# 1AC v1

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#### Advantage 1---Supply:

#### Shipping costs stay high, driving inflation and global food crisis. Removing immunity solves but no FMC regs can.

Bloomberg 22 [Bloomberg, "Supply Chain Crisis Helped Shipping Companies Reap $150 Billion in 2021", 1/19/22, https://www.supplychainbrain.com/articles/34405-supply-chain-crisis-helped-shipping-companies-reap-150-billion-in-2021]

Ocean shipping rates are expected to stay elevated well into 2022, setting up another year of booming profits for global cargo carriers — and leaving smaller companies and their customers from Spain to Sri Lanka paying more for just about everything.

The spot rate for a 40-foot container to the U.S. from Asia topped $20,000 last year, including surcharges and premiums, up from less than $2,000 a few years ago, and was recently hovering near $14,000. What’s more, tight container capacity and port congestion mean that longer-term rates set in contracts between carriers and shippers are running an estimated 200% higher than a year ago, signaling elevated prices for the foreseeable future.

Large customers of sea-borne cargo like Walmart Inc. or Ikea have the heft to negotiate better terms in those deals, or absorb the added expense. Smaller importers and exporters — especially those in poor countries — that rely on carriers to haul everything from electronics and apparel to grains and chemicals, can’t easily pass those costs along or weather long periods of stretched cash flows. The situation is throwing a spotlight on the market concentration of shipping lines, and their legal immunity from antitrust laws.

“Small- and medium-sized enterprises are being badly affected,” said Amruth Raj, managing director of Green Gardens, a vegetable processor based in rural India. After container rates shot up in the past year, more than 50% of his company’s capital was wiped out when European buyers balked at the higher costs. “They exploit our desperation.”

In the developing world, it’s not just business survival that’s at stake. Achil Yamen of the Cameroon National Shippers’ Council, raised concerns about inequities in Africa on a recent conference call hosted by the United Nations trade body.

“If nothing is done to reverse the trend, the risk in terms of inflation and food security can grow very, very high,” Yamen said.

Meanwhile, the backbone of the postwar march toward globalization is coming through the pandemic in the strongest position in its history — a stark reversal of years losing money in the capital-intensive business. Ocean-freight carriers pulled in estimated profits of $150 billion in 2021 — a nine-fold annual jump after a decade of difficulty eking out any gains.

Denmark’s A.P. Moller-Maersk A/S, the world’s second-largest container carrier, was on track for an annual profit last year that would match or surpass its combined results from the past nine years. Its shares hit a record high this month, as did stock in Hamburg, Germany-based Hapag-Lloyd AG, the No. 5 player. The largest, Mediterranean Shipping Co., is a closely held company based in Switzerland that is controlled by Italy’s powerful Aponte family.

Surging Shipping Costs and the Dangers of Inflation

The extended windfall has touched a raw nerve across the political spectrum as economists warn that persistently high transportation prices are stoking inflation and clouding the recovery. High costs for freight that used to fan only temporary spells of inflation upticks are becoming longer-term features of economies in the U.S. and elsewhere.

Nicholas Sly, an economist with the Kansas City Fed, has done research that found, in the past, a 15% increase in shipping costs led to a 0.10 percentage point increase in core inflation after one year. Shipping rates, he said, currently are a persistent — rather than temporary or transitory — challenge.

“Those types of shocks tend to have lasting effects 12 to 18 months out,” Sly said.

Faced with forces that are upending traditional business models, shippers around the world are pleading with regulators to rein in ocean-freight carriers. The latest salvo came Jan. 5 from the British International Freight Association, which called on the U.K. government to investigate “distorted market conditions” within the global container-shipping market.

The British freight lobby has pointed to concentration in recent years. Just 10 container lines based in Asia and Europe, led by Maersk, MSC, France’s CMA CGM SA, and China’s Cosco Shipping Holdings Co., control nearly 85% of the capacity for shipping goods by sea. Twenty-five years ago, the top 20 companies controlled about half of the global capacity.

While officially competitors, nine of them operate under vessel-sharing agreements called “alliances” that coordinate schedules and share space on ships. Meanwhile, carriers have long enjoyed leeway from anti-competition laws in most major economies, including in the European Union and in the U.S.

The Pandemic’s Impact on the Shipping Industry

For the first time, the pandemic demonstrated just how adept the carriers have become at managing the market's supply of cargo capacity, by curtailing it when COVID-19 first shook the world's economy and then ramping it up when demand rebounded strongly, driving prices higher than ever. Shippers have chafed at how the alliances’ lock on capacity — the ships, their schedules and speeds, and the millions of steel boxes in circulation — has translated into asymmetric pricing power.

Over the summer, a Pennsylvania-based home decor importer, MCS Industries Inc., filed a complaint against carriers MSC and Cosco before the Federal Maritime Commission, the agency tasked with overseeing carriers in the U.S. The company complained that they “have been operating in tandem to exploit the COVID-19 disruption to profiteer at the expense of U.S. consumers.” MCS reached a confidential settlement with Cosco, while proceedings against MSC are ongoing.

“This market is not working to the benefit of everybody,” said James Hookham, director of the Global Shippers Forum, which represents importers, exporters and cargo owners. “We believe this market needs some investigation to make sure those customers are not being abused.”

Carriers insist the high prices are an anomalous spike born of pandemic-sparked imbalances in supply and demand that will naturally resolve. John Butler, chief executive officer of the World Shipping Council, a group representing the container lines, defended the alliances as arrangements that make the whole system work more efficiently. The council points to stronger-than-normal consumer demand in the U.S., and Butler blames many of today’s disruptions on problems with land transportation.

“Pre-pandemic, the situation that we’ve had for the better part of 20 years is plenty of capacity, really low rates and plenty of service,” Butler said. “There’s nothing in the industry as a structural matter that has changed since then.”

Mario Cordero, former chairman of the FMC and executive director at the Port of Long Beach, which is part of the U.S.’s largest port complex, said it's a “confluence of factors” that have led to the tangling of the global supply chain in the wake of the pandemic. While he expects port congestion and shipping prices to move closer to normalcy in the second half of 2022, he’s still cautious. “I’m not suggesting we're over this.”

Modern American shipping laws date to 1916, an era when bulk goods were loaded on ships by net and crane. At the time, the U.S. government was concerned that foreign carriers and pricing monopolies threatened to disadvantage American businesses and undermine a nascent domestic commercial fleet. In response, Congress exempted carriers from antitrust laws, but required them to report any pricing agreements to regulators.

While shipping laws have been reformed over the years, the last major update was in 1998, a time before China was admitted to the World Trade Organization. The statutory antitrust exemption for the industry has endured, even as the FMC has lost some of its watchdog authority.

For decades, the U.S. Department of Justice has been pushing Congress to get rid of the antitrust immunity, arguing that it was no longer justified and undermined a free-market economy. At the same time, the shipping industry was undergoing a wave of consolidation that saw American carriers snapped up by foreign entities.

As carriers commissioned larger ships to obtain cost advantages, they struggled to fill the massive boats to capacity, losing money. Some stayed afloat with government-backed financing or outright state control like China’s ownership of Cosco. In 2013 carriers began forming alliances to collectively allocate cargo space and organize sailing schedules, much like airlines use them to book passengers on each other's flights, allowing travel on multiple carriers with one itinerary. By 2018, the UN agency that monitors maritime trade described it as “a market structure that is more representative of a loose oligopoly.”

When the first lockdowns hit in March 2020, most observers expected the shipping industry would be decimated. But an unexpectedly sharp rebound in demand followed the initial worries of a lasting plunge. The Chinese and American economies began reopening and government stimulus payments began flowing, juicing consumer demand for goods such as exercise bikes and home-office desks. By the third quarter of 2021, world trade in goods hit a record $5.6 trillion and was on pace for an equally solid number in the final three months of the year.

Port Problems and Supply Chain Woes

The roaring demand severely disrupted supply chains. Major ports in the U.S. couldn’t process imports fast enough, trucking companies fell short on drivers, and warehouses ran out of space. Fully loaded ships idled off California beaches for weeks because of port congestion. Suddenly, an industry that had plied the seas largely unnoticed by the general public had become a highly conspicuous target.

Regulators from the U.S., the EU and China met in September and determined there was so far no evidence of anti-competitive behavior in container shipping. Still, governments are on high alert as global supply chains are being pushed to the breaking point.

In November, the White House took aim at the industry’s consolidation, saying “this lack of competition leaves American businesses at the mercy of just three alliances” and calling on the FMC to “use all of the tools at its disposal to ensure free and fair competition.”

The FMC says it has increased monitoring of carrier alliances, to better track trends and spot potential illegal behavior, such as artificially limiting supply or not competing on prices. In late December, the agency opened an investigation into the Taiwanese carrier Wan Hai Lines Ltd. alleging relatively narrow violations of fee rules governing container returns. Beyond such steps, even the agency’s chairman, Daniel Maffei, said that under current U.S. law there is little regulators can do to rein in more widespread potential abuse.

“The fact is that it is very, very difficult, if not impossible for the FMC to ever challenge these alliances for violating competition requirements,” said Maffei, noting that he has no evidence that they currently are. “We don't really have the practical tools necessary to challenge it.”

In the U.S., a bipartisan bill that passed in the House last year takes aim at reforming U.S. shipping laws. It would give the FMC greater authority, prohibit carriers from discriminating against American cargo, and give businesses more power to challenge carrier fees. But even that bill — a potentially once-in-a-generation shot at reform — stops short of targeting carriers’ antitrust immunity. In Europe, the shipping companies’ exemption from anti-competitive rules is set to be reviewed again in 2024. The European Commission is “closely monitoring the container shipping industry and is aware that there have been large price increases,” the commission said in a statement.

Regardless of who’s to blame, customers are anguishing over the situation. Smaller importers and exporters have seen their cargo getting “rolled” — bumped like passengers from an oversold flight — and sometimes canceled outright despite contractual obligations with carriers.

Lori Fellmer, vice president of logistics and carrier management at New Jersey-based raw chemicals importer BassTech International, says she’s had shipments rejected multiple times, with seemingly no recourse. “In some cases, there was no getting space on a ship,” she said.

In the heart of Sri Lanka’s apparel manufacturing belt, exporters are struggling to meet orders as carriers shift more vessels to lucrative routes connecting China to the U.S. and Europe, said Sean Van Dort, with the Joint Apparel Association Forum Sri Lanka.

“Yes, they have to make money, don’t get me wrong — but when you have a 10 times, 12 times, 16 times higher freight rates — there’s something radically wrong,” he said.

#### Fuels inflation and crashes the global econ.

Rao 21 [Sujata Rao and Jonathan Saul, "Analysis: Shipping costs - another danger for inflation-watchers to navigate", 12/20/21, https://www.reuters.com/markets/commodities/shipping-costs-another-danger-inflation-watchers-navigate-2021-12-10/]

Much like the coronavirus pandemic, and the economic disruption that it has caused, a global shipping crisis looks set to go on delaying goods traffic and fuelling inflation well into 2023.

Shipping rarely figures in economists' inflation and GDP calculations, and companies tend to fret more about raw materials and labour costs than transportation. But that might be changing.

The cost of shipping a 40-foot container (FEU) unit has eased some 15% from record highs above $11,000 touched in September, according to the Freightos FBX index. But before the pandemic, the same container cost just $1,300.

With 90% of the world's merchandise shipped by sea, it risks exacerbating global inflation that is already proving more troublesome than anticipated.

Peter Sand, chief analyst at the freight rate benchmarking platform Xeneta, does not expect container shipping costs to normalise before 2023.

"This means the higher cost of logistics is not a transitory phenomenon," Sand said. "For inflation, that means trouble ... The element of shipping, in overall prices, small as it may be, is much bigger than ever before, and it could be a permanent lift to prices going forward."

Ocean transport costs initially leapt after a six-day blockage of the Suez Canal in March caused backlogs worldwide. That tightened an already strained vessel-hiring market as uncertainty about future fuel and emissions regulation had driven orders for new ships to record lows.

Then came a surge in demand for goods from consumers in coronavirus lockdowns, while dockyards were struggling with COVID-related labour shortages.

In early November, 11% of the world's loaded container volume was being held up in logjams, down from August peaks but well above the pre-pandemic 7%, Berenberg analysts estimate.

BACKLOG UNTIL 2023

In late October at Los Angeles/Long Beach, one of the world's biggest container ports, ships were taking twice as long to turn around as before the pandemic, RBC Capital Markets estimates.

Although the worst may be past, RBC analyst Michael Tran does not see freight prices returning to pre-pandemic levels for another couple of years.

Even if plans to unload an extra 3,500 containers each week are implemented, the Los Angeles/Long Beach backlog is unlikely to clear before 2023, he said.

"The softening in prices we saw at the end of September is a false dawn. What we see from a big-data perspective is that things are not getting materially better."

A United Nations report said last month that high freight rates were threatening the global recovery, suggesting they could boost global import prices by 11% and consumer prices by 1.5% between now and 2023. read more

The impact also ripples out; a 10% rise in container freight rates cuts U.S. and European industrial production by more than 1%.

#### Old buffers are spent. Inflation causes collapse.

Rowley 21 [Anthony Rowley is a veteran journalist specialising in Asian economic and financial affairs. He was formerly Business Editor and International Finance Editor of the Hong Kong-based Far Eastern Economic Review and worked earlier on The Times newspaper in London, "Why the global inflation surge could signal an economic collapse", 11/22/21, https://www.scmp.com/comment/opinion/article/3156716/why-global-inflation-surge-could-signal-economic-collapse]

But that is not the point. This time is different. As noted, the inflation surge comes at a time when financial and real estate asset values have been boosted to record and clearly unsustainable levels. That was not the case during previous great inflations.

