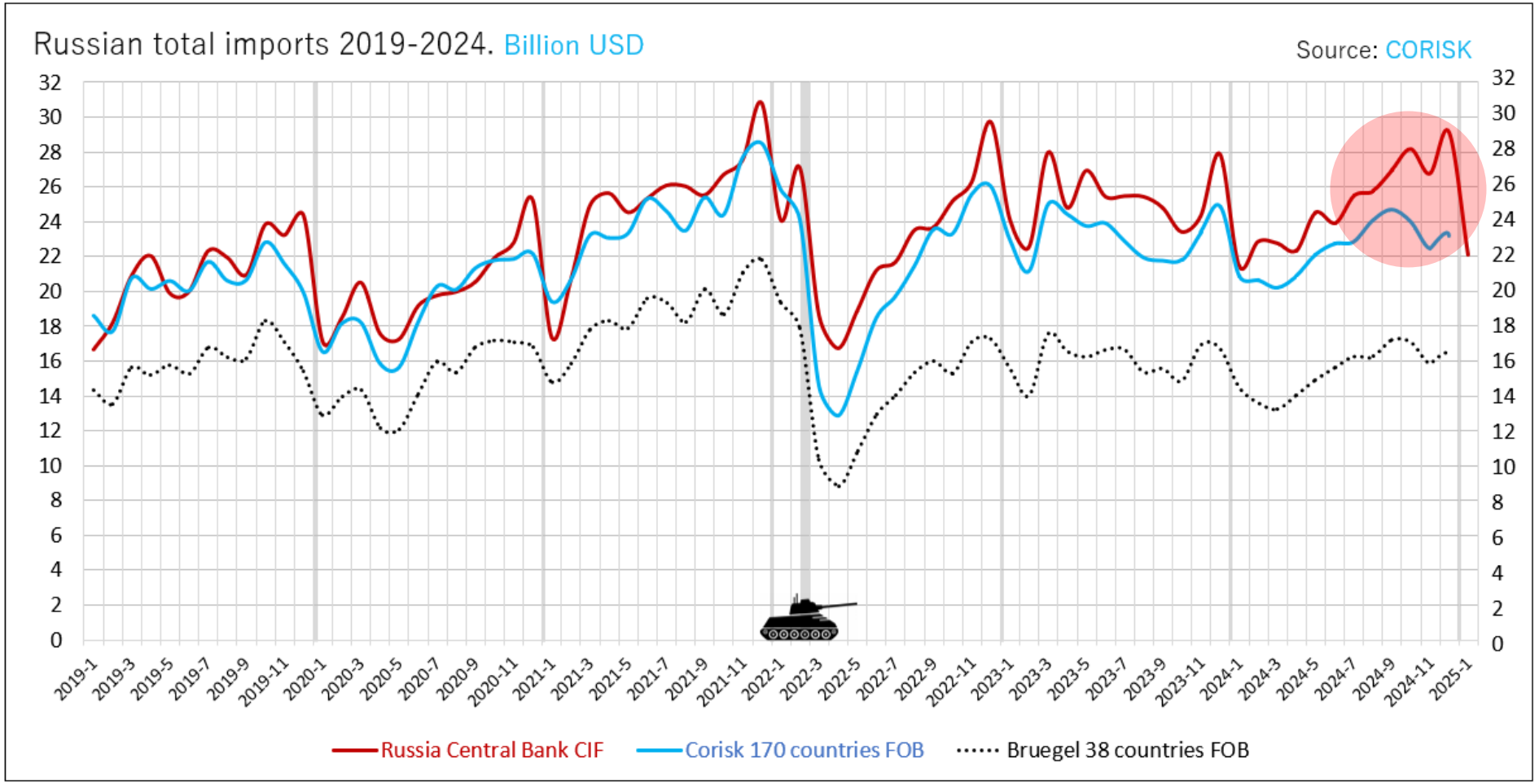
Costs of exports is first positively correlated with **Ruble depreciation**, but after 2022 it is reversely related. This may fit with Russian control over noticeable parts of the shadow fleet, with depreciation giving USD price competitiveness in shipping.

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CV = Coefficient of variation
R = Correlation

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Russia's imports: clearly deteriorated cost of trade in 2024



