

LOGOKA project: Logistics for Business Karelia-Oulu Region  
<https://kareliacbc.fi/en/projects/logoka-ka8009>

## Statistical overview of transport & economy in the project region

May 2022  
(follow-up for April 2021 report)

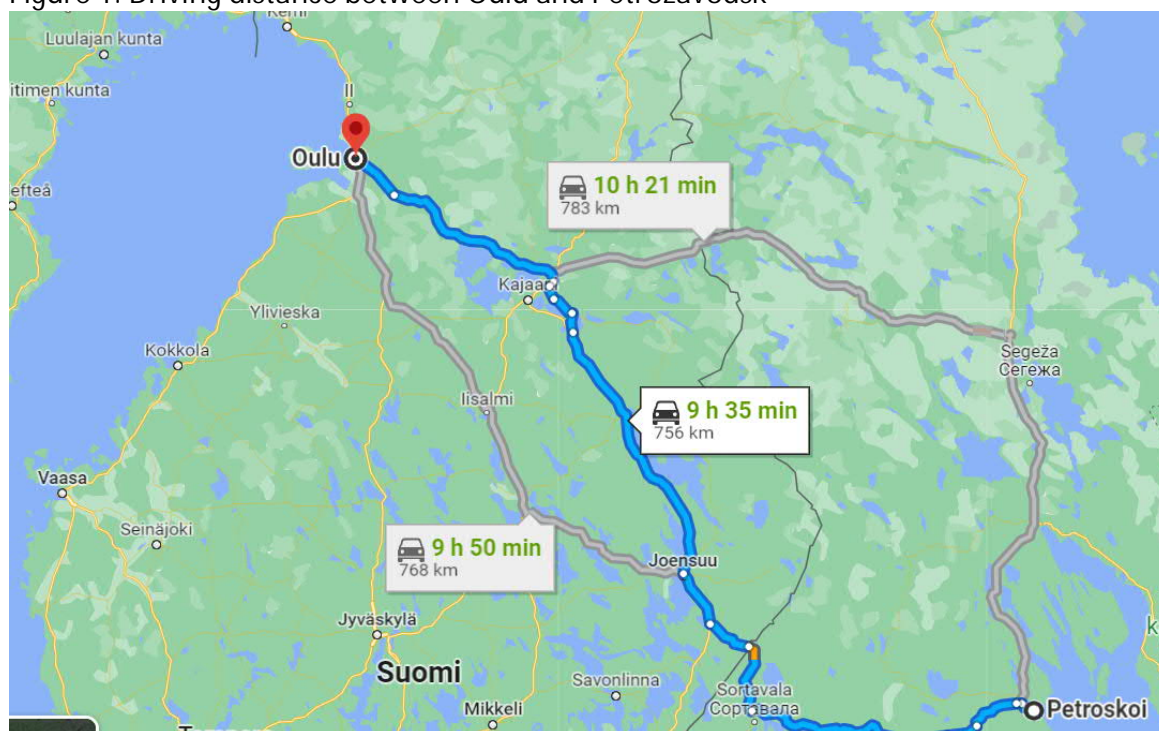
## Introduction

This report examines the general economic situation, foreign trade and transport between Finland and Russia. As part of the Logoka project (<https://kareliacbc.fi/en/projects/logoka-ka8009>), a special interest lies in the Northern Ostrobothnia and Kainuu Regions in Finland and Karelian Region in Russia. This report presents some of the key statistics related to economic and transport development in the project region (follow-up from earlier Logoka report in 2021). With the war in Ukraine, a special focus is given to changing economic outlook both on global and national levels.

## Geography and population

Logoka project regions include North Ostrobothnia and Kainuu regions in Finland, and the Republic of Karelia in Russia. Oulu and Petrozavodsk, two main cities involved in the project, are located some 750 km apart from each other by road. According to Google Maps route planning application (see Figure 1), the driving time between the cities is approximately 9,5 hours. The distance from Oulu to Kajaani is 183 km (2.22 hrs driving time) and from Kajaani to Petrozavodsk 597 km (7.46 hrs driving time).

Figure 1. Driving distance between Oulu and Petrozavodsk



Source: Google Maps

The geographic area of these regions is relatively large, 36 815 km<sup>2</sup> (12.4 % of Finland's total area) and 20 197 km<sup>2</sup> (6.8 %) for North Ostrobothnia and Kainuu, respectively. The population is sparse: 11.3 inhabitants per km<sup>2</sup> in North Ostrobothnia and 3.6 inhabitants per km<sup>2</sup> in Kainuu. The population and the number of employed inhabitants have grown in North Ostrobothnia during the last decades whereas in Kainuu the situation is the opposite (see Table 1).

Table 1. Population and employed inhabitants in Northern Ostrobothnia and Kainuu

	1990	2000	2010	2019	2020
Population					
Finland total	4 998 478	5 181 115	5 372 276	5 525 292	5 533 793
North Ostrobothnia (% of Finnish population)	350 799 (7.02)	372 639 (7.19)	398 335 (7.41)	412 830 (7.47)	413 830 (7.48)
Kainuu (% of Finnish population)	92 459 (1.85)	85 736 (1.65)	78 703 (1.46)	72 306 (1.31)	71 664 (1.30)
Employed population					
Finland total (% of total population)	2 332 282 (46.66)	2 228 557 (43.01)	2 325 679 (43.27)	2 284 673 (41.29)	n.a.
North Ostrobothnia (% of region's population)	148 370 (42.29)	148 942 (39.97)	159 634 (40.08)	166 270 (40.28)	n.a.
Kainuu (% of region's population)	37 641 (40.71)	30 222 (35.25)	29 554 (37.55)	27 359 (37.84)	n.a.

Source: Statistics Finland

The Republic of Karelia in Russia has an area of 172,400 km<sup>2</sup>. The population is sparse and has been diminishing during the last decades (see Table 2). Its share of the total population of the Russian Federation is small, below 1%.

Table 2. Population in the Republic of Karelia

Population (1000)	1990	2000	2010	2019	2020
Russian Federation	148 273.7	146 303.6	142 865.4	146 748.6	146 171.0
Republic of Karelia (% of Russian Federation)	791.6 (0.53)	732.1 (0.50)	644.0 (0.45)	631.0 (0.43)	n.a.

