

 BRIEF

Russia-Ukraine Conflict: Supply Chain Updates

ZEROFOX INTELLIGENCE

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March 23, 2022



Scope Note

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Russia-Ukraine Conflict: Supply Chain Updates

Executive Summary

The U.S. Federal Reserve signaling it will raise interest rates to almost three percent before the end of 2022 indicates that inflation is something the US is very concerned about—more so than the Russian invasion of Ukraine from an economic standpoint. If the two economic concerns were equal, the U.S. Federal Reserve would likely have not raised interest rates, as the invasion would be assumed to depress the economy enough on its own. For supply chains, this signals the United States is seeking to slow down the pace of buying, which will impact businesses that sell big-ticket items like homes, technology, and machinery. The slow pace of interest rate hikes means this process should be gradual, but the war in Ukraine could cause food and energy commodities to become so expensive that the drop in demand will occur much faster. This scenario will likely lead to global social unrest, which is likely to begin across the developing world.

Key Findings

- Countries across the world, led by the United States, have begun to raise interest rates in response to high inflation.
- The impact on supply chains will not be immediately clear, but increasing the purchasing power of the U.S. dollar will increase the value of imports while decreasing the value of U.S. exports—which could worsen the trade imbalance, amplified by U.S. ports unable to handle incoming ships.
- The war in Ukraine will cause food price inflation (already at a record high in February 2022) to endure, which—along with high energy prices—will lead to global protests and social unrest.
- The countries most at-risk for social unrest include Russia's central Asian neighbors and those in the Middle East and Africa that are dependent on Russian energy and food imports.



- Commodity producers—particularly those in Latin America—could stand to gain the most, and securing supplies of copper, lithium, corn, soybeans, and oil from the major LATAM producers is advised.

Analyst Commentary

Global Economic Impacts of Russia-Ukraine Crisis Muted

- The Organization for Economic Cooperation and Development (OECD) warned that the Russia-Ukraine crisis could knock one percent off of global economic growth and contribute 2.5 percent to global inflation, underscoring the prediction that Russia and Ukraine's relatively small economic power would have only muted impacts on the global economy. During the peak of COVID-19, there was a global recession in which advanced economies shrank as much as 10 percent. Since COVID-19, economies have been growing rapidly by about the same percentage as they shrank; this crisis will only dent that growth, not cause it to decline.¹
 - o **Impact:** The one percent economic growth slowdown and 2.5 percent inflation will be spread unevenly, with hardly any growth impact on the two largest economies (the United States and China); a larger economic hit to Russia's neighbor, Europe; and significant hits to countries that directly border Russia in central Asia, which will likely enter recession. Countries reliant on Russian commodities like gas, oil, and wheat will see major price increases for transportation and food.²
 - o **Impact:** Europe is reliant on Russian energy and, as a result, could see their economic growth slow by almost 1.5 percent. While not ideal, it is also not the economic crisis that many predicted. Christine Lagarde, the President of the European Central Bank, said that even under the worst economic scenario—with all Russian energy cut-off from the EU—it would still register a growth rate of 2.3 percent, such are the other positive economic indicators from its COVID-19 recovery. Russia's primary economic contributions are in the form of commodities, as it is a major producer of raw materials used in countless items from car parts to ingredients for food. These items can be sourced at a cost elsewhere or are just part of finished products, which is contributing to slower economic growth.

Food That Could be in Short Supply Due to Russia-Ukraine Conflict

- Food producers are getting hit on several fronts with higher costs for seeds, fertilizers, machinery, and labor. Producers were already paying more for inputs because of energy costs; these problems will worsen with the war in Ukraine,

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<https://www.reuters.com/business/ukraine-crisis-could-cut-1-off-global-growth-this-year-oecd-2022-03-17/>