170 reporting countries

Imports **CIF** = What Russia pays

Peaked in late 2021

Good correlation between Russian BOP data and 170 partners' trade data

R 2019-2021 = 0,9203

R 2023-2024 = 0,7765

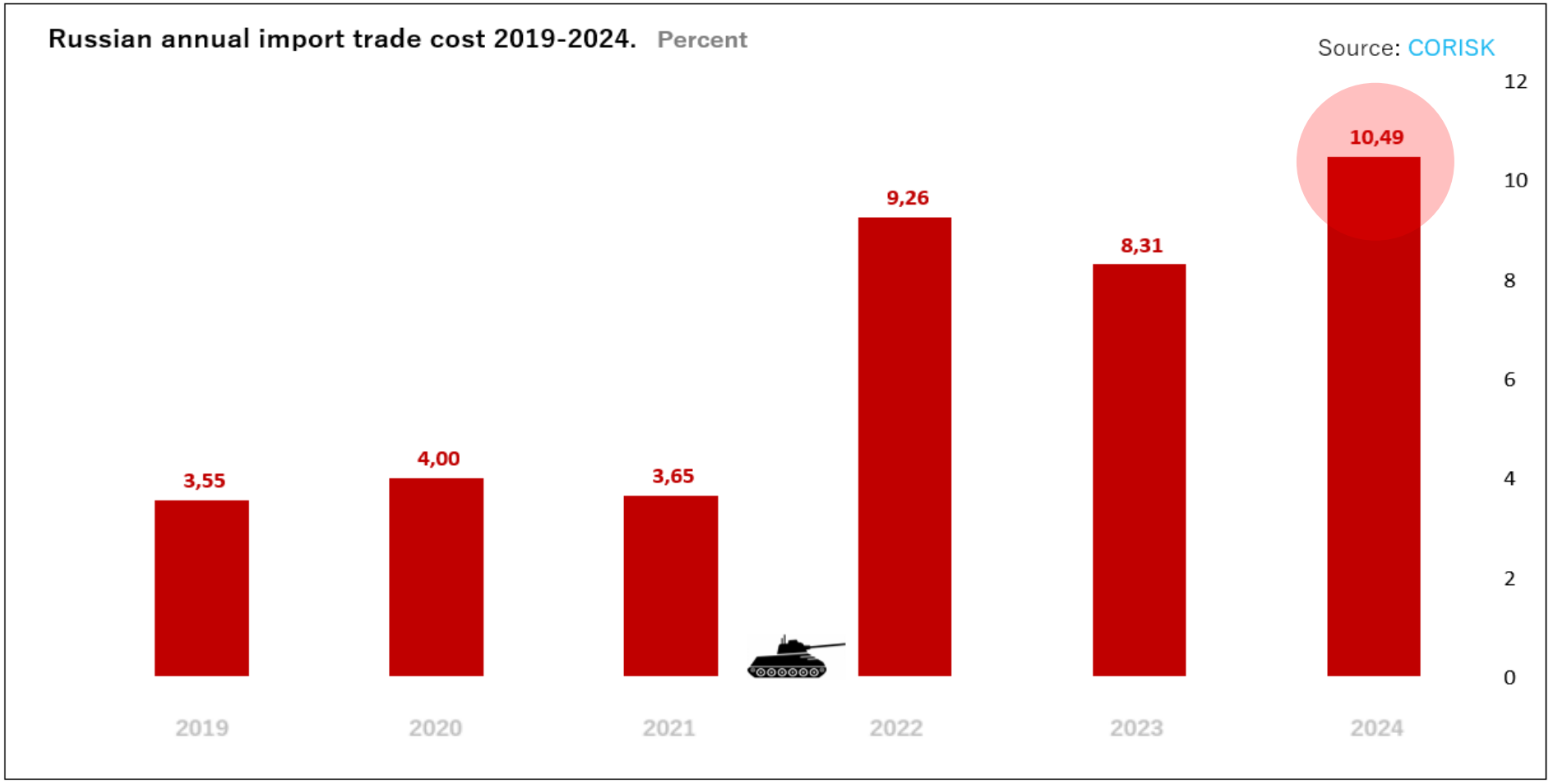
Supports impression of correct BOP data from Bank of Russia

Increasing CIF-FOB deviation after September 2024

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Russia's imports: clearly deteriorated cost of trade in 2024

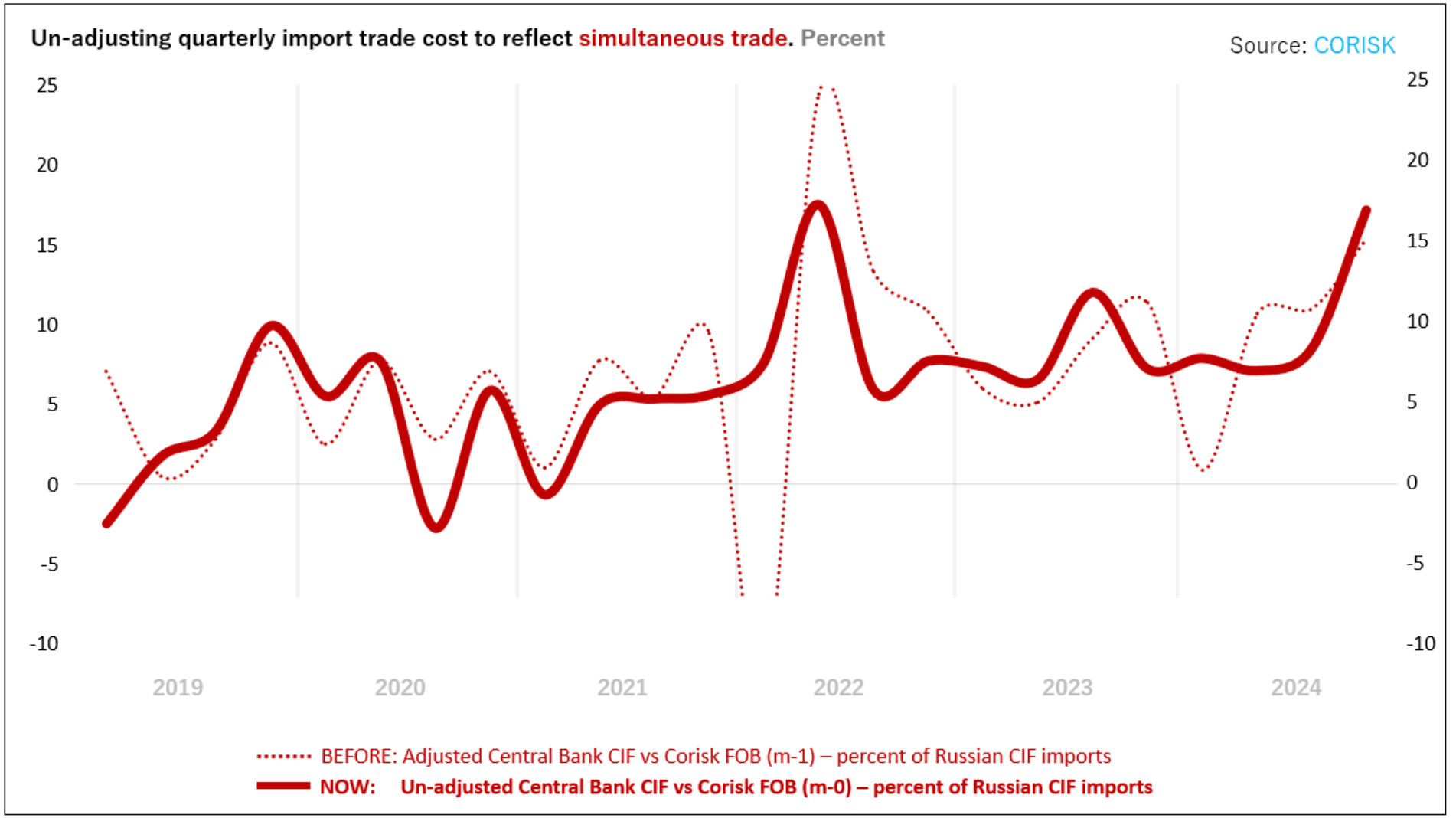
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We shift to a simultaneous cost of imports approach with no importer payment delay

