

1014

Views

Op-Ed: COVID-19 Reveals the Risks of the Just-in-Time Supply Chain



File image

BY [THE CONVERSATION](https://www.maritime-executive.com/author/the-conversation) (HTTPS://WWW.MARITIME-EXECUTIVE.COM/AUTHOR/THE-CONVERSATION) 03-20-2020 10:50:13

[By Evan Fraser]

Toilet paper shortages, profiteering from hand sanitizer and empty shelves in supermarkets.

Thanks to COVID-19, governments in most industrialized nations are preparing for shortages of life's necessities. If they fail, riots over food may be inevitable. Some wonder if we are responding appropriately to COVID-19, and it's clear that recent events expose a fundamental flaw in the global systems that bring us our daily bread.

We live in a wondrous age when global supply chains seamlessly link farmers and consumers using the principles of 'just enough, just in time'. For years, companies have worked hard to keep inventories low, timing shipments to balance supply and demand using knife-edge accuracy.

In many ways, this system is a miracle. Low-cost food is one outcome. And if there's a problem in one part of the supply chain, the global system is good at finding alternatives. (Mangoes from Asia gone bad? Try the mangoes from Central America!)

But with this abundance—and convenience—comes a hidden cost that COVID-19 has exposed: a loss of resilience. Our global food system depends on the tendrils of international trade to wrap the world in an ever more complex system of buyers, sellers, processors and retailers, all of whom are motivated to keep costs low and operations lean.

So when the supply-chain system itself is thrown into question—as it is now thanks to COVID-19—then the wheels threaten to come off the proverbial apple cart. COVID-19 shows that we need to wake up and realize that if we really want to be resilient, we need to build more redundancies, buffers and firewalls into the systems we depend on for life.

In practical terms, this means we should be keeping larger inventories and promoting a greater degree of regional self-sufficiency.

These measures will help ensure that our communities don't panic if the food deliveries stop.

But while this may sound sensible, high inventories and more regional self-sufficiency are, in fact, antithetical to the 'just enough, just in time' approach that drives most of our economy, even though no one's suggesting we need to be completely self-sufficient all of the time.

Take the systems that produce and distribute the corn, wheat and rice that fuel most of humanity's calories. The latest United Nations report on the global grain system contains some bad news. Last year, the world ate more grains than it produced within the year, and our carryover stocks (defined as the amount of food we have, globally, at the end of the year to see us through to the next harvest) are declining.

The good news is that this decline comes after a run of good years in which farmers delivered one monumental harvest after another. So our carryover stocks started last year in pretty good shape and this means we've currently got about four months of food stored. But there's a downward trend regarding those stockpiles, and this is worrisome.

But what if Mother Nature doesn't play nice with us this year?

Climate change, after all, is making food harder to produce. What if we face a major drought in Europe and Asia like we did in 2010 to 2011? Or another big drought in America's Midwest similar to the situation in 2012 and 2013? And what if COVID-19 doesn't go away by summer?

If any of these things happen, we may not have the buffers to protect ourselves. And it won't be toilet paper and hand sanitizer we need to worry about. It might be wheat, rice and corn.

Today, conventional wisdom is that the average city in North America has a three-day supply of fresh food (dried, canned and other preserved food supplies will last a bit longer). This, according to some, means that we are all only ever 'nine meals from anarchy'. Luckily, North American supermarkets have sophisticated supply chains, so no one is seriously suggesting that the panicked purchasing of the last few days that has emptied shelves will persist. Nevertheless, the systems we depend upon are, in many ways, fragile and inherently vulnerable.

In all likelihood, COVID-19 will pass and most of us will only suffer economic setbacks from lost wages and disruptions linked with cancelled classes, travel and meetings. But in the aftermath, it's important to ask whether we—as a society—will treat this as a moment to learn a bit about the fragility of the modern world.

Will we work collectively to put resilience alongside efficiency as a primary driver for the systems we depend on each and every day to feed ourselves?

Evan Fraser is a professor, director of the Arrell Food Institute and a Tier 1 Canada Research Chair in Global Food Security at the University of Guelph in Ontario, Canada. This article was originally published on [The Conversation](https://theconversation.com/) (<https://theconversation.com/>).

The opinions expressed herein are the author's and not necessarily those of The Maritime Executive.