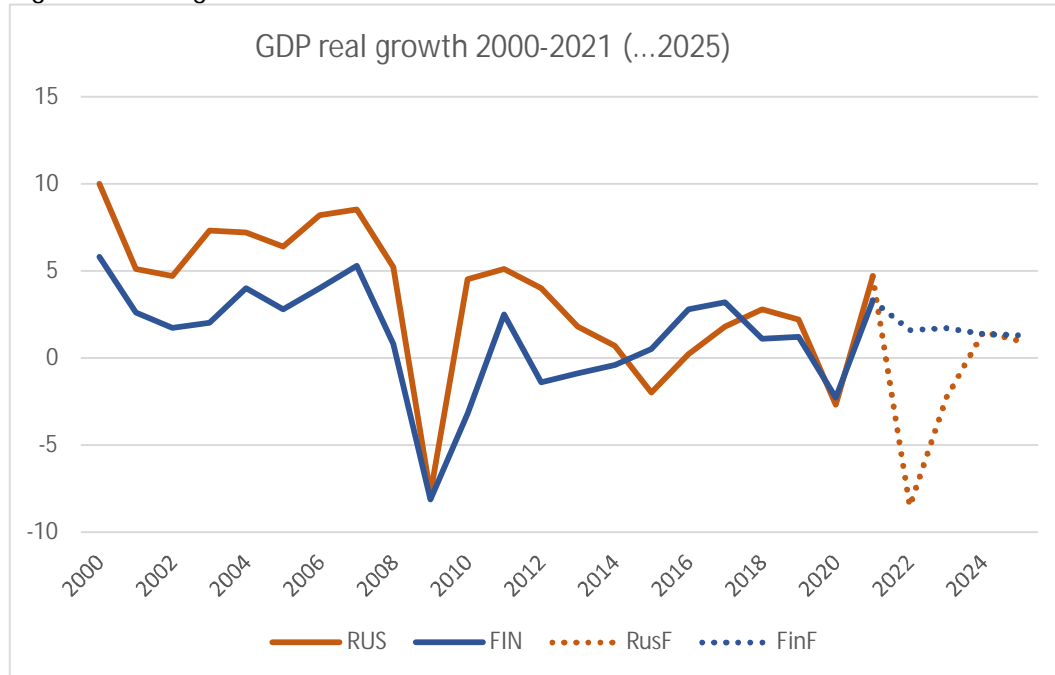
Source: Rosstat

### Economic situation in Finland and Russia

According to International Monetary Fund (April 2022), global economic growth will slow down from 6.1% in 2021 to 3.6% in 2022 and 2023, which is 0.8 and 0.2 percentage points lower than predicted in January 2022. Similarly, OECD (Organisation for Economic Co-operation and Development) has revised down its forecast for global growth to 3%, or 1 percentage point lower predicted before the war.

Economic development in Finland and Russia was positive in the first years of the 2000s until the financial crisis in 2008. After that, the development has been quite sluggish (see Figure 2). The Covid-19 pandemic worsened the economic situation in Finland and Russia in 2020, followed by quick recovery in 2021. Due to the consequences of war in Ukraine, the real GDP in Russia dives in 2022, while in Finland the economic development is expected to continue in more positive mood.

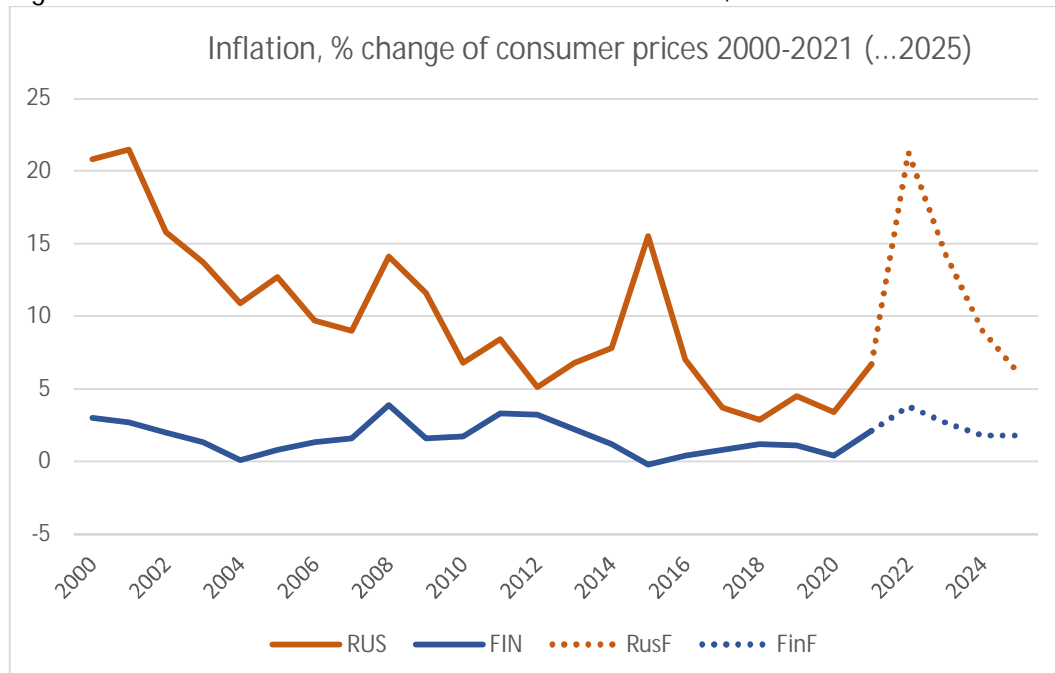
Figure 2. GDP growth in Russia and Finland 2000-2021, with IMF forecast to 2025.



Source: IMF

Besides GDP growth, the inflation rate offers another key indicator of economic development. As shown in Figure 3, the consumer prices in Finland have been stable for almost two decades; however, in 2021 the inflation rate has increased and is expected to stay on higher level for the upcoming years. In Russia, the consumer prices have varied strongly during the last decades, and the war in Ukraine is expected increase the inflation rate to new heights.

Figure 3. Inflation rate in Russia and Finland 2000-2021, with IMF forecast to 2025.



Source: IMF

The impact of the war on economic development in Finland has been estimated by the Bank of Finland. In Bank of Finland Bulletin (March 2022), two scenarios are outlined regarding GDP growth and inflation in Finland: 1) the impact on inflation and export demand remains moderate and the economy adjusts slightly after the initial shock; 2) the impact on inflation and export demand is strong and the economy adjusts slowly. In Table 3, these two scenarios are compared against the forecast from December 2021.

Table 3. Scenarios of Economic Development in Finland 2021-2023

Indicator		2021	2022	2023
GDP, annual growth (%)	Scenario 1	3.3	2.0	1.5
	Scenario 2	3.3	0.5	0.5
	Forecast, Dec. 2021	3.5	2.6	1.5
Consumer price inflation (%)	Scenario 1	2.1	4.0	2.0
	Scenario 2	2.1	5.0	3.0
	Forecast, Dec. 2021	2.1	2.0	1.6
Scenario 1: The impact on inflation and export demand remains moderate and the economy adjusts slightly after the initial shock. Scenario 2: The impact on inflation and export demand is strong and the economy adjusts slowly.				

