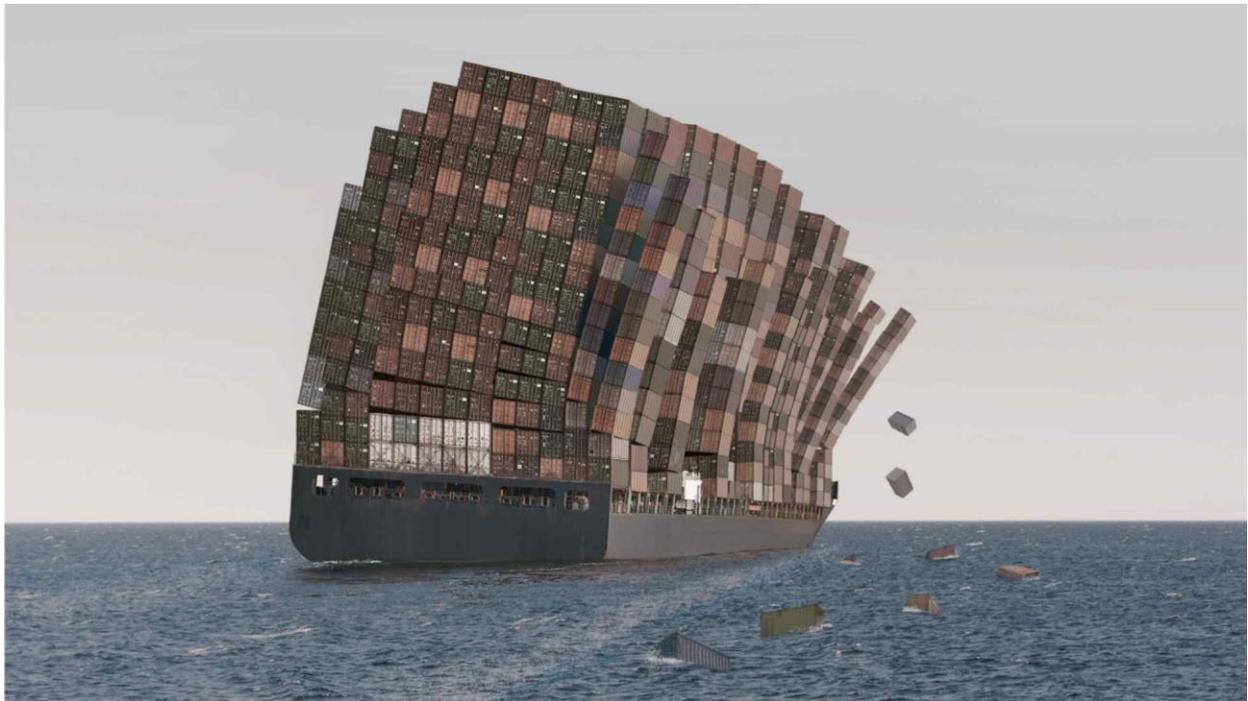


Port in a storm: No end in sight to global shipping chaos



One and a half million seafarers, enough to populate a city, are keeping the global economy afloat -- but at a huge cost to themselves.

Behind the relentless online boom, stranded seafarers and soaring rates

BANGKOK -- For the global shipping industry, chaos began with the tap of a million "buy now" buttons.