As measured by the consumer price index, the annual rate of inflation in the US to October 2021 was 6.2 per cent. Annual inflation was running at 4.4 per cent in October in the European Union, and the UK’s Consumer Prices Index rose by 4.2 per cent in the 12 months to October.

Dramatically accelerated though these rates have become, they still do not approach the inflation levels seen in some previous episodes and certainly do not suggest hyperinflation. They are, to a large extent, caused by supply chain bottlenecks which continue to worsen as the Covid-19 pandemic reasserts its grip.

But again, it is not the absolute levels of inflation that are most important at this time – it is the very fact of inflation. The phenomenon had, in many people’s view, been banished by supposedly perpetual monetary easing and Modern Monetary Theory.

Inflation has returned from the dead, as the rising gold prices attest, while its persistence is likely to consign cryptocurrencies such as bitcoin to the crypt. Inflation’s resurrection threatens to undermine markets in a way that resembles or even surpasses an earthquake.

#### Consolidation means cyber attacks crash global trade

Merk 18 [Olaf Merk, leads the ports and shipping work at the International Transport Forum (ITF) of the Organisation for Economic Co-operation and Development (OECD), Lucie Kirstein and Filip Salamitov, "The Impact of Alliances in Container Shipping", 11/2/18, https://www.itf-oecd.org/sites/default/files/docs/impact-alliances-container-shipping.pdf]

In addition to alliances, vertical integration risks also reduce system resilience. Integration of shipping, terminal handling and hinterland transport could mean that whole transport chains are in the hand of just a few players, creating huge leverage for cyber-attacks, especially if parts of the chain are digitally connected. This became painfully evident during the NotPetya attack that hit Maersk ships and terminals (Box 7). Vertical integration could be considered to be related to the emergence of alliances. As service differentiation for the sea-leg is difficult in alliances – as the product is basically the same – one of the few remaining possibilities for individual carriers to differentiate is via vertical integration.

Box 7. Cyber security and risks associated to vertical integration

On 27 June 2017, a major cyber-attack began hitting firms mainly in France, Germany, Italy, Poland, Russia, Ukraine, the United Kingdom, and the United States. The attack is suspected to have started when hackers compromised the update server of Ukrainian tax accounting software company M.E.Doc so that it would distribute a malware referred to as “NotPetya” throughout its network. The malware further propagated itself notably via an exploit using a vulnerable Microsoft Windows network protocol. After analysis of the encryption routine of the malware, experts from Kaspersky came to the conclusion that the attack, although appearing as a ransomware attack, did not allow victims to recover their data even after paying the ransom, and the aim was therefore suspected to be directed at major disruption instead of financial gain for hackers (Ivanov and Mamedov, 2017). The carrier Maersk was presumably contaminated by this malware via software used by one of its offices in Ukraine. Maersk was forced to shut down many of its operating systems to stop the attack from spreading. The company was unable to process new orders and cranes were operated manually at some of its 76 container ports. The disruption caused major delays and led to rerouting of several vessels to ports not, or less, affected (Odell et al./FT, 2017). At least 17 terminals operated by APMT got infected by Maersk’s central IT infrastructure (Reuters, 2017). A number of terminals were unable to identify which shipment belonged to whom and therefore needed to clear cargo manually. The largest Indian port JNPT operated by Maersk’s APMT was forced to shut down and the terminal Maasvlakte II in Rotterdam stopped operations completely for a full week, which led to a highly congested service level.

According to Maersk’s annual report for 2017, the attack mainly impacted Maersk Line, APM Terminals and Damco. The effect on profitability was estimated to be around USD 250-300 million, with the vast majority of the impact related to Maersk Line in the third quarter (Maersk, 2018). Maersk estimated a 20% drop in volume and lost out on carrying 70 000 40-foot containers within the two weeks of the attack. Besides lost revenue, the attack also involved high costs of rebuilding its IT infrastructure. At the moment of the cyber-attack, Maersk did not own any cyber risk insurance. The company reported that 4 000 new servers, 45 000 new PCs, and 2 500 applications had to be reinstalled (Chirgwin/The Register, 2018). Actual impacts on Maersk’s performance could be higher than reported and probably stretch beyond the second half of 2017 (Porter/Lloyd’s List, 2017a). In April 2018, analysts speculated that the attack could have cost Maersk group over USD 500 million in expenses and lost profit. Others situate the cost between USD 400-500 million because the effect from the attack continued in the fourth quarter of 2017 and led Maersk to make investments in new infrastructure and insurances. Furthermore, the cyber-attack could have had an extended impact on market shares until the first quarter of 2018 (Beck/ShippingWatch, 2018). Although for most affected terminals it took a few days before they could resume operations completely, shippers were affected by delays of up to two months, because Maersk reportedly had difficulties in allocating new slots and tracking and assigning correct data to containers. The impact was widely felt by interviewed shippers and Lloyd’s List reported a similar observation that nearly two months after the attack, Maersk was still dealing with containers in transit at the time of the attack (Porter/Lloyd’s List, 2017b). One of the interviewed shippers reports having received additional demurrage invoices due to complications and delays caused by the cyber-attack, which suggests the carrier might have tried to shift part of the costs of the attack to their consumers.

Maersk’s global coverage, as well as strong horizontal and vertical integration in the sector further facilitated the knock-on effect of the cyber-attack. Companies who are reliant upon common IT infrastructure will logically suffer business interruption simultaneously when that infrastructure is compromised. Since supply chains are highly interconnected and even more so with increasing automation and digitalisation, this can result in an insecure operating environment even for those firms that make cyber security a priority. However, there is not only interdependence in IT infrastructure, but also in the utilisation of common assets. According to SeaIntel analysis, 20 other carriers transported containers on-board Maersk vessels around the time of the cyber-attack (SeaIntel, 2017; 319). MSC was the most affected with 23 vessel sharing agreements and four slot-charters, followed by Safmarine and Hamburg Süd. The most affected outside the 2M alliance and Maersk ownership was CMA CGM, with six vessel sharing agreements and four slot charter agreements with Maersk. The shipping sector is the backbone of international trade and ports are a vital part of every country’s infrastructure. Any major disruptions in supply chains can therefore have impacts on the overall economy. The scale of the cyber-attack and the many interconnections that exist vertically and horizontally in this industry could transform the collateral and rather accidental damage on a firm that was presumably not directly targeted, into a systemic risk for global trade.

#### Ships are vulnerable

Grady 20 [John Grady, "Experts: Maritime Industry Remains Vulnerable to Cyber Attacks", 9/28/20, https://news.usni.org/2020/09/28/experts-maritime-industry-remains-vulnerable-to-cyber-attacks]

While handling 90 percent of the global economy daily, maritime industry ashore and afloat remains increasingly vulnerable to cyber disruptions and attacks from “neerdowells and bad actors” that threaten financial markets and the country’s national security, the head of the Maritime Administration said last week.

Lacking a coordinated code affecting all modes of transportation and ports and terminals, the “movement of our armed forces” can be disrupted “by a few key strokes of bad actors” that can affect ship operations, cargo handling and on-shore facilities, retired Rear Adm. Mark Buzby said during a Sept. 24 virtual event hosted by The Atlantic Council.

Cyber disruptions in San Diego and Barcelona port operations in 2018 and continuing ransomware attacks on European transport companies underscore the vulnerability of these interlocked modes of economic movement, Coast Guard Capt. Jason Tama, commander of Sector New York, and Heli Tiirmaa-Klaar, Estonia’s ambassador-at-large for cyber diplomacy, added.

Speaking as part of the online forum, Kathy Metcalf, president and chief executive officer of the Chamber of Shipping of America, said all too often cyber security is thought of as the takeover of a ship and ramming it into the Verrazano-Narrows Bridge, which connects Brooklyn and Staten Island at the entrance to New York’s harbor.

The real need is for “collaboration” on all the details affecting small links in a supply chain or parts used in maintenance. “The system will only be as good as its weakest link,” Metcalf said.

The maritime industry includes many links — some more than 30 years old that remain extremely vulnerable, while others are brand new and hardened, Xavier Bellekens, lecturer at the Institute for Signals, Sensors and Communications, University of Strathclyde, said at the forum.

Looking only at ships, using open source information, Bellekens said anyone “can relatively easily … learn very fast about,” a ship at sea. Using slides, Bellekens selected one ship operating from a Southeast Asian port and in less than a day followed its course outbound, obtained biographical data on its captain, information on the makeup of the crew, current cargo, destinations and the ship’s current position.

The data are potentially useful to hackers, pirates, criminals, terrorists or hostile nation-states.

As he was speaking, Bellekens presented a news photo of the aftermath of a collision at sea between a Russian frigate and merchant ship in Danish waters that occurred the day prior. He used the photo, which was available within a few hours of the mishap, to emphasize the point that “there are many ways to gather open source information.

Master Mariner Capt. Alex Soukhanov, managing director at Moran Cyber, said that while designers and builders have understood for decades the need for safety, segmentation or compartmentalization in ship work, “cyber and networks” were “not priorities” for years. Those legacy systems are still operating today.

“It really doesn’t matter who the bad guy is” in hacking the vessel itself, from propulsion to navigation systems, port management, terminal capacity of cargo, to a maintenance facility’s work schedule because “all of these systems are connected together.”

#### Kills billions and causes LNG city attacks on par with nukes

Sincai 21, [Avital co-founded and heads as the COO in Cydome, Maritime Cyber Attacks Are Among the Greatest Unknown Threats to the Global Economy, June 28, https://www.cpomagazine.com/cyber-security/maritime-cyber-attacks-are-among-the-greatest-unknown-threats-to-the-global-economy/]

The fact is, if the maritime industry suddenly disappeared without a trace, the economic, social, and political impacts would be devastating. Billions of tons of vital products like food, medicine and oil are shipped around the world every year, and if these goods stopped flowing, billions of people would suffer the consequences. We saw a taste of this devastation early this year, when a ship lodged itself in the Suez Canal, blocking other ships from getting through. The incident cost the world nearly $10 billion in trade each day it was stuck.

This is only a fraction of the damage that could be caused by cyber attacks in the maritime industry.

There are various vectors for hackers to attack which could result in taking full control over a vessel or fleet, creating damage to critical systems on board or it could just be ransomware or a malicious virus attempting to take control. In one of the cases, we have seen that hackers took control of the pipeline and essentially held it hostage until they were transferred a certain amount of money they requested. In the end, faced with no other option, the pipeline company paid $4.4 million in ransom to the foreign hackers, according to the Colonial Pipeline CEO.

The hackers then reopened the pipeline, but the damage had already been done. The Colonial pipeline transferred huge amounts of oil across the country, and the shutdown caused massive shortages and panic buying. Gas prices went up across the country as a result of just a few hackers managing to exploit a vulnerability in the pipeline’s system. It’s easy to see from this one incident, how cyber attacks can affect much more than your personal computer.

Now, it is evident that the greatest cyber threat lies in the maritime industry. The COVID-19 pandemic sped up the already occurring digitization of the world, as a result of guidelines that required people to work from home over the internet. As such, the maritime industry also had to rely more heavily on the internet than ever before. You may not think of vessels and fleets as deeply connected with technology, but vessels are constantly connected to the internet.

Here’s where the real problem lies: some of the systems and computers on these vessels often use incredibly complicated and old systems. This makes it much harder to protect them from cyber attacks. The systems that these ships use are so complexly intertwined that there are many blind spots that are virtually unknowable.

Since the maritime industry is shifting into the digital age, and since the pandemic has forced it to rely even more heavily on the internet, there have verifiably been more cyber attacks on vessels recently. In only the first few months of the pandemic alone, attempted cyber attacks on maritime vessels shot up by 400%. This dramatic increase has truly sent a shockwave through the maritime community. The industry is one of the oldest industries in the world, and so it was surprising to some, how much they could be affected by just a few hackers.

Imagine if a hacker took control of a ship that was carrying something truly vital, like COVID vaccines. At this point, the internet is so deeply integrated with maritime systems, it would be impossible to switch to a manual system, so hackers would have full control.The hacker could shut down the ship for as long they wanted to, and as in the case of the Colonial pipeline, there is nothing the owner of the vessel could do but give them whatever it is they were asking for. Significant delays could cause millions, even billion dollars in economic damage, and have even more social and political effects.

Imagine if a hacker with malevolent intent took control of an oil tanker, containing millions of gallons of flammable liquid, and decided to do something terrible with it? We’ve seen oil spills before, but LNG tankers are so dangerous that even a small amount of damage could cause an explosion on the scale of a nuclear bomb. So what can we do?

#### Great power war

Liu 18, [Qian Liu is an economist based in China, The next economic crisis could cause a global conflict. Here's why, https://www.weforum.org/agenda/2018/11/the-next-economic-crisis-could-cause-a-global-conflict-heres-why/]

The response to the 2008 economic crisis has relied far too much on monetary stimulus, in the form of quantitative easing and near-zero (or even negative) interest rates, and included far too little structural reform. This means that the next crisis could come soon – and pave the way for a large-scale military conflict.

The next economic crisis is closer than you think. But what you should really worry about is what comes after: in the current social, political, and technological landscape, a prolonged economic crisis, combined with rising income inequality, could well escalate into a major global military conflict.

The 2008-09 global financial crisis almost bankrupted governments and caused systemic collapse. Policymakers managed to pull the global economy back from the brink, using massive monetary stimulus, including quantitative easing and near-zero (or even negative) interest rates.

But monetary stimulus is like an adrenaline shot to jump-start an arrested heart; it can revive the patient, but it does nothing to cure the disease. Treating a sick economy requires structural reforms, which can cover everything from financial and labor markets to tax systems, fertility patterns, and education policies.