Source: Bank of Finland

The World Bank has projected that Russian GDP will shrink by 11% in 2022 (see Table 4), while the IMF projects a contraction of 8.5% in 2022 and a further 2.3% in 2023.

Table 4. Russian economic indicators 2019-2024 (annual % change) according to World Bank

Indicator	2019	2020	2021e	2022f	2023f	2024f
Real GDP growth	2.2	-2.7	4.7	-11.2	0.6	1.3
Exports, goods & services	0.7	-4.1	3.2	-30.9	-1.2	-0.9
Imports, goods & services	3.1	-12.1	16.7	-35.2	4.1	6.2
Inflation	4.5	3.4	6.7	22.0	13.0	8.0

Source: World Bank

A long-term perspective on economic development in Russia and Finland can be obtained by looking at the stock markets in the two countries. The development of two indexes (Russia RTS, Helsinki OMX) are shown in Figure 4 from September 1996 to May 2022. Some of the key events affecting the stock market in Finland is the IT bubble (2000-2001) and the global financial crisis in 2008. The development after the financial crisis was quite stable until the Covid-19 pandemic in 2020. In Russia, a major decline occurred when the commodity bubble busted in 2008. After the pandemic in 2020, the stock market recovered quickly but started to fall again in October 2021, followed by another major drop in February 2022 after the invasion in Ukraine.

Figure 4. Stock market in Russia and Finland

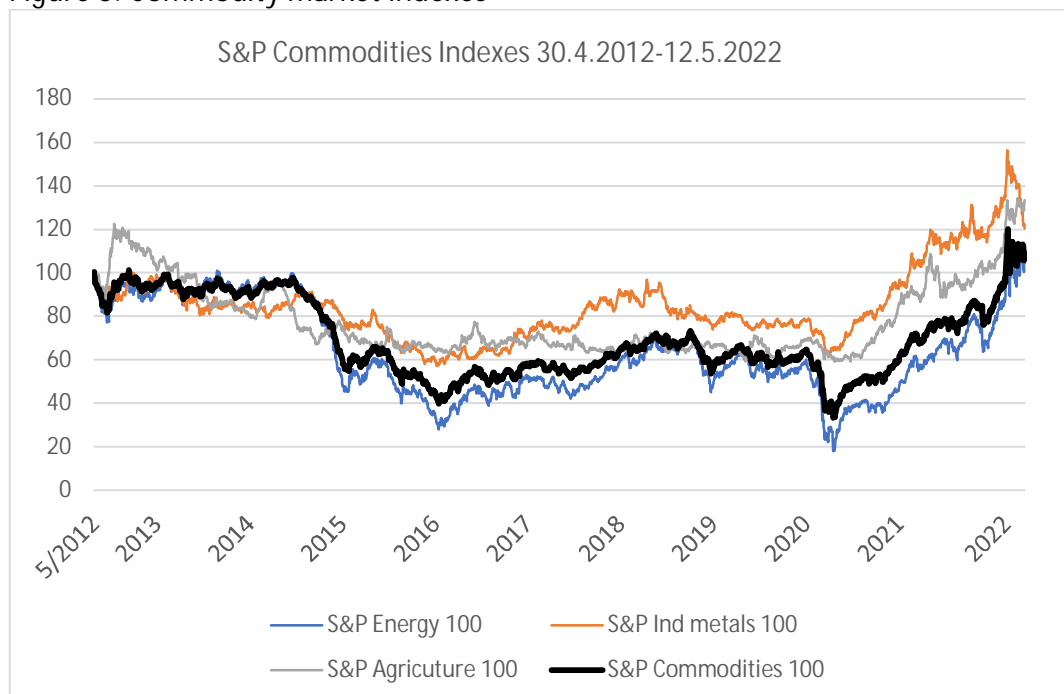


Source: WSJ Markets

## Global markets

The global markets for basic materials and commodities have experienced a boom since the start of the pandemic. Many of the commodity indexes peaked in early March 2022 as shown by S&P's central commodity indexes (energy, industrial metals, agriculture, and the composite S&P Commodities Index, see Figure 5). After that, the situation seems to have settled at least temporarily. Growing commodity prices lead to inflationary pressures, which are partly due to global material shortages caused by the pandemic and the war in Ukraine.

Figure 5. Commodity market indexes

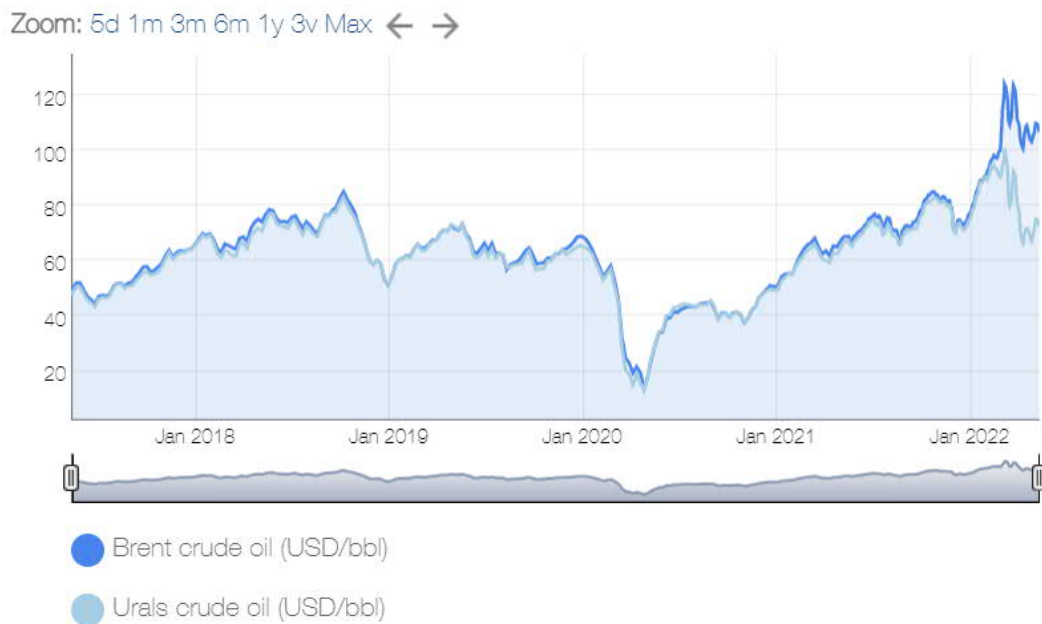


Source: Standard & Poors

One particular commodity that is heavily affected by the war is crude oil. The development of crude oil prices over the last 5 years is shown in Figure 6. The prices of Brent Crude Oil (sourced from the North Sea) and Urals Crude Oil (sourced from Russia) have diverged quite strongly after

the breakout of the war. In mid-May 2022 there is a price difference of approximately 32% between the two oil qualities.

