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Corisk Report Series No 6, 2023

Extent of Western sanction circumventions and supplies to the Russian war effort in 2022

Erlend Bollman Bjørtvedt

May 22, 2023

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Background and Executive summary

Corisk started to study Western trade with Russia in June 2022, and issued reports on the extent and nature of Western exports and imports to and from Russia, especially focusing on oil & gas products. From October 2022, we started to study Western circumventions of sanctions, by analysing data on Western countries' trade with Russia's neighbouring countries. We first estimated the extent of that circumventing trade: How large is the total Western trade with Russia's neighbours in commodities that must be assumed to not be intended for those neighbouring countries, but rather origin or end up in Russia. In November 2022, we started to analyse the content of this circumventing trade: Which sanctioned commodities are being indirectly traded with Russia via the neighbouring countries – not least those in the Eurasian Economic Union. On 5 December 2022, we presented our first findings to representatives of the Norwegian government, and from February to April 2023, we presented extended findings to representatives of eight other governments. Through this work, we hopefully supplied some quantitative basis to discussions ahead of the 11th Package of EU sanctions, which was to be discussed thoroughly in Member States through April and May. Since then, several other researchers have observed and recorded the tremendous growth in Western trade with Russia's neighbours. However, we have taken this observation further, and estimate indirect trade with Russia in the form of excessive trade with third countries – discounting that trade for an allowance for 'natural' growth in the trade based on economic fundamentals.

This report thereby sums up half a year of laborious data research and analysis of Western sanctions development. It expands the analytical understanding in Corisk Reports No 3 *Progress in American and European trade reductions vs Russia by July 2022*, which analysed Western direct trade with Russia in the first half of 2022. We do not here estimate circumventing trade that is being conducted by Western companies when they export to Russia goods that origin in third countries – for example when a Dutch company producing goods in Brazil, export such goods from Brazil to Russia. Such estimations would require granular company-level data, and goes beyond the scope of this analysis.

Executive Summary

During 2022, Western countries continued to approach the sanctions of Russia variably among them, and through the Autumn circumventions of sanctions via third countries started to become evident. This report studies the total Western trade with, and supplies of goods to Russia, including trade that is indirect and channelled via specific third countries. The unique material we bring forth consists in combining and estimating the direct bilateral trade, and the trade via Russia's neighbours in goods that probably originate from Russia (Western indirect imports), or end there (Western indirect exports). Such indirect trade with Russia can be rooted both in deliberate Russian parallel trade schemes, and in unintended trade through individual internet orders, expat Russians sending goods to receivers in Russia, or goods ending up in Russia via conventional cross-border trade.

Throughout this report, we regard circumvention of sanctions as highly likely represented by the extent of excessive Western trade with eight of Russia's neighbour countries, and we estimate this

excessive trade as the trade taking place from March 2022, minus the average trade of a baseline period discounted by a deflator of 20 %. This means that we propose the following identity:

Circumventions = Indirect trade with Russia = Trade with 8 neighbours minus (baseline trade x 1.2)

The total **exports** of 17 Western countries to Russia in the post-attack period from March to December 2022 was 41.8 billion Euros, including direct exports of 33.8 billion Euros, and indirect exports via third countries amounting to 8.0 billion Euros. This means that the indirect exports, largely likely to be circumventing sanctions, represented almost one fifth of all Western exports ending up in Russia. The main Western countries behind most indirect exports to Russia in 2022 were Germany (2.05 billion Euros), Lithuania (1.45 billion), the United States (980 million), Poland (725 million), Japan (575 million), Czech Republic (490 million), France (400 million), and the Netherlands (290 million). Comparably low levels of indirect exports were found in the United Kingdom (135 million), the four Nordic countries (257 million Euros combined), and Canada (23 million).

The total Western monthly exports to Russia in the month of **December** 2022 was roughly 6.2 billion Euros, including 4.1 billion Euros in direct exports and 2.1 billion Euros of indirect exports via third countries. This means that the gradually expanding indirect exports by December constituted as much as one third of the total Western supply of goods to Russia. Through the March-December period of 2022, the UK and the USA reduced their exports to Russia the most over the same period in the year before, followed by Denmark and Sweden. The highest growth in exports to Russia were recorded in Estonia, Latvia and Lithuania, apart from the export growth which was seen in China.

The countries where indirect exports (circumventing indirect exports to Russia) constituted the highest share of the country's total exports to Russia, were the United States with almost 60 %, followed by Lithuania (40 %), Poland and Czechia (35 %), and Norway (25 %). Shares of indirect exports below 11 % were found in Hungary, Netherlands, Belgium, Latvia, Finland and Sweden.

The total **imports** of 17 Western countries from Russia in the post-attack period from March to December 2022 was 133.5 billion Euros, including 127.5 billion Euros in direct imports and 6.0 billion Euros in indirect imports via Russia's neighbouring countries. This means that the indirect imports, largely likely to be circumventing sanctions, represented only 4.5 percent of all Western imports originating from Russia. Countries with the highest indirect imports in 2022 included Germany (2.1 billion Euros), France (1.82 billion), Poland (800 million), the United States (400 million), and the Netherlands (180 million). Surprisingly low levels of indirect imports were found in Hungary (2 million Euros), Japan (45 million), the United Kingdom (25 million), the Czech Republic (20 million), and the four Nordic countries (245 million Euros combined).

The total Western monthly imports from Russia in the month of **December** 2022 was roughly 9.24 billion Euros, including 8.71 billion Euros in direct imports and 0.53 billion Euros of indirect imports via third countries. This means that indirect imports by December had grown to constitute 5.7 percent of the total Western purchases of goods from Russia. Through the March-December period of 2022, Sweden and the UK reduced their imports from Russia the most over the same period in the year before, followed by Denmark, Lithuania, and the USA. Highest growth in imports from Russia were recorded in Hungary, Czech Republic, Belgium, and France, apart from the growth from China.

Chapter 2 summarises the **methodology** applied to this study. The study focuses on trade between 18 Western countries that issue granular official trade statistics, and 9 countries including Russia,

Belarus, Armenia, (Azerbaijan), Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. Identification and estimation problems have persuaded us to exclude Turkey, Iran, Syria, and other entrepot countries from the analysis, and we advise the exclusion of Azerbaijan since that country displays volatile trades in capital goods and petroleum products without seemingly taking much part in circumventing parallel trade with Russia. Our estimations apply a top-down methodology where macro post-attack trade volumes are compared to baseline pre-attack trade volumes. The alternative bottom-up method of estimating excessive trade in single HS commodity groups at micro level was tested on Germany, and yielded results that did not deviate much from the top-down approach. A thorough analysis of economic fundamentals in relevant countries implied a deflator of 20 % for all countries, with which baseline trade is discounted upwards to represent the expected 'natural' trade that would have occurred in 2022 if war and sanctions had not been initiated. This deflator is somewhat high for Belarus and Kazakhstan due to their lower growth rates.

The methodology chapter also includes a list of three potential conceptual errors that may occur from the performed analysis. We present the tests that we have done to rule out the errors, and conclude that none of the errors make any noticeable impact on the results in this report.

We present **sensitivity analyses** including some assumptions for baseline periods and deflators. Several tests have also been conducted to rule out errors deriving from non-circumvention months, changes in market share, or changes in logistics and distribution patterns. The sensitivity analyses yielded excessive exports (indirect export to Russia) for 16 Western countries ranging from 7.53 billion Euros to 9.52 billion Euros, with the Corisk methodological choices resulting in indirect exports of 7.99 billion Euros in 2022. The sensitivity analysis for Germany, which includes bottom-up estimations with 98 HS commodity chapters and an alternative with deletion of chapters that have few sanctions, yielded excessive exports for Germany ranging from 1.82 billion Euros to 2.19 billion Euros, with the Corisk methodological choices implying indirect exports of 2,05 billion Euros in 2022.

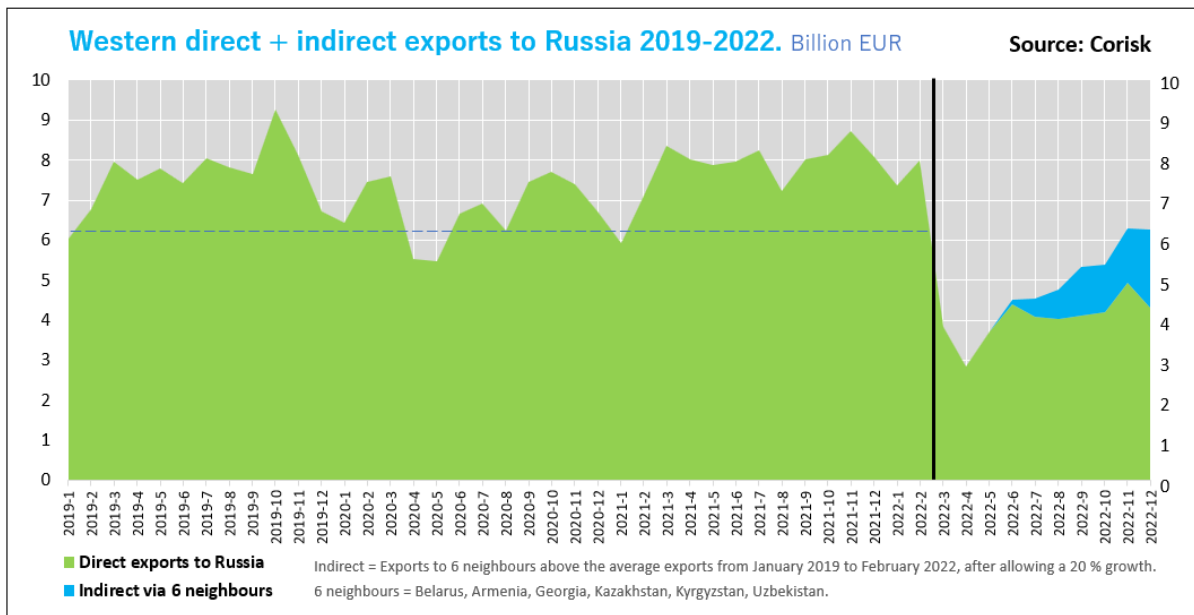
Regarding the receiving countries that surround Russia and allow indirect or parallel trade, the highest share of excessive Western exports was channelled through Kazakhstan (3.7 billion Euros in 2022), followed by Georgia (1.1 billion Euros), Armenia (1 billion), Belarus (842 million), Kyrgyzstan (739 million), and Uzbekistan (636 million).

Chapter 5 includes a limited selection of **raw data** for Western trade with Russia, and combined trade with four neighbours (Belarus, Armenia, Georgia and Kazakhstan). These four countries represent almost all of the circumventing trade in the study.

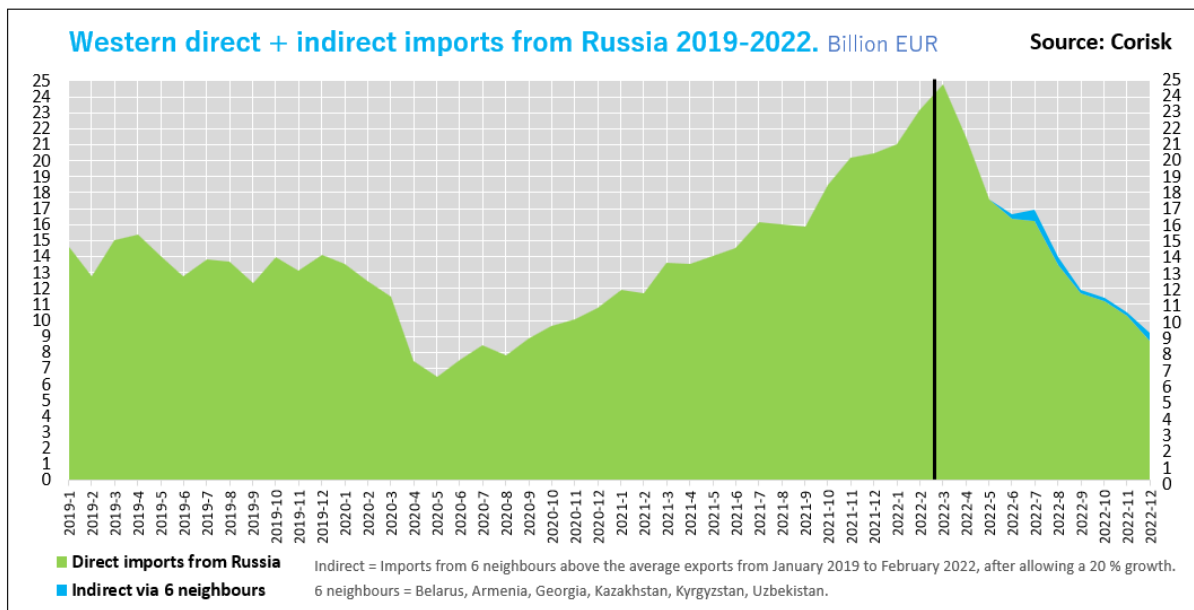
Identification of trade does not imply any indication or allegation that individual countries or enterprises violate the economic sanctions. Data are analysed solely to understand actual trade.