Policymakers have utterly failed to pursue such reforms, despite promising to do so. Instead, they have remained preoccupied with politics. From Italy to Germany, forming and sustaining governments now seems to take more time than actual governing. And Greece, for example, has relied on money from international creditors to keep its head (barely) above water, rather than genuinely reforming its pension system or improving its business environment.

The lack of structural reform has meant that the unprecedented excess liquidity that central banks injected into their economies was not allocated to its most efficient uses. Instead, it raised global asset prices to levels even higher than those prevailing before 2008.

In the United States, housing prices are now 8% higher than they were at the peak of the property bubble in 2006, according to the property website Zillow. The price-to-earnings (CAPE) ratio, which measures whether stock-market prices are within a reasonable range, is now higher than it was both in 2008 and at the start of the Great Depression in 1929.

As monetary tightening reveals the vulnerabilities in the real economy, the collapse of asset-price bubbles will trigger another economic crisis – one that could be even more severe than the last, because we have built up a tolerance to our strongest macroeconomic medications. A decade of regular adrenaline shots, in the form of ultra-low interest rates and unconventional monetary policies, has severely depleted their power to stabilize and stimulate the economy.

If history is any guide, the consequences of this mistake could extend far beyond the economy. According to Harvard’s Benjamin Friedman, prolonged periods of economic distress have been characterized also by public antipathy toward minority groups or foreign countries – attitudes that can help to fuel unrest, terrorism, or even war.

For example, during the Great Depression, US President Herbert Hoover signed the 1930 Smoot-Hawley Tariff Act, intended to protect American workers and farmers from foreign competition. In the subsequent five years, global trade shrank by two-thirds. Within a decade, World War II had begun.

To be sure, WWII, like World War I, was caused by a multitude of factors; there is no standard path to war. But there is reason to believe that high levels of inequality can play a significant role in stoking conflict.

According to research by the economist Thomas Piketty, a spike in income inequality is often followed by a great crisis. Income inequality then declines for a while, before rising again, until a new peak – and a new disaster. Though causality has yet to be proven, given the limited number of data points, this correlation should not be taken lightly, especially with wealth and income inequality at historically high levels.

This is all the more worrying in view of the numerous other factors stoking social unrest and diplomatic tension, including technological disruption, a record-breaking migration crisis, anxiety over globalization, political polarization, and rising nationalism. All are symptoms of failed policies that could turn out to be trigger points for a future crisis.

Voters have good reason to be frustrated, but the emotionally appealing populists to whom they are increasingly giving their support are offering ill-advised solutions that will only make matters worse. For example, despite the world’s unprecedented interconnectedness, multilateralism is increasingly being eschewed, as countries – most notably, Donald Trump’s US – pursue unilateral, isolationist policies. Meanwhile, proxy wars are raging in Syria and Yemen.

Against this background, we must take seriously the possibility that the next economic crisis could lead to a large-scale military confrontation. By the logic of the political scientist Samuel Huntington , considering such a scenario could help us avoid it, because it would force us to take action. In this case, the key will be for policymakers to pursue the structural reforms that they have long promised, while replacing finger-pointing and antagonism with a sensible and respectful global dialogue. The alternative may well be global conflagration.

#### Removing the exemption solves. Immunity structurally ensures price hikes.

Monios 3/14 [Jason Monios Kedge Business School, Gordon Wilmsmeier Facultad de Administración, Universidad de los Andes, "Maritime governance after COVID-19: how responses to market developments and environmental challenges lead towards degrowth", Maritime Economics and Logistics, 3/14/22, https://link.springer.com/article/10.1057/s41278-022-00226-w]

The container shipping market has for some time been oligopolistic and exhibiting tacit collusion (Sys 2009; Wilmsmeier and Sánchez 2011; ITF 2018; Brooks et al. 2019). Now 91.5% of the sector is controlled by the top 10 players, with 9 out of the top 10 also joined in just three alliances. Alliances are exempt from anti-trust regulation on the premise that they reduce overcapacity via economies of scope, with the requirement that (part) of these efficiency gains be shared with the customer through lower prices (Benacchio et al. 2007). Have alliances reduced overcapacity? No. This arrangement allowed carriers to build up capacity, disadvantaging smaller competitors (ITF 2018) and leaving them vulnerable to acquisition. Carriers then withdrew that capacity during the COVID-19 crisis in order to protect and indeed increase profits. Have economies of scope (alliances) and economies of scale (ship size increases) resulted in lower, market-driven, freight rates? No. Freight rates fell in 2009 as a result of overcapacity triggered by the global financial crisis. They remained low in recent years, not due to alliances, but due to continued overcapacity as carriers continued to order more tonnage than was required by levels of demand (Wilmsmeier and Monios 2020). Carriers argue that they need alliances in order to manage overcapacity, that overcapacity is an unavoidable aspect of shipping cycles, but it would be more efficient if incentives were changed such that overcapacity, at least at these levels, did not exist. In fact it is the alliances that allow, even require, carriers to pursue such a strategy, a dilemma summarised succinctly by Haralambides (2019): “The industry has fallen into some sort of vicious circle where the need to cut costs leads to the construction of larger ships, creating overcapacity that depresses rates, thus leading to a stronger need to cut costs.” The backwards logic that carriers need anti-trust exemptions in order to fill large vessels shows how unhealthy the market has become. Alliances incentivise uneconomic behaviour, supply leading demand, and, in the case of the container shipping industry, seem to facilitate collusive behaviour, such as the coordination of overcapacity which disadvantages smaller competitors, or the coordinated timing of ship scrapping (ITF 2018). Low rates are therefore the reason for alliances, not the result of them. Breaking up alliances would make it more difficult for individual carriers to fill large vessels, leading to a reduction in average vessel size and more direct services. Such a model would facilitate more direct competition rather than a focus on economies of scale to reduce prices (Haralambides 2019).

The other issue of allowing alliances is the danger that the shipper ends up with fewer direct services, lower frequency and less choice of port calls. Has this happened? The evidence presented above (cf. Hoffmann and Hoffmann 2021) suggests that this has indeed occurred, as does the evidence from shippers (ITF 2018). However, it is not clear whether shippers are against concentration or only alliances. The Global Shippers Forum (2016) is in favour of mergers but not alliances, so there would be less choice of company but at least they would compete directly and shippers would know which carrier they were dealing with. Reducing transhipment and bringing the container as close to the customer as possible are highly prized by shippers (Haralambides 2019), who regularly complain about not knowing which carrier in fact has their container and how many times it has been handled.

OECD (2015) and UNCTAD (2018) pointed out that alliances lead to less port choice, fewer services and general quality issues, but stopped short of making recommendations for change. ITF (2015) had recommended that port costs and public investments should be better aligned to public interests so as not to incentivise use of mega-ships, and to ensure that any associated costs incurred by ports (e.g. dredging) would be recovered through appropriate port dues. ITF (2018) highlighted several downsides of alliances, including monopsony power over ports, lower service quality for shippers, market power that prevents new entrants in the market and overcapacity by allowing carriers to purchase mega-ships. The report proposed “a presumption toward” ending the EU block exemption from anti-trust regulations for shipping lines. This very reasonable proposal that shipping lines should compete like any other business caused a predictable industry outcry (Knowler 2018).

Brooks et al. (2019) summarised the key issues in the debate such as the role of different jurisdictions across the globe and the divergent views between shippers, carriers and other stakeholders such as ports, as well as challenges of data collection on trade lane market shares and freight rate indices. The report focuses on providing certainty for carriers, and ensuring none is forced to exit the market: “Carriers have been unable to get the freight rates they need but seek renewal of the CBER [Consortia Block Exemption Regulation], while shippers are unable to get the certainty they desire on non-monetary aspects of carrier service and so seek abolition, but without providing the supporting evidence that it will resolve their concerns.” However, one could argue that it is not the task of the regulator to ensure that badly run businesses stay in the market. If they are inefficient then the role of the market is to remove them. In any case, more and smaller carriers would reduce this “too big to fail” bankruptcy risk of huge carriers. The current state of the market contains high barriers to both entry and exit, precluding its smooth functioning (Wilmsmeier and Monios 2020). Brooks et al. (2019) provide evidence of the problem of the current market which incentivises the wrong decisions: “the size of vessels in service today raises serious doubts about the future of the industry under the expiry pathway as most carriers are unable to mount a viable service with only their own vessels.”

While the analysis of Brooks et al. (2019) focuses on carrier cost, it is not necessarily the goal of regulation to achieve lowest cost for carriers (either as a whole or individually). A more important goal is to create a level playing field with open competition thus providing the best service for users. As long as freight rate increases, for example due to smaller ships or environmental regulations, are the same for all carriers, then there is no reason to intervene in the market. Maritime transport is vastly under-priced because it does not internalise external costs; in the low freight rate period before COVID-19, rates could represent around 1% of the final product price for high-value goods or low-value low-bulk goods. In this period, rates could amount to around 10% for more bulky goods such as large appliances or assembled furniture (Rodrigue 2020), and these products are among the worst hit by recent rate increases, with the new freight rates accounting for 40–60% of the cargo value (Sea-Intelligence 2021). A quote from a shipper during the recent COVID-19 rate hike is instructive: “It is only worth paying that rate if you have a container full of iPhones—not a container full of plastic toys or household goods” (Landon 2021). In order to get anywhere near meeting environmental targets, it will be necessary to reduce transport of such low-cost goods that are only feasible for export due to under-priced maritime transport.

Studies that recommend retaining the block exemption focus on keeping costs low for inefficient carriers, arguing that removing the exemption would lead to increased rates hence a drop in demand. Demand was booming in 2008 when rates were three times higher than after the crash, according to the basic economics that demand exceeded supply hence rates were higher. Even if a future rate increase due to the internalisation of external costs does lead to a drop in demand, this would in any case primarily affect demand for shipping of low-cost goods, which should in fact be the goal of policy-makers seeking to reduce shipping emissions.

This dilemma goes back to the rise of Chicago school economics at the expense of previous approaches to issues of anti-trust, market concentration and barriers to entry. Davies (2017) writes that “Bain (1956) viewed high profit and industrial concentration as the consequences of anti-competitive behaviour” but the later Chicago school “saw them as positive side-effects of efficiency”. Given that the container shipping market has enjoyed exemptions from anti-trust regulation for almost 40 years, it is impossible to prove by an ex ante study that banning alliances would drive up prices, but even if so, this would almost certainly improve quality. The whole point of the market mechanism according to the early neoliberals like Hayek (1944) is that the market outcome is unpredictable so it cannot be steered either by governments or powerful corporations. Before the rise of Chicago school neoliberalism, such market power would be broken up as a matter of principle, in order to prevent dominance of any one actor or group of actors, regardless of the potential benefits it may bring. The high fixed costs characteristic of liner shipping are not unique to this sector and have been shown to lead to dominant or oligopolistic market structures when the industry is protected from competition (Benacchio et al. 2007).

#### DOJ enforcement now and coming BUT it fails because of immunity.

Stoller 3/1 [Matt Stoller is Research Director for the American Economic Liberties Project, "Ukraine War Profiteering and the Shipping Cartel", 3/1/22, https://mattstoller.substack.com/p/ukraine-war-profiteering-and-the?s=r]

The White House has put out that Biden will be announcing several initiatives. The first is that the Department of Justice Antitrust Division is now going to help the Federal Maritime Commission (FMC) enforce the Shipping Act, which is competition law for ships. The Antitrust Division is normally tasked with the Sherman Antitrust Act and the Clayton Act, which prevent anti-competitive actions and mergers by businesses. But ocean carriers have some immunity from antitrust laws because untrammeled competition tends to lead towards industry-wide ruin. Instead, the Shipping Act organizes ocean carriers and terminals, and it has rules for what these common carriers are allowed to do and what is prohibited.

The FMC enforces the Shipping act, but the FMC is a tiny agency, with just 118 employees and less than a $30 million budget. It is so feeble that the Agriculture Department has better information on shipping on its website than the FMC. The FMC does have expertise, but it has very little capacity in litigation or enforcement. Meanwhile, the Antitrust Division is very good at litigation and enforcement, but doesn’t know shipping. So this arrangement makes sense. It creates the ‘Voltron of Maritime Enforcement’, as shipping expert Sal Mercogliano put it.

So we can expect a lot more government scrutiny on the industry, particularly with regards to fees that truckers and customers of carriers have to pay due to the traffic jams they can’t control. Additionally, as Dave Dayen notes, it’s likely that the Department of Justice Antitrust Division is going to use the Shipping Act to go directly at the three cartels that control the industry, and perhaps split them up. The goal in the short-term is likely to get the carriers to think twice before raising prices and fees if they don’t have to, and to treat importers and exporters a bit better in terms of handling cargo. In the medium-term, the goal is probably to bring prices back down to some reasonable level, instead of letting ocean carriers collude to maintain high prices.

It’s not the first time the DOJ Antitrust Division has tried to get involved in shipping. In 2017, the FBI served subpoenas on shipping line top executives at what is known as the “Box Club,” an industry gathering. Presumably this investigation was for price fixing, but the DOJ dropped the investigation a few years later. The likely reason they dropped the case is because the industry has antitrust immunity if they work together to manage shared routes in terms of capacity and service, and DOJ couldn’t get around that immunity. Now, ocean carriers aren’t supposed to coordinate on price, but most people in the industry assume they do.

