Russia-Ukraine War's Impact on Global Logistics

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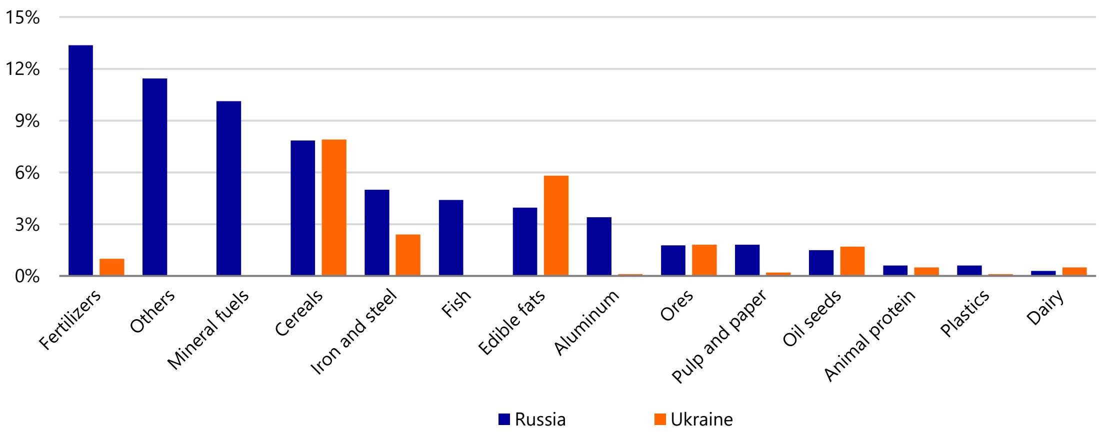
Introduction

The first eight weeks of 2022 brought some good news to the global Food & Agribusiness (F&A) supply chains – a gradual decline in container rates and small improvements in the congestion at major ports and inland terminals. Yet the Russia-Ukraine war, that started on February 24, might have just reversed the direction of change. This article will discuss the immediate consequences and our initial views of the subsequent impact on global logistics.

An Integral Part of the Global F&A Supply Chain

Russia is one of the world's top energy producers, accounting for 10% of the world's mineral fuel exports and one-third of European energy consumption (see *Figure 1*). Crude oil prices immediately soared passed USD 110 per barrel on February 24, while European natural gas and coal price indexes shot up by 129% and 74%, respectively. Ukraine and Russia are also major suppliers of agricultural commodities. Collectively, the two nations account for 16% of the world's grain export, 14.4% of fertilizer export, and 10% of vegetable oil export. Global grain availability will be threatened if sanctions are not removed by July. Higher fuel costs, military activities, and economic sanctions will send shock waves through the F&A supply chain and higher costs are expected across the board.

Figure 1: Global share of Russian and Ukrainian commodity exports by value, 2020



Source: Comtrade, Rabobank 2022

Impact on Global Logistics

Ocean Freight

All Ukraine ports were closed shortly after the start of the invasion. As of March 7, major carriers (e.g. Ocean Network Express, Hapag-Lloyd, MSC, Maersk, and CMA CGM) suspended new bookings to and from Russia and Ukraine.

The war's immediate impact on global container shipping capacity is rather limited, given the small volumes (see *Table 1*) and limited intercontinental routes in the region. However, re-routing Russian-bound cargos and extra customs inspections for dual-use[1] goods will worsen port congestions in Europe, while indirectly impacting rest of the world. In addition to ocean freight insurance soaring, container shipping lines will also attempt to pass along the skyrocketing fuel cost. All of these factors will reverse the gradual decline of container rates that we have seen in the past three months, albeit not on a large scale.

Table 1: World share of key maritime stats, 2020

		Russia	*Ukraine*	*Total*
Fleet ownership		1.1%	0.2%	1.3%
Seafarer	Officers	8.4%	5.5%	13.9%
	Ratings[2]	12.2%	2.8%	15.1%
Port calls	Container ships	0.9%	0.2%	1.1%
	Liquid bulk	4.7%	0.2%	4.9%
	Dry bulk	2.5%	1.0%	3.5%
	Dry breakbulk[3]	7.1%	1.4%	8.4%

Source: UNCTAD, Rabobank 2022

The current impact on dry bulk and breakbulk shipping is limited. Yet, if the export of agricultural commodities, especially wheat, is not possible from Russia and Ukraine during the peak season of summer 2022, dry bulk and breakbulk rates will be highly volatile (increasing or decreasing), depending on how grain trades are played out among Europe, North America, and other regions.

Around 15% of seafarers are Russian and Ukrainian, a significant share of the current maritime workforce (see *Table 1*). Though no sanctions are currently targeting seafarers, the blockage of ports may cause labor shortages on vessels. Seafarer mobility and other operational challenges (such as payments, for example) will put further pressure on the ocean shipping sector.

Rail Freight

2021 saw 1.46m TEUs of cargo shipped by train between China and Europe, a 30% YOY increase. The top products, such as electronics, automotive parts, and textiles, are not F&A related, but helped to alleviate 2021's port congestions in Europe.

Around 4% of China-Europe rail freight transited via Russia (the Trans-Siberian route) and 2% via Ukraine. As of March 7, routes via Ukraine stopped, while other routes (including via Russia and Belarus) are still operating but with an increasing risk of future blockage. Current sanctions on Russian Railways do not apply to goods flowing through Russia. The current war will also bring new opportunities to alternative routes such as the southern routes via Turkey. Yet their challenge is to scale up quickly, subject to the potential bottlenecks in the Caspian Sea links.

[1] Goods that can be used for both civilian and military purposes

[2] Skilled seafarers who carry out support work for officers in all departments

[3] Breakbulk refers to goods that are stowed in individually-packaged units (like bags, barrels)

Although we expect limited impact on F&A logistics on the rail front, European exports of grains and dairy products hauled via China-bound rail could be at risk if the situation continues to worsen. The overall missing rail volumes will also exacerbate the container shipping capacity issue and port congestions in Europe.

Air Freight

Current events add another layer of complexity onto the already stretched air cargo market. Air cargo capacity is down 10%, with rates jumping 2.5-3 times higher due to higher demand and reduction in passenger plane belly cargo capacity. In 2020, Russia accounted for 2.3% of EU air import and 1.0% of EU air export volumes. With the closure of Russian and Ukrainian airspace (leading to detours) and airspace sanctions placed on Russian-owned planes (like Volga-Dnepr), air cargo capacity will sharply decline while rates surge. Rates already jumped amid uncertainties and surging fuel costs. Air cargo rates are expected to stay elevated, and express shipping of time-sensitive and high-ticket-price food items could be affected.

Road Freight

In 2020, Russia accounted for a large part of EU road import (10.7%) and export (7.8%) volumes. Major road carriers (UPS, FedEx, DHL) halted operations to the two countries but a number of smaller operators remain active, yet with no commitment on lead times. Alternative road transport routes, for example via Turkey and Southern Caucuses, will likely benefit from the current disruption due to their flexibility. Labor risks remain relevant, with drivers unable to operate in the conflict region.

Conclusion

While a fuel cost surge alone would push up overall freight rates (likely in terms of surcharges), massive uncertainties remain across all areas of F&A logistics, especially in case of secondary sanctions on countries backing Russia. As logistics has now become increasingly geopolitical, greater risks are expected for global trade. On the other hand, global logistics systems could go through radical changes if the global F&A trading map is completely redrawn as a result of Covid-19 (far-sourcing) and geopolitical events like the Russia-Ukraine war. Such changes will certainly bring along massive demand and rate volatility.

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