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Data: Bank of Russia CIF – Corisk FOB

Data skewed by 1 month, versus same months in both ends

R 2019-2024 = + 0,5435

Consequences:

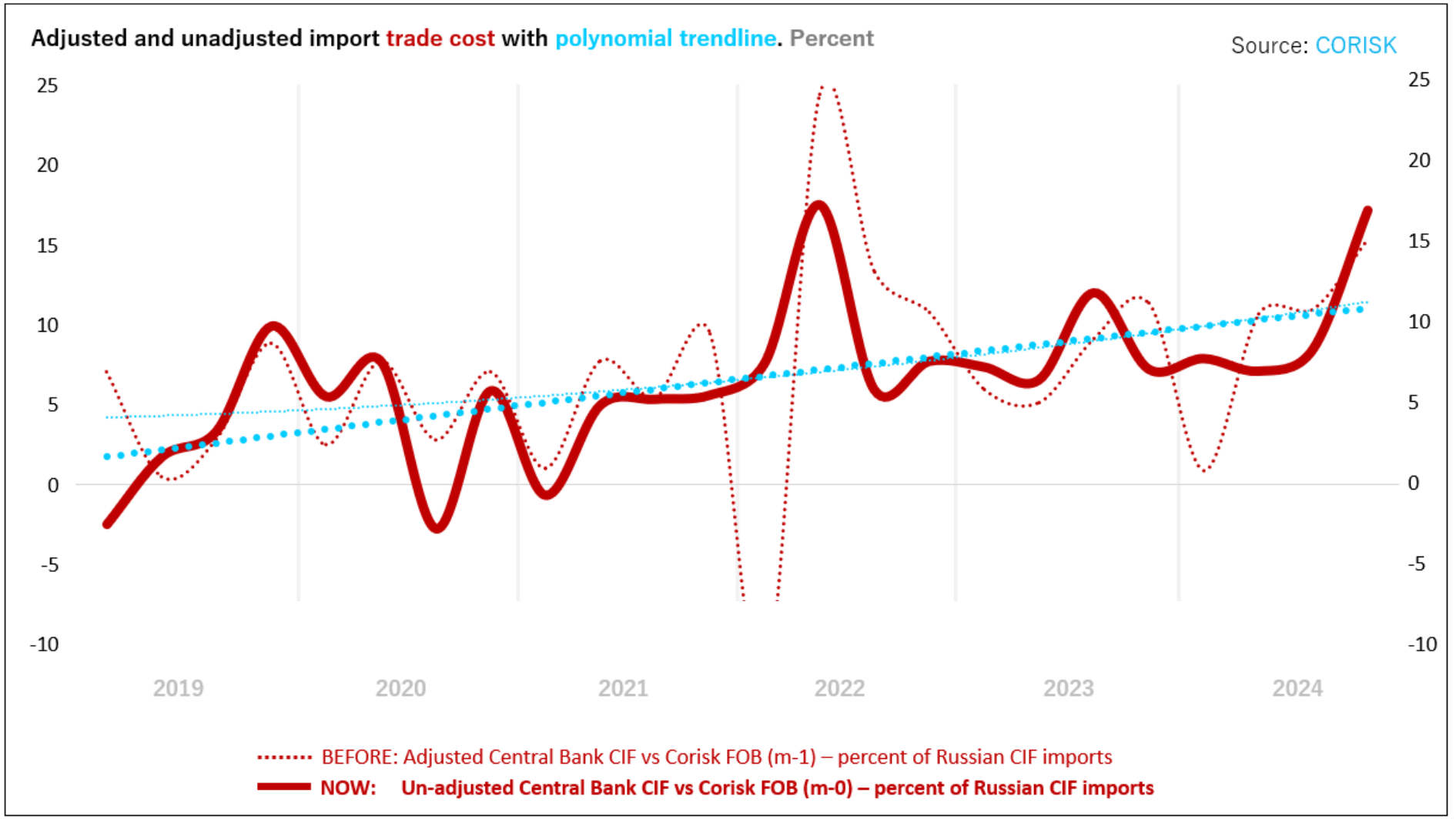
With simultaneous trade settlement we achieve less volatility, but with some impact on quarterly trend in 2023 and 2024. Attack period volatility now limited to Q2, 2022.