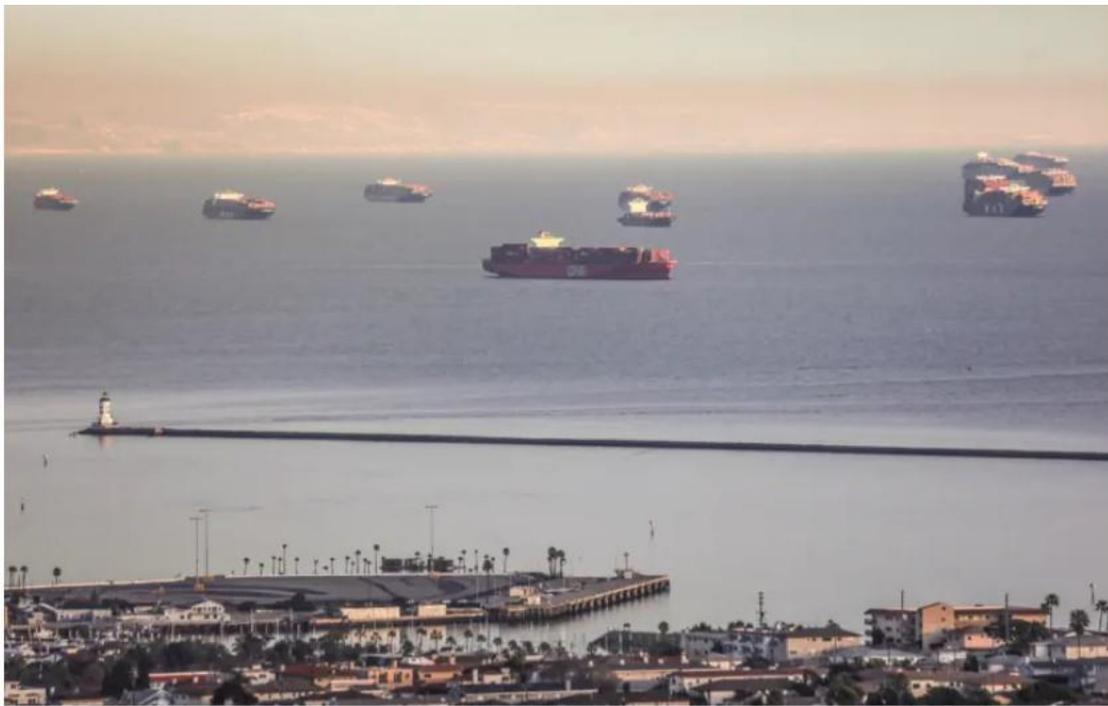
In the second half of 2020, Americans, trapped at home by the pandemic,

started buying weighted blankets, Crocs, giant fleece hoodies, ring lights and desks at a relentless pace. One toilet paper manufacturer saw a 600% increase in sales over two weeks. Another retailer sold out of a year's stock of bird feeders in two months. Yoga leggings, milk frothers, air fryers and lawn mowers were crammed into shipping containers in the ports of Asia.

Earlier that year, at the start of the pandemic, idled ships could be seen anchored off the Singapore coast, eerie and still. But by the fall, they were idle no more: Container vessels steamed across the Pacific, carting goods from China so busily that they became snarled in traffic in California's San Pedro Bay. By January 2021, as many as 30 ships were anchored off the ports of Los Angeles and Long Beach, waiting to pull into berth.

It has been a grueling and unpredictable year for seafarers like Daniel Balaod, 24, an engineering cadet from the Philippines who spent 11 months on a container ship until last December, unable to set foot on land. Throughout the ship's journey over the Pacific, COVID-19 restrictions prevented the crew from disembarking at ports everywhere from Busan to Auckland, forbidden even from going down the gangplank.

The whole time, he longed to walk on land and feel the stress dissipate, Balaod told Nikkei Asia. Instead, it was a constant cycle of seasickness and sleepless nights.



A record number of container ships idled outside California's ports earlier this year. © Getty Images

Seafarers, the floating workforce of 1.6 million women and men that operate the world's fleet of 50,000 commercial cargo vessels, have been thrown into turmoil by the pandemic. Theirs is a crisis that has played out almost invisibly, far out to sea or onboard ship. Their numbers are large enough to populate a city -- albeit one where social distancing is impossible and there is no way out.

There is a reason for the paranoia. The number of COVID-19 infections and deaths on ships over the past year is a closely guarded secret which shipping

companies are not required to disclose. But early outbreaks on cruise ships like the Diamond Princess, where 700 people were rapidly infected by the virus, graphically demonstrated the danger.

