

# Premier Supply Chain Report on Impacts of Russia/Ukraine Conflict

Note: This is an educational document. It is not for commercial purposes. This represents a synthesis of publicly available information as well as Premier data for informational purposes. Premier compiled this report over the month of February 2022.

## Overview

First and foremost, we are shocked and saddened by the events unfolding in Ukraine. And as the conflict in Eastern Europe continues to evolve, it is likely that significant global supply chain disruptions will follow.

Premier remains steadfast in partnership with our members and suppliers to improve supply chain resiliency and help mitigate disruptions. Now and always, we will continue to share updates, information and best practices – and pursue crucial strategies to help our members get the vital supplies needed to continue providing high quality and cost-effective patient care. This commitment will never waiver.

## Evaluating U.S. Healthcare Supply Chain Impacts

**Summary:** In our conversations with suppliers, the growing concerns are primarily focused on:

- **Continued inflationary pressures that could be exacerbated by increasing oil costs.**
- **The possibility of cyber-attacks on businesses and organizations fueled by further economic sanctions.**

Overall, the breadth of the impact will largely depend on the nature of sanctions applied by the West. It's likely such measures would further target a combination of Russian banks, investments, trade, and potentially, energy. In response, Putin could also retaliate through the energy sector, as well as through cyberattacks on the U.S. and Europe.

The most dramatic consequences of these sanctions would likely be felt in serious disruption to energy markets, catalyzing knock-on effects to growth and inflation. Russia produces ~12% of the world's oil and ~17% of its natural gas supply. A scenario in which this invasion is accompanied by intense sanctions could see crude oil jump to \$120/barrel and a similar spike in natural gas prices.

While the personal toll in Ukraine is horrific, many of our suppliers have reported that they have been anticipating these actions for some time and continue to monitor surrounding countries to develop contingency plans if necessary. We will continue outreach to suppliers for additional information as it becomes available.

# No Supplier Manufacturing Facilities Identified in Russia or Ukraine

- Our MedSurg portfolio includes Surgical and Nursing Services, Diagnostics Services, Facilities and Construction, as well as Purchased Services and IT Services.
- After reviewing Premier MedSurg sourcing data, we did not find any disclosed manufacturing locations in either Russia or Ukraine.
- We do consider that both of those countries could potentially be 2<sup>nd</sup> or 3<sup>rd</sup>-tier sources of supply and could experience disruptions due to ongoing conflict in the region. In addition, we continue to monitor potential disruptions in neighboring countries, including Belarus, Poland and others.
- We are also sharing and confirming similar information and data between several industry groups to include AHA/AHRMM, HIDA, FDA, and FEMA.



Map Explainer: Key Facts About Ukraine | Source: [Visual Capitalist](https://visualcapitalist.com)

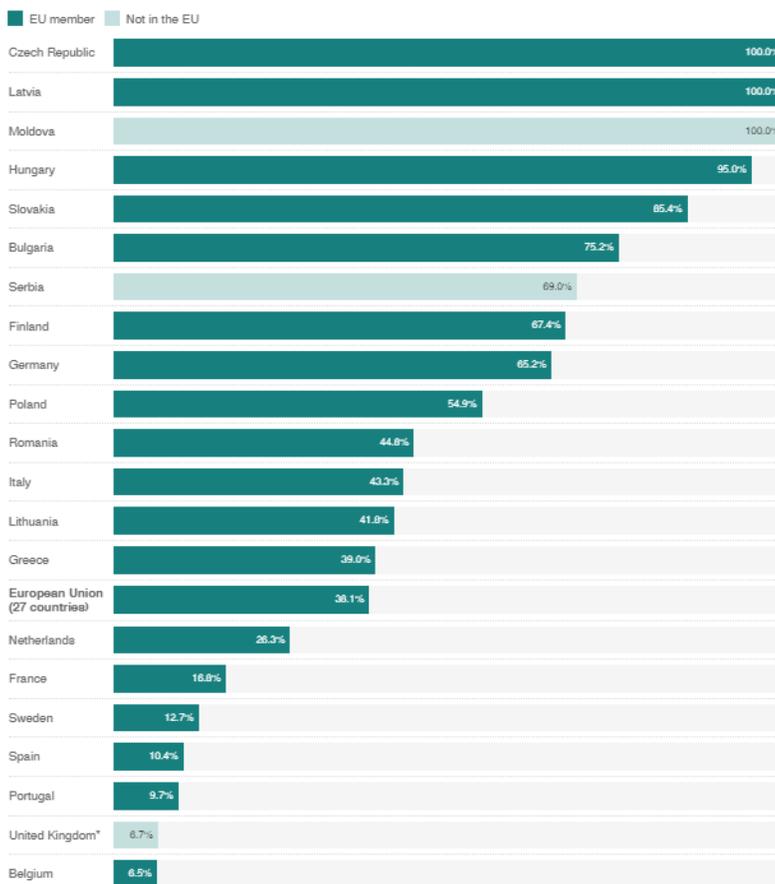
# Rising Energy, Raw Material Costs are Key Concerns