Significant deterioration in cost of trade on imports in Q4, 2024. Cost of imports rise to the level of the 2022 attack period.

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Temporal adjustment of trade settlement has no impact on increasing trend

IMPORTS



Data: Bank of Russia CIF – Corisk FOB

Polynomial trendline with 2 coefficients

$\mathbf{y} = 0{,}0016x^2 + 0{,}4434x + 1{,}3305$

R^2 2019-2024 = + **0,34485**

Interpretation:

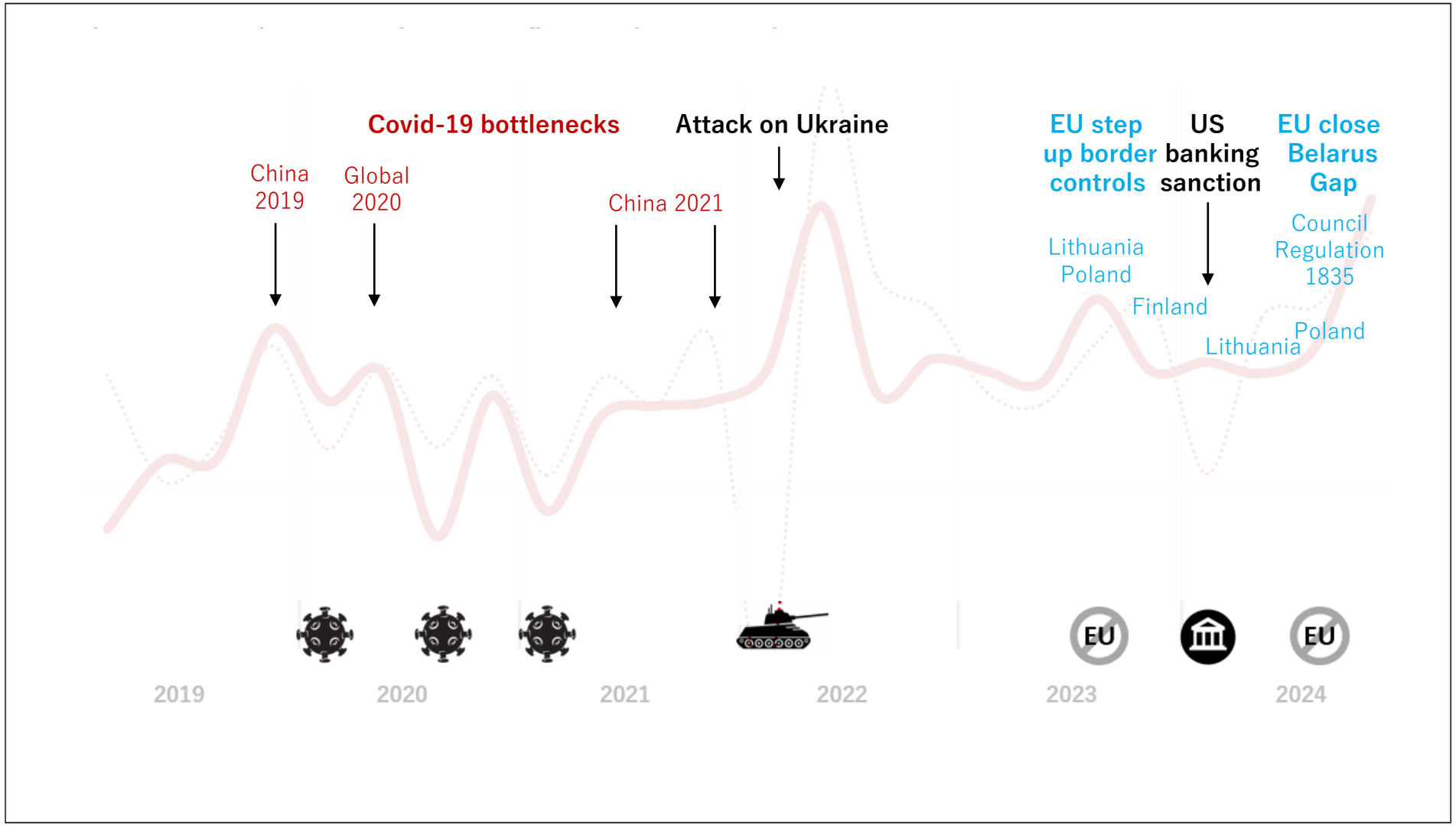
Choice of simultaneous vs. 1 month delayed recording of Russian imports has little visible impact on key results.

Import costs increasing, especially after 2022, irrespectively of adjustment or number of coefficients in the polynomial trendline. Increase in import costs significant in Q4, 2024.