Summary Infographics: Total direct and indirect trade

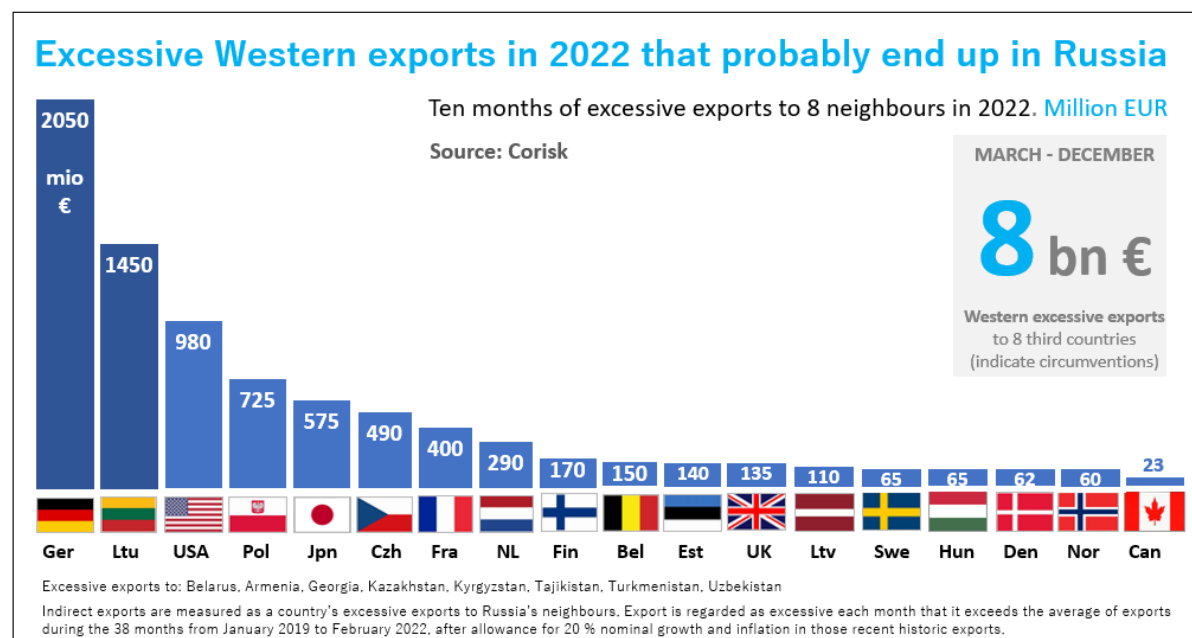
Total direct plus indirect exports to Russia are almost back at pre-war levels



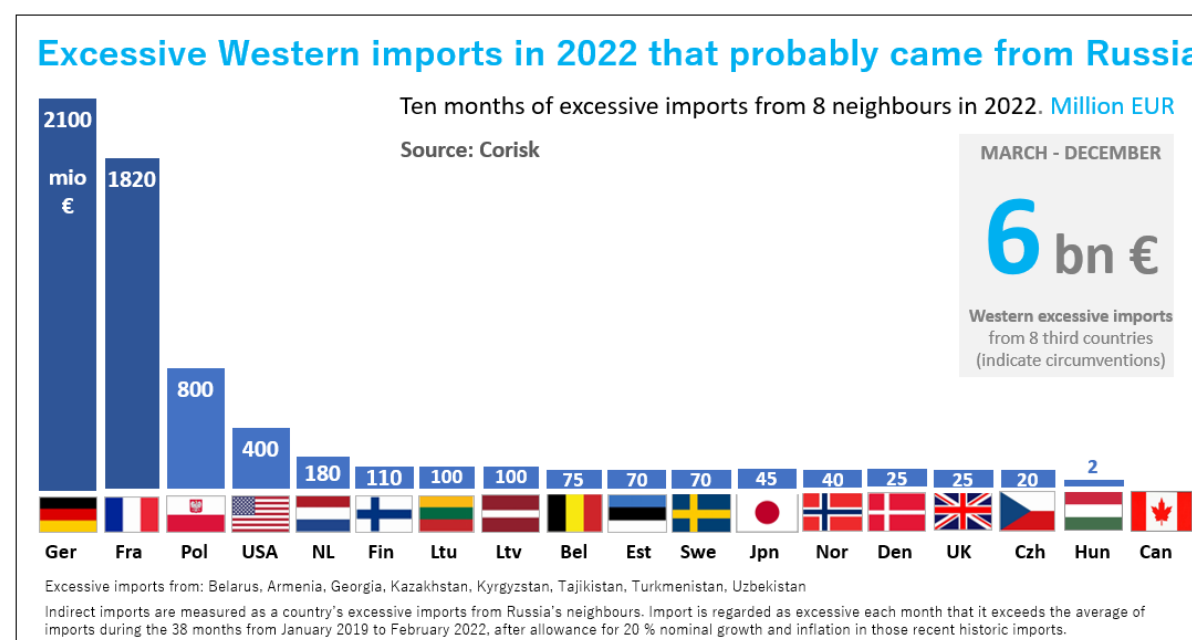
Total imports from Russia less impacted by the relatively low indirect imports



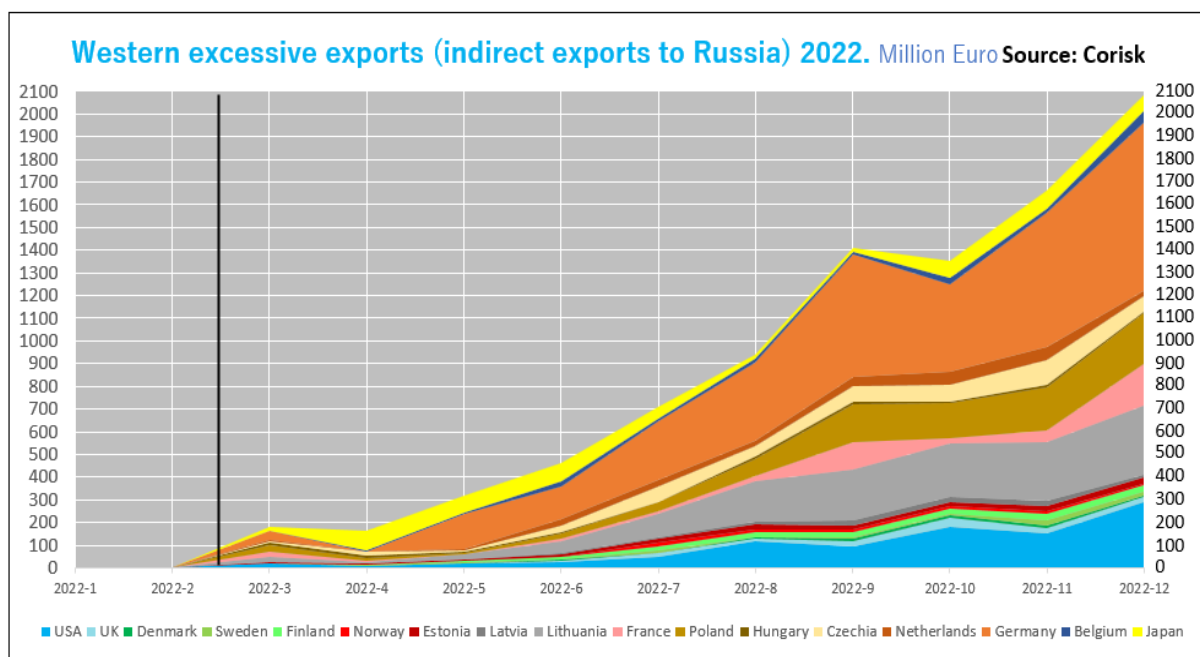
Excessive exports indicate 8 bn Euros circumventing exports to Russia Germany and Lithuania alone represent 44% of the indirect exports to Russia



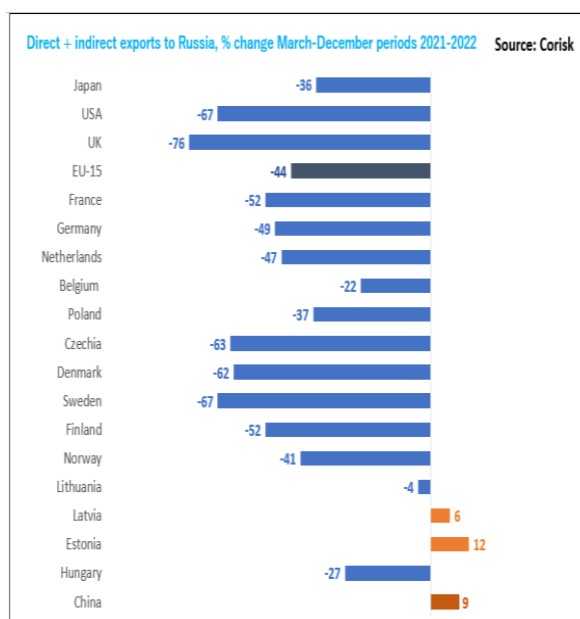
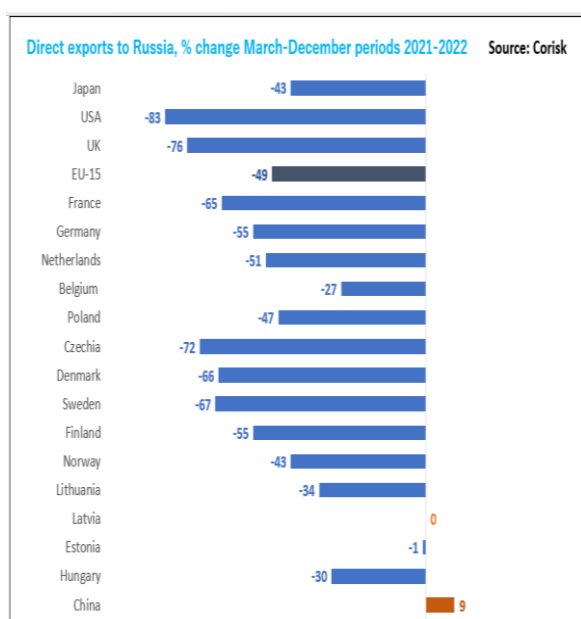
Excessive imports indicate 6 bn Euros circumventing imports from Russia Germany and France alone represent 65% of the indirect imports from Russia



Excessive exports took off after EU sanctions announcement in April Japan's exports grew excessive earlier, while USA was later to raise exports



Visible difference between the change in direct exports to Russia (left), and total exports to Russia when we also include indirect exports (right) Change from the March-December period 2021, to the March-December period 2022 Particularly large relative effect of indirect exports for Poland, Lithuania, and Estonia



1. Background on Western trade with Russia's neighbours

A detailed background on EU and US sanctions has been described in Corisk Report No 3: *Progress in American and European trade reductions vs Russia by July, 2022*, issued on 4th October, 2022. That report on Western trade with Russia by July included chapters on national-level trade, and trade in specific goods including oil & gas, fish, and cars. S&P Global regularly update a good and comprehensive timeline of sanctions development, to be conferred for reference.¹

When releasing our latest report on trade with Russia in October, we started to study Western circumventions of sanctions, by expanding our analysis of data to include Western countries' trade with Russia's neighbouring countries. We did this unaware of a group of Central Asian activists and academics performing an almost identical work based from Europe and the United States.² Similarly, a study very similar to that of Corisk was carried out and published at *Github* by a Lithuanian analyst.³

Corisk first estimated the extent of that circumventing trade: How large is the total Western trade with Russia's neighbours in commodities that must be assumed to not be intended for those neighbouring countries, but rather origin or end up in Russia. From November, we also analysed the content of this circumventing trade: Which sanctioned commodities are being indirectly traded with Russia via the neighbouring countries – not least those in the Eurasian Economic Union.

We presented our first findings to representatives of the Norwegian government on 5 December 2022, and from February to April 2023 we presented extended findings to representatives of eight other governments in the EU. Through this work, we tried to supply some quantitative basis to discussions ahead of the 11th Package of EU sanctions, engaging Member States in April and May.