Premier anticipates that fallout from the Russian invasion of Ukraine will likely impact global energy availability as well as global energy pricing.

Russian exports of natural gas account for about 20% of global trade, and as much as 40% of Europe’s natural gas is supplied by Russia. There are numerous global healthcare suppliers that manufacture within Europe, and any significant impact to their operations or staff could have effects on critical healthcare products.

## How much does Europe rely on imports of Russian gas?

Share of natural gas supplied by Russia in 2020



Notes  
 Countries with less than 1 billion cubic meters of total natural gas imports in 2020 are not shown. Austria's data is not available.  
 \*U.K. data is from 2019.

Source: Eurostat  
 Credit: Connie Hanzhang Jin/NPR

While gas exports from Russia continue to flow as of the publication of this document, there is international concern that heavy economic sanctions against Russia would compel Moscow to shut off their supplies to multiple nations.

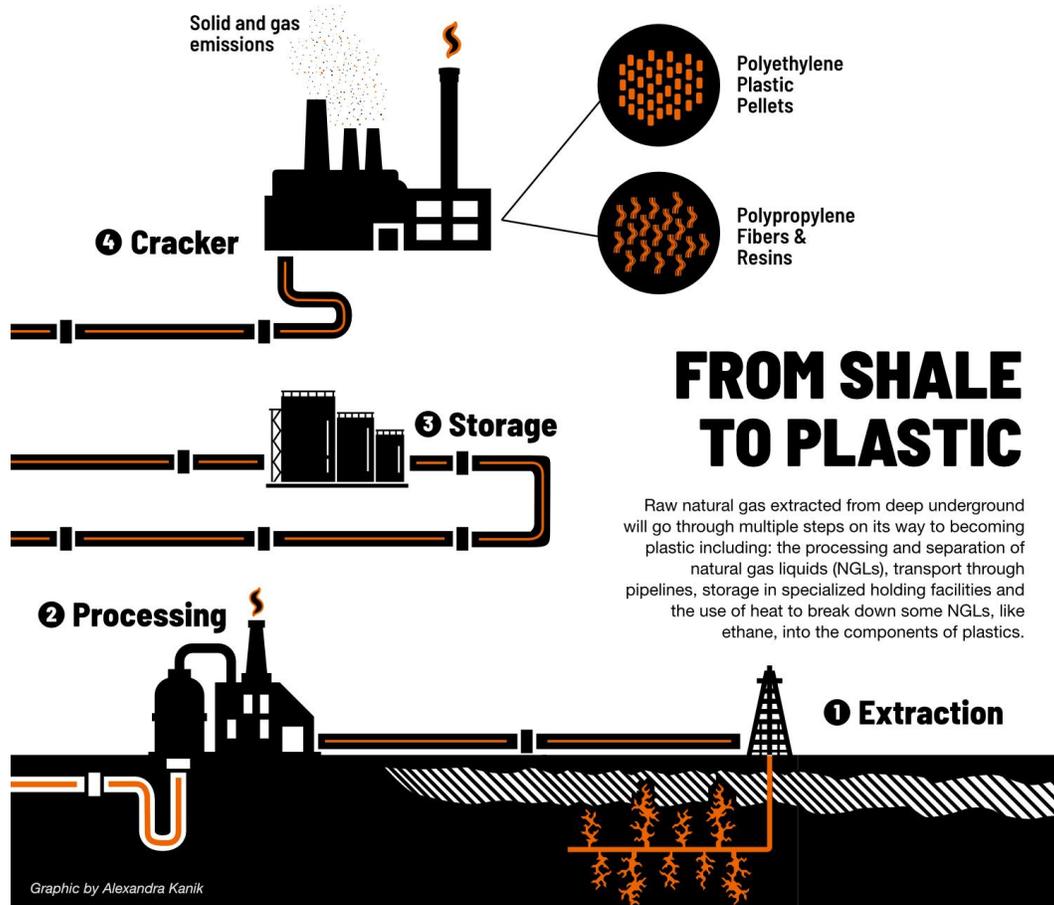
Such an act would cause disruptions to global markets, driving even higher than present-day energy prices. This scenario would impact several areas of the supply chain: raw materials sourcing, manufacturing, transportation, warehousing, and distribution. The effects would be felt immediately in healthcare manufacturing industries in Europe, and then eventually make their way to other parts of the globe such as Asia and North America.