#### FMC is culturally timid. Shippers won’t seek help because they perceive ineptitude.

Brown 22 [Hannah Story Brown (she/her) is a Researcher with the Revolving Door Project. She holds a BA in English from Columbia University, and her writing spans a variety of critical and creative mediums. Her past work experience includes environmental writing and legal, political, and historical research. "Amidst a Record Supply Chain Crisis, What is the Federal Maritime Commission’s Capacity?", 1/4/22, Revolving Door Project, https://therevolvingdoorproject.org/amidst-a-record-supply-chain-crisis-what-is-the-federal-maritime-commissions-capacity/Hannah Story Brown (she/her) is a Researcher with the Revolving Door Project. She holds a BA in English from Columbia University, and her writing spans a variety of critical and creative mediums. Her past work experience includes environmental writing and legal, political, and historical research. "Amidst a Record Supply Chain Crisis, What is the Federal Maritime Commission’s Capacity?", 1/4/22, Revolving Door Project, https://therevolvingdoorproject.org/amidst-a-record-supply-chain-crisis-what-is-the-federal-maritime-commissions-capacity/]

By the 2010s, the ocean supply chain’s vulnerability and inefficiencies were already visible. The Commission’s response, spearheaded by Commissioner Rebecca Dye, was to bring together various industry stakeholders in conversation. The 2017 Report of this “Supply Chain Innovation Teams initiative” offers further insight into the Commission’s view of its responsibilities and, perhaps, capacity. Dye reports that industry participants “indicated that they had little appetite for governmental prescriptions or requirements,” and adds that “from the outset, the Commission recognized that additional government regulations were not the answer.” It is alarming to see a regulatory agency renege its chief function. The Commission decided to serve instead as “a *catalyst* for stakeholder-identified commercial solutions” (emphasis in original). Is this decision evidence of corporate capture, or the result of an agency whose resources are dwarfed by its mandate, still striving to make an impact?

Whatever the cause of the Commission’s reluctance to advance regulation, it appears that both the White House and a bipartisan coalition of lawmakers see regulation as the best path out of our current quagmire. While the Commission’s response to the supply chain crisis continues to emphasize “commercial solutions,” and includes the creation of a new National Shipper Advisory Committee, convening major shippers like Walmart, Tyson Foods, Amazon and DuPont to advise the Commission on ocean shipping policy, Congress is looking to the proposed Ocean Shipping Reform Act of 2021 for answers. The House of Representatives agreed to suspend the usual rules (which they do for noncontroversial bills) and passed the Ocean Shipping Reform Act of 2021 in a bipartisan 364-60 vote on December 8. The bill has already been sent to the Senate, read twice, and referred to committee.

The 2021 Act would give the Federal Maritime Commission more authority to crack down on bad practices by carriers and terminal operators, including discriminating and retailiating against shippers, making false certifications, and imposing unreasonable demurrage and detention fees. It would leave to the Commission’s discretion whether and when it is reasonable for carriers to refuse US agricultural exports when it is more profitable to send empty containers back to China.

The White House, meanwhile, has directed the Federal Maritime Commission to “​​use all of the tools at its disposal to ensure free and fair competition.” This includes the Commission’s unique ability to intervene on antitrust issues: “while the alliances between the carriers receive statutory immunity from antitrust laws, the FMC can challenge those agreements if they ‘produce an unreasonable reduction in transportation service or an unreasonable increase in transportation cost or … substantially lessen competition.’”

In reality, though the Commission has labored to avoid stepping on industry toes, it has substantial authority to enforce antitrust laws when shipping agreements—the confidential agreements that only the Commission gets to read—reduce competition and damage supply chain resilience. An encouraging sign that the Commission recognizes its antitrust capacity comes in the form of a Memorandum of Understanding with the Department of Justice’s Antitrust Division this summer, committing the two agencies to cooperate on “the enforcement of antitrust and other laws related to the Industry.”

While the Federal Maritime Commission’s singular discretion when it comes to challenging shipping agreements for antitrust violations may be its sharpest tool, it has a broad mandate to monitor all parties in the US-international ocean shipping industry to ensure “just and reasonable practices.” It is also the Commission’s job to facilitate “alternative dispute resolution” when problems crop up between parties, and to seek remedies when necessary. The Commission has the authority to conduct investigations and hold legal proceedings overseen by the Commission’s Administrative Law Judges, and prosecuted by its Bureau of Enforcement. Yet despite audible discontent within the industry, the Commission has found that “few private parties have filed complaints seeking reparations,” in part because shippers and truckers fear retaliation. While the Commission is taking steps to minimize barriers to private party complaints, the prohibitive cost of retaliation is indicative of the container lines’ tight grip on the industry.

### 2

#### Advantage 2---Five Eyes:

#### DOJ drives international enforcement with Five Eyes

Blenkey 2/22 [Nick Blenkey, "“Five Eyes” antitrust agencies turn their attention to the supply chain", 2/22/22, https://www.marinelog.com/legal-safety/shipping/five-eyes-antitrust-agencies-turn-their-attention-to-the-supply-chain/]

Back in November, the White House sent a clear signal that the nine carriers and three alliances that dominate the global container shipping market were going to face increasing U.S. scrutiny.

At that time, the White House briefing noting that the three global alliances control about 80% of the global shipping market and 95% on the critical East-West trade lanes. Alliances only controlled 29% of the market as recently as 2011.

The White House noted that while the alliances between the carriers receive statutory immunity from antitrust laws, “the FMC can challenge those agreements if they ‘produce an unreasonable reduction in transportation service or an unreasonable increase in transportation cost or … substantially lessen competition.”

As of yet, the FMC has taken no such drastic. Now, though, supply chain players—including, of course, the container shipping alliances—face more scrutiny.

“FIVE EYES”

The Antitrust Division of the U.S. Department of Justice last week announced an initiative with the FBI that will prioritize any existing investigations and prioritize measures to proactively investigate collusion in industries particularly affected by supply disruptions.

The Antitrust Division will also be part of a working group set up by the competition authorities of the “Five Eyes” nations (the U.K . the U.S., Canada, Australia and New Zealand). The group will meet regularly to develop and share intelligence to detect and investigate suspected supply-chain anti-competitive behavior and collusion, using existing international cooperation tools.

The five agencies—the Antitrust Division of the U.S. Department of Justice, the U.S. Department of Justice, the Australian Competition and Consumer Commission, the Canadian Competition Bureau, the New Zealand Commerce Commission and the United Kingdom Competition and Markets Authority , the Canadian Competition Bureau, the New Zealand Commerce Commission and the United Kingdom Competition and Markets Authority—issued coordinated statements putting companies on notice that those attempting to use supply chain disruptions as a cover for illegal anti-competitive conduct, including collusion, will face the full force of the law.

None of them specifically mention the container alliances and the U.K. Competition and Markets Authority notes that to open an investigation against any business, it requires evidence that businesses may be breaching competition law.

“While the CMA has received multiple complaints from businesses about supply chains, it has yet to obtain or find evidence of potential breaches of the law,” says the agency.

#### That fails because of immunity. The FMC is tiny and bad at suits and enforcement

Stoller 3/1 [Matt Stoller is Research Director for the American Economic Liberties Project, "Ukraine War Profiteering and the Shipping Cartel", 3/1/22, https://mattstoller.substack.com/p/ukraine-war-profiteering-and-the?s=r]

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#### Success extends Five Eyes beyond its intel core

Kirk 20 [Matthew Kirk, Squire Patton Boggs, Francesco Liberatore, Squire Patton Boggs, "“Five Eyes” Sign Cooperation Agreement in Competition Matters", 9/19/20, https://intellibriefs.blogspot.com/2020/09/five-eyes-sign-cooperation-agreement-in.html]

The Five Eyes Alliance has its origins in cooperation between US and UK intelligence agencies during the Second World War. It solidified into the secret relationship between the intelligence agencies of Australia, Canada, New Zealand, UK and US during the Cold War. Its soubriquet “Five Eyes” came from the protective marking on intelligence material shared between the five allies – AUS/CAN/NZ/UK/US EYES ONLY. The alliance remained in the shadows for decades – details of some of its programmes coming to public prominence in the revelations by Edward Snowden in 2013.

Increasingly, the Five Eyes has become a more public arrangement. In June this year, Five Country Ministerial (FCM) meetings were held between Finance, Foreign and Home Security Ministers. In the past couple of years, the Five Eyes have adopted joint positions on a range of issues, from encryption in internet platforms, rare mineral supply, resilience in critical national infrastructure, the implications of COVID-19 for domestic security, economic recovery, and the situation in the Indo-Pacific region. Most recently, Five Eyes Anti-Trust Regulators have agreed protocols on information sharing, described by my colleague Francesco Liberatore below. This is particularly intriguing, as it is the furthest departure of Five Eyes activity from its core intelligence sharing and national security rationale.

So where is Five Eyes cooperation going? Clearly, it is developing and extending – always on a nation state cooperation basis. The five countries differ in many ways, but share a common law underpinning, and a similar rationale for regulatory intervention. With over 460 million people and three G7 countries, the Five Eyes are a potentially significant economic grouping, as well as military/security. Given the highly international nature of the new economy, promoting cooperation between competition regulators makes perfect sense. Is it a first step in an emerging economic cooperation arrangement? Time will tell, but if it does the Five Eyes will have grown out of the murky world of intelligence cooperation into a major economic policy force.

#### Expanded Five Eyes solves extinction, every threat, and democratic concert

Stoltz 20, [Dr William A. Stoltz is a Visiting Fellow at the National Security College, A 2020 Vision for Five Eyes: New Structures for New Challenges, December 16, https://nsc.crawford.anu.edu.au/sites/default/files/publication/nsc\_crawford\_anu\_edu\_au/2021-02/nsc\_policy\_options\_paper\_16\_fiveeyes.pdf]

The Five Eyes grouping is the oldest and most integrated international security partnership in modern history. In practice, it is an amalgamation of many smaller, often informal, joint meetings, operations and exchanges arranged around specific national security, law enforcement and strategic issues. Practical, issues-based cooperation based on working-level engagement and trust has allowed Five Eyes to grow in an organic way. However, the challenges facing Five Eyes nations, and the liberal international order they support, demand that the grouping moves to a new era of cooperation that is more expansive, coordinated and strategic. If it can achieve this, Five Eyes could form the nucleus for a wider concert of democratic nations; a type of coalition that many have argued is essential to fortifying the liberal order against the security challenges of the 21st century. Untapped potential The basis for Five Eyes arose when a number of Second World War agreements between the United States and Britain were expanded to include Australia, Canada and New Zealand. These formal agreements largely related to signals intelligence sharing. However, collaboration rapidly grew to include all varieties of intelligence—military and civilian. Curiously, this growth in the relationship was not accompanied by additional formal structures like multilateral treaties. Instead, the nature and processes of intelligence exchange were largely left to respective Five Eyes agencies to resolve among themselves. The ad hoc advantage A nimble and highly adaptive mode of collaboration allowed Five Eyes agencies to jointly mount complex and largely successful espionage and counter-espionage activities. During the Cold War, Five Eyes activities primarily targeted the Soviet Union, and regimes or insurgencies deemed to align with it. From the 1990s, agencies targeted more non-state actors, and post 9/11 the global campaign against jihadist terrorism became a priority. Through this cooperation, member agencies’ day-to-day activities have become interwoven – they share intelligence, military technology and operational insights. But while the targets for its activities have broadened, the momentum of Five Eyes has continued to come from its operational agencies. Five Eyes has remained first and foremost an operational grouping with no established structure for members to plan and undertake concerted strategic initiatives, particularly those outside of conventional state conflict. This is a problem because nations’ collective efforts to address modern threats can no longer be confined to discrete intelligence partnerships between niche agencies. New challenges, new momentum The Five Eyes grouping has focused on terrorism, interstate warfare, rogue and failed nations, organised crime and weapons of mass destruction. Yet these threats have been joined, and in many instances eclipsed, by more opaque, pervasive challenges that require a remodelled Five Eyes. Today’s challenges to the liberal order include: • a pandemic-induced global economic crisis – the latest in an increasingly frequent cycle of economic and strategic volatility, • the stagnation of multilateral bodies, particularly those within the United Nations, and • coercion and political interference by authoritarian powers China and Russia. By using disinformation campaigns, economic warfare and coercive diplomacy, today’s existential challengers target the very fabric of liberal societies as well as the norms and institutions of the liberal international order. To address these challenges, the Five Eyes must expand to be a security partnership that can strategically mobilise economics, information, and diplomacy as well as intelligence and military force. Within the last decade, Five Eyes nations have shown an interest in pivoting the grouping to address new strategic challenges. Members have recently undertaken ministerial-level engagements on technology regulation, democratic advocacy, COVID-19 economic responses and cyber security. There has even been talk of coordinated retaliatory sanctions from Five Eyes in response to China’s arbitrary tariffs on Australian goods.1 Australian politicians, academics and officials have been active in efforts to test new areas for Five Eyes collaboration. These engagements reflect a growing realisation that the styling of Five Eyes as an exclusively intelligence-sharing club limits the grouping’s wider strategic potential. However, implementing coordinated economic sanctions, multi-jurisdictional regulations, or synchronised diplomacy involves highly complex, time-sensitive activities for which Five Eyes is not adequately equipped. Structures for unlocking strategic potential To continue to meet its original intent – of securing the liberal order – Five Eyes requires a new, more structured form, plus clearer political commitments from national leaders. This should involve a regular schedule of leaders’ summits and a standing secretariat. Comprising embedded expert staff from each Five Eyes nation, a secretariat would provide the institutional backbone to design and implement highly synchronised actions outside of the established intelligence and military relationship.