For ships' crews, as for millions of others, the price of safety is monotony and isolation. But instead of being marooned at home, they are stuck permanently at work. They spend their days pacing their ships, surrounded by nothing but metal and the vast ocean.

"On the ship, 24 hours a day, you're only thinking about work," said Balaod. Seafarers have felt forgotten, their needs de-prioritized by governments, and their sacrifices unappreciated by the average consumer. Most seafarers come from countries where vaccines are not yet widely available, like India, the Philippines and Myanmar, and it's not clear how and when they could get them.



Daniel Balaod, a 24-year-old engineering cadet, unable to disembark his ship for 11 months. (Photo courtesy of Daniel Balaod)

The boom in cargo has left crews depleted. But many who hail from poorer countries are still glad for a steady job and for the money they can send home to their families.

"We're some of the people who move the global economy. It's one of the things that keeps you going at work," Balaod said, not sounding entirely convinced. He then repeated what has become a mantra for the mental and physical strain bred by the pandemic. *Tiis-tiis lang*, he said in Filipino, an encouragement to accept and endure hardship. "There's nothing we can do about it."

Uncharted territory

Seafarers are keeping the global shipping industry afloat, and with it, the world economy. Without shipping, many products -- from lifesaving medical

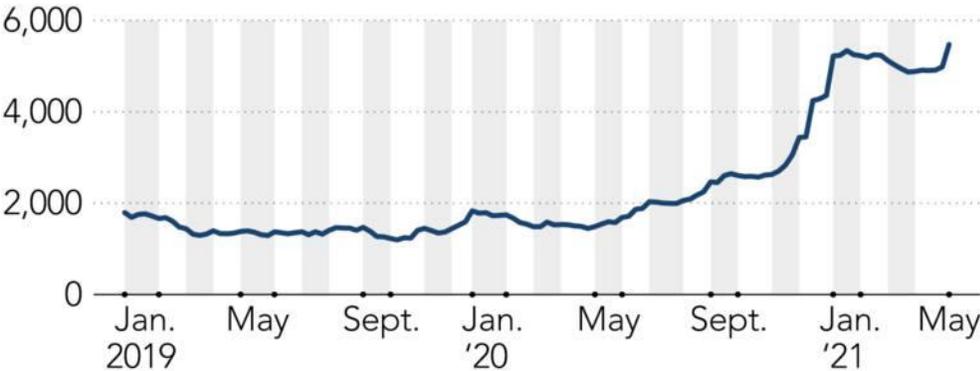
equipment to the retail goods that have been a salve to millions in isolation -- could never be manufactured, let alone reach the world's consumers.

The whipsawing demand for retail has thrown the shipping industry into a year of unprecedented volatility. Container ships, hauling as much as 190,000 tons at a time, have had to cater to the sudden, dizzying heights of demand. Freight liners have redirected to the lucrative Asia-U.S. route, and every idled ship in the world's fleet of merchant vessels was pulled into trade.

In Asia, manufacturers jockeyed for space onboard ships amid a shortage of an estimated half a million containers. Prices for containers skyrocketed, from \$1,486 per 40-foot container in May 2020 to \$5,472 by May 2021, according to Drewry Shipping Consultants, the global maritime research and consulting company.

Soaring prices

Freight rates have tripled since a year ago. *(Drewry World Container Index, weekly basis, in dollars per 40-foot container)*



Source: Drewry Shipping Consultants

"This is uncharted territory in terms of carrier profits -- in terms of freight rates, in terms of just the level of disruption that the supply chain is seeing," said Simon Heaney, Drewry's London-based senior manager for container research. Heaney said he hadn't seen this level of disruption in his over 20