Figure 6. Crude oil prices 2017-2022



Source: Neste/Thomson Reuters

Maritime transportation is one of the indicators that is often used to describe global economic situation. The development of the Baltic dry index which describes freight rates in maritime bulk transport is shown in Figure 7. The commodity boom (2008) is visible in bulk transport rates; a more recent peak in 2021 is at least partly explained by the Suez Canal block in March 2021.

Figure 7. Baltic Dry index 1985-18.5.2022



source: tradingeconomics.com

## Sanctions

Various sanctions have been established against Russia after the invasion that will also have an impact on Finnish economy and foreign trade. Based on a list by World Bank (somewhat shortened), three main types of sanctions are briefly presented below:

- Financial sanctions. The US, the EU, and other countries have imposed sanctions on the Central Bank of the Russian Federation (CBR), blocking the Russian authorities from accessing foreign exchange reserves in sanctioning countries. Many Russian banks have been cut off from the SWIFT financial messaging system or are restricted from access to correspondent banking networks.
- Trade sanctions. The US, the EU, and other countries have enacted export bans, import restrictions, and other trade sanctions on Russia. Restrictions on exports to Russia have focused on “dual-use” technologies, including semiconductors, goods and services related to aviation, aerospace and oil and gas production, and luxury goods. Measures to curtail imports from Russia include plans to reduce energy purchases, alongside a wide array of tariffs, import bans and restrictions on other Russian goods and services. In response, Russia has demanded payment for energy in rubles and introduced additional export licensing restrictions, to secure domestic food supplies.
- Other sanctions. A large number of asset freezes and travel bans have been introduced targeting the personal wealth and activities of specific Russian officials, politicians, and businesspeople. In addition, a number of multinational companies have announced complete withdrawals from Russia, or have suspended operations or new investments.

The sanction lists keep changing, for instance the EU is currently preparing the sixth round of sanctions. Also the G7 group has informed about new sanctions in May 2022.

Some of key sources for information regarding the sanctions:

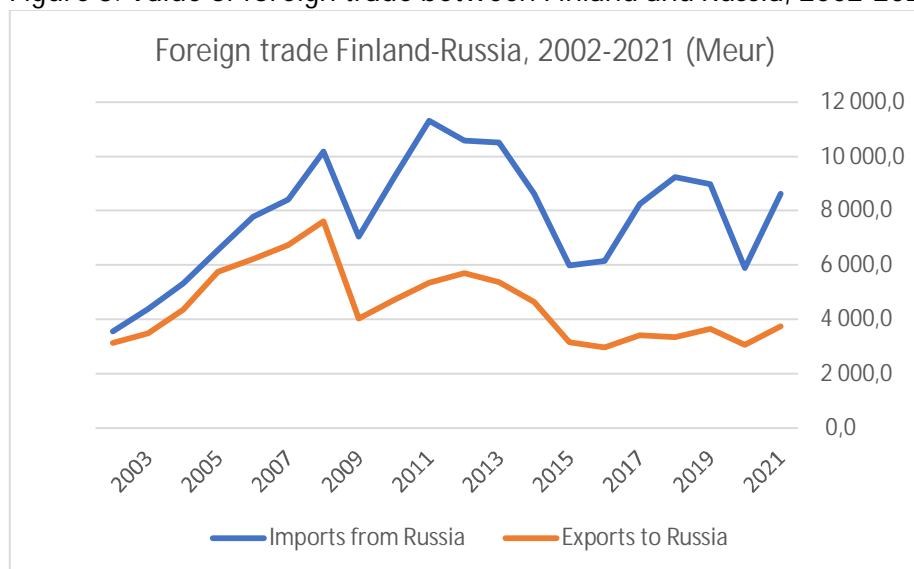
- USA: <https://home.treasury.gov/policy-issues/office-of-foreign-assets-control-sanctions-programs-and-information>
- EU: [https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/eu-solidarity-ukraine/eu-sanctions-against-russia-following-invasion-ukraine\\_en](https://ec.europa.eu/info/strategy/priorities-2019-2024/stronger-europe-world/eu-solidarity-ukraine/eu-sanctions-against-russia-following-invasion-ukraine_en)
- Finnish Ministry of Foreign Affairs: [https://um.fi/ajankohtaista/-/asset\\_publisher/gc654PySnjTX/content/ukrainan-tilanne-pakotteet/385142](https://um.fi/ajankohtaista/-/asset_publisher/gc654PySnjTX/content/ukrainan-tilanne-pakotteet/385142)
- Finnish-Russian Chamber of Commerce: <https://kauppakamari.fi/vaikuttaminen/venaja-pakotteista-yrityksille/>



## Import and Export between Finland and Russia

Foreign trade between Finland and Russia grew steadily until the financial crisis in 2008 (see Figure 8). After the crisis especially imports to Finland recovered quickly. Another decline occurred when the European Union introduced economic sanctions against Russia in 2014. In March 2020 the Covid-19 pandemic hit the global economy: a significant volume reduction occurred in imports from Russia to Finland whereas the exports from Finland to Russia remained relatively stable.

Figure 8. Value of foreign trade between Finland and Russia, 2002-2021



Source: Finnish Customs

The first indications of the war on Finnish-Russian trade are seen in Figure 9. If compared to March 2021, Finnish exports to Russia diminished by 42% in March 2022. By contrast, the imports from Russia grew by 63%. The increase has been explained by the growing prices of imported commodities, especially minerals and energy, as well as the need to fill up inventories (e.g. natural gas and base metals, notably nickel).