Since around February 2023, other researchers have observed and recorded the tremendous growth in Western trade with Russia's neighbours. Some of these analyses include:

- **January:** Freedom for Eurasia issue report on Russian parallel trade schemes via Central Asia.⁴
- **January:** Vaidotas Zemlys-Balevicius issues report on European trade with Russia's neighbours.⁵
- **February:** EBRD finds 30 % higher growth in EU-CIS exports of goods that are sanctioned.⁶
- **April:** McFaul-Yarmuk Group mention possibility of indirect Russian trade via its neighbours.⁷
- **May:** Rondeli & Friedrich Ebert Stiftung issue report on patterns in Georgia's trade with Russia.⁸

While these and other reports record the volume of Western trade with Russia's neighbours, Corisk takes this analysis a step further by quantifying how much of this trade that is excessive to 'normal' and expected levels, and therefore must be assumed to represent indirect trade with Russia. We do this by discounting the trade with neighbours against an allowance for 'natural' growth in the trade based on the third country's economic growth (volumes), and the approximate inflation impetus from the traded goods (price level). This report sums up half a year of laborious data research and analysis of Western sanctions development, including the direct and indirect trade with Russia from 16 Western countries - including 13 EEA countries, the United States, United Kingdom, and Japan.

2. Methodology and data selection

This report analyses **trade in goods** between Western countries and a group of countries including Russia, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. This trade is studied in order to detect and estimate the extent (magnitude) of trade with Russia and Western total supplies of goods to Russia during the latest era of sanctions since March 2022. A very few sanctions went immediately into effect already from 26 February, but most sanctions entered into force in March (cars, smartphones, etc) or July (most sanctioned goods), with additional sanctions entering into force from October (oil, digitals) or January 2023 (diesel oil, etc).

Because we conduct this study partly in order to analyse the progress with which national governments enforce sanctions, and to cover parallel and re-export situations, we apply as far as possible data for export and import by country of consignment. Trade data include goods that do not cross the border – which are typically oil and gas products sold to aircraft or ships abroad. For the analysis, neither of these are critical distinctions.⁹ However, some Western countries are involved in substantial re-exports. For the Netherlands, huge volumes of goods transit make it necessary to limit data to the occurrence of Dutch own export and re-export, excluding transit goods.

This report does not study or estimate the circumventing trade that is being conducted by Western companies when they export to Russia goods that origin in third countries – for example when a Dutch company producing goods in Brazil, export such goods from Brazil to Russia. Such estimations would require granular company-level data, and goes beyond the scope of this analysis.

Parallel import is when the importing country (i.e., Russia) intentionally tries to import Western goods via third countries, without the will and knowledge of the original Western exporter. The Russian Federation legalized parallel imports of many commodities by decree of March 2022, ratified by the Russian Duma in June 2022. This legalised Russian intentional indirect imports via third countries, despite such parallel trade being illegal under international conventions. The legalisation indicates an intent from the Russian side to import goods from unwilling Western sources via third countries. Apart from this, we do not in this study assess the presence of intent in the studied trade.

We basically let **excessive trade** with third-party entrepot countries surrounding Russia indicate probable indirect trade with Russia, by comparing post-attack trade with a ‘normal’ recent level of the trade. Trade data is compiled manually from national sources and coded into a single dataset in Excel which allows several econometric analyses of the data. Since the recent pre-attack period includes periods of substantial epidemic and logistic turmoil, we use the full 38-months period from January 2019 to February 2022 as the baseline period for comparison. The *monthly* excessive trade is estimated against the baseline average monthly trade level. The *period* excessive trade is estimated by summing the monthly values, but in some explicit analyses we compare the full March-December 2022 trade to the similar March-December 2021 trade. The latter method is utilised to present relevant and recent *changes* to the trade levels.

In a few of the bilateral trade relations this yields clearly skewed results when the 2019-2022 baseline trade deviated substantially from trade in the more recent post-Covid period from February 2021 to February 2022. In very rare cases where trade changed much and stabilised at a particular

level even closer to the Russian attack, we use the 6-months period prior to attack as the baseline. This is being only being done in very rare cases where longer baseline periods would have yielded particularly deviating results. This will balance the needs to produce comparable estimates with the need to get estimates that are as close to actual development as possible.

To identify post-attack trade with Russia's neighbours as excessive, we **discount** it against a deflator to take full account of the expected, 'natural' increase that the trade would anyway portray in 2022. Without the boosting effect of sanctions, Western exports to Russia's neighbours would have expectedly increased by the equivalent of real GDP growth indicating the volume increase in the domestic consumption of imports, and by the equivalent inflation in the exporting countries indicating the price pressure imbued on the nominal spending of the importing third countries. Similarly, we must deflate Western imports from Russia's neighbours against the real GDP growth of the Western countries, and the effect of the inflation level of the goods sold by the third countries. As will be explained below, a deflator of **20 %** offers lavish margins and yield conservative results.

We suggest a 20 % nominal discounting rate to estimate excessive trade

Economic growth is the inflation-adjusted (real) change in GDP per capita. However, we are interested in total trade and not trade per capita, and should discount it against the real change in total GDP, plus the nominal inflation rate. To build the deflator against which we will deflate trade volumes, we must capture the 'natural' growth that the trade would have from two sources: The natural change in the volume of expected trade must be represented by the real GDP growth of the importing country, while the natural change in the monetary values of the trade must be represented by the inflation in the exporting country. Ideally, we should actually apply the weighted inflation level in the traded goods between two countries, but such data are deficient for the countries in question, and we will apply the total aggregate inflation rate of the exporting country instead. The national inflation basket does not correlate fully with the export goods basket, but this is as close as we get.

If **real GDP growth** in the importing country is 8 % and **inflation** in the exporting country is 10 %, the deflator appears by adding just above 18 % to the baseline trade level. A final fundamental to watch is **currency values**, where appreciation of the importing country's currency may stimulate imports. But most countries surveyed had depreciation against US dollars, which discourage imports. Only Kazakhstan had appreciation a, but Kazakhstan also had low GDP growth. For Western exports we should apply third-country growth levels (3-13 %) and Western inflation (7-10 %). For Western imports we should apply Western growth rates (0-2 %) and third-party inflation (4-19 %).

	Real GDP	Inflation	LCU/USD
Armenia	13.5 %	6 %	- 21.83 %
Azerbaijan	4.6 %	15 %	
Belarus	- 4.7 %	12 %	- 2.81 %
Georgia	9.9 %	4 %	- 15.3 %
Kazakhstan	3.1 %	19 %	+ 6.1 %
Kyrgyzstan	7.0 %	15 %	
Tajikistan	7.3 %	8 %	
Turkmenistan	6.2 %	7 %	
Uzbekistan	5.7 %	13 %	
Germany	1.9 %	7 %	
EU	0.0 %	10 %	
USA	2.1 %	8 %	

As clearly seen from the table to the left, real GDP growth was highest in Armenia at 13.5 %, possibly connected with the stimulus effect from strong currency depreciation which should encourage exports. However, inflation in Armenia was only 6 % and no Western country had a GDP growth high enough to bring the volume of imports from Armenia above a natural growth rate of around 10-15 %. Inflation was highest in Kazakhstan which also channels most of the excessive Western exports in the period. But Kazakhstan's purchases from Western countries will only get a volume stimulus from GDP growth of 3.1 %, and an inflationary boost from the Western exporting countries of 7-10 %, indicating a total natural trade growth around 10-15 %. Belarus has an extreme growth rate of minus 4.7%, indicating a correct deflator of 5-10 %.

We suggest a lavish 20 % discounting for all trade and all countries, though this deflator is much too high for Belarus, and also too high for Georgia and Kazakhstan.

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The **countries** of study include on the Western end all countries that issue open and granular national trade statistics through their central bank, statistical office, or customs service. This is done because our studies also include deeper-level commodity group analysis, and therefore excludes countries that fail to openly publish such data for free (Italy, Spain, etc) and countries that publish them against pay (Austria). Estonia limits reporting to 4-digit HS groups. Poland only shares granular for the latest year, and France from the last 13 months. On the non-Western end, studied countries (mentioned above) either participate in the Eurasian Economic Union, or otherwise have a large share of trade destined to and from Russia. Conversely, we do not perform macro studies of larger or more remote potential entrepot countries such as Turkey, Iran, Syria, or the United Arab Emirates, for the reason that it would be hard to isolate excessive trade with these countries and identify it as indirect trade with Russia – due to the share size and pluralist orientation of their economies.

The 14 European countries represent a GDP of 13 trillion EUR, two thirds of Europe’s total GDP. Further, USA and Japan represent a GDP of 25 trillion EUR. Thereby, about **60 % of the world’s GDP** is represented by the 16 countries in this report. The analysis spans all Western countries bordering Russia. The Western countries studied have had substantial trade with Russia, ranging from 1-10 % of total. They represent a mix of large economies (USA, Germany, Japan), open economies (Denmark, Estonia, Norway, Sweden), sanction sceptics (Germany, Hungary), oil & gas importers (Czechia, Germany, Hungary), and countries importing little energy from Russia (Ireland, UK).

The conferred **sources** include open national trade statistics issued monthly by national statistics offices, customs authorities, and in one instance by the central bank (Belgium). These data sources are chosen for three main reasons: First, they are published in granularity down to 6- or 8-digit HS classification so as to allow commodity-level filtering and analysis. Second, they are published immediately and their accessibility appears without delay. And third, they contain the often substantial reverse corrections of data where previous months’ data are often substantially corrected retrospectively, allowing us to capture such reverse changes as a continuous routine. Alas, we have chosen not to apply data from *Eurostat* or *UN Comtrade*, due to their limited country coverage and/or limited granularity, and the risk of missing retrospective data changes.

Data have been retrieved from national sources, measured in local currency or in certain foreign currencies. Czechia, Hungary, Poland and Serbia publish data in Euro which are applied directly throughout our studies. Chinese authorities publish consistent trade data in US dollars, which are here applied and converted to Euro. For Denmark, Norway, Sweden and UK, data reported in local currency units (LUCs) have been converted to Euro at normalised currency rates from *xe.com*:

EURO to...	2019	2020	2021	2022	2022 Autumn
USD	0.885	0.880	0.840	0.915	0.980 → 1.000
CAD	0.670	0.650	0.680	0.750	0.750
GBP	1.150	1.120	1.160	1.180	1.180
JPY	0.0080 → 0.0083	0.0085 → 0.0080	0.0080 → 0.0076	0.0075	0.0073
DKK	0.134	0.134	0.134	0.134	0.134
NOK	0.103	0.090	0.099	0.100	0.100
SEK	0.094	0.093	0.099	0.096	0.096

2.1 Specific questions in circumvention of sanctions

The starting point for analysing circumvention, is to identify excessive Western trade with third countries, discounted against a 20 % natural growth deflator. Since China and other non-Western countries do not adhere to sanctions, they do not to any degree revert to circumventions by indirect or parallel trade via third countries, and we will assume China to not operate any circumventing or indirect trade with Russia via third countries. Western countries have massively increased trade with third countries, and such excessive trade strongly indicates circumventing trade with Russia when it involves countries that are close Russian allies or members of the Eurasian Economic Union.

There are basically two ways of identifying excessive trade in the bilateral data.

One is to **top-down** measure the total gross trade between two countries, and regard as excessive the level that exceeds the baseline period average by a certain percentage. We apply this method in this report. This method will not distinguish between sanctioned and non-sanctioned goods, and it

will not identify situations where the trade in some goods increase while the trade in other goods decrease. The method risks to overstate circumventions if there is a marginal excess in trade with many non-sanctioned goods. However, the method will understate circumventions if many goods are traded below the volumes seen in the reference period, and these below-baseline trades pull down the total value and thereby conceal some of trade in sanctioned goods with the country.

The other way is to **bottom-up** find those trade goods that are sanctioned, measure whether or not they are excessively traded, and then sum up all those excessive goods-level trades. This method will more precisely measure likely circumventions of sanctioned goods, and exclude excessive increases in trade with non-sanctioned goods. The method risks to understate circumventions if below-level trade in sanctioned goods is included in the total analysis. Further, the method is time-consuming and its advantages may be reached in less demanding ways. We have performed this bottom-up method on Germany's export in order to analyse the differences in outcome between the methods (chapter 3.2, below). That analysis reveals that the difference in outcome between the top-down and the bottom-up approaches was limited, at least for Germany.

Below, we list some other methodological challenges and error sources, and how we address them by way of methodological choices and top-down analyses:

1) Negative deviation in trade. During some post-attack months, a Western country's trade with a certain third country may actually be *lower* than the deflated average from the baseline period. This means that there is no likely indirect trade with Russia indicated in the data. If this below-baseline trade is included in the data, it will pull down the total estimate of circumventions. This makes no logical sense in real life, as there cannot be negative-value indirect trade (negative circumvention). Therefore, all below-reference trades should be excluded from the analysis and the country totals.