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Some important physical and regulatory developments around Russia's imports

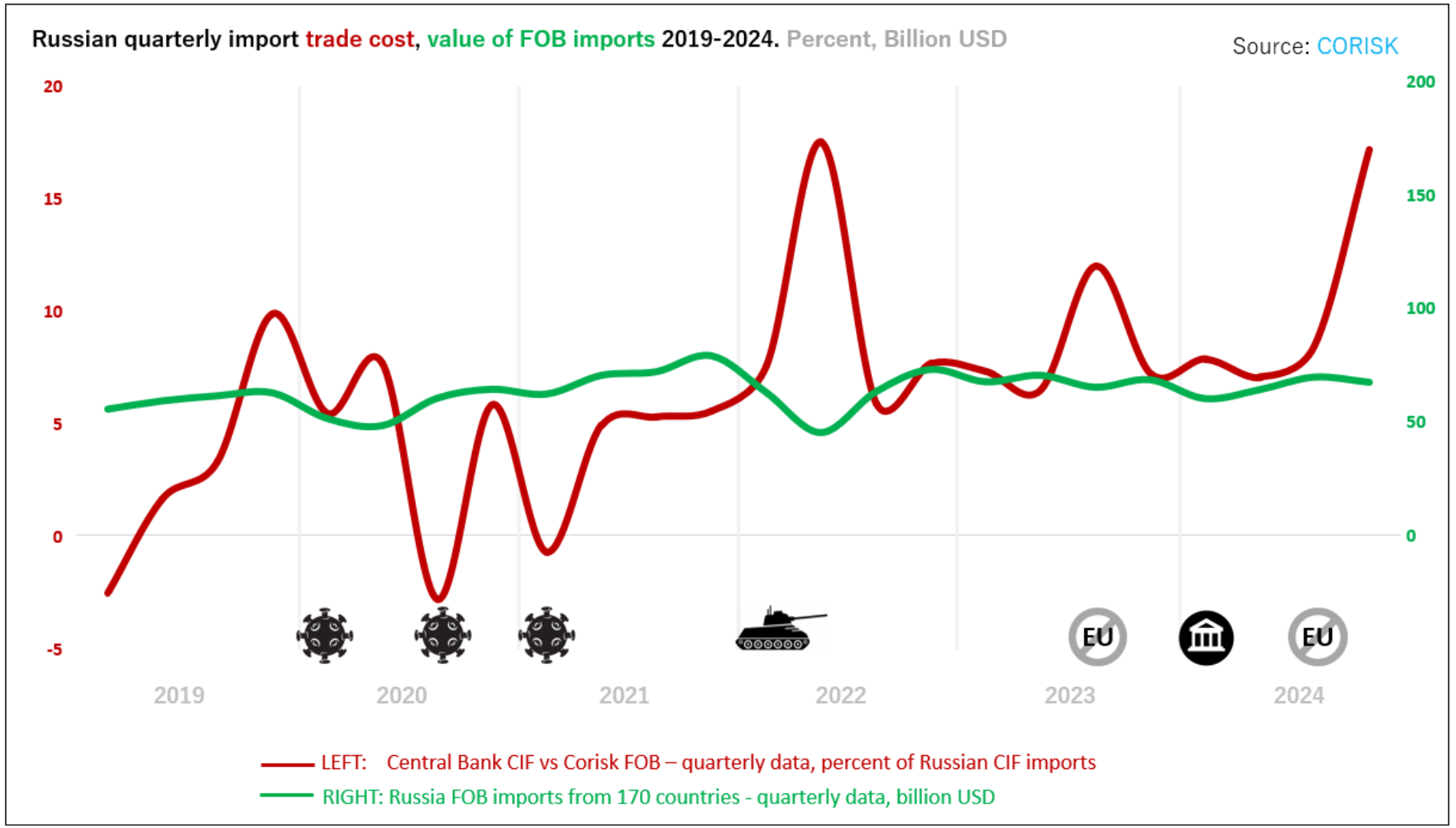
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Value of imports: from marginally positive to marginally negative correlation

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Data: 170 partners' official trade data