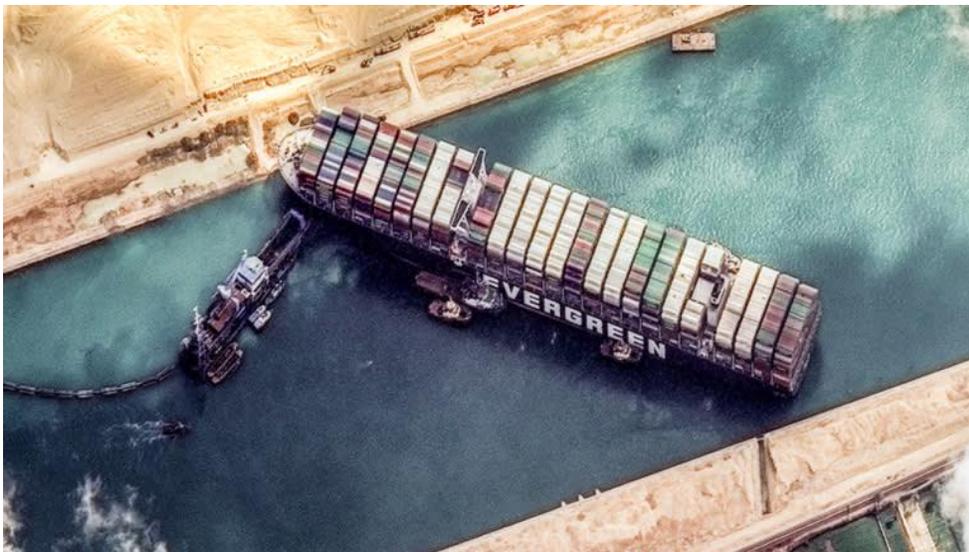
years covering the market. "It's unprecedented in terms of the chaos that we're seeing right now."

Reliability, the measure of whether shipments arrive on time, plummeted to 34.9% in January 2021 -- the lowest rate ever recorded. Freight forwarders, the intermediaries who find routes to ship goods, have been fielding panicked emails from companies desperate to find space on a vessel for their products.

There are plenty of physical challenges. There have been collisions, fires on oil tankers. A livestock carrier, the Gulf Livestock 1, was sunk by a storm off

Japan in September, killing 41 crew. Containers, stacked high on ships speeding along their routes, are toppling off at some of the fastest rates in years. According to an estimate by Bloomberg, some [3000 containers](#) fell into the sea in 2020, and another 1000 so far in 2021.

When the Ever Given lodged itself into the Suez Canal in March, it blocked \$9.6 billion of trade for 6 days and forced cargo vessels to divert around the continent of Africa.



The Ever Given's predicament blocked \$9.6 billion of trade for 6 days. (2021 Maxar Technologies/Getty Images)

The set-up looked almost comical to Sanne Manders, chief operating officer of Flexport, a Portland, Oregon-based freight forwarder. Like a scene from Monty Python, it seemed too perfectly contrived to be true.

"Who came up with this idea?" he thought in disbelief, as he looked at images of the massive ship jammed into one of the world's most critical waterways.

"Why now?"

Trapped on board

Sea transport has long been a vector for infectious diseases. The word "quarantine" originated in 17th century Venice, referring to the 40 days that sickened merchant sailors were required to stay on their ships to prevent the spread of disease into port cities. Part of the 1918 Spanish flu pandemic, which killed between 50 million to 100 million people, could be traced to port cities.

Today, as then, regulations came down hard on seafarers. In March 2020, Balaod saw police officers stationed at the bottom of the gangway at a port in China. They were enforcing a new directive that would apply in ports across the globe: Seafarers are no longer allowed on land.

He recalled the anger and disappointment of those who were told they could not disembark, and how the rest of the crew laughed at them. "It really wasn't funny, but we laughed anyway. ... It's already so hard, we did not want to wallow in it."



Strict measures: A crew member's temperature is taken at a port in Wuhan, China, in May. © AP

When dining at the mess hall of Balaod's ship, conversation usually circled back to COVID-19. Seafarers from the Philippines compared news from home with those from Poland. They shared stories of what was happening to their families on land.