#### Extinction – automation displacement, sentient killer machines, strategic stability, gene engineering

Jain 19 [Ash Jain is a senior fellow with the Scowcroft Center for Strategy and Security, where he oversees the Atlantic Council’s Democratic Order Initiative and D-10 Strategy Forum, Matthew Kroenig, "Present at the Re-Creation: A Global Strategy for Revitalizing, Adapting, and Defending a Rules-Based International System", 2019, https://www.atlanticcouncil.org/wp-content/uploads/2019/10/Present-at-the-Recreation.pdf]

The system must also be adapted to deal with new issues that were not envisioned when the existing order was designed. Foremost among these issues is emerging and disruptive technology, including AI, additive manufacturing (or 3D printing), quantum computing, genetic engineering, robotics, directed energy, the Internet of things (IOT), 5G, space, cyber, and many others. Like other disruptive technologies before them, these innovations promise great benefits, but also carry serious downside risks. For example, AI is already resulting in massive efficiencies and cost savings in the private sector. Routine tasks and other more complicated jobs, such as radiology, are already being automated. In the future, autonomous weapons systems may go to war against each other as human soldiers remain out of harm’s way.

Yet, AI is also transforming economies and societies, and generating new security challenges. Automation will lead to widespread unemployment. The final realization of driverless cars, for example, will put out of work millions of taxi, Uber, and long-haul truck drivers. Populist movements in the West have been driven by those disaffected by globalization and technology, and mass unemployment caused by automation will further grow those ranks and provide new fuel to grievance politics. Moreover, some fear that autonomous weapons systems will become “killer robots” that select and engage targets without human input, and could eventually turn on their creators, resulting in human extinction.

The other technologies on this list similarly balance great potential upside with great downside risk. 3D printing, for example, can be used to “make anything anywhere,” reducing costs for a wide range of manufactured goods and encouraging a return of local manufacturing industries.61 At the same time, advanced 3D printers can also be used by revisionist and rogue states to print component parts for advanced weapons systems or even WMD programs, spurring arms races and weapons proliferation.62 Genetic engineering can wipe out entire classes of disease through improved medicine, or wipe out entire classes of people through genetically engineered superbugs. Directed-energy missile defenses may defend against incoming missile attacks, while also undermining global strategic stability.

Perhaps the greatest risk to global strategic stability from new technology, however, comes from the risk that revisionist autocracies may win the new tech arms race. Throughout history, states that have dominated the commanding heights of technological progress have also dominated international relations. The United States has been the world’s innovation leader from Edison’s light bulb to nuclear weapons and the Internet. Accordingly, stability has been maintained in Europe and Asia for decades because the United States and its democratic allies possessed a favorable economic and military balance of power in those key regions. Many believe, however, that China may now have the lead in the new technologies of the twenty-first century, including AI, quantum, 5G, hypersonic missiles, and others. If China succeeds in mastering the technologies of the future before the democratic core, then this could lead to a drastic and rapid shift in the balance of power, upsetting global strategic stability, and the call for a democratic-led, rules-based system outlined in these pages.63

The United States and its democratic allies need to work with other major powers to develop a framework for harnessing emerging technology in a way that maximizes its upside potential, while mitigating against its downside risks, and also contributing to the maintenance of global stability. The existing international order contains a wide range of agreements for harnessing the technologies of the twentieth century, but they need to be updated for the twenty-first century. The world needs an entire new set of arms-control, nonproliferation, export-control, and other agreements to exploit new technology while mitigating downside risk. These agreements should seek to maintain global strategic stability among the major powers, and prevent the proliferation of dangerous weapons systems to hostile and revisionist states.

A new technology committee established under the auspices of a revamped D10 could serve as a forum for the democratic core to converge on common standards for the protection of privacy, individual rights, and liberal values amid rapid technological change. It is also imperative that the United States and its democratic allies maintain their innovation edge. This means cultivating their traditional advantages in this area, including in education, research and development, openness to immigration, and strong capital markets. It could discuss the creation of formal norms and standards to guide the ethical uses of technology, from AI to genetic engineering to “killer robots.” This D10 Technology Norms Committee could also serve as a platform to coordinate on strategies to ensure that the United States and its democratic allies maintain their innovation edge in areas of critically sensitive technology, and forge agreements to address threats posed by adversaries. It also means properly understanding the threat posed by Chinese technology. China’s 5G investments in Europe, for example, are not about business, but about Chinese Communist Party (CCP) control. The democratic core should counter China’s industrial policies that violate international trading standards, and defend against the national security threat posed by the penetration of Chinese technology into their societies.

### 3

#### Advantage 3---Ports

#### Ports defer infrastructure that benefits shippers because they fear alliance bargaining power

Merk 18 [Olaf Merk, leads the ports and shipping work at the International Transport Forum (ITF) of the Organisation for Economic Co-operation and Development (OECD), Lucie Kirstein and Filip Salamitov, "The Impact of Alliances in Container Shipping", 11/2/18, https://www.itf-oecd.org/sites/default/files/docs/impact-alliances-container-shipping.pdf]

The extent to which public money has been misspent on port infrastructure has been well documented for Europe in a series of reports by the European Court of Auditors, who identified various ports financed by EU-funds that were underutilised or not utilised at all (ECA, 2011; ECA, 2016). Underutilisation of ports is not reserved to Europe; many world regions have more port capacity than needed (OECD/ITF, 2016). Port infrastructure is lumpy and maritime trade projections frequently inaccurate, so there is an inherent challenge in providing the appropriate amount of port capacity. Moreover, the relation between carriers and container ports is subject to hold-up problems, which increase the bargaining power of carriers (Box 11). However, this challenge has been amplified by the effects of alliances, as will be set out below.

Buying power of carriers

The buying power of carrier alliances stems from the fact that only a few world-wide ports seem truly inevitable. In North America only six ports receive calls from the three alliances on the two main trade lanes with Asia and Europe (Figure 19); this is 9 ports in Asia (Figure 20) and 5 ports in Europe (Figure 11). This implies that most large container ports are dependent on just one or two alliances; a decision of alliances to revise their port networks has large effects for the ports, which gives them huge leverage over these ports. Apart from a very select group of ports that seem inevitable for all alliances, most of the other ports have the constant risk that the alliance carriers will review their schedule and stop calling the port. Even the largest ports are not immune to the pressure and leverage from carriers.

Moreover, many ports compete with each other, so they provide carriers with real alternatives that they can use as leverage. Cargo shifts between ports are very frequent. Carriers and alliances very regularly update their service schedules and often change ports. The effects of these changes have much larger impacts than one or two decades ago, considering that much larger flows are now involved. We illustrated this with Figure 6 in Chapter 2 for the case of North-West European container ports. The relation between shipping lines and ports is per definition asymmetric, as ships are movable assets, whereas ports cannot be moved and have a longer investment repayment span. This asymmetry has increased due to the combined effects of alliances, consolidation and mega-ships.

Box 11. The hold-up problem of carriers and container ports A hold-up problem can be defined as a situation where two parties would derive benefits from cooperating, but refrain from doing so because they fear that they may give the other party increased bargaining power, which could reduce their own profits. This is pertinent in the case of infrastructure investment: when firm A makes an investment from which firm B derives a benefit, this could be considered "sunk investment", so firm B could change the rules of cooperation after the investment to implicitly or explicitly expropriate the investor (OECD/ITF, 2018). The ex post bargaining position of the investor will be weaker if the share of sunk investment is larger. In other words, the risk of a hold-up problem is larger with high asset specificity: the assets cannot be redeployed elsewhere because they are specific to that transaction. The risk of hold-up problems is higher in cases of high uncertainty because contracts cannot foresee every potential eventuality (they are "incomplete"). In case of competition amongst buyers and repeated transactions the hold-up risk is lower. In the latter case the investor's next investment could be used as a threat to contain the buyer's incentives to behave oppotiunistically (CRA, 2015). Hold-ups also tends to be less severe in situations where both parties could take some of the other side's specific investments "hostage" (Williamson, 1983).

#### Only certain competition rules stop underinvestment

Barnard 16 [Bruce Barnard, Special Correspondent, "Europe port operators seek regulatory clarity in daunting market", 12/8/16, https://www.joc.com/regulation-policy/transportation-regulations/international-transportation-regulations/europe-port-operators-seek-regulatory-clarity-daunting-market\_20161208.html]

Private port companies, which have “massively” invested on the seaside and landside, are facing “big” challenges in today’s market, Feport said.

“In the container sector, the ever-increasing alliances are seeking to leverage their position to drive down handling costs while at the same time expecting port operators to invest in the necessary equipment to handle bigger ships.”

Industry analyst Drewry sounded a similar warning last week, saying the perpetual drive for lower handling costs by container lines could lead to underinvestment in port infrastructure.

“This situation is becoming unsustainable in a context where the regulatory framework for ports is constantly changing, be it at national or European level,” Feport said in the white paper.

“The current depressed growth aggravates the impact of market inefficiencies and reveals the necessity to better target investments on hinterland connections to improve the connectivity of the transport network,” said Feport president Gunther Bonz.

Private operators want to continue investing, but they need a clear and stable framework including fair and transport governance rules and a real protection from risks of distortion of competition, he said.

“If the burden of restraints becomes too heavy, then private investment in ports and beyond will be postponed to the detriment of the European transport sectors.”

#### Solves ship fires. Magnitude grows with size and containment fails

Edmonston 21, [Stuart Edmonston, director, loss prevention at Thomas Miller P&I Ltd, will be the opening speaker at The Nautical Institute’s conference: Fires on Containerships, Containership fires: the industry must become proactive as well as reactive, October 25, https://theloadstar.com/containership-fires-the-industry-must-become-proactive-as-well-as-reactive/]

As years go by, serious incidents caused by or involving dangerous goods continue to occur, not only on ships but also in ports. Errors, misunderstandings, misdeclarations and inadequate packing and securing lie at the heart of many of these incidents.

As ultra-large containerships increase in size, the potential for human, economic and environmental accidents rise in proportion.

Today The Loadstar reports that it has been confirmed that a fire which broke out aboard the Zim Kingston was caused by a container collapse that damaged boxes containing dangerous cargo. Fortunately none of the crew was hurt.

The tragic loss of five crew members when the Maersk Honam caught fire on 6 March 2018, led to CINS\* (the Cargo Incident Notification System) publishing new safety guidance entitled Safety Considerations for Ship Operators Related to Risk-Based Stowage of Dangerous Goods on Containerships, which was prepared by a working group comprising CINS members, classification societies, a flag state and the International Group of P&I clubs.

The guidelines are intended to help improve fire safety onboard containerships. However, importantly, for the guidance to work it relies heavily on shippers filing accurate cargo declarations in the first place. The new guidance does not replace the SOLAS and IMDG requirements for stowage and segregation, it enhances the requirements of these regulations.

One of the biggest obstacles to progress is that the root cause of these incidents starts ashore, with the packing of the cargo and its stowage inside containers. Historically, stowage of cargo was carried out by the chief officer, who was fully trained and understood dangerous goods (DG) cargo, its hazards and how to stow it safely and effectively onboard.

Those who pack containers today often do not have the time, motivation or access to information to know how to pack a container correctly. There is also a lack of communication and transparency within the supply chain, and the sheer number of parties involved also contributes to the complexity of the problem.

There is a tendency for the industry and its representative bodies, such as the IMO, to be reactive following an incident, but what is needed is a proactive attitude and a change of approach to how we do things. We should also bear in mind that DG classification and regulations are complex and open to different interpretations.

When you look at the volume of hazardous and non-hazardous flammable cargo onboard ultra-large crude carriers (ULCCs), the size of any fire onboard will be almost impossible to contain. However, there are steps that the sector can take.

By developing trust and transparency throughout the supply chain, the carrier can understand the cargo onboard ship. This can be further aided through the use of automated cargo screening and machine-learning to compare declarations.

Better use of DG compliance software will also help, but this will not prevent mis-declarations if some shippers continue to fraudulently declare dangerous cargo. However, if used correctly, software can play an important role in segregation, declaration and documentation requirements.

In fact, increasing the use of technology in general will be essential in the future and, if combined with increased inspections followed by enforcement of criminal liability for defaulters, should help to reduce the number of incidents.

Of course, we can’t expect to entirely eliminate onboard fires, but we can improve how we handle them. Additional guidance by class, with better firefighting designs, are necessary as there is widespread concern about the suitability of current firefighting systems onboard containerships. The fixed fire-fighting equipment for the cargo spaces of a large container vessel, as mandated by SOLAS, is generally insufficient to fight an extensive fire, particularly with the increasing size of these vessels.

#### Each ship is a time bomb

Tirschwell 18, [Peter Tirschwell is vice president within the Maritime & Trade division of IHS Markit, which publishes and produces The Journal of Commerce, JOC.com, PIERS maritime trade data, and JOC events such as TPM, The time is now to address container ship, cargo fire hazard, <https://www.joc.com/regulation-policy/time-now-address-container-ship-cargo-fire-hazard_20180424.html>]

No one should be surprised when a container ship catches fire, no matter how new or big the vessel might be.

It is no exaggeration to say that literally every container ship is a catastrophe waiting to happen, given how little carriers know about cargo loaded onto their ships, the frequency with which shippers misdeclare hazardous cargo with impunity, the lack of a safety culture industrywide, the inadequacy of effective firefighting capability on even the newest ships, and the inaction by governments tasked with enforcing safety rules.

Serious container ship fires are now happening once every 60 days on average, according to the TT Club, a freight insurance and risk-management specialist. The latest big one as of April 17 was the 15,000-TEU Maersk Honam, which was still smoldering more than a month after it caught fire on March 6 in the Arabian Sea. The fire killed five crew members, and left the ship’s cargo either destroyed, damaged, or indefinitely stranded.