2) Positive deviation in trade. If applying the bottom-up method, we may find that a Western country's trade with a third country may be *higher* than the excess level related to the baseline for goods that are *not sanctioned*. If trade in non-sanctioned goods exceed the baseline level deflated by 20%, it would imply that we should increase the deflator until the non-sanctioned goods cease to exceed the deflator and signal excessive trade. This may be realistic due to the closure of the EU space for Russian trucks and logistics firms, which may have reduced the available logistics capacities for non-sanctioned trade with Russia and diverted some of that towards third countries. Our analysis of German exports revealed that with both 10 % and a 20 % deflator, some non-sanctioned groups still had positive excess values, while others had negative. Trade does not change equally for all kinds of goods. But in total, the 20 % deflator yielded consistent results both under top-down and bottom-up estimations, with no aggregate excessive levels in the total trade with non-sanctioned goods.

3) Changes in market shares. If a Western country significantly increases total trade or trade in certain goods with a third country, that may imply that the relevant Western country has simply won market shares and increased its trade at the expense of other (Western) countries. Increased trade may even indicate that Western countries has taken market share from China, India, or even Russia itself. We must also rule out that increased imports from the West do not simply compensate the shortfall of former imports from Russia. We already rule out changes in market shares between Western countries by including as *many* Western countries as possible in the analysis. But changes in market shares between the West and other major trading countries such as China or Russia, must be

ruled out by checking that the *total* trade volumes of the third countries increased after sanctions. Still, finding total import increase top-down is methodologically less important than finding import increase for the *sanctioned goods* bottom-up, which the EBRD study finds, and which we find for Germany in a detailed study of 98 commodity groups (see chapter 3.2, below).¹⁰

Analysing total import growth is complex, because it is hard to find a good baseline growth rate for reference. For example, it would be tempting to use the third countries' change in total imports in the first quarter of 2022, which is the last pre-sanction quarter. But that quarter compares with the first quarter of 2021 which had very trade levels due to the ongoing Covid-19 epidemic. Below, we present the change in the total imports (in US dollars) of Georgia and Kazakhstan, two key entrepot countries. The first column presents annual change between first quarters of 2019 and 2020 – which are the latest year-on-year quarters that are not impacted by Covid-19. The second column reveals how imports increase much year-on-year in Q1 2022, which compares to Q1 2021 which was heavily impacted by the epidemic and therefore has comparably high trade growth. The third column presents the annual change in imports for the whole sanction period April-December 2022 compared to the same period the year before, and we observe the strong growth in total imports which for Kazakhstan is even stronger than the “out-of-Covid” growth in Q1. This may be because Kazakhstan's expected growth rate (fourth column, grey) is as low as 13 % given the only 3 % real growth in GDP. Georgia's import growth at 32.2 % during sanctions is also much higher than the expected 20 %. In columns 5-7, individual quarters during the sanction see imports growth continuously high in Georgia, and gradually increasing during sanctions from 15 % to 25 % in Kazakhstan. Lastly, import growth during sanctions in both countries is dramatically much higher than during the latest non-Covid year-on-year interval of Q1 2020 versus Q1 2019, which is recorded in the first column:

Imports USD	Q1 2019-20 %	Q1 2021-22 %	April-Dec 2021-22 %	April-Dec Expected	Q2 2021-22 %	Q3 2021-22 %	Q4 2021-22 %	Source
Georgia	- 2.8	38.3	32.2	20.0	37.3	32.3	31.9	GeoStat
Kazakhstan	0.0	18.1	20.0	13.0	15.2	19.5	25.0	Nat Bank
Comments	No epidemic impact on growth	Epidemic impact on growth		Based on GDP and inflation				

4) Changes in logistics patterns. If a Western country significantly increases total trade or trade in certain goods with a third country, that may imply a shift in trade away from former trade with another (close) country, maybe because local trading market logistics has changed. For example, if Germany formerly exported cars to each Central Asian country individually, some change in logistics or sales organisations may lead to exports being directed only to one of the countries, which thereafter distribute cars to its neighbours. Such was the situation when Mercedes Benz closed down the Moscow factory in March 2022, after which cars formerly produced in Russia for the wider ex-Soviet market had to be replaced by direct German exports to Russia's neighbours. Such sources of error can only be resolved at the bottom-up commodity level, and for the case of German car exports we added the previous total Mercedes Benz production in Moscow to the data and still found that the German exports of cars to the post-Soviet region is vastly excessive in the post-attack period.

To test thus further, we have done tests estimating the excessive Western trade with four countries combined (Belarus, Armenia, Georgia, Kazakhstan). For exports to the four countries, it yielded 6.1 billion Euros, exactly the same as when the estimates are performed for each country separately. For imports it yielded larger deviations with 3.95 billion Euros for four countries seen combined, against 5.65 billion Euros when each country is estimated separately. This probably reflects that parallel trade may create disturbances to normal trade reminiscent of logistics and distribution shifts.

5) Migrations. Some of the excessive trade with third countries bordering Russia may be destined for cross-border shopping, but some may also be destined for consumption by the many Russians who have fled their homeland after the assumption of conscript mobilisation of soldiers. However, this effect of Russian diasporas and immigrants should generally be reflected in macro national accounting data, notably in the estimate of GDP change in the relevant country. As we have seen, imports into the third countries increase much more than GDP growth and inflation should imply.

It is important to not overstate the importance – and possibility – of fully testing the existence of “total” excessive trade with Russia’s neighbours. It is simply not possible to test all consistencies and rule out all sources of error when estimating excessive trade. For example, when computing excessive trade with several countries combined to rule out the error source of changes in distribution patterns – should we treat all the Caucasus countries together, should we omit Azerbaijan, or should we include Turkey? Similarly, should we treat all five Central Asia states combined or only some of them? In reality, changes to logistics patterns, market shares or trade pathways will be extremely complex and even differ between the various commodities. The only valid, but extremely laborious method will be to estimate excessive trade in each commodity, but there are more than 3,400 sanctioned commodity groups only for exports, with a comparable but number of prohibited imports. To estimate bottom-up excessive trade in all these across 10-15 Western countries with 5-10 of Russia’s neighbours would be a momentous task. But we have performed various top-down tests that in combination show consistency in results, and rule out some obvious potential methodological errors.

3. Exports: Direct to Russia and indirect via neighbours

The national trade data continuously aggregated in the Corisk multi-level dataset, allows us to account the monthly direct exports to Russia by exporting country, since January 2019.

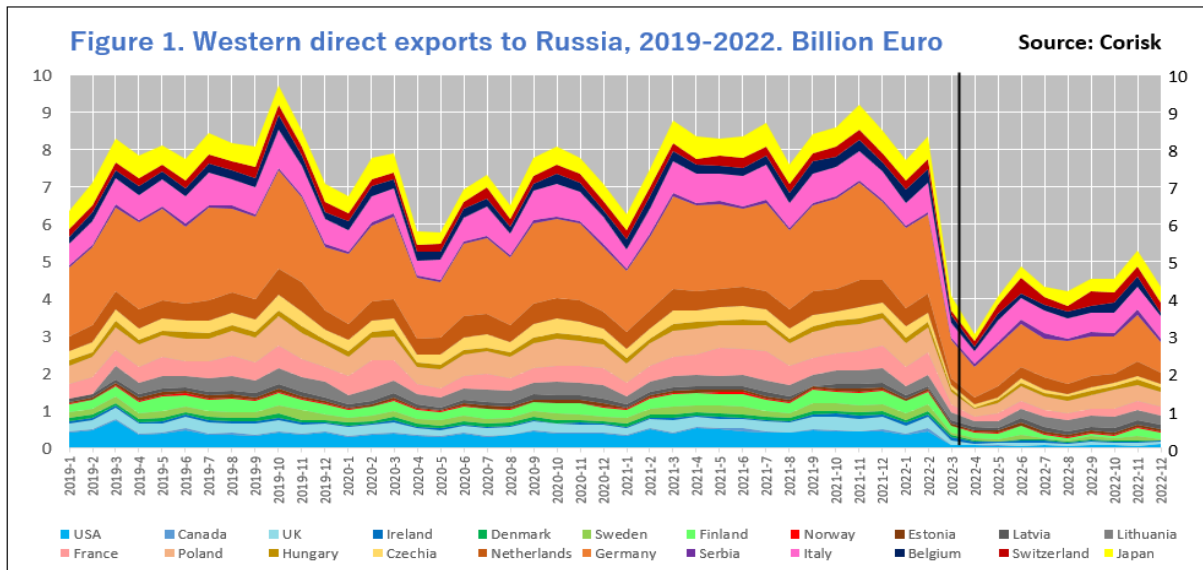


Figure 1 reveals how direct exports were strongly reduced after Russia’s attack on 24 February 2022, reaching a low in April when a major sanctions were announced. Exports somewhat resumed during the rest of the year, probably because Western companies gradually achieved overview of the new rules and managed to align actual trade with the new and often complex regulations. Further, the Corisk database on Western trade with eight of Russia’s neighbours since January 2019, allows us to estimate each Western country’s indirect exports to Russia (excessive exports to neighbours), and add this on top of their openly direct sales to the Russian Federation, as seen in **Figure 2**:

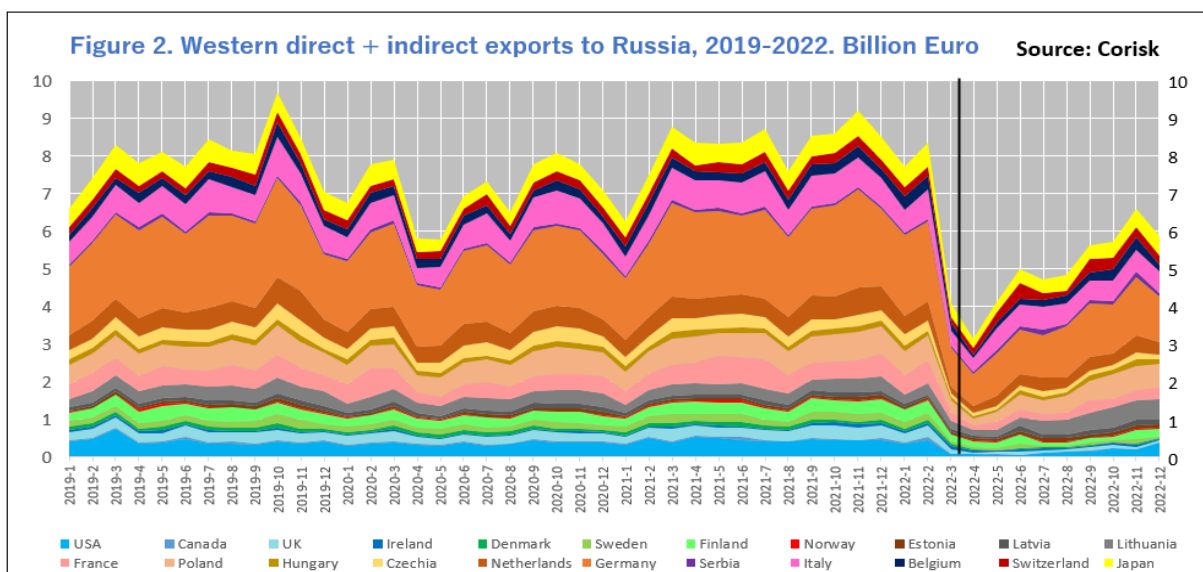
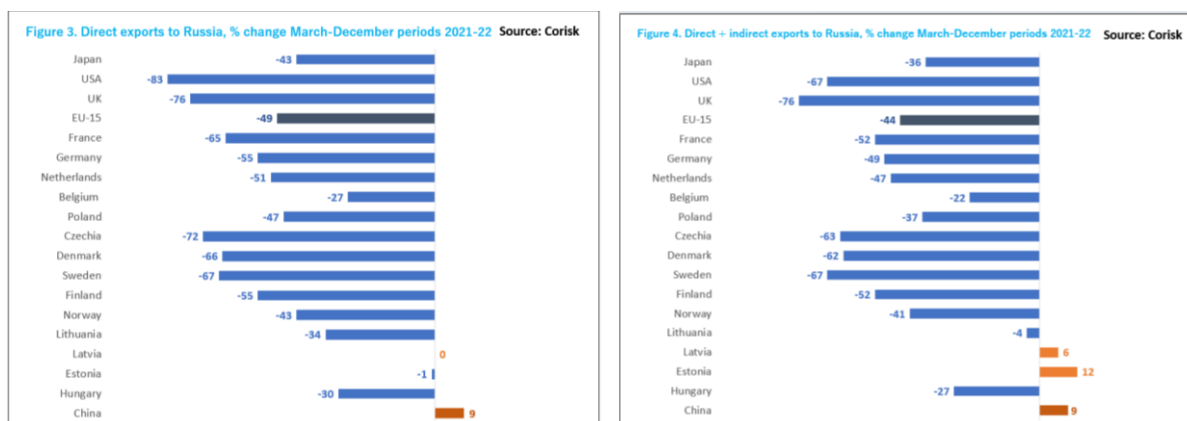


Figure 2 reveals the more pronounced increase in total Western exports to Russia after sanctions, manifest in the clear increases in June, September and November. We see especially how Germany increases its relative exports, while Lithuania even increases total exports to Russia after the attack.