R 2019-2024 = **- 0,0343**

R 2019-2021 = + 0,1347

R 2019-2022 = - 0,1924

R 2023-2024 = - 0,0266

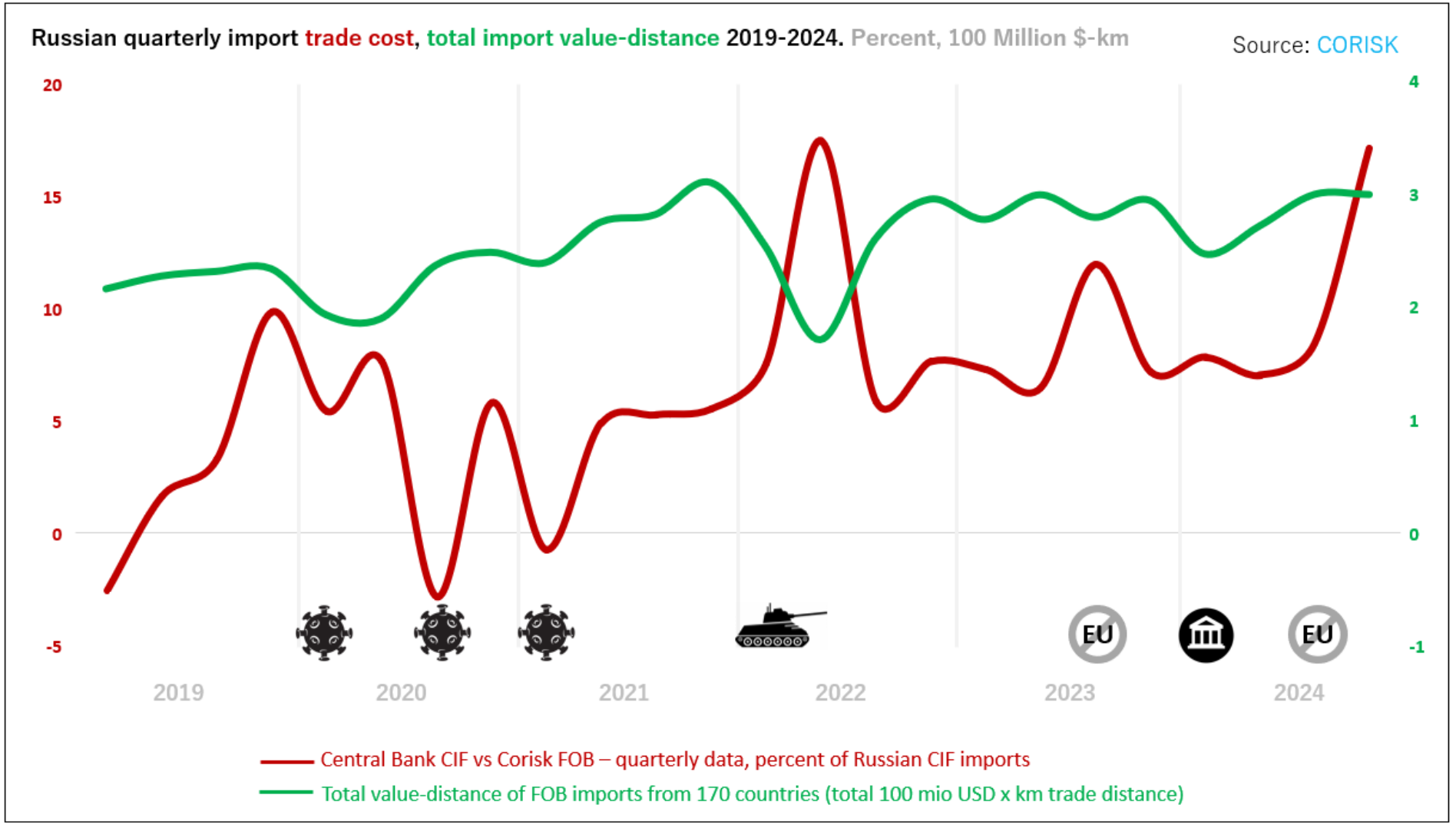
Interpretation: First positive relation, trade cost increases with Imports. From 2022 marginally negative correlation. Maybe due to increased circumvention costs via neighbours?

Weakness: Aggregate Russian CIF data, no country-pair data

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Distance of imports: from neutral to positive correlation

IMPORTS



Data: 170 partners' official trade data. Distance: *CEPII GeoDist* km to Moscow, weighted against inland city distances and Moscow's share of total population

R 2019-2024 = + **0,1423**

R 2019-2021 = + 0,0967

R 2019-2022 = - 0,1711

R 2023-2024 = + 0,2932

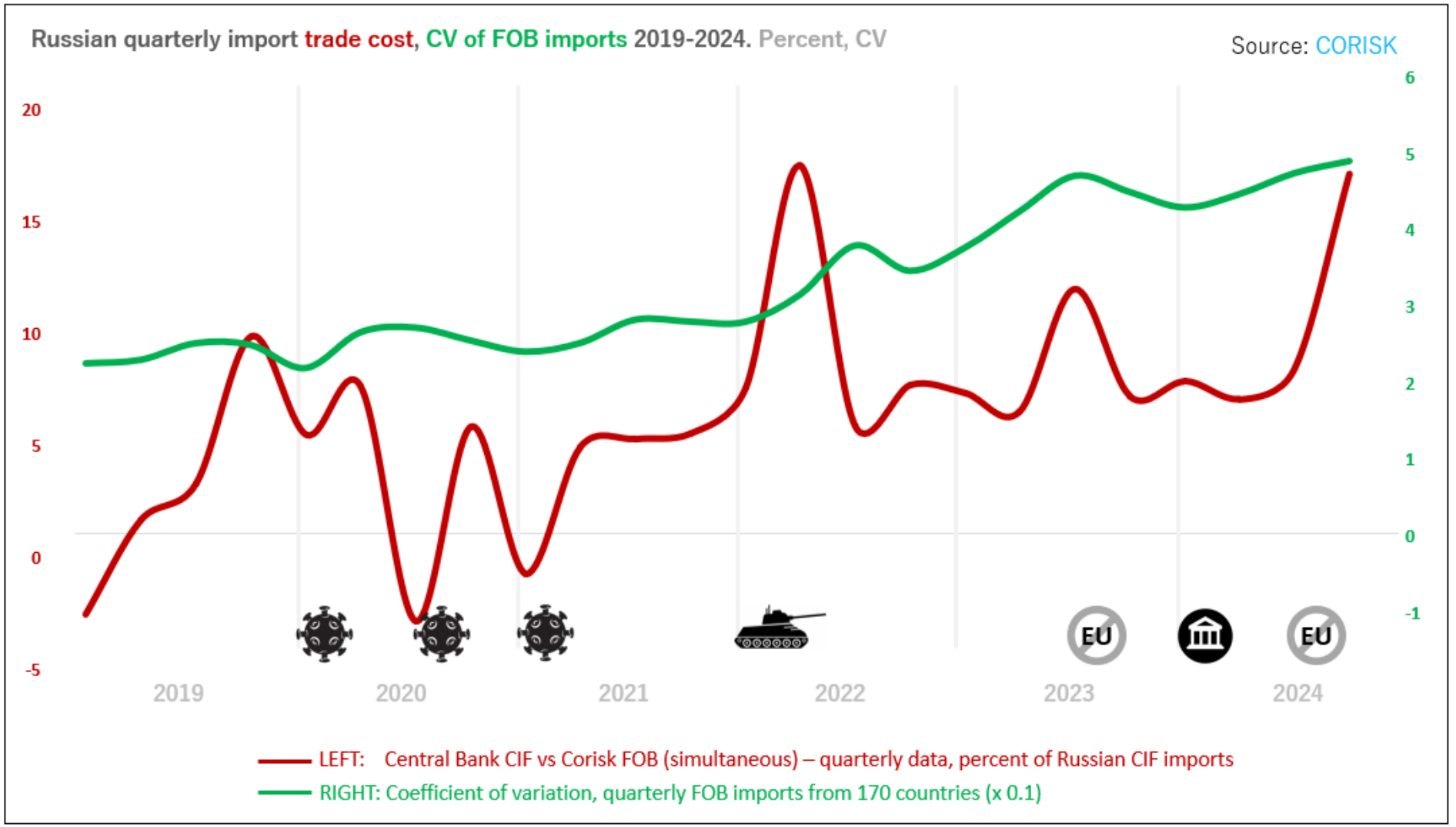
Interpretation: Import cost at first neutral to distance. Strongly inverse relation in 2022 but from 2023 positive.