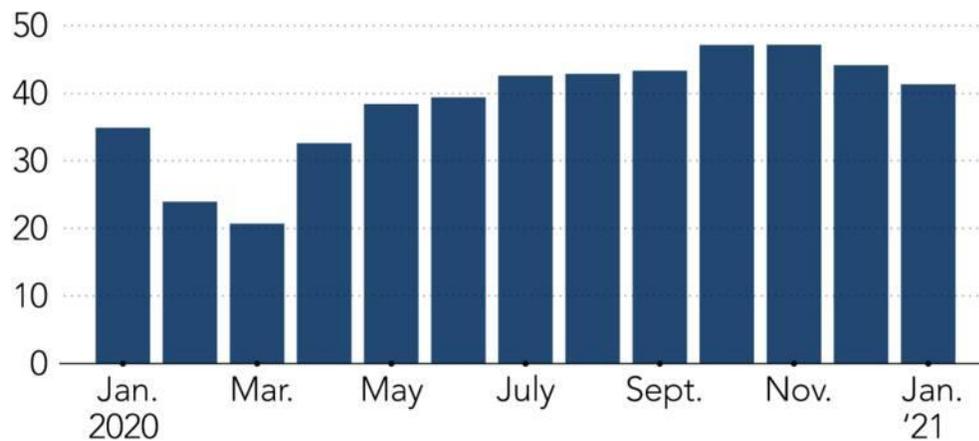
Many were still grateful to have a steady salary at an uncertain time. To ease the stress, the captain allowed parties onboard, and the men devised a game of competitive karaoke, belting out country songs, Filipino rap and pop ballads for cash prizes.

All the while, the pandemic loomed: To unload containers, stevedores had to come on board. A crew member in full PPE was assigned to spray doorknobs and railings in the stevedores' wake, while the rest of the crew holed up in the bridge.

Still, after a stop in Shanghai, Balaod caught a cough. His crewmates kept a wide berth, holding their breath and pressing themselves against the walls as he passed. The captain confined him inside his cramped cabin for 14 days and ordered him to report his temperature every two hours. Balaod didn't develop other symptoms, but learned one of the hard lessons of the pandemic:

"Coughing is not allowed."

Impulse buy: U.S. imports from China shot up during the pandemic *(In billions of dollars)*



Source: International Trade Center

While banning shore leave for leisure was an understandable -- if unpleasant -- protective measure, in many countries, seafarers were banned from coming ashore for any reason, including medical attention. Perhaps most worryingly, they could not even disembark their ships at the end of their contracts.

With borders closed, consulates on lockdown, restrictive or inaccessible testing regulations and commercial flight numbers sharply curtailed, the complex chain of crew replacement broke down. A seafarer coming from land to replace one who had reached the end of their contract at sea struggled to get the permits, visas, medical clearances and flights necessary to relieve the seafarer.

The seafarer on board faced the same constraints to disembark. At the height of the crew-change crisis in the second half of 2020, as many as 400,000 seafarers whose contracts had ended were compelled to keep working, many of them long beyond the legal limit of 11 months on board.



Tug boats and diggers work in March to free the Ever Given, a blockage that caused some major shippers to divert their vessels around the continent of Africa. © Suez Canal Authority/AP

A cargo ship is a high-risk environment. Seafarers and ship owners alike worried that the exhaustion bred by the pandemic-induced working conditions could lead to accidents or disasters.

But the feeling of being unable to escape the creaking confines of their ship or each other, and the crushing monotony of a shift that never seems to end, is wearing on crew members. Some paced the deck; others became increasingly desperate to go home. Tempers flared. "Screaming fights," Balaod said, "are unavoidable."

Capt. Rajesh Unni, CEO of Synergy Marine Group, which manages the crewing for over 375 commercial vessels, described the toll of isolation. Seafarers face the same fear, loss and grief brought on by a deadly pandemic as much of the rest of the world, but contend with it from the extreme isolation of a ship.

"The frustration is humongous," Unni said. "You're not able to do anything, you're not able to see [one's family] for one last time."