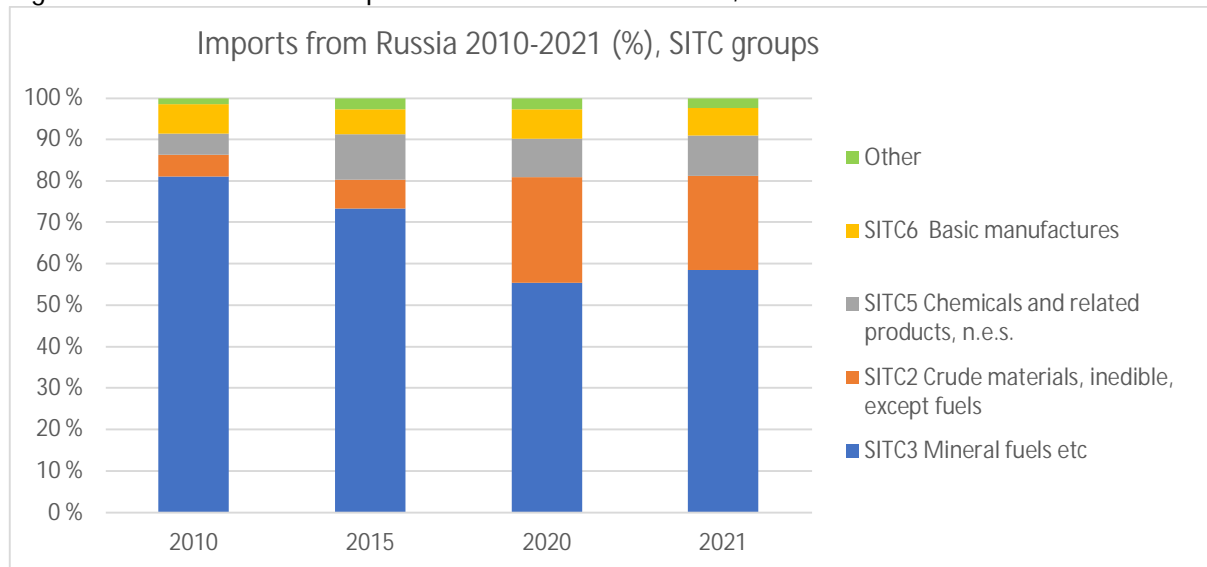
Figure 9. Foreign trade between Finland and Russia, Jan-Mar 2020-2022



Source: Finnish Customs

The imports to Finland from Russia are heavily based on mineral fuels and crude materials; these account for 10approx.. 80% of total imports in 2021 (see Figure 10). The exports from Finland to Russia show greater versatility; machinery and transport equipment and basic manufactures accounted for over 50% of total exports in 2021. (see Figure 11).

Figure 10. Breakdown of imports to Finland from Russia, 2010-2021



Source: Finnish Customs

Figure 11. Breakdown of exports from Finland to Russia, 2010-2021

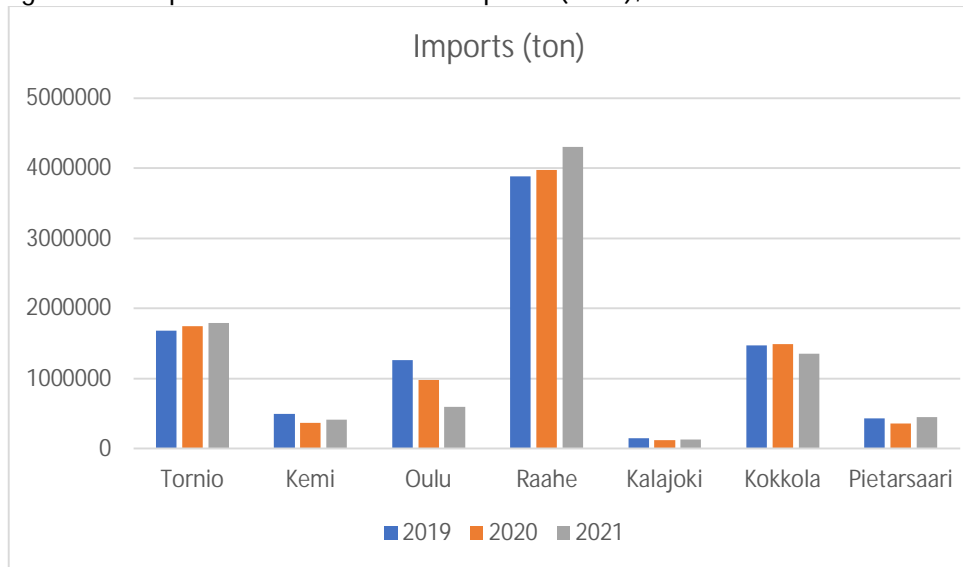


Source: Finnish Customs

## Ports

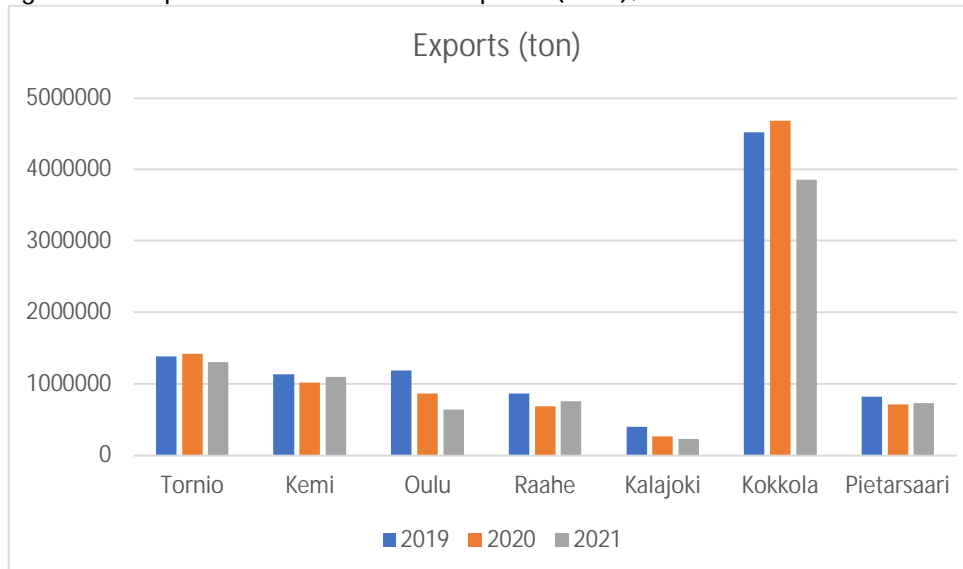
In the Bothnian Bay area, Kokkola has been the biggest port, thanks to the transit traffic flow from Russia that has accounted for over 50% of the port's total volume; however, the sanctions have affected the traffic significantly in 2022. Raahе is the biggest import port, with most of the volume stemming from iron ore imports from Sweden. In Oulu, the volumes were reduced in 2020-2021 by the production stop of the paper mill caused by transformation from paper to board production. The volumes of the ports in 2019-2021 are shown in Figures 12 and 13.