Premier is monitoring each of these components closely to understand both the short and long-term effects. We continue to engage with our suppliers on their concerns as well.

Source: NPR: How Europe’s Reliance on Russia’s gas plays into the war in Ukraine; chart data via Eurostat

## Cost & Availability of Plastics, Metals Used in Healthcare

Premier also anticipates that a disruption to crude oil and natural gas production and flow in Eastern Europe or Russia would have a direct impact on the global supply and pricing of plastics. Both natural resources are used in the production of plastics, which in turn, are used to manufacture multiple healthcare products such as trays, syringes, specimen bottles, pill containers, sharps containers, and much more.



*A cracker plant converts natural gas constituents into manufacturing products. Alexandra Kanik via [Ohio Valley ReSource](#)*

Similarly, the supply availability and pricing of certain key base metals sourced in this specific region could disrupt healthcare categories that utilize those materials during the manufacturing process. Aluminum, nickel, titanium, neon gas and iron ore are [examples of commodities](#) that we are watching closely. Categories with these raw materials include surgical instruments, orthopedic implantable products, and durable medical equipment.

Steel continues to be a concern (prices are up over 200% year-over-year) and is sourced from Russia. Russia also supplies nickel, aluminum palladium (used in electronics, appliances, and cellphones). The continued concern is that this will impact pricing over the next 12+ months.

## Cyber Attacks Could Threaten Supply Chains, Suppliers, Healthcare Systems

Cyberattacks have been a key tool of Russian aggression for several years. According to the Cybersecurity and Infrastructure Security Agency (CISA), **“Every organization in the United States is at risk from cyber threats** that can disrupt essential services and potentially result in impacts to public safety. Over the past year, cyber incidents have impacted many companies, non-profits, and other organizations, large and small, across multiple sectors of the economy.”

“Notably, the Russian government has used cyber as a key component of their force projection over the last decade, including previously in Ukraine in the 2015 timeframe. The Russian government understands that disabling or destroying critical infrastructure—including power and communications—can augment pressure on a country’s government, military and population and accelerate their acceding to Russian objectives.”

**CISA also directly states, “While there are no specific or credible cyber threats to the U.S. homeland at this time, Russia’s unprovoked attack on Ukraine, which has involved cyber-attacks on Ukrainian government and critical infrastructure organizations, may impact organizations both within and beyond the region, particularly in the wake of sanctions imposed by the United States and our Allies. Every organization—large and small—must be prepared to respond to disruptive cyber activity.**

Further, Premier’s concern for cyberattacks extends to the additional components of infrastructure that support and enable the supply chain from end-to-end. Some may recall how global shipping was affected when industry giant A.P. Moller-Maersk was the [target of a massive cyberattack](#) in 2017. While many large corporations and entities may now have the resources to invest in security measures to protect themselves, other smaller or mid-level organizations are likely to be vulnerable. Examples may include third-party logistics providers, freight forwarders, port authorities, and similar entities.

There are numerous resources that Premier is sharing to help members as they seek to better understand and prepare for cyberattack scenarios.

Primary CISA Resource – *Shields Up*: <https://www.cisa.gov/shields-up>



As the crisis in Europe continues to unfold, Premier’s leadership is diligently monitoring potential cyber security impacts to our organization and our members. Premier is following its standard incident response protocols, ensuring appropriate security measures are in place, and actively engaging with intelligence agencies and other resources.

If you have any questions, or wish to report a cyber incident, you can email [security@premierinc.com](mailto:security@premierinc.com).