3.1 Development of total exports to Russia

Corisk’s trade statistics dataset allows us to compare the development and change in Western countries’ total exports to Russia – both direct exports and those that include the indirect exports via third countries. To avoid the effect of single volatile monthly values, we choose to compare the whole March-December period 2022, against a baseline period of March-December 2021. This allows for smoothing out stochastic deviations and provides a solid basis for comparison of national progress in enforcing sanctions – notwithstanding the variations in the commodity profiles of national exports. **Figure 3** below presents the change in direct exports to Russia, while **Figure 4** presents the change in total exports including both direct and indirect flows via third countries:



We see from Figure 3 that direct exports to Russia have been most solidly reduced in the Anglo-Saxon countries, France, Czechia, and in the Nordic countries except Norway. Besides China, there was least reduction in exports from Belgium, Norway, Poland, Hungary the Baltic countries. Turning to Figure 4, we for some countries that there is no change – indirect exports via third countries grow so marginally that they do not alter the total picture for Sweden, and not much neither for Denmark or the United Kingdom. However, indirect data make the strongest impact for Poland and the Baltic countries – indicating the high share of indirect trade in their total outward trade with Russia.

3.2 Sensitivity analysis for estimates of excessive exports

Below, we present a sensitivity analysis for the estimation of excessive exports to Russia’s neighbours in 2022. It contains first in grey columns the average monthly export levels in the baseline period (“BASELINE”) from each Western country to Armenia, Belarus, Georgia and Kazakhstan, followed by the average exports to the same countries in the post-attack period from March 2022 onwards (“WARTIME”). The next, dark blue columns present four estimates for the total excessive exports from 16 Western countries to eight of Russia’s neighbours, and individual data for selected countries. The first analysis removes months with trade below deflated baseline level, and exports of aircraft which highly volatile and substantial without representing a likely object of circumvention. Alternatives are then estimated with and without Azerbaijan, which we believe has a highly volatile import of large capital goods without displaying major signs of contributing to circumventions. The

next analysis does the same deductions and excludes Azerbaijan, but applies a shorter baseline period of 6 or 12 months for some trades where results would vary significantly from a longer 38-month baseline period. For some bilateral trade relations, trade was clearly higher in 2021 than it was 2019-2021, and in these cases the application of a recent 6- or 12-month baseline period will than raise the baseline level and decrease the corresponding excessive trade level. The analysis has two sub-alternatives with a 15 % deflator for exports to Kazakhstan (given its low economic growth) and a 20 % deflator for all countries. To the right, the bright blue column (“CORISK”) presents our choices of methodology: First, we exclude volatile exports of aircraft. Second, we adjust results for Germany to reflect the bottom-up analysis results for that country. Third, we adjust several countries towards the 38-months baseline results to balance short-term against long-term reference periods. The result is **8 billion Euros** in excessive Western exports to Russia’s neighbours in the period.

Sensitivity analysis for Western exports to Russia’s neighbours

Million EUR	BASELINE	WARTIME	Western excessive exports to 8 neighbours estimated with...				Corisk
	Average monthly exports in pre-attack baseline period	Average monthly exports, post-attack period	Top-down method Deflator 20 %, all months below baseline value removed, aircraft exports removed, 38-mt baseline		Top-down method Deflator 20 %, all months below baseline value removed, aircraft exports removed, baseline set to the most relevant of 6, 12, or 38 months pre-attack period to reflect real trends. Excluding Azerbaijan		Deflator 20 %. Adjusting for German bottom-up results and 38-months baseline results. Excluding Azerbaijan
	Jan 2019 - Feb 2022	Mar 2022 - Dec 2022	Including Azerbaijan	Excluding Azerbaijan	15 % deflator for Kazakhstan	20 % deflator for all countries	
	Export levels: Exports to AR, BL, GE, KZ		Top-down: Excessive exports to 8 countries – AR, AZ, BL, GE, KZ, KY, TJ, TM, UZ				
16 states	1,183	2,047,8	9,519,6	9,146.6	8,024.2	7,533.8	7,995.0
Germany	284.9	449.0	2,060.1	1,950.5	1,937.6	1,818.9	2,050.0
Lithuania	126.1	238.1	1,423.8	1,412.1	1,490.2	1,474.1	1,450.0
USA	119.9	214.4	1,140.3	1,094.9	914.3	804.0	980.0
Japan	40	86.5	567.7	562.7	590.0	578.0	575.0
France	73.1	103.0	463.2	447.2	385.8	377.5	400.0
Poland	212.5	291.6	942.2	921.3	887.1	859.1	725.0
Czechia			530.7	492.5	491.4	479.9	490.0
Netherlands	74.5	109.7	269.8	269,8	317.2	297.4	290.0
4 Nordic	61.0	75.0	383.7	373.7	368.9	344.4	363.0

For **Germany**, we have conducted a bottom-up analysis of German exports to Russia and its neighbours since January 2019, grouping all exports between the 98 high-level HS chapters of commodities. To the left in grey columns we present the same baseline and post-attack wartime metrics for four countries, as in the table for Western exports on the previous page. However, in the next two brighter grey columns we perform a bottom-up analysis with 20 % deflator at industry level, demarcated by the 98 HS commodity chapters. In the left column we deduct commodity chapters if they have below-baseline exports in total. In the right column we deduct commodity chapters also if we identify that they have few sanctioned commodities. Further, in the dark blue columns we perform the top-down analysis of macro trade data with a 38-months baseline period for all trades and with a 20 % deflator. The three sub-sections reflect results with Azerbaijan included, Azerbaijan excluded, and with Azerbaijan excluded and Kazakhstan’s deflator at 15 %. Note that the result with 15 % deflator for Kazakhstan is different from the German results in the table on the previous page, because we there applied 6- or 12-months baseline periods for some trades.

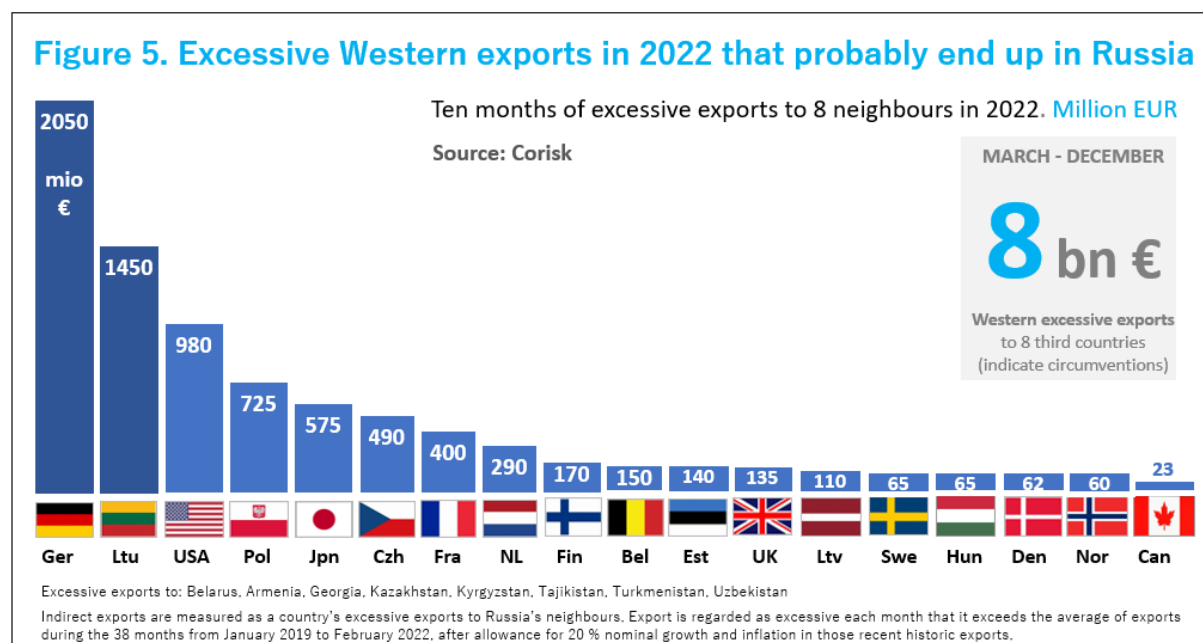
The right column (“CORISK”) in bright blue presents our choices of methodology: First, we exclude trade with Azerbaijan and all exports of aircraft. Second, we adjust results to reflect the bottom-up analysis results. And third, we take into account the results with 15 % deflator for Kazakhstan.

Sensitivity analysis for German exports to Russia’s neighbours

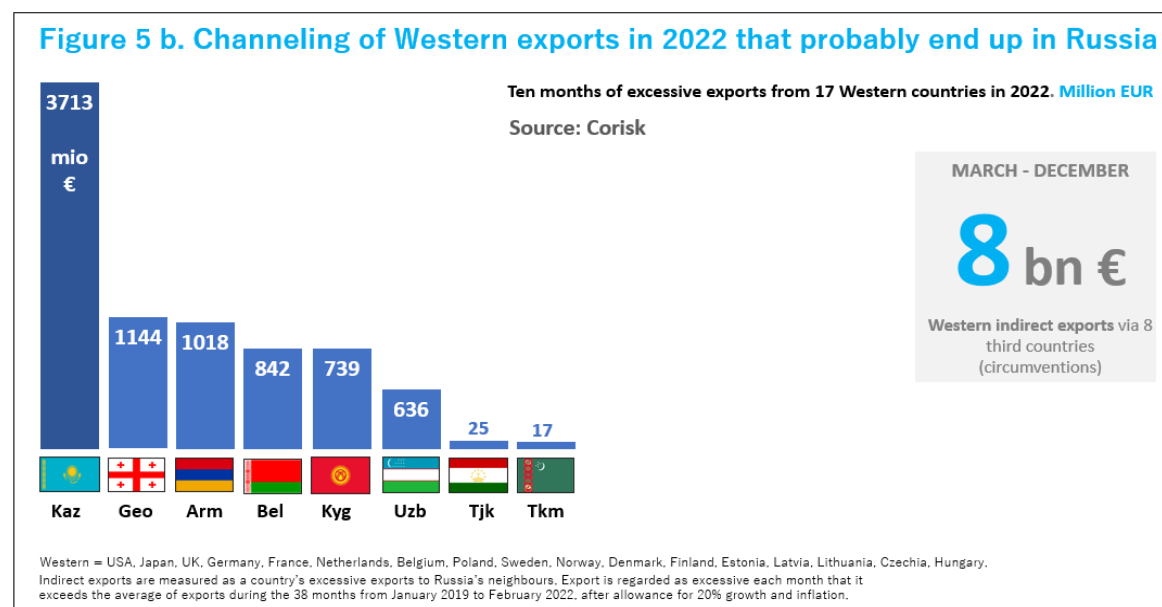
Million EUR	Average monthly exports in pre-war reference period Jan 2019 - Feb 2022	Average monthly exports, wartime Mar 2022 - Dec 2022	German excessive exports to 8 neighbours estimated with...					Corisk
			Bottom-up Deflator 20 %, negative group values removed among 98 HS groups	Bottom-up Deflator 20 %, negative values removed, groups removed if they have few sanctions	Top-down Deflator 20 %, all months below the full 38-months baseline value removed, aircraft exports removed			Deflator 20 % Adjustment for bottom-up results and Kazakhstan growth reflection. Excluding Azerbaijan
Export levels: Export to 7 countries		Bottom-up: Industry level		Top-down: Total trade data				
	347.6	628.0	2,191.7	1,938.4	2,060.1	1,950.5	2,113.5	2,050.0
Belarus	119.6	126.1	469,7	430,6	164.1	164.1	164.1	164
Armenia	15.0	44.9	272,8	204,9	267,3	267,3	267,3	267
Azerbaijan	30.5	33.6	131,3	86,9	109.6			
Georgia	30.5	52.3	178,0	146,6	156,4	156,4	156,4	156
Kazakhstan	119.8	259.3	1169,8	899,6	1,007.7	1,007.7	1,176.7	1,113.0
Kyrgyzstan	4.1	31.4	265,6	221,9	265,3	265,3	265,3	265
Uzbekistan	58.5	114.0	464,6	430,1	84.8	84.8	84.8	85