And yet, unlike how the problem of overweight containers was addressed with the tough 2016 Safety of Life at Sea verified gross mass (VGM) rule — which holds the shipper accountable for accurately declaring container weights — there is little momentum to address the menace of container ship fires. That is despite the fires killing crew members and causing tens of millions of dollars of cargo losses and supply chain disruption annually.

Consider the level of inspection and enforcement activity targeting dangerous goods shipments by coastguard agencies around the world. Roughly 5.4 million containers are shipped annually containing declared dangerous goods, of which more than 20 percent are possibly deficient in regard to compliance with hazardous materials-handling rules, according to comments submitted to the International Maritime Organization (IMO) last year by the International Cargo Handling Coordination Association (ICHCA).

In regard to one area of noncompliance — placarding and marking of hazardous goods containers — the percent of noncompliant containers has sharply increased in recent years. Wrongly placarded units can create a major hazard, as exemplified in Vancouver in 2015 when a container packed with dangerous goods caught fire, as well as numerous incidents on board ships, according to the ICHCA submission.

Governments have done little

Yet governments do little. The number of inspections performed on loaded containers holding dangerous goods is about four per 100,000 packed containers moved, according to the ICHCA. Unlike anti-terrorism container security programs, there is no additional layer of data screening behind the relatively few number of actual inspections.

Despite IMO member states being urged by the organization in 2012 to implement inspection programs and report their findings to the IMO, as of last year only four out of the 175 IMO member states had submitted a report to the IMO on the results of cargo inspections, according to the ICHCA. The findings “drew attention to the lamentable level of competent authority enforcement/inspections alongside the worrying level of deficiencies found,” according to the submission to the IMO.

A recent ICHCA seminar reported “one shipping line [revealed] that many shippers use alternative terms for dangerous goods to avoid surcharges and having to comply with additional measures, including any ship or port restrictions, as well as the regulations themselves,” according to the IMO submission.

“It is a serious situation when a unit packed with dangerous goods, requiring specific and careful placement or stowage aboard a ship, is treated as if there were no danger from its contents at all; such a container may inadvertently be positioned in a way that exposes it to increased risk, thereby endangering other cargo, the crew, and the ship,” Peregrine Storrs-Fox, risk management director at TT Club, wrote recently.

#### That’s on par with nuke war, causes algae blooms, nurdle spread, and fish collapse

Cahlan 21, [Sarah Cahlan Follow Sarah Cahlan is a video reporter for The Washington Post's Visual Forensics team. Before joining the Post she was an NAHJ fellow at NBC News. Headshot of Ruby Mellen Ruby Mellen Follow Ruby Mellen reports on foreign affairs for the Washington Post. Headshot of Atthar Mirza Atthar Mirza Follow Atthar Mirza is a graphics reporter and animator working on interactive storytelling. Headshot of Elyse Samuels Elyse Samuels Follow Elyse Samuels is a video reporter for The Washington Post's visual forensics team. She joined The Post's video team in 2016 where she worked in breaking news, verification and in collaboration with the The Fact Checker., Tons of toxic cargo, June 15, https://www.washingtonpost.com/world/interactive/2021/sri-lanka-cargo-ship-fire-pollution/]

The waters off Sri Lanka’s capital of Colombo seem calmer now, more than two weeks after a blazing 610-foot container ship lit up the coastline. Most of the X-Press Pearl, a four-month-old Singapore-flagged container ship, has settled on the bottom of the sea.

But the ocean has already begun to tell its own story. Lifeless fish are washing up on Sri Lanka’s sands, plastic pellets lodged in their gills. Those pellets have also covered picturesque beaches, lapped ashore by the waves. Dead turtles and birds have been reported on the coast as well, although the connection to the ship is still being investigated.

Satellite imagery released last week showed discolored water near the site of the disaster that some feared indicated an oil spill. On June 12, X-Press Feeders, the company that owns the ship, shared in a news statement that a “gray sheen” was observed emanating from the vessel but that there were no confirmed reports of fuel oil pollution. The government has not officially reported an oil spill. A spokesperson for the Sri Lankan navy, which has been investigating the site, told The Washington Post that “samples are being tested to ascertain the composition of the slick.”

To better understand how this happened and the potential effect on Sri Lanka’s environment and economy, The Post mapped the ship’s path, had experts analyze its cargo, geo-located photos and videos of the debris on the country’s shores, and acquired models of the extent of its spread. The analysis shows the impact on Sri Lanka’s western coastline and the potential of further environmental damage that some experts worry will take years to repair.

The Sri Lanka Navy conducted a diving inspection of the X-Press Pearl shipwreck June 6. (Sri Lanka Navy)

Aboard the ship were nearly 1,500 containers, dozens of which contained dangerous goods, including nitric acid, sodium methoxide and methanol. In addition to the chemicals, the small plastic pellets pose a danger to marine life.

“It’s very close to a nuclear disaster, what has happened here,” said Muditha Katuwawala, a coordinator at [the Pearl Protectors](https://pearlprotectors.org/), a volunteer organization committed to protecting Sri Lanka’s marine life. “This is not a problem just in Sri Lanka. In the coming weeks, this is going to be a regional problem.”

The fire

[According to X-Press Feeders](https://www.x-presspearl-informationcentre.com/), the ship “reported smoke from the cargo hold” near the port of Colombo on [May 20](https://twitter.com/srilanka_navy/status/1395638046930792451). The next day, the ship reported a fire on deck. Sri Lanka’s government activated firefighting tugs and a helicopter to battle the blaze. One day later, an explosion was heard on the X-Press Pearl. Satellite imagery captured May 22, the day of the explosion, shows the fire and smoke rising from the ship.

On May 25, five days after the first signs of smoke, another explosion was heard. The X-Press Pearl’s crew and a firefighting team that had been brought on board were evacuated. On [June 2](https://twitter.com/airforcelk/status/1400020419000901636), the ship [started to sink](https://twitter.com/srilanka_navy/status/1400703380482248705), ultimately hitting the ocean floor 68 feet below. As of Tuesday, 25 days after the fire began, the vessel remains at sea, raising concerns among environmentalists about the possibility that oil and other dangerous chemicals might leak into the ocean.

It is still unclear what caused the [fire](https://twitter.com/srilanka_navy/status/1398973522693689344), but Andrew Leahy, a spokesman for X-Press Feeders, said a leaking container of nitric acid — a compound used to make fertilizer and plastic — is “one of the many aspects in the lead-up to the fire which is now under investigation.” The company said the ship’s crew applied to the ports in Hamad, Qatar, and Hazira, India, to offload the leaking container, but the ports denied the requests because they said they did not have experts available to handle the container. The Post contacted both ports for comment but did not receive a response.

The dangers

Close to 1,500 containers were aboard the ship. According to X-Press Feeders, 81 of them contained dangerous goods, including 25 metric tons of nitric acid. The Post obtained a copy of the manifest for the ship, which details all of the cargo on board. The company’s spokesman declined to comment on the document. The Post verified its contents by tracing serial numbers of the cargo containers back to the X-Press Pearl through various shipping company websites.

Plastics, chemicals, and dangerous goods made up more than a third of the ship's cargo

The X-Press Pearl cargo manifest classified by Harmonized System (HS) and International Maritime Dangerous Goods (IMDG) codes.

DangerousPlastics/rubbersChemicalsOtherEmpty

The Sri Lankan navy, whose [divers have been inspecting](https://news.navy.lk/oparation-news/2021/06/06/202106062015/) the disaster site, said June 6 that “no abnormality” had been observed in the water. But scientists who focus on the region fear that if the chemicals seep into the ocean, they could leave a delicate marine ecosystem in distress.

“Many chemicals easily react with water,” said Dureshika Markovich, a California-based biochemist who works in a lab that handles toxic chemicals.

Other scientists said that in open water, some of chemicals on the container ship would be diluted and therefore not have a major effect on the wildlife.

Markovich highlighted some of the most concerning mixtures on board:

|  |
| --- |
| Sodium methylate or sodium methoxide | A highly reactive substance used as a catalyst to produce methanol. Toxic when inhaled. When it reacts with water, it produces sodium hydroxide, which is corrosive to fish and changes the PH of the water. |
| Caustic soda flakes | Also known as sodium hydroxide. Used to make detergents and soap. In high concentrations, it can be very toxic for marine wildlife. |
| Methanol | A widely used chemical. It evaporates quickly, so its effects in water are hard to understand, but studies have shown that it can increase algae blooms, which can in turn block sunlight from the surface of the water, damaging marine life. |
| Nitric acid | What many think caused the fire. When mixed with air, it can cause acid rain. But when mixed with water, it produces nitrates, which are a food source for algae, causing blooms that destroy the water ecosystem’s balance. |
| Limestone | Is composed of calcium carbonate, a saltlike substance that is harmful to aquatic life. |
| Lubricants | Because they do not mix with water, these oil-like substances can block all the airwaves from the top of the water, depriving fish of oxygen. |
| Priled urea | A form of fertilizer. Contains a high nitrogen content, which is a food source for algae and can cause blooms. |

Ajantha Perera, a Sri Lankan environmental activist and scientist, said that any change to the pH of the water could alter sensitive algae, which in turn could kill parts of the coral reef that would push fish away from the area if there is no longer a food source for them.

“It could become a dead region,” Perera said. “Because once the coral reef is gone, then the fishery would also go down. So we are looking at years, if ever, for regeneration.”

Although not themselves toxic, the plastic pellets, known as nurdles, can strangle small sea creatures. When scattered on sandy beaches, they can cause the temperature of the ground to rise, affecting the incubation of turtle eggs.

“The most long-lasting event and widespread for the region is definitely the plastic,” said [Charitha Pattiaratchi](https://research-repository.uwa.edu.au/en/persons/charitha-pattiaratchi" \t "_blank), a professor at the University of Western Australia’s Ocean Institute. “They are in the ocean forever,” he added.

The fallout

Nurdles have been recorded on a stretch of about 230 miles along the western coast of Sri Lanka, according to data obtained from a nurdle tracker run by the marine conservation research and education organization Oceanswell, which uses crowdsourced data to identify the spread of pellets along Sri Lanka’s beaches.

A picture containing text, businesscard, ax

Description automatically generated

The pollution isn’t constrained only to the beaches. A computer model by Pattiaratchi at the University of Western Australia shows where the plastic pellets have most likely spread and where they will continue to spread based on ocean currents, wind speeds and ocean density changes. The Post re-created a model to show the potential extent of the nurdles based on data collected from Pattiaratchi’s team.

One of the hardest-hit areas appears to be beaches along the coast of Negombo. Recent satellite imagery reveals piles of plastic pellets on the ocean and piled up along the shoreline, according to an analysis from Maxar senior analyst Stephen Wood.

Video and images of the coast show the nurdles blanketing the beaches, almost fully covering the sand.

Personnel from Sri Lanka’s navy wore protective bodysuits to clear the debris and pellets from the beaches.

The nurdles had an immediate impact, seen in dead fish that have washed up on shore with the plastic pellets in their gills and mouths.

Herman Kumara, head of Sri Lanka’s National Fisheries Solidarity Movement, said the disaster will be damaging to both the marine life and the people who depend on it, as the government banned some fishermen from going out to sea.

Story continues below advertisement

“The area where the ship burnt and sunk is a very rich fish breeding and feeding ground. Immediately, people are reluctant to eat fish, so there is a huge threat to the income” of fishermen, he said, adding that the fishing economy in that part of the country could “totally collapse.”

As of Tuesday, the X-Press Pearl remains in the ocean, partly submerged. Leahy, the X-Press Feeders spokesman, said that once the ship settles, an assessment of the vessel and cargo and an investigation of the fire will be completed.

Smoke rises from a fire onboard the X-Press Pearl vessel as it sinks while being towed off the Colombo Harbor in Sri Lanka on June 2. (Sri Lanka air force via Reuters)

Sri Lankan officials are investigating and working to mitigate the potential damage. As of May 26, the country’s [Marine Environment Protection Authority (MEPA) reported](https://mepa.gov.lk/mv-x-press-pearl/)that 42,000 bags of debris were collected from 138 beaches. As of June 10, MEPA said it had collected 1,075 tons of waste.

But the plastic spill remains overwhelming and unprecedented. Pattiaratchi said it was probably the worst nurdle spill in Sri Lanka’s history. As time goes on, he predicts, the pellets will continue to disperse, arriving in Indonesia in about 60 days, before reversing course during monsoon season later in the year to reach India, Sri Lanka again, the Maldives and perhaps Somalia, ending up in Cocos-Keeling Island and Christmas Island in one to two years.

#### Blooms cause extinction

Mustoe 21, [Founder of Wildiaries, a nature travel media company. In partnership with Tourism Australia I co-wrote, directed and produced a documentary film series in the sixteen Australian National Landscapes. With MDSA and Associates we built a reader database of over 250,000 subcribers and online magazine which I now use to tell stories about wildlife, ANIMALS AND OCEAN DEOXYGENATION, https://simonmustoe.blog/animals-and-ocean-deoxygenation/]

The threat without animals

The problem is, deoxygenation and loss of animals destabilises the fragile food chains that humans depend on. Even if an increase in marine plants removes more carbon, humans can’t live among a soup of algae and bacteria and we might get over-run by jellyfish. We need fish, birds, whales and sharks to survive. We’re animals of a similar size and nature and we live among them, in the structures that sits on top of the algal processes.

Think of Earth like software on a PC … at the base is MS-DOS. This basal operating system is like the sunlight that hits the Earth and all the physical continents and ocean. Microsoft Windows sits on top of MS-DOS. It’s like the plant layer, that translates the basic operations into functions that can be read by software. Then, to make life liveable, we need a suite (an “ecosystem”) of interacting software. This is run by the animals (including humans), much in the way you are currently running the computer or phone you’re using to read this. When we all operate altogether, we perform our daily tasks as part of a system, which has ‘biodiversity’ value throughout.