Weakness: Aggregate Russian CIF data, no country-pair data

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Change of partners: good correlation, indicating cost of volatility

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Data: 170 partners' official trade data

R 2019-2024 = + **0,5523**

R 2019-2021 = + 0,2424

R 2019-2022 = + 0,4336

R 2023-2024 = + 0,6589

Interpretation:

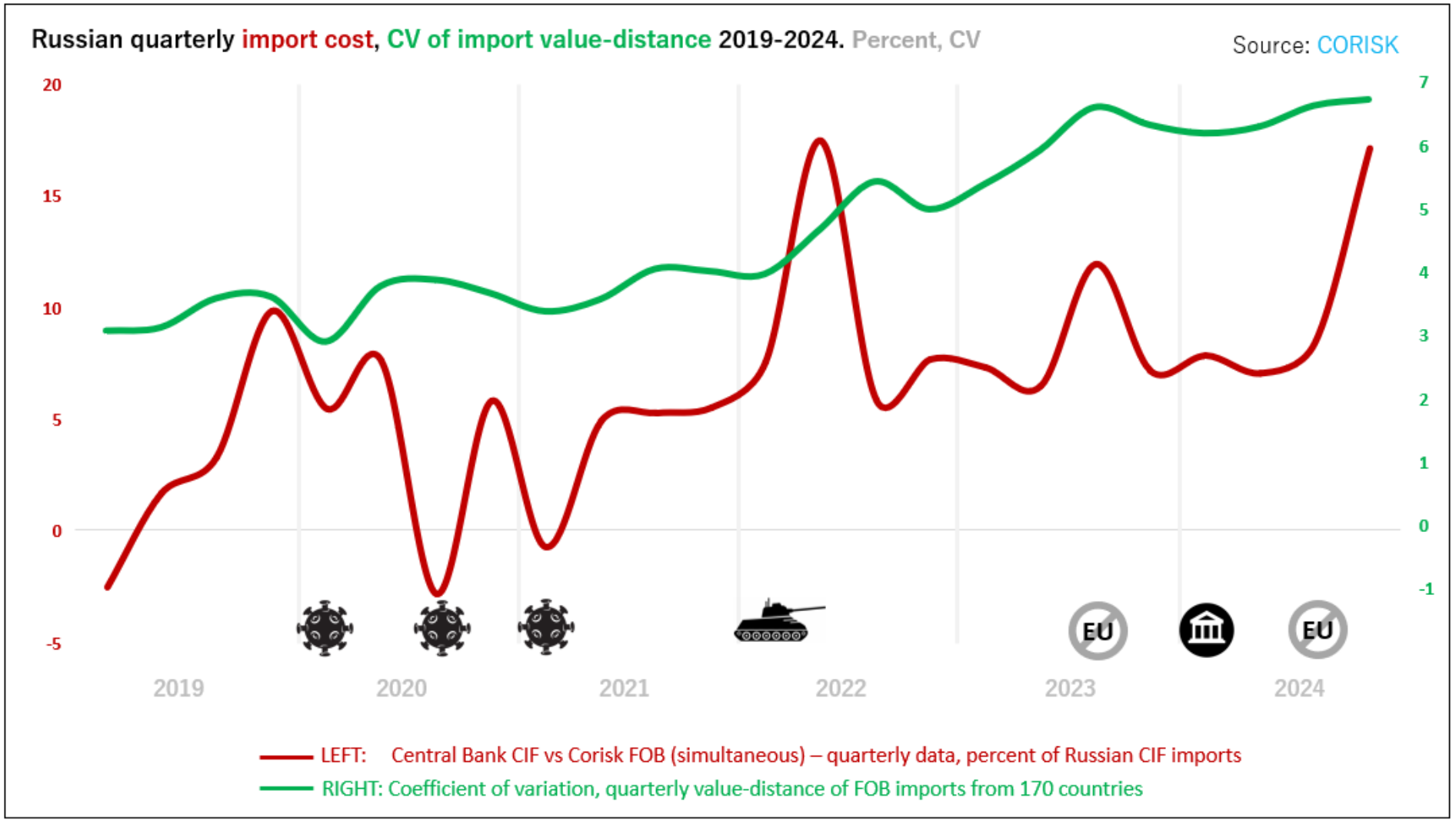
Measures volatility among trade partners, ignores geography.