MORE TOP STORIES

Waterfront Employers Call for Federal Support During COVID-19 Shutdown (<https://www.maritime-executive.com/article/waterfront-employers-call-for-federal-support-during-covid-19-shutdown>)

Arctic Light Pollution Affects Fish, Zooplankton up to 200 Meters Deep (<https://www.maritime-executive.com/editorials/arctic-light-pollution-affects-fish-zooplankton-up-to-200-meters-deep>)

Bristow Redeploys SAR Helicopters for COVID-19 Medevacs (<https://www.maritime-executive.com/article/bristow-redeploys-sar-helicopters-for-covid-19-medevacs>)

U.S. Navy Tests Future Hypersonic Weapons System (<https://www.maritime-executive.com/article/u-s-navy-tests-future-hypersonic-weapons-system>)

EDITORIALS TOP STORIES

Op-Ed: COVID-19 Reveals the Risks of the Just-in-Time Supply Chain (<https://www.maritime-executive.com/editorials/op-ed-covid-19-reveals-the-risks-of-the-just-in-time-supply-chain>)

Arctic Light Pollution Affects Fish, Zooplankton up to 200 Meters Deep (<https://www.maritime-executive.com/editorials/arctic-light-pollution-affects-fish-zooplankton-up-to-200-meters-deep>)

Limiting the Global Economic Fallout from COVID-19 (<https://www.maritime-executive.com/editorials/limiting-the-global-economic-fallout-from-covid-19>)

In A Time of Crisis, Could a Jones Act Waiver be on the Way? (<https://www.maritime-executive.com/editorials/in-a-time-of-crisis-could-a-jones-act-waiver-be-on-the-way>)

Caring for Seafarers During the Coronavirus Outbreak (<https://www.maritime-executive.com/editorials/caring-for-seafarers-during-the-coronavirus-outbreak>)



RELATED STORIES

GOVERNMENT (/GOVERNMENT-NEWS)



(<https://www.maritime-executive.com/article/two-more-u-s-navy-sailors-test-positive-for-covid-19>)
Two More U.S. Navy Sailors Test Positive for COVID-19 (<https://www.maritime-executive.com/article/two-more-u-s-navy-sailors-test-positive-for-covid-19>)

SHIPPING (/SHIPPING-NEWS)



(<https://www.maritime-executive.com/editorials/op-ed-covid-19-reveals-the-risks-of-the-just-in-time-supply-chain>)
Op-Ed: COVID-19 Reveals the Risks of the Just-in-Time Supply Chain (<https://www.maritime-executive.com/editorials/op-ed-covid-19-reveals-the-risks-of-the-just-in-time-supply-chain>)

TUGS & SALVAGE (/TUGSALVAGE-NEWS)



(<https://www.maritime-executive.com/article/uscg-medevacs-man-with-severe-lacerations-from-cruise-ship>)
USCG Medevacs Man with Severe Lacerations from Cruise Ship (<https://www.maritime-executive.com/article/uscg-medevacs-man-with-severe-lacerations-from-cruise-ship>)

SHIPPING (/SHIPPING-NEWS)



(<https://www.maritime-executive.com/article/u-s-shipowners-push-back-on-jones-act-waiver-request>)
U.S. Shipowners Push Back on Jones Act Waiver Request (<https://www.maritime-executive.com/article/u-s-shipowners-push-back-on-jones-act-waiver-request>)

SUBSCRIBE

Print (/subscribe) Digital (/subscribe) Newsletter (/subscribe) Renew (/subscriber/send_subscriber_email)

The Maritime Executive Comment Policy

We welcome all relevant and respectful comments.



0 Comments The Maritime Executive Login ▾

Recommend Tweet Share Sort by Newest ▾

LOG IN WITH

OR SIGN UP WITH DISQUS

Be the first to comment.

Subscribe Add Disqus to your siteAdd DisqusAdd

ABOUT US (/ABOUTUS)
ADVERTISE (HTTP://MEDIKIT.MARITIME-EXECUTIVE.COM/2020/)
NEWSLETTER (/NEWSLETTER)
CONTACT US (/CONTACT)
PRIVACY POLICY (/PRIVACY-POLICY)
SITE MAP (/SITE-MAP)

NEWS (/)

FEATURES (/FEATURES)

PODCASTS (/PODCAST)

MAGAZINE (/MAGAZINE)

NEWSLETTER (/NEWSLETTER)

BLOGS (/BLOG)

DIRECTORY (/MARITIME-DIRECTORY)

JOB (/JOBS)

Piracy News (/piracy-news)

Shipbuilding News (/shipbuilding-news)

Cruise Ship News (/cruiseshipping-news)

Ports News (/port-news)

Salvage News (/tugsalvage-news)

Training News (/training-news)

Government News (/government-news)


Environment News (/environmental-news)

Corporate News (/pressrelease)

SUBSCRIBE (/subscribe)



f (<https://www.facebook.com/MarExMag/>) **in** (<https://www.linkedin.com/groups/47685>) 

(https://twitter.com/Mar_Ex)  ([articles.rss](#))

© Copyright 2020 The Maritime Executive, LLC. All rights reserved.