Figure 12. Import volume in selected ports (tons), 2019-2021



Source: Statistics Finland

Figure 13. Export volume in selected ports (tons), 2019-2021

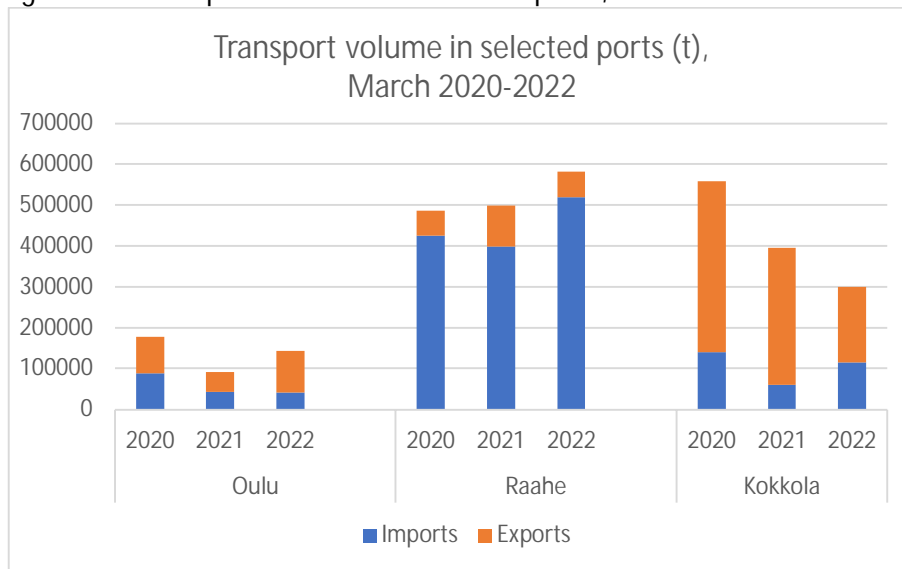


Source: Statistics Finland

The most recent developments in ports can be detected by looking at monthly statistics for March 2020-2022 (see Figure 14). It can be noted that Oulu has regained some of the traffic that it lost during the conversion of the paper mill from paper to packaging board. Among the three selected

ports (Oulu, Raahе and Kokkola), the biggest change has occurred in Kokkola: its export volume has gone down significantly in because of the restrictions on transit traffic.

Figure 14. Transport volumes in selected ports, March 2020-2022

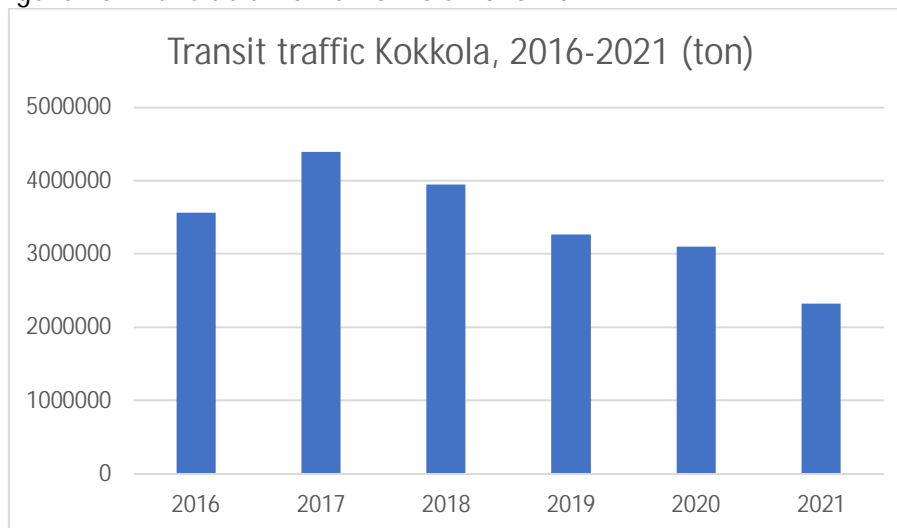


Source: Statistics Finland

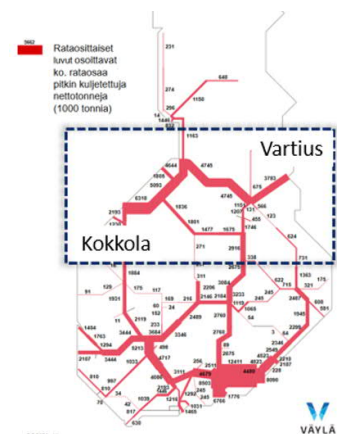


Transit traffic to/from Russia is an important source of business especially for the Port of Kotka-Hamina in South-Eastern Finland and the Port of Kokkola in Western Finland (the thick red lines on the railway freight map show this clearly). In Kokkola, the volume of transit traffic has been diminishing since 2017; the reduction between 2020 and 2021 was 25% (see Figure 15)

Figure 15. Transit traffic via Kokkola 2015-2021



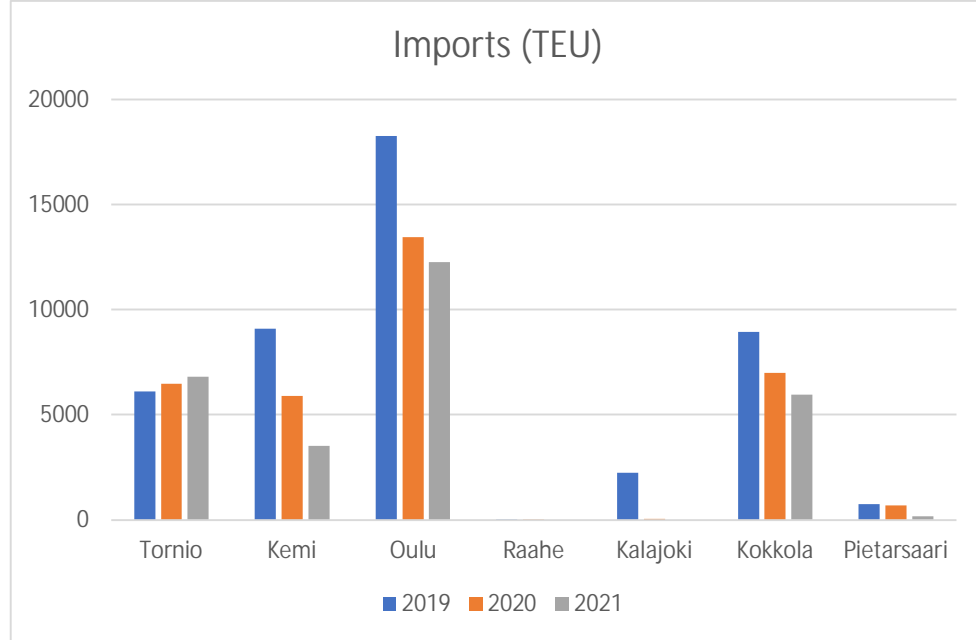
Source: Statistics Finland



In March 2022, the war-related sanctions caused an additional reduction in transit traffic volume in Kokkola: compared to March 2021, the volume went down by 65% (from 153 485 tons in March 2021 to 53 457 tons in March 2022). This is mainly due to the sanctions on iron ore pellets from Kostamuksha. The remaining transit traffic in Kokkola includes for instance coal – however, also coal was added to sanction list by the EU in April 2022.