Animals and ocean deoxygenation.

When they defecate, whales like these humpbacks, produce iron at millions times surrounding seawater concentration. The activity of marine vertebrates promotes increased algal production in very specific places and this attracts many other animals. The combined activity enhances the biodiversity processes and promote surface mixing, that removes surplus nutrient from the surface while increasing carbon uptake. Drawing by Simon Mustoe.

The way animals and ocean deoxygenation are regulated by iron

Animals help mix the ocean’s surface layers, cooling our atmosphere and delivering more oxygen into the system. Ironically, they also increase the amount of algae by introducing huge concentrations of iron into surface waters. These are the ways animals and ocean deoxygenation are linked.

Hang on a minute though, we just said more algae is bad for human habitation, didn’t we? As in everything ecosystemHow ecosystems function An ecosystem is a community of lifeforms that interact in such an optimal way that how ecosystems function best, is when all components (including humans and other animals) can persist and live alongside each other for the longest time possible. Ecosystems are fuelled by the energy created by plants (primary producers) that convert the Sun's heat energy More based, the system is non-linear.

It’s not the amount of algae that matters, it’s where and when it occurs. Iron from animals increases the diversity and abundance of algae over time but in such precise quantities, that it can’t pollute the ocean. They transfer(of nutrients) the thing that sets animals apart from plants, is that they can move. Some of the biggest migrations on Earth every day, are the movement of insects like caterpillars, from the stem of a plant to a leaf and back, before turning into butterflies and transferring the energy elsewhere. Large-scale migration of grazing animals and migratory songbirds moves More, amplifyAmplification (of nutrients and energy). Animals consume plants and other animals and in doing so, reintroduce important energy-containing nutrients back into the environment, at even higher concentrations and in patches. Amplification of energy is driven by migration and happens at every scale, from insects moving daily in and out of your vegetable patch, to African wildebeest herds and the seasonal More and concentrate nutrients in the right place and time, meaning a diversity of animals (and human fisheries, where relevant) also know where to find it. More animals might mean more algae, but it means a more stable carbon-oxygen balance, which is what humans and other animals need to survive.

The biodiversityWhat is the definition of biodiversity? When we ask, what is the definition of biodiversity? It depends on what we want to do with it. The term is widely and commonly misused, leading to significant misinterpretation of the importance of how animals function on Earth and why they matter a great deal, to human survival. Here I will try to More ‘hotspots’ we talk about, are regulated by animals, not algae. Deoxygenation is simply a redistribution of energy from places where it is useful for human survival (where animals put it), into places it is not useful e.g. abundant algal blooms. Under a “new normal”, we would see rampant algal growth across large areas of ocean in unpredictable ways, ways in which animals can’t function(Of an ecosystem). A subset of ecosystem processes and structures, where the ecosystem does something that provides an ecosystem service of value to people. More.

The take home message is that human beings exist inside the animal-led biodiversity processes, not the algae-led processes. All algae will do is absorb the same quantity of heat from the sun but in the absence of animals, there will be a failure to build the trophic systems that make Earth habitable.

#### Fish shortage causes global war

Bergenas 17 – MA in Security Studies @ Georgetown, senior director for public policy at Vulcan Inc., the organization led by philanthropist and Microsoft cofounder Paul G. Allen (John, “The Next Resource War May Be Over Illegal Fishing. Is the U.S. Ready?,” *World Politics Review*, https://www.worldpoliticsreview.com/articles/23177/the-next-resource-war-may-be-over-illegal-fishing-is-the-u-s-ready)

Today, major powers are ignoring the international laws and norms that guide the harvesting of fish. According to the United Nations Food and Agriculture Organization, every fifth fish is caught illegally. As a result, countries have begun using military force to protect what they believe to be critical national assets. This is a recipe for disaster, with the potential to give rise to another entry on the long list of wars fought over natural resources. Some current and former members of the U.S. military are now calling attention to the crisis of illegal, unreported and unregulated fishing, known as IUU, framing it as a matter of war and peace. Retired Adm. James G. Stavridis, a former supreme allied commander of NATO, has warned that large-scale industrial and unsustainable fishing is a serious maritime security threat. A recent article in the U.S. Naval Institute’s Proceedings Magazine warns that “if cooperation cannot be achieved [to manage the growing IUU fishing problem], the United States should prepare for a global fish war.” These are powerful messages from those charged with protecting the United States and its interests around the world.

#### Nurdle pollution cause extinction

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Air remains the most important substance for human and animal survival, as they breathe them in. However, breathing polluted air is detrimental and can lead to human and animal death. The pollutants in the air or transported by air are considered air pollutants. The threat posed by air pollution is of growing concern globally, majorly due to the increasing global population, which plays an important role in polluting and causing severe degradation of the ecosystem (pedosphere, hydrosphere and atmosphere) (Verla et. al., 2017; Ibe et al., 2016; 2017). Among many pollutants in the atmosphere, airborne microplastics are newly indentified and are of current concern by scientists, non-governmental organizations and the public media. To date, general studies regarding microplastics pollutant in the environment have placed emphasis on the marine environment (water and sediments) including their abundance and effects on organisms and seabird (Cole et. al., 2011; Van Cauwenberghe et. al., 2013; Van Cauwenberghe et. al., 2015). Soil environment have also started gaining attention recently with studies assessing impact on soil organisms and plants growing on them (Qi et. al., 2018; Joao et. al., 2019; Zhu et. al., 2019). Meanwhile, information about airborne microplastics is still very limited in this regard. Recent research published in Marine Pollution Bulletin (2016) and Environment Pollution (2017) by Dris and his colleagues suggested that microplastics are now present in the atmosphere (air), both in indoor and outdoor air. This was confirmed in subsequent study by researchers which reported that microplastics can be transported in air in different forms or shape (Zhou et. al., 2017; Cai et. al., 2017; Kara et. al., 2018; Allen et. al., 2019; Liu et. al., 2019). These findings therefore confirm that microplastics are now ubiquitous in global ecosystem. So far, microplastics types indentified in the atmosphere include synthetic; PET: polyethylene terephthalate, PE: polyethylene, PES: polyester, PAN: polyacrylonitrile, PAA: poly(N-methyl acrylamide), RY: rayon, EVA: ethylene vinyl acetate, EP: epoxy resin; ALK: alkyd resin, and natural; cotton and wool while the shape/forms in which they are present include fragments, foam, films, granules and fibres (Table 1). These forms are produced primarily through natural degradation of large plastics by ultra violet light or secondarily from clothing, personal health care products and nurdles. The degradation may occur in the atmosphere or on soil or water and may be blown by wind into the atmosphere. Other source of airborne MPs could be from emissions during recycling of macroplastics. It was demonstrated that emissions during from plastic waste recycling processes have affected the ambient environment (Huang et al. 2013; Hahladakisa et. al., 2018), a process which may also deposit MPs in air.

### plan

#### The United States federal government should substantially increase its prohibitions on anticompetitive conduct by private ocean shipping carrier companies by reducing shipping antitrust immunity

### Solvency

#### The plan aligns with international preference, other exemption removals disprove concerns

Whirley 18 [Gage Whirley. J.D. candidate 2019, Tulane University Law School; B.A., Political Science, 2016, Virginia Polytechnic Institute and State University, "A Forgotten Agreement: A Comparative Analysis of Tramp Pooling Agreements in American Antitrust Law", Winter 2018, Tulane Maritime Law Journal 43, no. 1, HeinOnline]

The United States has exempted liner conferences from antitrust law for over a century and there is now doubt both domestically and internationally on whether this policy still serves a legitimate purpose. This Section assesses this policy in terms of what is seen currently in the liner trade as well as ties in the comparative perspectives from the EU and Japan.

One explanation given for the antitrust exemption under American law was that Congress in 1916 made an error in the assessment of the maritime industry and did not fully appreciate the status of the shipping industry in the early twentieth century resulting in a regulatory scheme riddled with inefficiency that has been held onto throughout the last century."' One assumption Congress made at the time of the Alexander Report's release was that the maritime industry was unique and needed to be protected from "destructive competition" to ensure stability.14 0 It seems this was a continuing presumption in the following century of regulation seen in the 1984 Act and OSRA.

Recently, there have been discussions that the antitrust exemption is no longer serving a legitimate purpose. 14 1 This sentiment seems to be echoed on the international stage. A report used during the crafting of the EU's repeal of the exemption stated that "with conferences the source of price volatility comes from the structural instability of market participation and conference membership."1 42 More recently, the Japan Fair Trade Commission issued a 2016 press release stating that "it is difficult to claim that the tariffs conferences work well to stabilize freight rates because tariffs in conferences hardly have a significant impact on freight rates that are actually determined." 143

One striking remnant from the "glory days" of true cartel activity in shipping conferences is illustrated by the events of 2017 and 2018. United States authorities "crashed" the meeting of major container line CEOscalled the Box Club-early in 2017.1" Members of the Box Club are part of discussion agreements-which are not permitted to price fix, unlike conferences. 145 The article reports that, "Antitrust investigators believe that due to a history of legally having the ability to discuss pricing under antitrust immunity, the industry lacks a disciplined culture and would be vulnerable to illegal activity."l46 The CEOs of the largest container liner companies, such as Maersk and Mediterranean Shipping Company (MSC), were served subpoenas by the Department of Justice.147 This was not an isolated incident; in February 2018, EU authorities fined CSAV, KLine, WWL-EUKOR, and NYK a total of 6350 million for "coordinat[ing] prices, allocat[ing] customers and exchang[ing] commercially sensitive information."l4 8

In the modem, post-crisis era, one problem that was arguably less prevalent in previous eras, is the consolidation of market presence within the industry. The top ten carriers increased their market share from around 45% to 70% between 1996 and 2017.14 More interestingly, as of October 13, 2018, the top five shipping companies-APM-Maersk, MSC, COSCO, CMA-CGM, and Hapag-Lloyd-collectively represented 63.2% of the capacity in international liner trade.'s

On the notion that Congress erred in some assumptions in making the antitrust exemption for liner trades, it can be said that in the wake of the OSRA-and the ensuing defanging of conferences-that possibly the liner market began to emerge as an infantile market. What is meant by this is that the market is now increasingly exposed to the free market because conferences are no longer engaging in their historic, and exempted, "cartel"-like behavior such as price-fixing due to their retreat from the market. One way to understand this comes in a thirteen-year study of over 25,000 companies, which produced a predictable model for industries following deregulation.' 5 This model provides trends in understanding how industries consolidate over time as they mature through the movement of four stages.' 52 Industries that are either newly formed or deregulated, such as what OSRA did for the shipping industry, are found to typically follow a twenty-five year progress of the four stages: (1) opening, (2) scale, (3) focus, and (4) balance and alliance.'

The shipping industry generally is fragmented, with Clarkson Research reporting just over 24,000 shipowners worldwide; however, the liner shipping business is much more concentrated with the top eight operators deploying over one hundred ships where the shipping industry average is under four vessels per owner.5 4 The trend of market consolidation is expected to continue as mergers between the largest companies occur throughout the industry and there are fears among some that this will lead to an oligopoly market."'

Applying the consolidation curve, the shipping market would now be somewhere in stage three (i.e., focus) where market concentration is between 35% and 70% with anywhere from five to twelve top companies.1 56 Further, the timeline is roughly correct in the twenty-five year estimate for a maturing market, as applied at the start of the OSRA until the present.'5 7 Stage four is characterized as the top three companies controlling 70% to 90% of the market alongside joint operations between other companies to combat barriers to growth.' The top three industry titans, Maersk, Mediterranean Shipping Company, and CMA-CGM, currently compose 45.5% of the market share, although their market shares can fluctuate from time-to-time.1 59 Looking to the future, stage four (i.e., balance and alliance) may have already begun to shape in the wake of conference insignificance.

What then can be said is that the market consolidation could be a sign of a maturing liner market post-OSRA as a way of mitigating the loss of the traditional conference system as it enters its final stage on the consolidation curve after nearly a century of protection from the free market through the antitrust exemption.' 60 Under this theory the exemption for conferences should not be continued under U.S. law. Shipping has shown a relatively normal adjustment to the lack of meaningful, cartel-like conferences and follows a rather normal trend for most industries under the consolidation curve. A concern, however, is that the large companies will dictate industry standards and require smaller entities to follow suit if they wish to compete.'"' Nevertheless, this does not become the main concern that existed in 1916-that destructive competition would ensue in a free market liner industry-but rather normal antitrust concerns become applicable. 16 2 Finally, the arguments of this "destructive competition" model are best summarized by John M. Nannes:

Congress has heard them many times before, often with respect to transportation industries such as railroads, airlines, and motor carriers. At one time or another, each of those industries was subject to pervasive federal regulation and enjoyed a broad exemption from the antitrust laws. Over time, however, each of them has been substantially deregulated and the applicable antitrust exemption has been curtailed or eliminated, with the result that competition has increased for shippers and consumers, and without the parade of horribles predicted by industry. In fact, economists have often found that a "regulated" cartel yields the worst of both worlds: high prices and low profitability, as companies over-invest in capacity and lose the incentive to innovate and operate efficiently. Certainly, recent events have demonstrated that the ocean shipping exemption has not saved U.S. carriers.161

Thus, in the author's opinion, the U.S. exemption is likely no longer required as a prerequisite for a robust shipping industry.