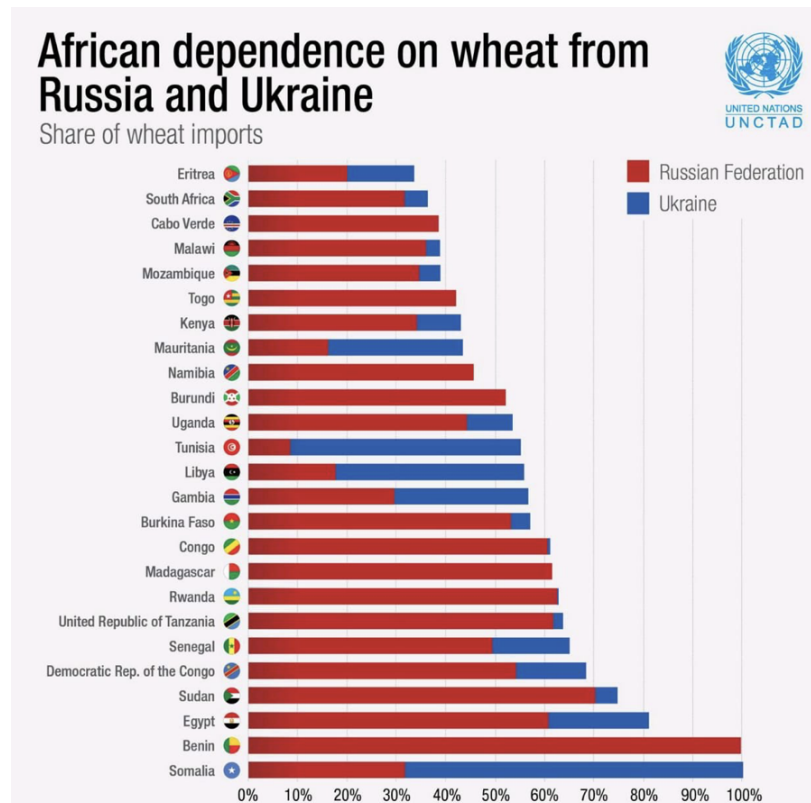
² <https://www.bbc.com/news/business-60777498>



further raising oil prices and fertilizer costs and inflating the cost of producing food crops like fruits, grains, vegetables, and beans. Eventually, producers may have to pass the costs on to consumers or scale back the use of things like fertilizers, thus reducing crop yields and pushing up food prices. The United Nations has warned that global food prices could go up another 20 percent.

Wheat

- Almost a third of the world's wheat is supplied by Russia and Ukraine. With Russian-Ukrainian ports closed and farmers in Ukraine unable to plant their crops, different sources of wheat need to be identified.³
- Finding different suppliers means prices are going up, and the cost of wheat has already hit record highs. More than 50 countries depend on the two nations for their wheat; in places like Africa, wheat makes up around a fifth of the calories and protein.
- Some of the biggest importers of wheat from this region are in North Africa—including Nigeria, Somalia, and Sudan, which are some of the world's poorest nations.
- Shortages or cost increases for wheat mean an impact on essential food items such as bread, pasta, and cereals.



Source: https://unctad.org/system/files/official-document/osginf2022d1_en.pdf



- In the West, food production is heavily mechanized, so the price of commodities plays a smaller role in the price of the finished product. For example, a loaf of bread may have Russian wheat but that wheat is only 10 percent of the production cost. Therefore, the price increase will be minimal—a few cents at the most. There are many other components, such as energy, and labor costs, the cost for the machinery, the cost for the transport, the cost for the branding, and the packaging of the products.

Sunflower Oil

- Russia and Ukraine account for around 70 to 80 per cent of global exports of sunflower oil. The EU imports around 200,000 tons of Ukrainian sunflower oil every month.
- The planting season is from April to May and is likely to be impacted by the conflict, with fewer people to work the land and no ability to import supplies.
- Supermarkets in Spain and Italy have already started to ration the sale of sunflower oil after the invasion of Ukraine led to panic buying. Sunflower oil is also used to create fried snacks, which could see companies that make chips raise their prices in the face of a shortage.