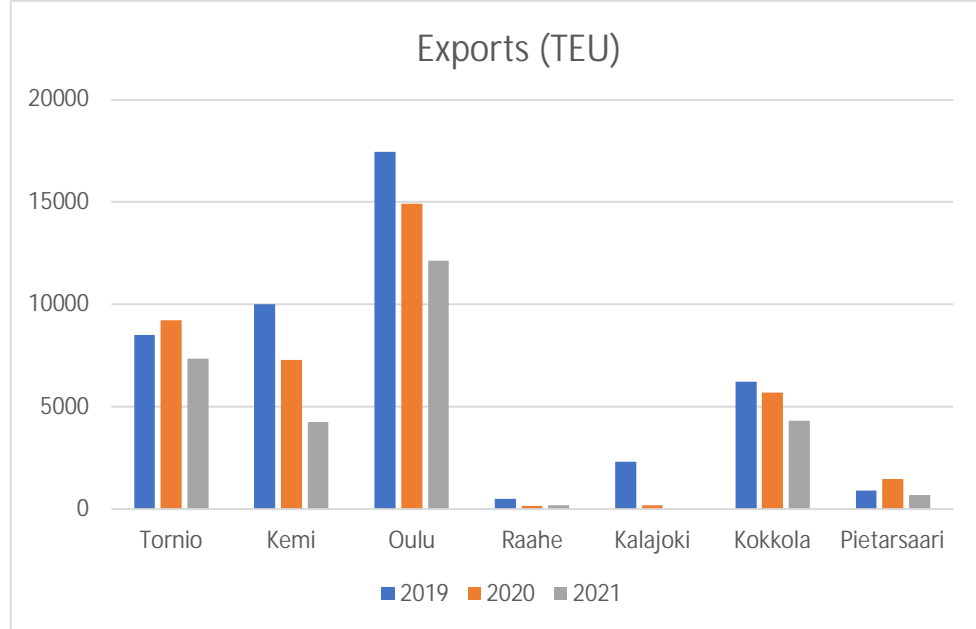
Container transport volumes in the Bothnian Bay region are quite modest. In 2021, the seven ports (Tornio, Kemi, Oulu, Raahе, Kalajoki, Kokkola, Pietarsaari) accounted for 4.4% of total container traffic in Finland (compared to 20.5% of total volume in tons). Import and export volumes of containers (measured by twenty-foot equivalent units, TEUs) in the Bothnian Bay region are shown in Figures 16 and 17.

Figure 16. Container transport in selected ports, imports 2019-2021



Source: Statistics Finland

Figure 17. Container transport in selected ports, exports 2019-2021

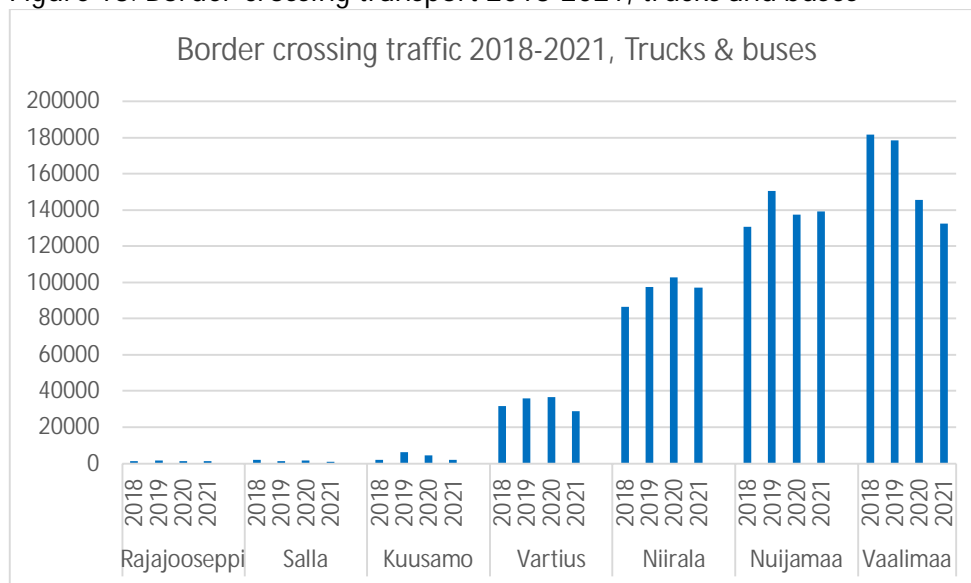


Source: Statistics Finland

## Border crossing traffic

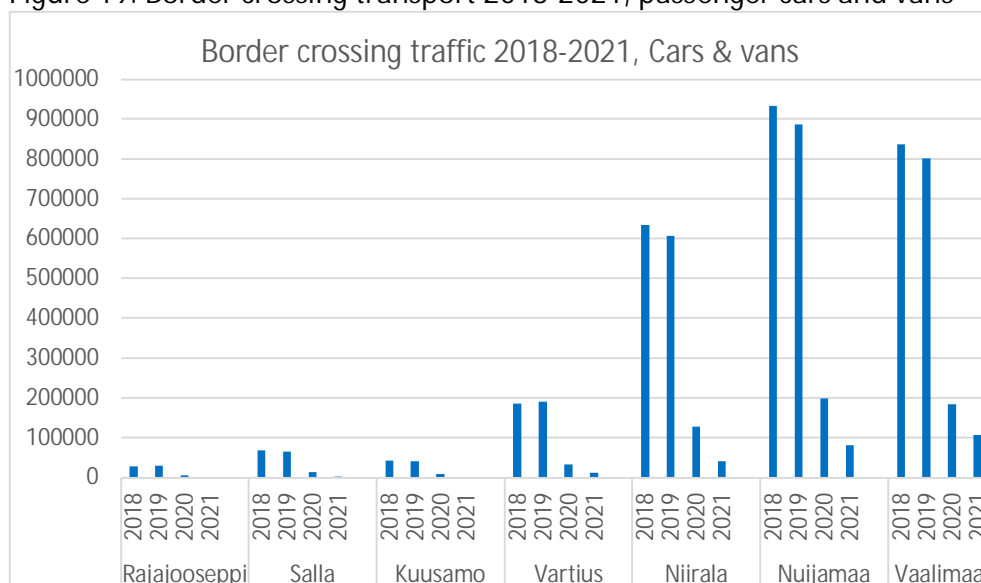
Border-crossing transport between Finland and Russia is heavily concentrated to the South-Eastern parts of Finland (Vaalimaa, Nuijamaa and Niirala). The most northern border-crossing points (Kuusamo, Salla and Rajajoosseppi) have relatively small volumes while Vartius in the project region is a fairly active crossing point. Passenger car transport has suffered severely from the pandemic in 2020, the reduction 2019-2020 was over 78%. By contrast, heavy vehicle crossings diminished by less than 9%. The situation remained very much the same in 2021 (see Figures 18 and 19).