3.3 Country-by-country excessive exports to Russia’s neighbours

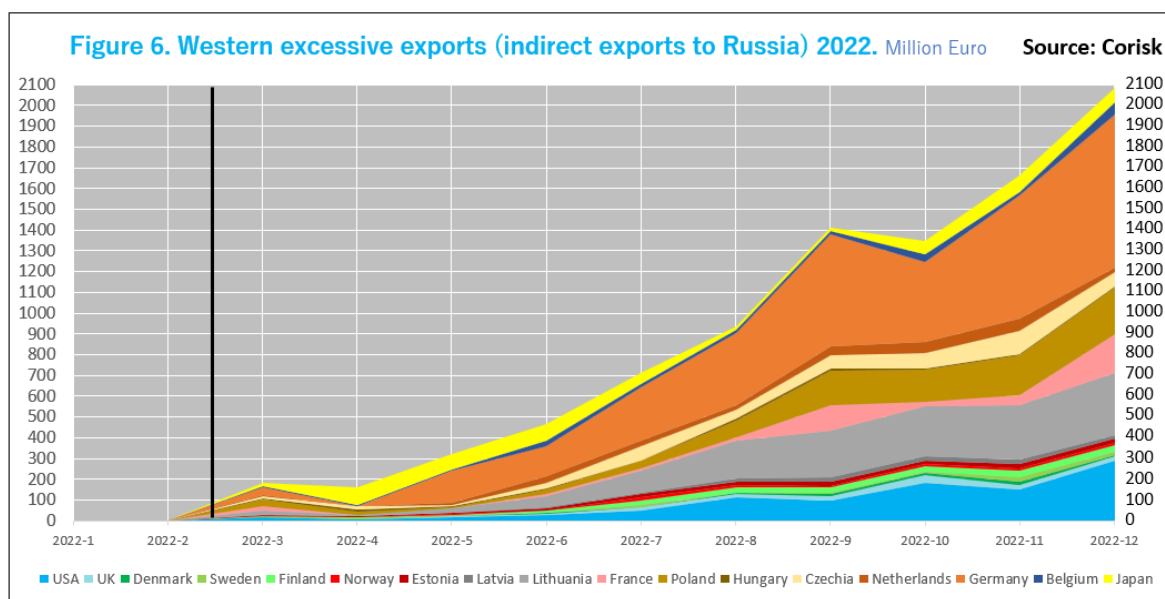
The following national data for excessive exports to Russia’s neighbours indicate the corresponding level of estimated indirect exports to Russia. Our estimates are already presented for some countries in the sensitivity analysis of chapter 3.2, and **Figure 5** presents the national data for 18 countries:



In **Figure 5b**, we reverse the perspective and estimate the total extent of excessive Western exports channelled through each of Russia’s neighbours, to indicate their allowance of indirect and parallel trade with Russia after March 2022. We find that Kazakhstan is the country which by far allows the highest amount of excessive imports from Western countries, with more than 3.7 billion Euros in 2022. Then follow other countries that are economically highly integrated with Russia, including Georgia (1.1 billion Euros), Armenia (1 billion), Belarus (842 million), Kyrgyzstan (739 million), and Uzbekistan (636 million). We exclude Azerbaijan from the analysis, and we found only marginal indications of excessive trade for Tajikistan, Turkmenistan, Moldova, and Mongolia.

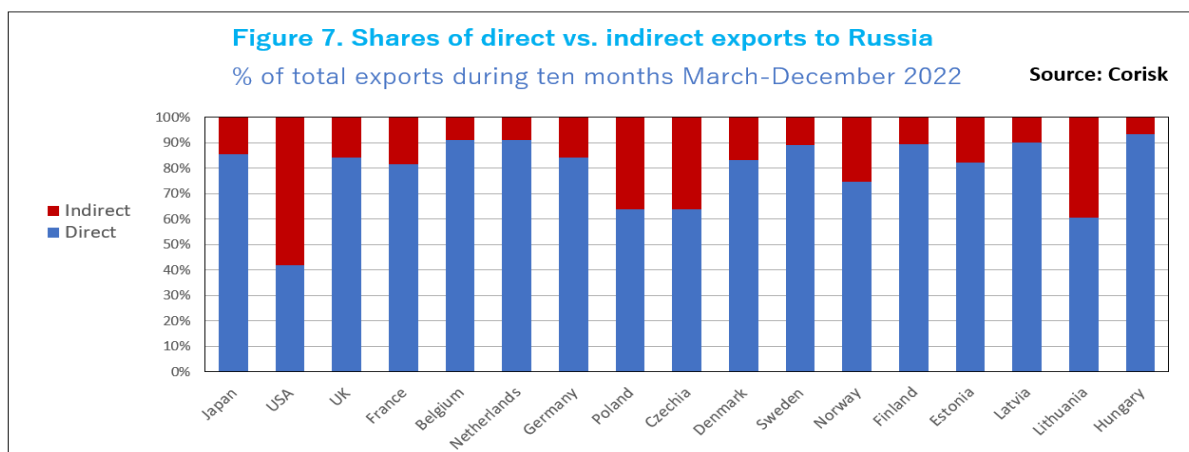


Finally, with the estimations in place we are able to present the monthly excessive exports to neighbours (indirect sales to Russia), by measuring each month’s export deviation from the 38-month baseline period. This monthly country-by-country estimation is illustrated in **Figure 6**:



We see how Japan (yellow) was first to initiate excessive exports from April 2023. Germany (orange) rapidly developed excess exports and maintained the position as the major indirect exporter to Russia through 2022. Poland (brown) and France (pink) did not initiate substantial indirect exports until September, while Lithuania (grey) initiated substantial indirect exports from June and rapidly expanded that trade. The same can be said about exports from the United States (blue). Belgium, UK, and Nordic countries all present very limited excess exports throughout the period under study.

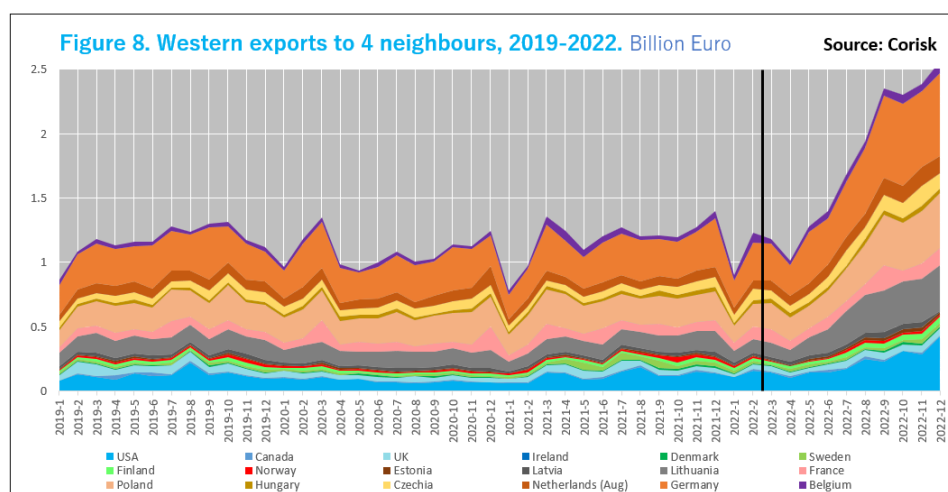
Figure 7 finally presents the share of total exports to Russia that derives from direct export (blue), versus from indirect exports via abnormal sales beyond a 20% deflator. The USA, Lithuania, Poland and the Czech Republic stand out with the highest share of exports being indirect, while Sweden, the UK, Netherlands, Belgium, and other Nordic countries present low shares of indirect sales. These conclusions should be cross-examined against the absolute volume of the exports (Figures 1-2).



3.3 Western exports to four of Russia’s neighbours

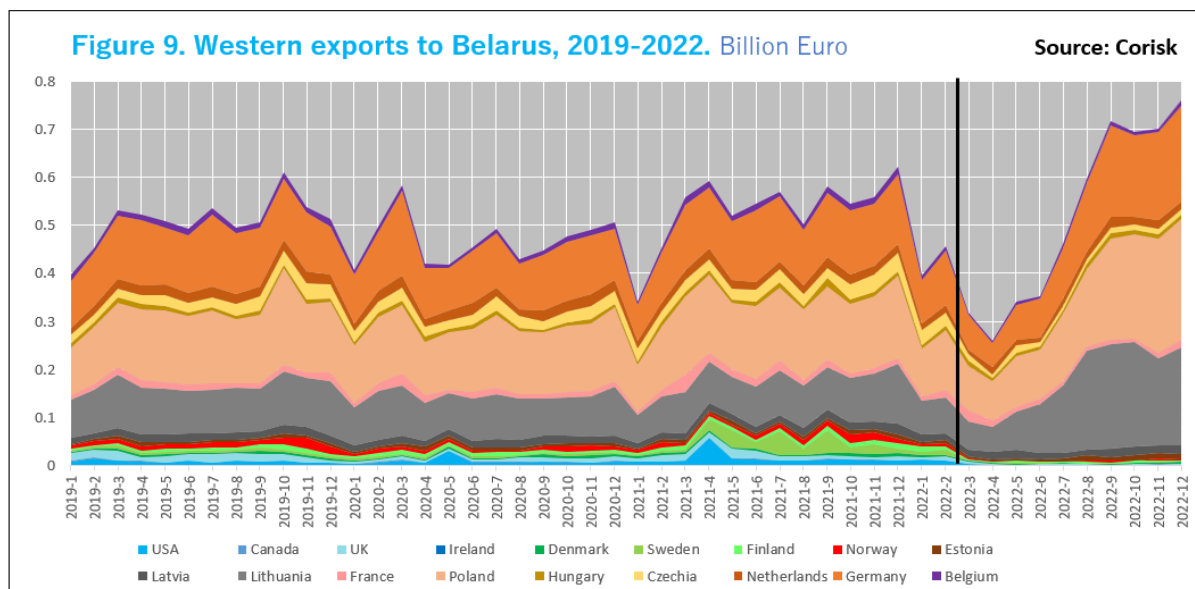
In the following, we present total Western export to Belarus, Armenia, Georgia, and Kazakhstan.

These countries are key entrepot states channelling indirect trade with Russia. Note that it represents **total exports**, not excessive. First, **Figure 8** presents the total Western exports to all four countries seen together. The clear increase in exports



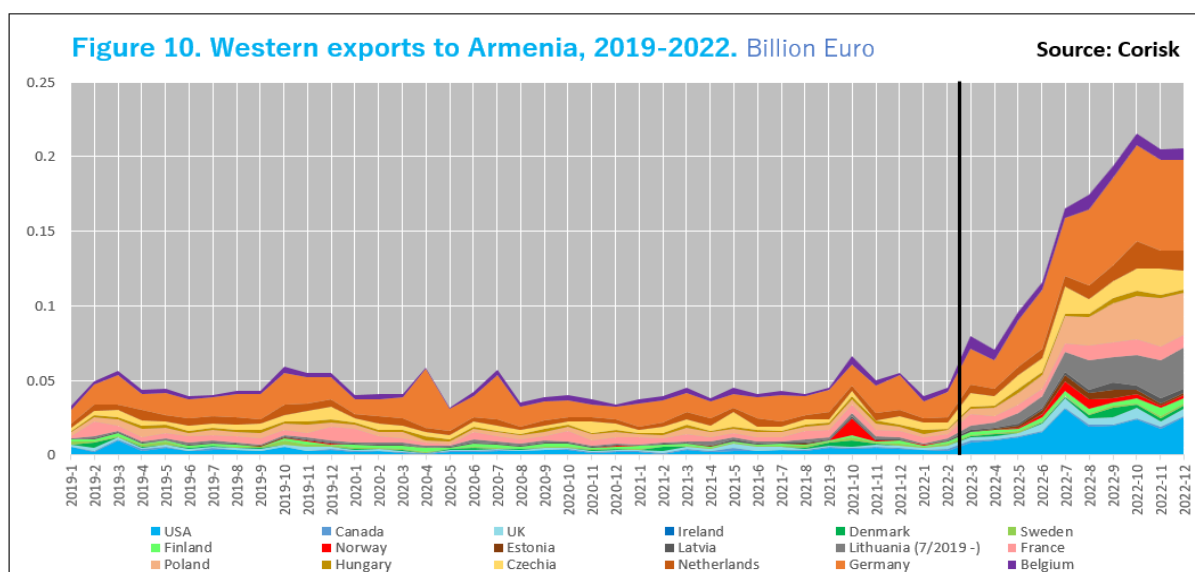
is visible from June onwards, with visible growth especially for Germany, Poland, Lithuania, the Czech Republic, Netherlands, and the United States. Note that Japan is not included in these data.