# Global Food Supply Chain Likely to See Disruption

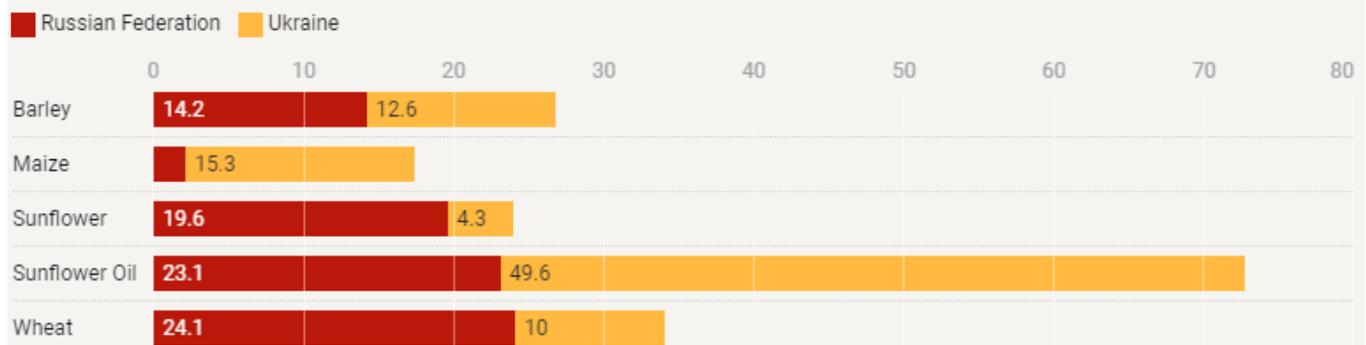
Excerpt from the [International Food Policy Research Institute](#):

“The unfolding crisis in Ukraine has roiled commodity markets and threatens global food security. Ongoing fallout from the COVID-19 pandemic and other factors have already driven up food prices. Poor harvests in South America, strong global demand, and supply chain issues have reduced grain and oilseed inventories and driven prices to their highest levels since 2011-2013. Vegetable oil prices have also been at record levels, reflecting the short South American soybean crop, reduced palm oil supplies due to harvest problems in Malaysia, and sharply increased use of palm and soybean oil for biodiesel production. Prices of key energy-intensive inputs like fuel, fertilizer and pesticides have also been at near-record levels.

Russia’s invasion of Ukraine will further disrupt global markets, will have negative consequences for global grain supplies in the short term, and by disrupting natural gas and fertilizer markets, have negative impacts for producers as they enter a new planting season. This could push up already-high food price inflation and have serious consequences for low-income net-food importing countries, many of which have seen an increase in malnourishment rates over the past few years in the face of pandemic disruptions.”

**Figure 1: Ukraine and Russia’s Share of Global Trade, 2018-2020**

## Share in global markets, volume



*Intra-EU trade excluded from computations.*

Chart: David Laborde • Source: COMTRADE • [Get the data](#) • [Download image](#) • Created with [Datawrapper](#)

Source: [International Food Policy Research Institute](#)

Grains and energies specifically have exploded since the start, and there are some availability concerns over key grains that trade out of Ukraine (sunflower, corn, wheat) as port operations have been suspended. Traders say they expect to see some force majeure notices to be issued in the coming days.

Premier does not anticipate seeing force majeure call outs for our supply chain directly. However, where Ukraine is a major supplier of grains to key areas in EU and in the Eastern Bloc, there could be a larger dependence on U.S. and South American exports to fill the gap in some areas potentially tightening US balance sheet.

## Potential for Pharmacy Portfolio Disruptions

The disruptions in Russia and Ukraine impact a small number of pharmacy products in the market at this time. Premier is working closely with all suppliers in the impacted markets to continuously monitor the situation and provide a swift response and sourcing options, as needed, for our members.

We also recognize that regional disruptions like we are seeing in Russia and Ukraine may impact the larger pharmaceutical market. The Premier team has worked diligently to create greater diversity of supply in our generic pharmaceutical portfolio. Unlike much of the U.S. market, we have a broad base of both finished dose and active pharmaceutical ingredient (API) sources from around the world.

We will continue to work closely with our suppliers to monitor ongoing supply status in all regions of the world, not just Russia and Ukraine. We are confident that we have a well-rounded portfolio with adequate safety mechanisms in place to support our members. If you have questions about participation in ProvideGx, please contact [providegxinfo@premierinc.com](mailto:providegxinfo@premierinc.com).

## Premier Continues to Advocate for Strengthening the National Supply Chain

On February 24, the Biden-Harris Administration [released](#) a one-year review of the work they've undertaken thus far to improve the nation's supply chain. The report also includes several recommendations for the future including:

- Plans to issue a new "Buy American" rule that would allow the federal government to pay more for certain critical domestic-made products.
- The Export-Import Bank's board will vote this spring on a new initiative to provide financing to U.S.-based makers of semiconductors, biotech and biomedical products as well as renewable energy companies.
- The Department of Health and Human Services will create a new program under the Defense Production Act to provide loans and grants to encourage manufacturing of pharmaceuticals and other essential health products in the U.S.
- The Energy Department will open a new office to modernize supply chains to accommodate clean energy sources and ensure electric-vehicle battery makers have the parts they need.