Meat

- Corn or maize is another staple food item commonly grown in Ukraine and Russia. As the fourth and fifth-largest corn exporters, together they make up around a fifth of the total exports of this crop.
- This year Ukraine was expected to grow its largest-ever crop of corn, exporting almost 80 percent of what it produces. With ports closed during what is peak export season for this foodstuff, it is looking unlikely that the corn will make it out of the country.
 - **Impact:** Corn has many uses; beyond a shortage of the actual food stuff itself, it could have an impact on meat production. It is used as animal feed in many parts of the world, and price hikes could mean the cost of meat increases.

Update on Companies Operating in Russia

- Around 400 companies have withdrawn from Russia since the launch of its attack on Ukraine. About 80 companies have retained a presence. Many are consumer and pharmaceutical companies that argue that pulling out would significantly harm the Russian population. Companies also expressed concern about potential Russian retaliation against their employees or assets left in Russia. Russia could seize assets of companies that leave the country. Russian prosecutors have also warned some Western companies that their employees could face arrests if they shut down production of essential goods. Many companies are also concerned about what would happen to their facilities in their absence. An abandoned food plant, for example, could be repurposed by Russia to supply troops fighting in Ukraine. Companies that left Russia may find



it difficult to reclaim their property and assets once they are expropriated. Companies may sue Russia, but cases can drag on for years—and Russia cannot be forced to pay out.⁴

- Consumer goods producers such as Pepsi, Procter & Gamble Co, and Nestle said they will retain a presence in Russia to provide basic items for nutrition and hygiene, such as milk and diapers. Pharmaceutical companies such as Pfizer, Bayer AG, and Eli Lilly have said they will halt non-essential operations in Russia but plan to continue supplying medications for diseases, such as diabetes and cancer. Prescription medicines have been excluded from international sanctions because they serve an essential humanitarian need.
- Other challenges consumer companies still operating in Russia face are processing transactions under banking sanctions and securing raw materials. Some companies are staying in Russia while seeking parties to buy or take over their local operations.
- Franchise agreements have prevented some Western brands from shutting their stores in Russia. The owner of Burger King said the operator of its 800 stores in Russia has refused to close the sites despite demands to suspend trading. Restaurant Brands said it had contacted its local partner, Alexander Kolobov, to shut the shops but that "complicated" contracts with overseas partners mean it is unable to walk away from these deals. UK retailer Marks and Spencer (M&S) has been unable to do so because its stores are run by franchise partners under "complex" legal arrangements. Restaurant Brands has stopped supporting the supply chain, operations, and marketing for Russia. M&S stores are operated by a Turkish company called FiBA. M&S said it has suspended shipments of its goods to FiBA, which runs 48 stores in Russia.

UN Calls for Corridors to Allow Ukrainian Wheat from Black Sea

- Zero grains or wheat are currently being exported from the ports of Ukraine. The Russian Navy is blocking 200 to 300 grain-laden vessels from leaving the Black Sea after having loaded in Ukrainian ports. Three Panama-flagged vessels have come under Russian fire since the invasion of Ukraine started. One of the ships sank, and two others were damaged. Alleged vessels from Estonia and Bangladesh have also been attacked. Russia blames the stoppage on the high risk of mines, which it said had been laid by the Ukrainian Navy. Russia produces close to 80 million metric tons of wheat a year and exports close to 30 million tons, while Ukraine exports about 20 to 25 million tons a year.
 - o **Impact:** The UN International Maritime Organization (IMO) has called for so-called blue corridors to allow the ships to leave the Black Sea without the risk of attack or hitting a mine.⁵

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<https://www.reuters.com/business/western-companies-wrestle-with-russia-half-exits-2022-03-18/>

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<https://en.mercopress.com/2022/03/18/vessels-with-ukrainian-grains-blocked-by-the-russian-navy-in-the-black-sea>