Figure 18. Border-crossing transport 2018-2021, trucks and buses



Source: Finnish Customs

Figure 19. Border crossing transport 2018-2021, passenger cars and vans

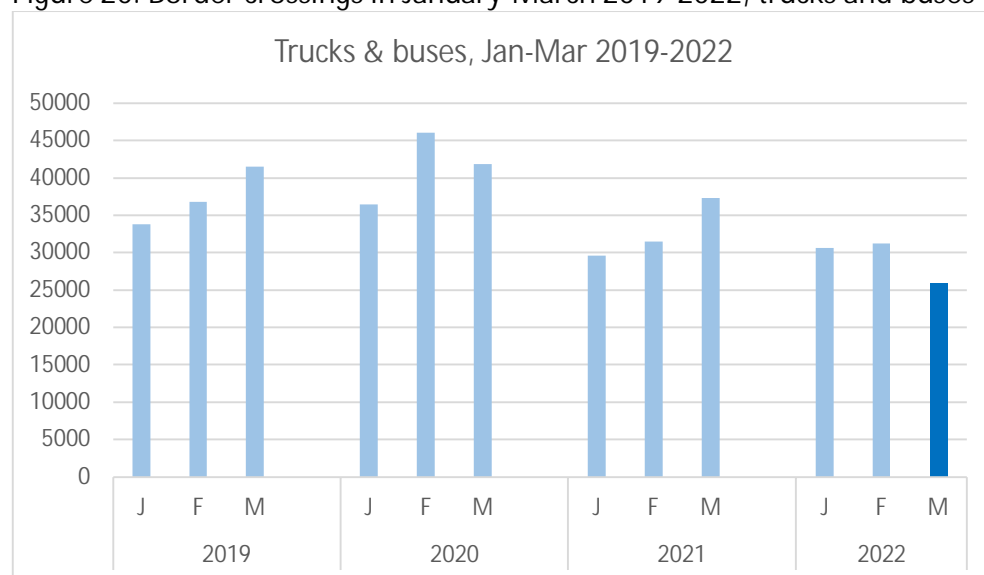


Source: Finnish Customs

To estimate the first impacts of the war on border crossings, the traffic statistics of the seven border crossing stations above (Rajajoosseppi, Salla, Kuusamo, Vartius, Niirala, Nuijamaa and

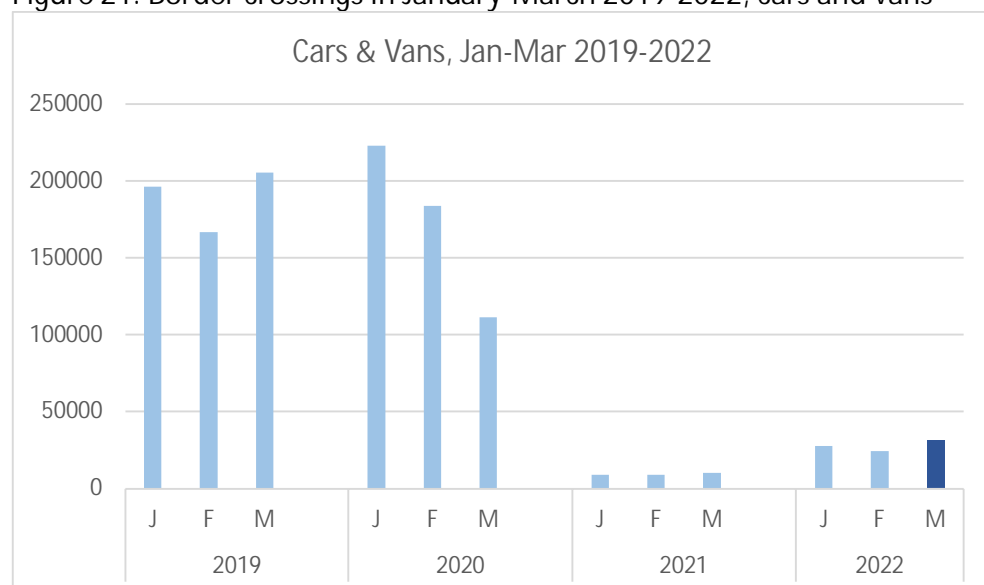
Vaalimaa) were collected for three months (January-March) in 2019-2022. In freight transport (Figure 20), there is a significant reduction in March 2022 compared to previous year (25,927 crossings of trucks and buses in March 2022 vs. 37,345 crossings in March 2021, i.e. 30.6% reduction). By contrast, in passenger transport (Figure 21) the crossings have increased from previous year, from 10,203 crossings in March 2021 to 31,128 crossings in March 2022 (meaning 205% increase). However, it is clear that one month is too short time for making any conclusive judgments about the true impact of the war – many of the sanctions affecting road transport were not enforced fully in March 2022.

Figure 20. Border crossings in January-March 2019-2022, trucks and buses



Source: Finnish Customs

Figure 21. Border crossings in January-March 2019-2022, cars and vans



Source: Finnish Customs

## Closing words

Russian invasion to Ukraine is causing a disruption that will have long-lasting consequences in trade and logistics in Finland and Europe. On general economic level, sanctions are gradually starting to take effect, but for some actors, e.g. some logistics companies, ports, energy companies, etc. that have relied on business connections with Russia, the impacts are immediate and potentially very harmful. There is also a lot of uncertainty regarding the future development commodity markets, inflation, and other general economic conditions.

In Finland, the sanctions of the European Union are followed. In addition, many companies have made their own decisions regarding operations and business relationships with Russia. In road transport, all Russian and Belarussian trucks carrying commercial cargo have been refused the entrance to the country since 9. April 2022. In railway transport, VR has stopped passenger transport (Allegro trains) on 28. March 2022. Cargo transport will end gradually by the end of the year 2022, depending on existing contracts – this is significant since approximately one third of VR's cargo transport is connected to Russia. In maritime transport, EU has forbidden entry of ships sailing under the Russian flags to EU ports starting 16. April 2022. In air transport, EU took a decision on 27. February 2022 to close the its airspace for Russian aircraft, and Russia responded by closing the its own airspace for European aircraft.

Uncertainty will most likely prevail for years to come. This requires resourcefulness and resilience to cope with the changing conditions. Especially for countries like Finland, and for regions like Northern Ostrobothnia and Kainuu, with strong history of border-crossing cooperation with Russia, there is a big challenge in developing new courses of action to restore the damages caused by the crisis.



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