"The mental well-being of people has been very, very difficult," he continued. Suicides have ticked up. "We have picked up seafarers from the water. All that has definitely increased."

The crew-change crisis has eased in recent months, but deadlier new waves fueled by variants, including in India and the Philippines, the world's most prominent seafaring countries, are likely to present even higher risk for the maritime workforce and trigger new border restrictions. Seafarers have struggled to access vaccines, and the dual strain of life on board while hearing of tragedies back home continues.

"Yesterday I was talking to one of the captains. He lost his mother a week ago, he lost his wife yesterday," said Unni of Synergy Marine. "Imagine the trauma that is happening to him."

Movers and shakers

The head-spinning year started off with a lull. In January and February 2020, the new virus then ravaging the city of Wuhan, China, triggered severe lockdowns across the country.

"The factory powerhouse of the world didn't have any output, and that dramatically impacted shipping volumes," Manders of Flexport said. "As a result, everyone in this industry panicked."

Shipping companies took vessels offline and braced for a tough year. Trade routes turned into so-called blank sailings, when a carrier cancels a scheduled voyage.

By March, the virus had spread across Europe, the Middle East and North America. International borders shut down, passenger planes were grounded, and the shipping industry slipped into the same nervous uncertainty and quarantine-induced lull of a world entering a pandemic: Sea trade dropped by 9%.

"If you would have asked 100 economists a year ago on this date where the world would go," Manders said in an interview with Nikkei in April 2021, "probably 100 economists would have told us, it's going to be doom and

gloom, we're going to go into a recession. That is what it looked like. ... Global shipping volumes tanked."



U.S. retail spending in March 2021 had jumped by almost 30% compared to the year before, according to government data. © Getty Images

In April and May of 2020, hospitals around the world were overwhelmed. Doctors and nurses risked their lives in tattered N95 masks and surgical gowns. Images of overflowing morgues and mass graves filled the news. Countries and private hospitals desperate to stock up on PPE as quickly as possible turned to air cargo -- a plane can cover in hours what takes a cargo vessel weeks. But with passenger flights grounded, capacity was cut in half.

Carriers scrambled to fill the demand. Passenger planes were converted into cargo planes, and the industry coined a new word, "preighters," a portmanteau of passenger and freight, where there were no passengers in the upper decks, but the hold was filled with cargo. Flexport added to their network of air freighters by renting out multiple preighters a week. A kilogram of air cargo went from about \$4 to as high as \$14 or \$18.

"Price doesn't matter," Manders said of the urgency-driven choices made at that time. "This is about survival."

By July, the surge in demand for PPE had settled. With enough masks, gowns and gloves in place, replenishments could travel on the relatively slow pace of cargo ships.

As the need for PPE cleared, Manders began to see the items they normally shipped shift dramatically. "It used to be apparel, handbags, stuff that makes you look nice outside the home, to stuff that makes you comfortable inside the home."

"It feels like a Monday morning rush hour that's been going on for six months"

Sanne Manders, Chief Operating Officer of Flexport

According to data from the [U.S. Census Bureau](#), retail spending in March 2021 was up 27.7% compared to the year before. Nonstore retail, including e-commerce, increased nearly 40% from pre-pandemic levels. Auto sales increased by 29% and furniture by 20.4%. In 2020, one logistics manager imported 10 times the number of containers full of lawn mowers than he did in 2019.

"Everyone wanted a bird feeder at that time," Manders said. "It was like, 'Yeah, I'm sitting at home, let me just watch the birds in my garden.'"

With the virus under control in China and other Asian manufacturing countries, factories there revved up just as government stimulus checks hit and the lockdowns in the U.S. deepened. Without services -- bars, restaurants, vacations, entertainment -- Americans spent their disposable income on goods.

"It feels like a Monday morning rush hour that's been going on for six months," Manders said.