Figure 9 presents the total Western exports to **Belarus**, which presents a specific methodological problem, since that country became itself partially sanctioned from March 2022 onwards:



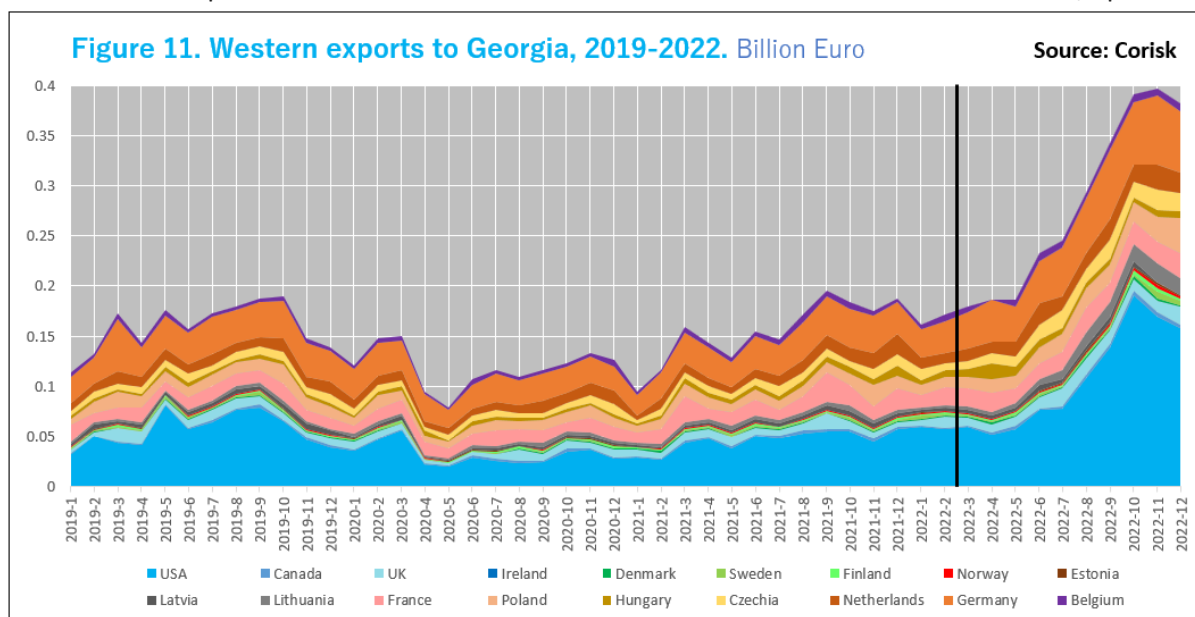
We see from how Western exports fell towards April 2022, reflecting the sanctions against Belarus and a possible inclination to avoid trade. But after June the Western exports increased rapidly, to exceed pre-attack levels and vastly exceed early-sanction levels. It is difficult to estimate excessive trade with Belarus. We chose in this report to estimate post-attack trade against the full 38-month pre-attack baseline period prior up to February 2022. However, this will underestimate excessive trade with Belarus because the sanctions must have established a new and lower ‘normal’ level around March-May 2022 against which the subsequent development should be contrasted.

Figure 10 presents total Western exports to **Armenia**, illustrating a very strong growth from around 50 million Euros per month in the pre-attack period, to 200 million Euros in December. The high



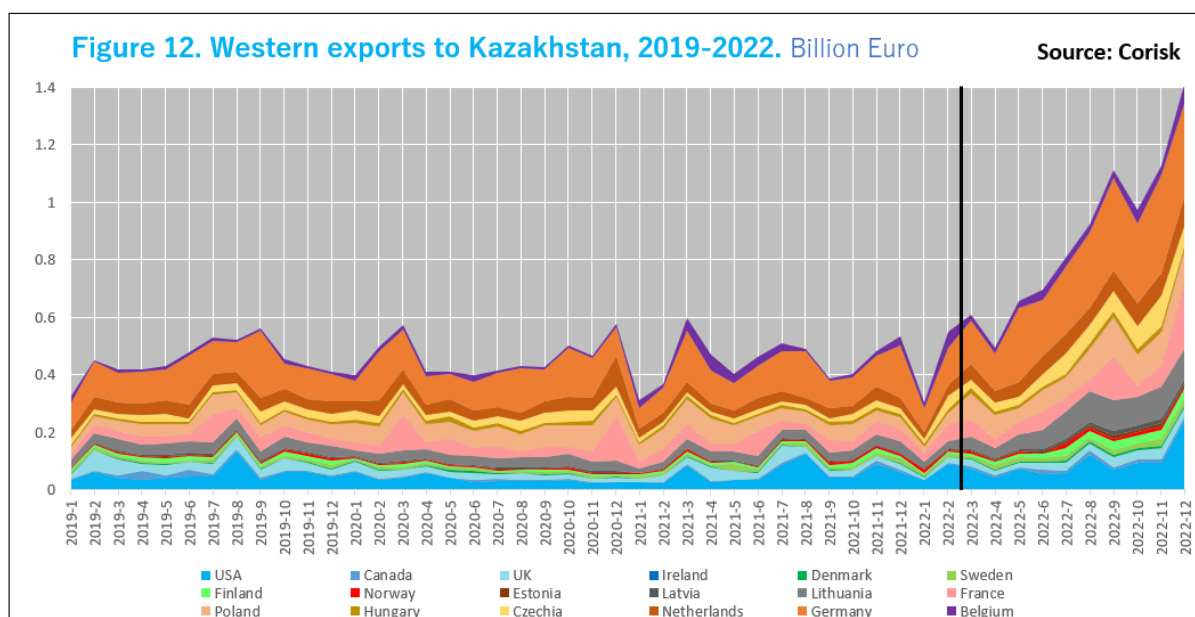
growth probably reflects that Armenia is a major Russian ally with potential circumvention schemes early on to secure supplies to the Russian war effort. Germany and Poland are key exporters.

Figure 11 presents the total Western exports to **Georgia**, a country under strong influence by Russia. Total Western exports increased from a baseline level of 100-150 million Euros 2019-2021, up to 400



million Euros towards the end of 2022. We see how the United States increases exports to Georgia through 2022, with Germany being the other country to expand exports to Georgia significantly.

Lastly, **Figure 12** presents total Western exports to **Kazakhstan**. We observe a strong growth in the exports to the country, which we have seen being a major entrepot channel for Western goods to Russia. The total Western exports increased from a baseline level of 500 million Euros 2019-2021, to 1,400 million Euros in December 2022. Germany is the main Western exporter to Kazakhstan.



4. Imports: Direct to Russia and indirect via neighbours

We regard Western imports from Russia as important to Russian national oil and tax revenues, though this trade does not directly supply the Russian war effort. Therefore, our presentation of imports data will be less laborious than the export data analysis in Chapter 3, but we will generally present many of the same metrics. The national trade data from the Corisk dataset allows us to account the monthly direct exports to Russia by exporting country since January 2019. **Figure 13** presents the direct Western imports from Russia, illustrating how the gradual phasing out of oil and gas imports have dramatically reduced Russia’s incomes from sales to the West since March 2022:

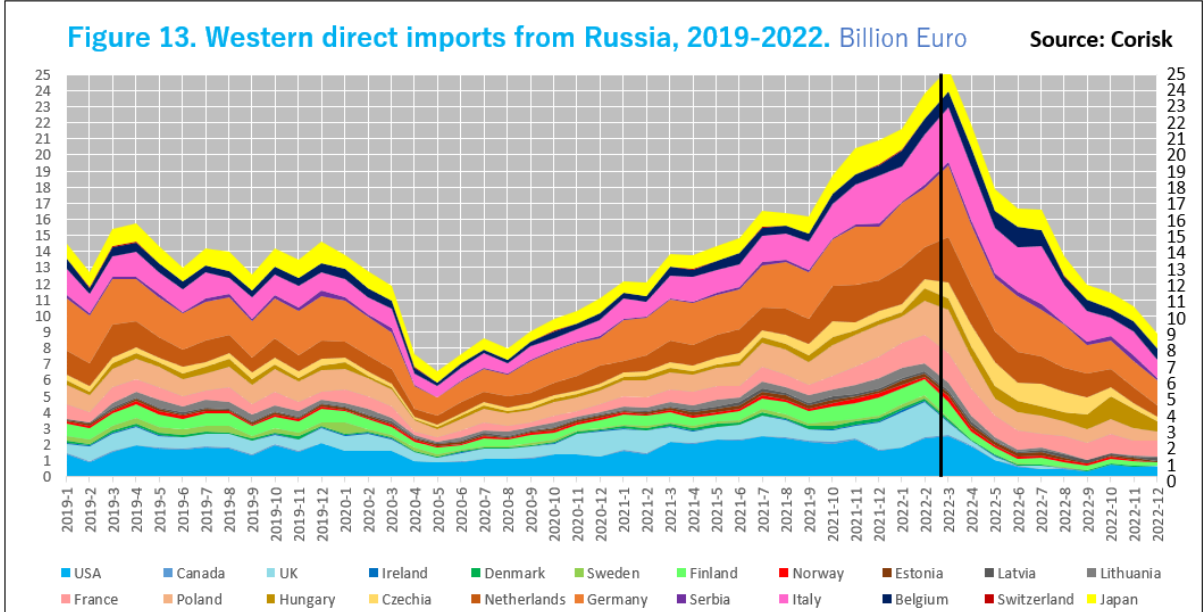
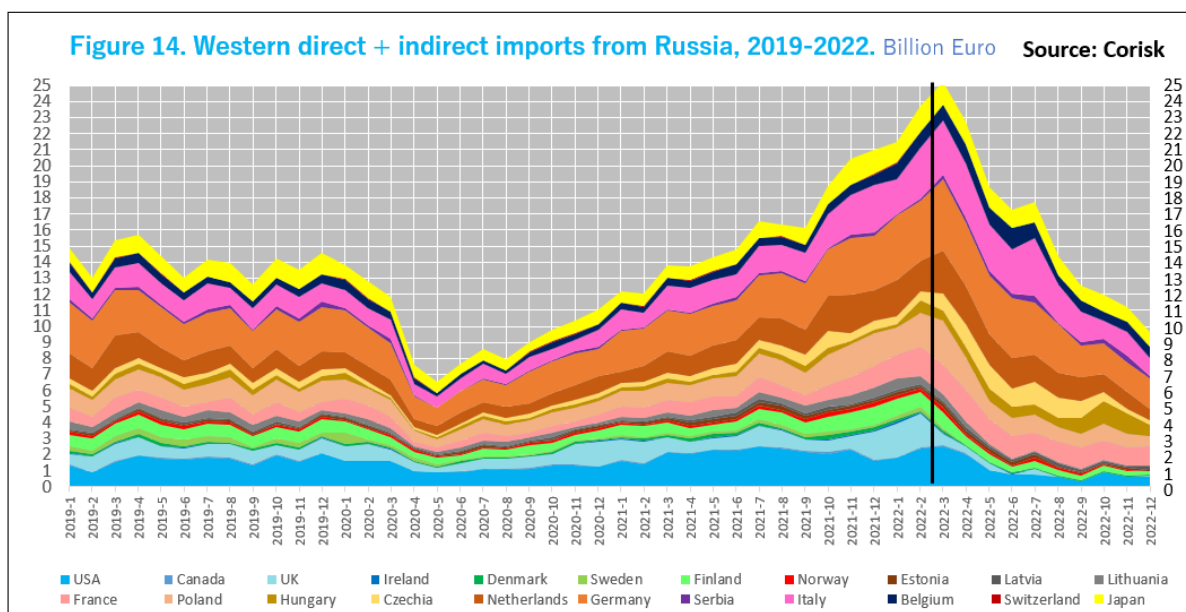
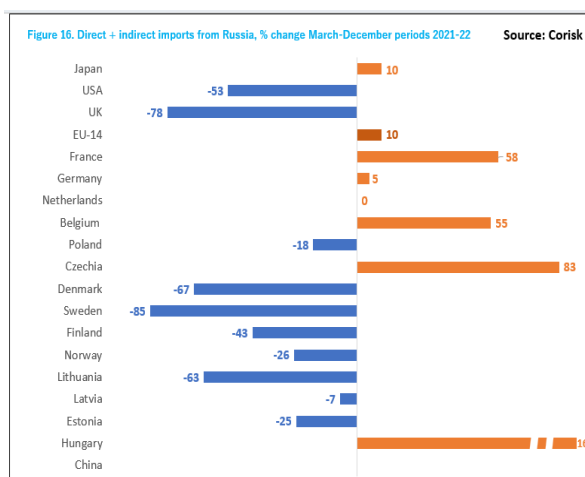
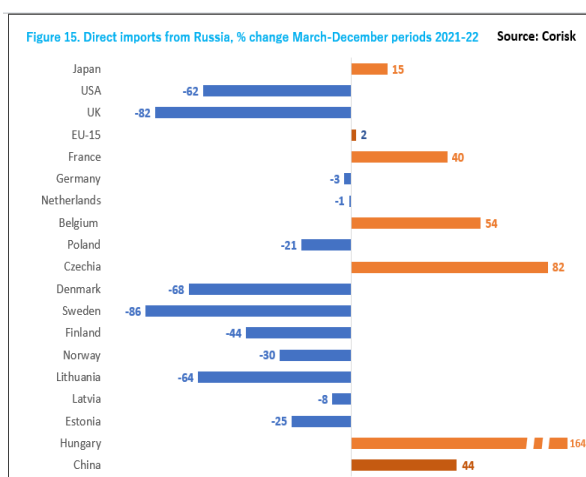