United States to Sponsor Domestic Fertilizer Production

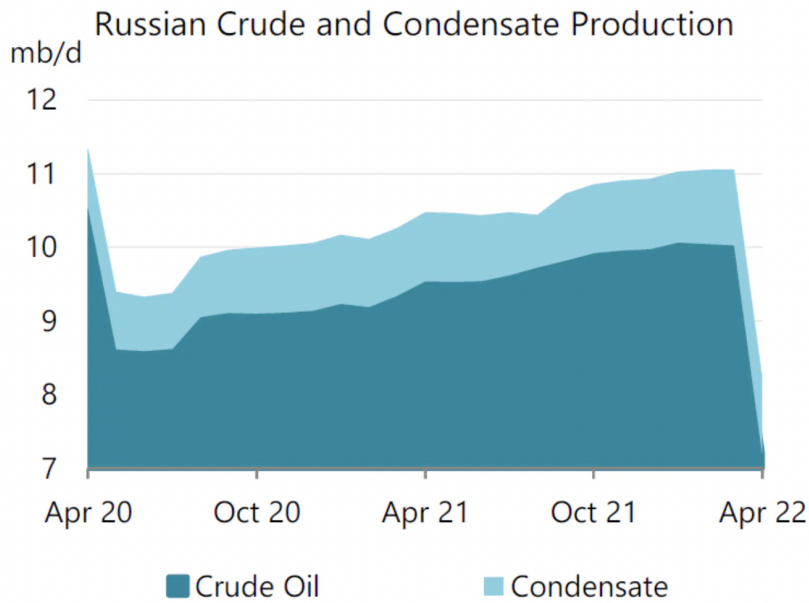
- The U.S. Department of Agriculture (USDA) is planning to invest an initial sum of USD 250 million to produce fertilizers domestically. USDA said the goal is the reduction of input costs—mainly energy. Fertilizer prices in the United States have more than doubled since 2021 due to the pandemic, limited mineral supply, and high energy costs. The United States' second-largest importer of each of the three main fertilizer components—nitrogen, phosphorus, and potassium—is Russia. Major fertilizer exporters include Russia, China, Canada, and Morocco; Belarus, a close ally of Russia, also supplies a significant share of potash.
- Ukraine had already banned exports of some agricultural commodities and introduced licenses for its primary export goods, wheat, corn, and sunflower oil.⁶
 - **Impact:** This investment is unlikely to reorient world fertilizer production. However, the United States is one of the few economies with the private and public resources to do so. The United States has the capability to become a major fertilizer producer but has chosen to take advantage of cheaper production costs abroad.

Western Sanctions Could See Three Million Fewer Barrels of Oil Per Day by April 2022 Due to Russia Conflict

- The International Energy Agency (IEA) said the world could lose three million barrels per day (bpd) of Russian crude and refined products by April 2022. The IEA said sanctions and buyer reluctance to purchase Russian crude—along with decreased domestic consumption—accounted for the lack of oil on the market.

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<https://en.mercopress.com/2022/03/16/us-will-sponsor-home-production-of-fertilizers-to-cut-dependence-from-imports>



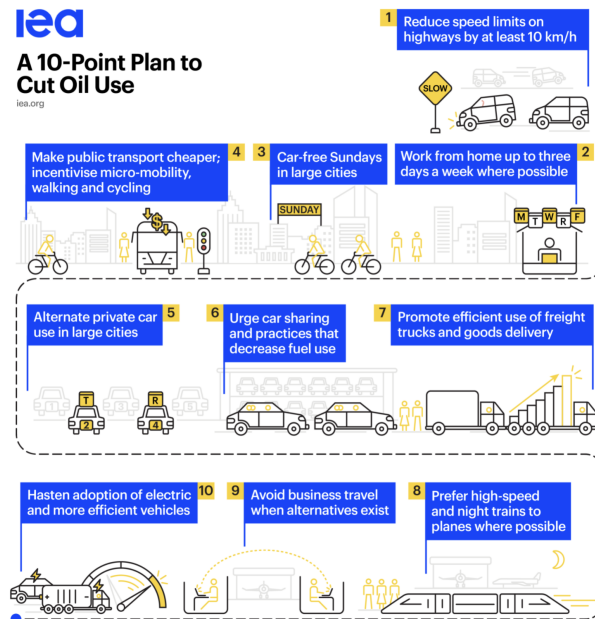
Source:

<https://www.reuters.com/business/energy/iea-says-3-mln-bpd-russian-oil-could-be-shut-next-month-2022-03-16/>