Docked

Starting in September, container ships began to pile in at the ports of Los Angeles and Long Beach. At the port, cranes unloaded containers day and

night. Already the largest port complex by volume in the U.S., the adjacent ports of Los Angeles and Long Beach were breaking records for the number of containers passing through each month.

While in May 2020, port volumes had plummeted 29.81% from the previous year, by November 2020 they had increased by 22.06%. By March 2021, they had leapt to 113%.

Full containers stacked up onto the dockyards. Longshore workers continued to pull containers off the ships, but decades of underinvestment in the rail system meant there were not enough trains to handle the volume of containers, nor enough chassis to load the containers into, nor enough truckers, as illness kept some drivers off of the road.

The vast distribution warehouses of the Inland Empire, in the deserts of east of Los Angeles, were packed to the rafters. Again distancing and other safety measures slowed down distribution. It was a level of congestion that Michael Podue, President of Local 63 of the International Longshore and Warehouse Union, had never seen before in over 40 years as a longshore worker.

"I don't think anybody was ready for this kind of volume," Podue said. "There's only so much a terminal can fit."

At a meeting of the Advisory Committee on Supply Chain Competitiveness, where Podue is a member, he heard representatives from across the supply chain -- including big-box stores like Lowe's and Walmart -- converge on the question: "How can we get some relief here?"

There is no good answer yet, Podue said. "We're working on it."

Ship owners

At the same time, shipping companies have been dealing with a severe shortage of capacity. It can take two years to build a cargo ship. In the short

term, there was little they could do to increase the number of vessels in a merchant fleet.

Ship owners and operators scrambled to accommodate the volume by building new containers by the hundreds of thousands. A.P. Moller-Maersk, the world's largest container shipping line, sent vessels on profitless voyages to Australia to pick up empty containers and bring them to Asia. Idled ships, which in previous years made up about 10% of the fleet, were put back on the water. Nearly all seaworthy commercial vessels are now in operation.

"At the moment, it's all hands on deck, and the shipping lines are doing what they can to cash in on the situation ... this is a boom time for them, so the more cargo you can get moved at these higher rates, the more profits [you have]," Heaney of Drewry said.

Container trucks queue on May 15 in Tokyo. (Photo by Kosaku Mimura)

In addition to adding several hundred thousand new containers and increasing capacity on their vessels, Maersk doubled their train capacity between China and Europe, which is experiencing its own consumer-driven cargo boom.

"It's about alternatives," Lee Sissons, Regional Head of Ocean Management for Asia-Pacific at Maersk, said. "When the infrastructure is fully loaded. It is difficult to overcome."

Maersk, like other shipping lines, rerouted from the ports of California through the Panama Canal and into the ports of the U.S. Gulf and the East Coast, trying to skirt the congestion. Local newspapers from Miami to Seattle reported in awe as towering container ships, the largest their ports had ever seen, pulled in to unload their cargo.

"There still are delays in the East Coast, but they are less than the West Coast," Sissons said. "There is still a lot of pressure on the infrastructure in the U.S. because the market demand is high, and that overall is difficult to avoid."

"It's a bad time in terms of operational functionality, but from a shipping line point of view, they're doing very nicely out of this situation," Heaney said.

Unrelenting demand

Maersk expects the surge in demand to continue -- along with the supply chain bottlenecks and container shortages, as well as the profits -- to the end of the year, with container demand growing 5%-7% in 2021.

"There's still such a huge demand surge," Heaney said. "Demand volume doesn't seem to be showing any sign of weakness and there's no let up yet, no opportunity to get to have a breather and repair the system. But there's still a lot to be fixed."

Heavy burden: Workers moor a container ship in Qingdao, an industrial town in eastern China. © AP

While shipping companies are doing what they can with the tools at their disposal, Heaney said, it is "not in their power to fix this alone."

Companies will have to "ride it out" together until the demand curve settles, and port and terminals can at least return to pre-pandemic productivity, he said.

"With this pandemic, nobody really can say anything with confidence," Heaney said. "We think it should start to fix itself by the end of this year. But we'll have to wait and see."