Premier issued the following public statement, thanking the Administration for progress thus far — but continuing to push for bolder initiatives such as tax incentives to help bolster greater domestic manufacturing.

### **Statement on the Biden-Harris Plan to Revitalize American Manufacturing and Secure Critical Supply Chains in 2022**

**By Blair Childs, Senior Vice President, Public Affairs**

While progress has been made in the past year to strengthen domestic manufacturing, Premier applauds the Administration's [recognition](#) that a holistic multi-year strategy is needed to truly address key weaknesses in some of the nation's most crucial supply chains. Diversifying the government's approach to domestic manufacturing is essential. To sustain this progress and better insulate our nation from future supply chain disruptions, manufacturers need longer-term purchasing commitments and the recognition of the capital requirements needed to expand domestic manufacturing and maintain competitive prices. Congress should enact tax credits to achieve a truly competitive and sustainable domestic manufacturing base.

Premier has been a [longstanding advocate](#) for supply chain diversity and resiliency, helping 37 new generic manufacturers enter the market and fill gaps in production of critical drugs. We have also partnered with leading health systems to expand domestic and geographically diverse manufacturing capacity for [masks](#), [gloves](#), [gowns](#), [generic drugs](#) and other crucial medical supplies. We look forward to continuing work in this area with the Administration, Congress, and our provider partners.

Read Premier's statement here: <https://premierinc.com/newsroom/policy/statement-on-the-biden-harris-plan-to-revitalize-american-manufacturing-and-secure-critical-supply-chains-in-2022>

## Premier Efforts to Mitigate Supply Disruption

**Premier remains committed to supporting our members and suppliers in finding innovative ways to solve for supply chain challenges. We've taken a number of aggressive steps to help ensure a smooth and continuous flow of medical products and supplies:**

- We recently revamped GPO contracts to require disclosures of supply sources, backorders and shortage mitigation practices in RFIs/RFPs, and factor resiliency metrics into contract award decisions. At the same time, we continue to [build out technologies](#) and demand forecasting tools that will give us robust demand signals in real time, which we will use to better manage inventories, prevent waste and help avoid shortages from occurring in the first place.
- To help members better prepare for potential product shortages, Premier has assembled a team of subject matter experts guided by our deep data insights to surface a **Category Watch List**, inclusive of categories and products within our portfolio that require additional supply chain risk and resiliency measures. Additionally, Premier has reinvigorated its [crisis forecasting and planning tool](#), which is free of charge and leverages AI to predict COVID-19 caseloads over the next 30 days using data directly provided by HHS to support preparedness and accurate supply ordering.
- Leveraging our industry leading drug shortage program [ProvideGx](#), Premier's new **Rapid Commit**™ program assists members with short-term drug market supply disruptions. This exclusive program facilitates member access to critically short medications on a first-come, first-served basis requiring no long-term commitments.
- As mentioned above, Premier continues to work closely with White House leadership and federal agencies to help manage the nation's supply chain issues, providing data and insights on backorders and potential shortages, and advocating for priority transportation of critical products. Legislation under consideration in Congress includes many of [Premier's recommendations](#) around strengthening the Strategic National Stockpile, mitigating drug and device shortages, and maintaining supply chain integrity. We're also [working with Congress](#) to create overarching principles for an automated data-driven, real-time inventory management system for critical medical products so that providers and the government can improve response capabilities.
- Hand-in-hand with supply chain issues is increasing inflation. While we're seeing inflation in certain indices such as crude oil, lumber and steel, **the overwhelming majority of Premier agreements contain firm, fixed pricing for the term of the agreement**. In rare circumstances where suppliers request price increases not allowed within their contract, these requests are taken through a rigorous process culminating in a review by the appropriate member sourcing committee before any action is taken. Premier

is also accelerating the development of our MedSurg and ASCEND Inflationary Calculators to help keep members abreast of the most recent inflation estimates and to assist with their budgeting and strategic planning.

Alongside our domestic manufacturing investments, innovative global sourcing activities and industry-leading technology suite, these initiatives are a sampling of the newer strategies and solutions to address and mitigate disruptions for our membership. Combined, we believe these efforts will better help predict and plan for adverse events and help ensure Premier members have access to products.