- o **Impact:** This is problematic because it would keep prices high even with a drastic drop in demand for oil, thus extending the pain caused by high energy prices.
- o **Impact:** Eventually products get so expensive that consumers stop buying them, and oil is approaching that level. The IEA expects consumer demand to weaken by 1.3 million bpd due to the current price rate. The world is set for a supply deficit of 700,000 bpd in the second quarter.
- o **Impact:** What is problematic is that Russia's output would be a further 2 million barrel deficit on top of that. The consequences would be personal budgets are further reduced, inflation increases, and global economic growth recedes all while oil prices remain high.
- o **Impact:** For the full year, the IEA cut its growth forecast by 950,000 bpd to 2.1 million bpd for an average of 99.7 million bpd, which is a third year of demand below pre-pandemic levels. Previously, the agency had expected demand to recover in 2022.
- o **Impact:** Top OPEC+ producers Saudi Arabia and United Arab Emirates, which are rare among global producers in having surplus capacity, are not fully opening their operations, and the IEA does not expect output rises from Canada, the United States, and others to eliminate global undersupply.
- The IEA has called for 10 ways to reduce oil consumption and help mitigate against rising prices or fuel shortages. Some of the IEA's suggestions include:
 - o Reducing motorway speeds by 10km per hour.
 - o Working from home three days per week.
 - o Making public transport cheaper and encouraging cycling or walking.



- Using trains instead of planes and avoiding taking flights for business.
 - Establishing more car-free Sundays in cities.
 - Encouraging drivers to switch to electric vehicles instead of oil.
- With these measures taken together, the IEA believes it could reduce oil consumption by 2.7 million bpd in four months; the impact could be even greater if these mitigation steps were adopted in emerging economies.



Source: <https://www.iea.org/reports/a-10-point-plan-to-cut-oil-use>

Alternatives for Russian Gas to Europe

- The United States is a major Liquid Natural Gas (LNG) exporter but has been reluctant to take over Russia's supply to Europe because of climate concerns. LNG is still a fossil fuel, and transporting it by sea—as opposed to Russian pipelines—is more expensive and less environmentally friendly. In the run-up to the conflict, Europe was ranked the top importer of U.S. LNG for the third month in a row, taking up nearly three-fourths of exports. These stats will likely be maintained for the medium term.
- Norway produces 16 percent of the EU's natural gas. Norway could allegedly increase gas exports to the continent by between 15 billion and 30 billion cubic meters by the end of the year. However, Norway's gas production is close to its maximum under current pipelines, and new ones would need to be authorized.
- Algeria contributes eight percent of EU LNG and is eager to produce more, with plans of increasing potential capacity to 10.7 billion cubic meters a year. However, like most African countries, doing so requires huge amounts of investment and time to realize the increased capabilities. A similar problem



exists with Congo, Angola, and Mozambique, all of which would be keen to fill the gap.⁷

Appendix: Traffic-Light Protocol for Information Dissemination

Color	When Should It Be Used?	How May It Be Shared?
RED	Sources may use TLP: RED when information cannot be effectively acted upon by additional parties and could lead to impacts on a party's privacy, reputation, or operations if misused.	Recipients may not share TLP: RED with any parties outside of the specific exchange, meeting, or conversation in which it is originally disclosed.
AMBER	Sources may use the TLP: AMBER when information requires support to be effectively acted upon but carries risks to privacy, reputation, or operations if shared outside of the organizations involved.	Recipients may only share TLP: AMBER information with members of their own organization and only as widely as necessary to act on that information.
GREEN	Sources may use TLP: GREEN when information is useful for the awareness of all participating organizations, as well as with peers within the broader community or sector.	Recipients may share TLP: GREEN information with peers and partner organizations within their sector or community but not via publicly accessible channels.
WHITE	Sources may use TLP: WHITE when information carries minimal or no risk of misuse in accordance with applicable rules and procedures for public release.	TLP: WHITE information may be distributed without restriction, subject to copyright controls.

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<https://www.euronews.com/green/2022/03/16/from-angola-to-the-us-which-countries-can-wean-europe-off-russian-gas>