Volatility here will not reflect information on whether imports move between same-region sources, or shifts to totally new regions. Costs may be conditional on more fundamental shifts in trade direction

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Change in geography: good correlation, indicating cost of geography shifts

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Data: 170 partners' official trade data

CEPII GeoDist

R 2019-2024 = + **0,5675**

R 2019-2021 = + 0,2785

R 2019-2022 = + 0,4798

R 2023-2024 = + 0,6069

Interpretation:

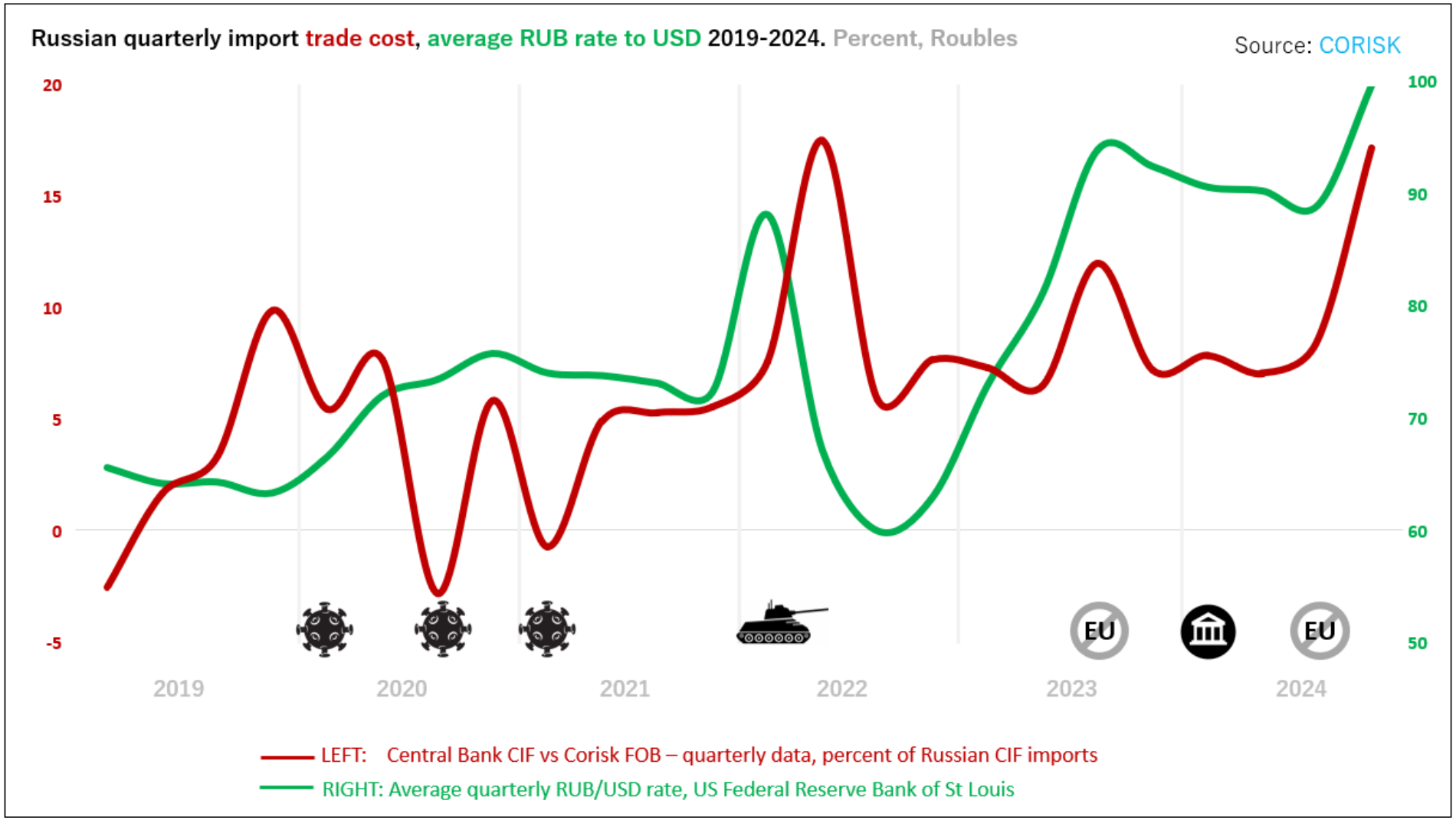
Volatility in import values per exporting country, with geography proxy.

If import sources shift to new regions, it will boost this CV level (volatility), value-distance will proxy the change in geography with its probably new terms and routes of trade

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Ruble depreciation: increasingly positive correlation with trade cost

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Data: Partners' official trade data

St Louis Fed, 2025

R 2019-2024 = + **0,4003**

R 2019-2021 = - 0,0592

R 2019-2022 = - 0,0511

R 2023-2024 = + 0,6644

Interpretation:

Ceteris parabus, Ruble depreciation may raise cost of foreign operated transport: Currency risk may induce extra risk premia on logistics.

Weakness: If goods paid in hard currency and transport in Rubles, cost of trade on imports should decline.

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Cost of imports: Preliminary conclusions

Costs of imports seem to be positively correlated with **changes** and volatilities in the sources of Russia's imports, especially relative changes in imports between geographic **trade blocks** (visible from value-distance metrics).

The virtually total **closure of EU borders** to Russia and Belarus by mid-2024, may have shifted supplies away from Europe, replaced by new sources further east that are not only more remote, but also imply new terms of trade, currencies used, logistics, middlemen, and forwarders.

This impact seems to be **comparable to the impact of War itself** (Q2, 2022), and stronger than the impact of Covid-19

Costs of imports seem to be positively **correlated with Ruble depreciation**, as it may increase cost of foreign logistics and induce currency risk premia on trade.