As for other justifications for the exemption, such as the need for international congruency and volatility of freight rates, there is further doubt.1 " Regarding the need for international harmony concerns, there is already a deviation among Japan, the EU, and the United States, which becomes exacerbated once tramp pools are put into the analysis. Moreover, freight rates were found to not be tremendously affected by the EU's repeal of its block exemption, 165 and the OECD observed that the price fixing aspect of conferences just prevents rates from going to the most efficient market price. 166 This is not to suggest that ending liner conference agreements would be the end-all, be-all of the issues in liner trade because without jurisdictional cohesion amongst the international players there is still the risk of "information leakage" amongst liner companies.16

#### DOJ shares intel and coordinates with other countries. That’s key to shipping competition

Kulisch 2/23 [Eric Kulisch is the Supply Chain and Air Cargo Editor at FreightWaves, "‘Collusion’ drumbeat leads to multilateral probe of shipping lines", 2/23/22, https://www.freightwaves.com/news/collusion-drumbeat-leads-to-multilateral-probe-of-shipping-lines]

U.S. exporters and logistics companies aren’t the only ones banging on the government’s door to take action against global container lines for alleged service failures and unfair pricing during the pandemic.

The clamor from global forwarder and shipper organizations about anticompetitive behavior got so loud that five competition authorities, including the U.S. Department of Justice, on Friday established a working group that will meet regularly to share intelligence and coordinate investigations of suspected antitrust violations.

Many buyers of ocean transportation say the carriers have manipulated tight capacity during the pandemic through deferred and canceled sailings, and other measures, to drive rates up, resulting in record profits estimated to top $200 billion last year. A combination of antitrust immunity, a dozen years of consolidation that has left eight major carriers partnering in three alliances and an expansion into broader logistics services and control of data has enabled the largest carriers to dominate the market.

It’s the definition of an oligopoly, argue many users.

The collaboration among the Justice Department, Canadian Competition Bureau, the Australian Competition and Consumer Commission, the New Zealand Commerce Commission and the U.K. Competition and Markets Authority parallels a review underway by the U.S. Federal Trade Commission into whether anticompetitive conduct by large retailers and distributors contributed to supply chain disruptions.

It follows a joint campaign launched last summer by the Federal Maritime Commission and DOJ to ramp up oversight of foreign ocean carriers regarding unfair rates and fees. The FMC is also conducting an audit of whether carriers are using their concentrated market status to overcharge shippers container late fees at ports.

“While the Competition Bureau has offered businesses flexibility in contributing to legitimate pandemic response efforts that benefit Canadians, we want to be clear: We have zero tolerance for any attempts to use pandemic-related supply chain disruptions as a cover for criminal collusion that harms consumers and damages Canada’s economy,” Commissioner Matthew Boswell said in a statement.

Organizations representing cargo owners and freight agents said the collaboration among governments is positive because no single country can properly oversee the conduct of foreign-owned shipping lines and examine their activities within powerful alliances.

#### DOJ’s established Sherman working groups and amnesty coop are the most effective antitrust tool

Pate 15 [Hewitt, Former Assistant Attorney General Antitrust Division of DOJ, “International Anti-Cartel Enforcement”. 11/21/04 updated 6/25/15. https://www.justice.gov/atr/speech/international-anti-cartel-enforcement]

Development of the US Cartel Enforcement Program

The past thirty years have seen many milestones in the development and enhancement of U.S. anti-cartel laws and policies. The Antitrust Procedures and Penalties Act was enacted in 1974, making violations of the Sherman Act a felony and increasing the maximum corporate fine from $50,000 to $1 million. In 1978, our original Corporate Leniency Policy was announced. In 1990, the Sherman Act maximum corporate fine was increased from $1 million to $10 million. In the early 1990s, the Division recognized a need to revamp its leniency program, and in August 1993 a new Corporate Leniency Policy was issued. The amnesty program was enhanced further in 1994 with the issuance of an Individual Leniency Policy. As business became more globalized in the 1990s, the focus of the Division's enforcement efforts shifted to the detection and prosecution of international cartels, which inflict the greatest harm on U.S. businesses and consumers. The $100 million fine obtained in 1996 from Archer Daniels Midland Company for its participation in the international lysine and citric acid cartels marked the beginning of this new era in antitrust prosecutions. This record fine was surpassed beginning in 1998 by even larger fines against members of the international graphite electrode cartel, in 1999 by the $500 million and $225 million fines against F. Hoffmann-La Roche and BASF for their participation in the international vitamin cartel, and most recently by the $160 million fine agreed to by Infineon Technologies AG in our first prosecution against the international DRAM cartel. To date, the Division has obtained corporate fines at or above the former $10 million statutory maximum in 46 cases and fines of $100 million or more against seven corporations.

The enormity (in every sense of the word) of these cartels and the harm they inflict has recently required that our cartel laws be revised again to increase the maximum sanction that could be imposed for antitrust violations. In June, President Bush signed the Antitrust Criminal Penalty Enhancement and Reform Act of 2004, increasing the maximum corporate Sherman Act fine to $100 million. The Act also enhanced individual deterrence by increasing the maximum individual Sherman Act fine to $1 million and the maximum Sherman Act prison sentence to 10 years to make it more consistent with maximum prison sentences for other white collar crimes. And the legislation increased the incentives for firms to blow the whistle on cartels they have participated in by enhancing the Corporate Leniency Policy. Under the new legislation, the damages paid by a corporate amnesty applicant to private plaintiffs are detrebled and reduced to actual damages attributable to the applicant's sales of the affected product or service if the applicant cooperates with the plaintiffs in their efforts to recover joint and several treble damages from the other cartel members.

As we shifted our focus to the prosecution of international cartels in the 1990s, we also realized that our law enforcement relationships with other governments had to be strengthened to meet the investigative and prosecutorial challenges of international cartels. We stepped up our efforts to enter antitrust cooperation agreements with foreign enforcers, a process that had begun in 1976 when we entered a cooperation agreement with Germany. From 1991 to 2000, we entered cooperation agreements with the EC, Canada, Israel, Japan, Brazil, and Mexico and our first antitrust enforcement assistance agreement with Australia. During this same period, the Department of Justice negotiated a number of Mutual Legal Assistance Treaties with foreign nations, which are frequently used for evidence gathering in criminal antitrust investigations. Currently, the United States has more than fifty MLATs in force. In 1999, the Division organized the first International Anti-Cartel Enforcement Workshop, which brought together enforcers from twenty-seven jurisdictions to identify and share best practices in the investigation and prosecution of cartels. The workshop was such a success that it became an annual event, with later conferences in the United Kingdom, Canada, Brazil, and Belgium. This year Australia hosts the sixth annual workshop. The dialogue and cooperation we have developed with foreign authorities are essential to the obtaining of evidence from foreign locations, avoidance of conflicts, and the coordination of enforcement activities in multiple jurisdictions to avoid premature disclosure of an investigation and the destruction of evidence.

We have engaged in other multilateral efforts to promote the development of sound antitrust policy and practice, through the Organization for Economic Co-operation and Development, World Trade Organization, United Nations Conference on Trade and Development, and most recently the International Competition Network. The need to combat globalized cartels resulted in the landmark 1998 OECD Recommendation Concerning Effective Action Against Hard Core Cartels which recommended that member countries ensure that their competition laws provide for effective sanctions to deter participation in cartels and adequate enforcement procedures and institutions to detect and remedy cartels.

The Importance of Amnesty Programs

One key area in which governments have developed enforcement procedures for the detection of cartels has been the development and use of corporate amnesty policies. As amnesty policies were developed in multiple jurisdictions, it became clear that convergence in effective policies was needed. Over time, we learned that occasionally members of international cartels did not apply for amnesty in one jurisdiction because they had greater exposure in another jurisdiction that did not have a transparent and predictable amnesty policy. Recent convergence in amnesty policies in multiple jurisdictions, however, has led to many simultaneous amnesty applications, which has enhanced enforcement by providing opportunities for coordinated raids, interviews, and service of subpoenas.

The Antitrust Division's amnesty policy has become the cornerstone of our international anti-cartel enforcement program. It has led to the detection and prosecution of more international cartels than all of our search warrants, consensual monitoring, and FBI interrogations combined. Because cartel activities are hatched and carried out in secret, obtaining the cooperation of insiders is the best, and often the only way to crack a cartel. Obtaining the cooperation of knowledgeable insiders at an early stage of an investigation may shorten an investigation by many months, if not years. This saves scarce government resources, leads to the earlier termination of cartels, allows conviction of defendants that might otherwise never be prosecuted, and assists in securing recovery for the victims of the crime.

Through the years, we have faced the deficiencies in our amnesty program and revised it to make it more effective. Our original 1978 amnesty program lacked transparency and predictability and retained considerable prosecutorial discretion. It was difficult for corporations to predict with much certainty whether they would receive amnesty if they chose to apply. Our policy was designed to give "serious consideration" to refraining from prosecuting a company that confessed its wrongdoing before we began investigating the cartel. But we expressly refused to limit our prosecutorial discretion or to make amnesty automatic. There was no written policy, adding to the lack of transparency. A further deficiency, in addition to the unpredictable nature of the policy, was that amnesty was not available once an investigation had begun. Frequently, however, corporate counsel or a board of directors would not discover a cartel until counsel undertook a focused investigation as a result of the corporation's receipt of a Division document subpoena at the beginning of a grand jury investigation. In many cases, a company's authoritative representatives for legal matters might not even be aware of the need for amnesty until an investigation was under way. As a consequence of the unpredictable nature of the policy and lack of availability of amnesty once an investigation had begun, we had roughly one amnesty application per year from 1978 until the policy was revised in 1993.

Under the revised policy, we increased the transparency of the program and created an alternative amnesty for companies that come forward after an investigation has begun. Under Part A of the policy, which applies before an investigation has begun, amnesty is automatic if the applicant can meet six objective criteria. The requirements under Type A are (1) that the Division has not yet received information from any other source about the conspiracy, (2) that the applicant takes prompt and effective action to terminate its involvement in the conspiracy upon its discovery of the conspiracy, (3) that the applicant reports the wrongdoing with candor and completeness and provides full, continuing and complete cooperation throughout the investigation, (4) that the applicant's confession is truly a corporate act as opposed to isolated confessions of individual executives or officials, (5) that the applicant make restitution to injured parties, and (6) that the applicant did not coerce another party to participate in the cartel and was not the leader or originator of the cartel.

If an applicant cannot meet the above Type A factors, it might be able to qualify for amnesty under the alternative Type B amnesty in the revised 1993 policy. In addition to the Type A termination, corporate confession and restitution obligations, Type B amnesty also requires that the applicant be the first one to qualify for amnesty with respect to the cartel, that the Division not yet have evidence against the applicant that is likely to result in a sustainable conviction, that the applicant reports the cartel with candor and completeness and provides full, continuing and complete cooperation that advances the Division in its investigation, and that granting amnesty would not be unfair to others, considering the nature of the cartel, the applicant's role in it and when the applicant comes forward. In return for creating this additional opportunity for amnesty, the Division did retain some discretion under Type B amnesty, but this was deemed necessary because Type B generally comes into play after an investigation has begun. In addition to issuing a written policy, we have further clarified the application of the policy by publishing several speeches to address questions that have arisen regarding the policy.(1) Since the policy was revised in 1993, the application rate has soared to an average of approximately two per month.

#### Private rights boost deterrence

Vaheesan 19 [Sandeep Vaheesan is legal director at the Open Markets Institute. Vaheesan previously served as a regulations counsel at the Consumer Financial Protection Bureau, where he helped develop and draft the first comprehensive federal rule on payday, vehicle title, and high-cost installment loans. Paula Bliss, of counsel, Bernheim Kelley Battista & Bliss, MARK A. GOTTLIEB Counsel of Record PUBLIC HEALTH ADVOCACY INSTITUTE, PNE Energy Supply LLC, On Behalf Of Themselves And Others Similarly Situated V. Eversource Energy And Avangrid, Inc. Motion Of Open Markets Institute For Leave To File Amicus Curiae Brief In Support Of Plaintiff-Appellant. 10/25/19, https://static1.squarespace.com/static/5e449c8c3ef68d752f3e70dc/t/5eaa1d9d2790182e187cc171/1588207017816/19-1678\_Documents-as-filed.pdf]

The filed rate doctrine’s limitation on private antitrust enforcement subverts the effectiveness of the antitrust laws. The ability of injured consumers and businesses to bring antitrust suits is a pillar of the American antitrust enforcement regime. Under the Clayton Act, “[a]ny person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue . . ., and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee.” 15 U.S.C. § 15. See, e.g., Blue Shield of Va. v. McCready, 457 U.S. 465, 472 (1982) (quoting Mandeville Island Farms, Inc. v. Am. Crystal Sugar Co., 334 U.S. 219, 236 (1948)) (“Congress sought to create a private enforcement mechanism that would deter violators and deprive them of the fruits of their illegal actions, and would provide ample compensation to the victims of antitrust violations. . . . As we have recognized, ‘[t]he statute does not confine its protection to consumers, or to purchasers, or to competitors, or to sellers. . . . The Act is comprehensive in its terms and coverage, protecting all who are made victims of the forbidden practices by whomever they may be perpetrated.’”).

Empirical research shows the public importance of “private attorneys general” and the value of having more enforcers on the beat against corporate collusion, consolidation, and monopolization. A study of 60 private antitrust lawsuits between 1990 and 2011 found that these actions generated more deterrence than the federal government’s entire criminal antitrust enforcement activity over the same period. Joshua P. Davis & Robert H. Lande, Defying Conventional Wisdom: The Case for Private Antitrust Enforcement, 48 Ga. L. Rev 1, 26 (2013). And these lawsuits compensated injured parties, whereas public enforcement generally did not.