Figure 14 similarly presents the total imports from Russia, including indirect via third countries:



To understand the development of total imports from Russia, we will compare that development between two nine-months period: march-December 2021 versus the period March-December 2022. This allows for a more thorough and comprehensive comparison, avoiding the stochastic volatility of single months. **Figure 15** (left) shows the development in direct imports from Russia, **Figure 16** (right) presents the development in total imports including indirect trade via third countries:



As apart from exports, we observe that many Western countries actually increased their imports from Russia in 2022, both directly and in total. This is largely due to the substantial imports of oil and gas at high prices in 2022, but the imports also increase for countries with a more limited hydrocarbons import from Russia, including France and Belgium. The strongest increase in direct and total imports are seen for Hungary, Czechia, France, and Belgium. The Nordic and Baltic countries have generally reduced imports, despite them having historically imported oil and gas from Russia.

4.1 Country-by-country excessive imports from Russia's neighbours

Data for excessive imports from Russia's neighbours indicate the corresponding level of estimated indirect Western imports from Russia. **Figure 17** presents the national data for 17 Western countries:



While indirect export to Russia was most prominent from Germany and Lithuania, we see a different picture for indirect imports where Germany and France dominate, ahead of Poland. For the results in Figure 16 we apply single monthly data for each bilateral pair of countries and with imports in the 38 months from January 2019 to February 2022 as baseline, discounting monthly post-attach data against a flat 20 % deflator to allow for growth and inflation. The result is **6 billion Euros** in total excessive Western imports in the period, totally dominated by Germany at 2.1 billion Euros, and France at 1.8 billion Euros.

5. Selected raw data on Western exports and imports

Some raw data for Western imports and exports are presented in the tables below:

All numbers in current **million EUR**, conversions at xe.com monthly average currency rates.

Exports to Russia (direct)	Baseline 2019-22	2002-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12
Western	7,427	3,847	2,825	3,680	4,303	3,934	3,932	3,973	4,100	4,812	3,993
USA	411	93	82	71	57	81	66	90	79	63	113
UK	259	127	39	64	98	73	54	99	46	67	66
Denmark	81	54	29	24	43	28	19	27	11	41	24
Sweden	170	58	86	36	95	39	23	70	57	121	30
Finland	288	165	220	202	214	206	227	148	129	222	253
Norway	27	17	22	20	21	21	23	15	13	22	25
Estonia	67	59	50	52	72	69	67	68	74	75	67
Latvia	97	91	64	71	134	101	96	105	121	130	105
Lithuania	323	203	147	171	201	232	213	223	276	252	260
France	484	196	121	224	210	184	175	200	199	244	238
Poland	628	353	210	269	404	371	342	353	513	421	398
Hungary	145	91	54	70	108	89	109	123	107	156	121
Czechia	311	85	68	82	118	81	81	88	83	96	88
Netherlands	528	184	194	279	285	346	255	295	246	405	281
Germany	2,120	1,019	828	1,119	1,173	1,014	1,154	1,088	986	1,226	828
Belgium	251	216	118	173	149	172	205	189	273	282	116
Japan	510	377	178	198	291	298	401	327	367	398	444
China	4,123	3,500	3,479	3,957	4,903	6,636	7,836	7,919	7,334	7,711	8,809

Exports to 4 neighbours ¹¹	Baseline 2019-22	2002-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12
Western	1131.6	1,175	1,003	1,218	1,368	1,640	1,916	2,326	2,242	2,426	2,752
USA	123	157	114	155	148	173	251	226	308	280	421
UK	46	41	33	33	44	53	48	57	51	57	58
Denmark	8	5	7	7	8	10	13	17	19	17	14
Sweden	20	11	18	19	14	21	12	20	17	35	30
Finland	18	16	19	19	23	32	35	37	39	42	46
Norway	15	9	4	8	5	24	21	16	17	20	15
Estonia	8	9	11	13	18	18	23	26	21	26	21
Latvia	23	23	23	27	30	26	31	44	42	45	39
Lithuania	125	109	94	134	163	231	298	326	335	335	357
France	73	106	67	74	95	81	83	192	82	118	132
Poland	209	200	182	173	203	249	309	391	370	408	431
Hungary	25	38	37	31	29	23	38	38	37	38	36
Czechia	58	61	58	62	77	119	95	117	120	160	114
Netherlands	74	78	71	85	102	106	105	137	133	143	137
Germany	285	284	242	349	353	425	509	639	632	589	642

	2019	2020	2021	2022-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12
Belgium	36	39	33	41	58	54	51	50	70	55	94		
Japan	40	59	82	74	124	91	54	64	101	120	94		
Imports from Russia- (direct)	Baseline 2019-22	2002-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12		
Western	13,497	24,809	21,544	17,569	16,291	16,180	13,413	11,698	11,179	10,284	8,708		
USA	1,870	2,755	2,088	1,131	665	486	534	334	735	596	639		
UK	935	743	304	266	48	204	37	19	20	21	27		
Denmark	124	129	68	70	80	44	39	47	37	27	25		
Sweden	210	298	168	127	91	161	113	134	108	86	35		
Finland	667	1,001	528	453	329	424	317	257	291	281	183		
Norway	150	310	175	132	95	168	118	140	113	89	37		
Estonia	132	217	210	190	194	185	107	61	65	126	52		
Latvia	108	168	173	108	116	154	223	145	132	81	201		
Lithuania	338	435	357	151	111	90	61	50	66	77	80		
France	733	1,818	1,745	1,397	1,235	893	1,025	1,063	1,204	981	973		
Poland	1,196	2,719	2,012	1,038	1,097	1,092	897	796	903	758	611		
Hungary	286	681	614	798	706	676	552	947	1,386	1,251	622		
Czechia	370	1,045	1,383	1,438	1,110	1,379	1,259	1,054	560	323	249		
Netherland	1,252	2,673	2,393	1,833	1,923	1,743	1,489	1,478	1,145	1,029	697		
Germany	2,461	4,416	3,704	3,497	3,473	2,867	2,686	1,798	1,786	1,569	1,569		
Belgium	493	978	1,190	1,040	1,302	962	557	711	547	602	717		
Japan	855	1,315	1,213	1,214	1,075	1,219	1,154	905	987	929	926		
China	5,290	7,687	8,712	10,064	9,651	9,919	11,102	10,550	10,230	10,545	8,999		

	Baseline 2019-22	2002-03	2022-04	2022-05	2022-06	2022-07	2022-08	2022-09	2022-10	2022-11	2022-12
Imports from 4 neighbours¹²	1,325	2,437	2,382	2,186	1,900	2,337	2,074	1,786	1,813	1,818	2,130
Western	164	186	338	230	277	496	280	79	371	155	166
USA	66	379	240	192	68	218	41	66	66	49	39
UK	3	4	4	4	8	2	1	4	3	4	3
Denmark	6	24	4	6	7	8	9	11	19	10	5
Sweden	2	2	8	18	18	11	28	10	9	7	11
Finland	15	12	8	35	28	31	23	33	28	18	25
Norway	31	20	6	8	9	12	10	17	12	11	14
Estonia	31	45	45	63	27	14	26	22	18	29	24
Latvia	145	183	188	127	74	68	78	60	59	64	53
Lithuania	202	485	423	415	389	459	460	520	197	351	485
France	155	215	199	208	145	130	195	217	306	241	196
Poland	25	54	60	9	5	4	2	2	5	3	76
Hungary	57	92	84	99	29	23	23	22	48	58	78
Czechia	45	41	99	114	34	34	122	38	61	45	59
Netherlands	334	625	633	592	682	750	715	588	499	685	746
Germany	26	33	23	17	46	16	14	21	39	10	21
Belgium	59	48	51	68	94	69	96	54	59	77	43
Japan											

Trade statistics sources

Belgium

Buitenlandse handel - overzicht (nbb.be)

Canada

Canadian International Merchandise Trade Web Application - Imports (statcan.gc.ca)
[International trade monthly interactive dashboard \(statcan.gc.ca\)](#)

Denmark

<https://www.statistikbanken.dk/20029>

Estonia

VK16: EXPORTS AND IMPORTS OF GOODS BY COMMODITY (BEC) AND COUNTRY. Statistical database
<https://andmebaas.stat.ee/Index.aspx?lang=en&SubSessionId=787bac34-87db-4319-9f0b-30ba691f317f&themetreeid=3>

Finland

https://pxweb2.stat.fi/PxWeb/pxweb/sv/StatFin/StatFin__tpulk/statfin_tpulk_pxt_12gq.px/ [Verti \(tulli.fi\)](#) [CN – Verti \(tulli.fi\)](#)

France

FOB exports of France incl. overseas departments - To: Russia - All, excluding military equipment - Estimated raw data - NAF rev. 2 | Insee
CIF imports of France incl. overseas departments - From: Russia - All, excluding military equipment - Estimated raw data - NAF rev. 2 | Insee
[Open Data](#) | [Portail de la Direction Générale des Douanes et Droits Indirects](#)

Germany

Federal Statistical Office Germany - GENESIS-Online: Statistics: 51000 (destatis.de)

Hungary

<https://statinfo.ksh.hu/Stainfo/haViewer.jsp>

Italy

Istat.it External trade

Japan

All | [Browse Statistics](#) | Portal Site of Official Statistics of Japan (e-stat.go.jp)

Latvia

Foreign trade in goods | [Oficiālās statistikas portāls](#)

Lithuania

TRADE | LR ekonomika home EN (arcgis.com)

Netherlands

StatLine - International trade; import and export value, SITC (3 digits), countries (cbs.nl)

Norway

<https://www.ssb.no/statbank/table/08806/>

Poland

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Serbia

<https://www.stat.gov.rs/en-us/oblasti/spoljna-trgovina/>

Sweden

Varuimport och varuexport. Totala värden efter handelspartner, bortfallsjusterat. Månad 1998M01 - 2022M05. PxWeb (scb.se)
https://www.statistikdatabasen.scb.se/pxweb/sv/ssd/START__HA__HA0201__HA0201B/ExpTotalKNMan/table/tableViewLayout1/

UK

[Overseas trade data table - UK Trade Info](#)

USA

Foreign Trade - U.S. Trade with Russia (census.gov) [International Trade Data Main Page \(census.gov\)](#)

China

News - Newsroom - GACC (customs.gov.cn)

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- ⁵ Vaidotas Zemlys-Balevicius: [On EU trade with Russia and its neighbours after Russian invasion of Ukraine](#), Github, 25 January 2023.
- ⁶ Maxim Chupilkin, Beata Javorcik Alexander Plekhanov: [“The Eurasian roundabout - Trade flows into Russia through the Caucasus and Central Asia”](#), EBRD Working Paper No 276, February 2023.
- ⁷ McFaul-Yarmuk Group: Working Paper No 11: [Action Plan 2.0](#), 24 April 2023, page 6.
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- ⁹ Non-border-crossing exports, for example at high seas or to embassies etc abroad, usually constitute a marginal share of total exports, and we regard the distinction as having little or no impact on analysis.
- ¹⁰ Maxim Chupilkin, Beata Javorcik Alexander Plekhanov: [“The Eurasian roundabout - Trade flows into Russia through the Caucasus and Central Asia”](#), EBRD Working Paper No 276, February 2023.
- ¹¹ 4 neighbours = Belarus, Armenia, Georgia, Kazakhstan.
- ¹² 4 neighbours = Belarus, Armenia, Georgia, Kazakhstan.