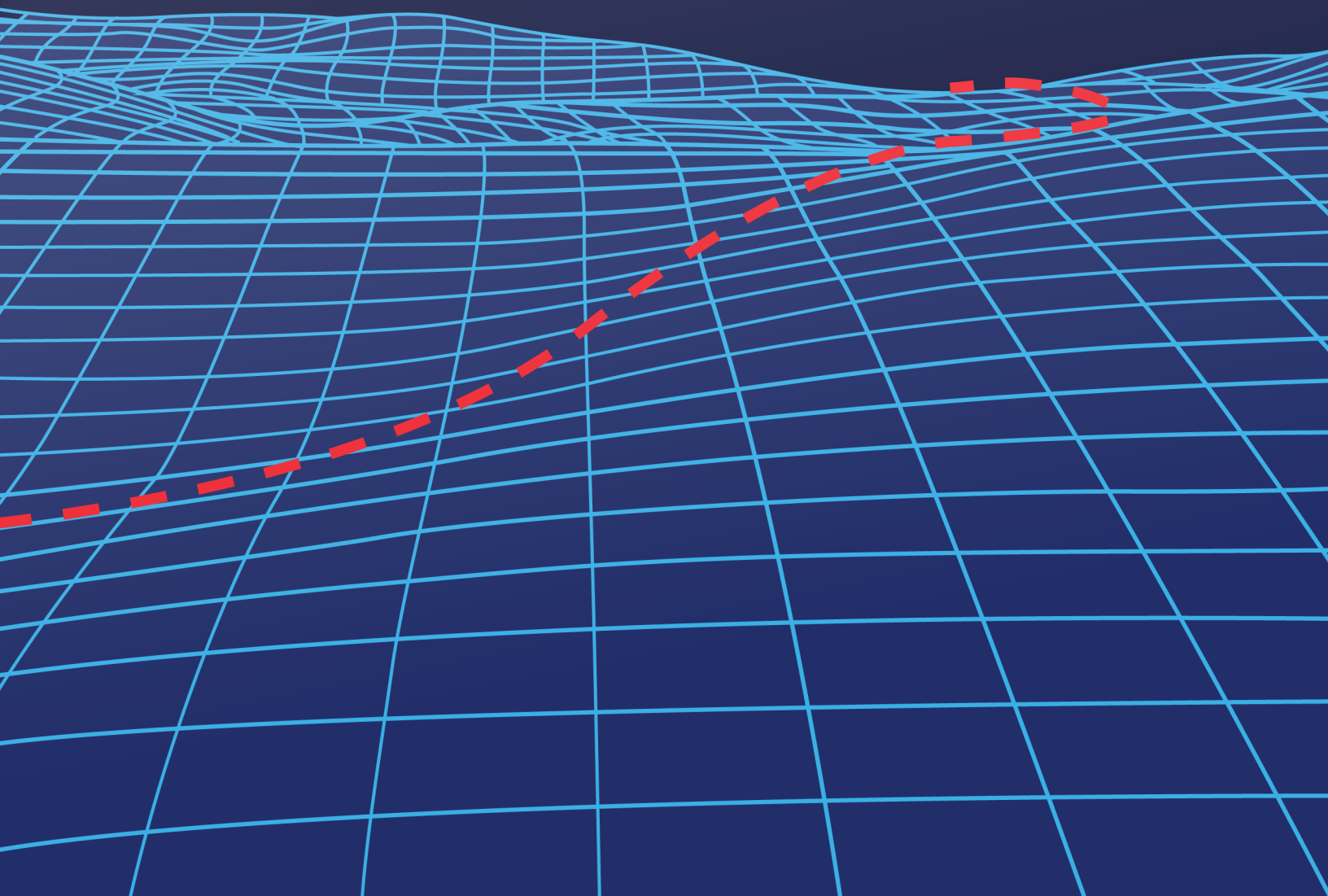
OPEN MARKETS

CHARTING A NEW COURSE

Steering U.S. Maritime Policy Towards Security and Prosperity



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Charting a New Course:
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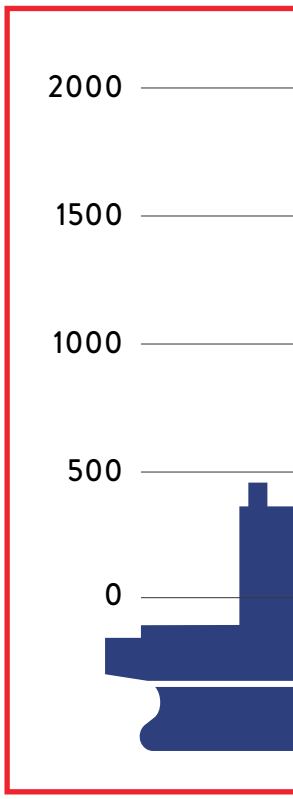


INTRODUCTION

As the COVID pandemic spread in 2020, news reports suddenly concentrated on a realm most Americans had long ignored: ocean shipping. Stories about shortages of everything from automobiles to medical supplies to building materials often featured photos of giant container ships swinging at anchor in the waters off West Coast ports as they waited for weeks to unload their wares. Later, striking images of the megaship Ever Given wedged sideways across the Suez Canal further focused attention on how choke points in ocean shipping were disrupting the global economy, causing factories to close, store shelves to empty, and prices to surge.

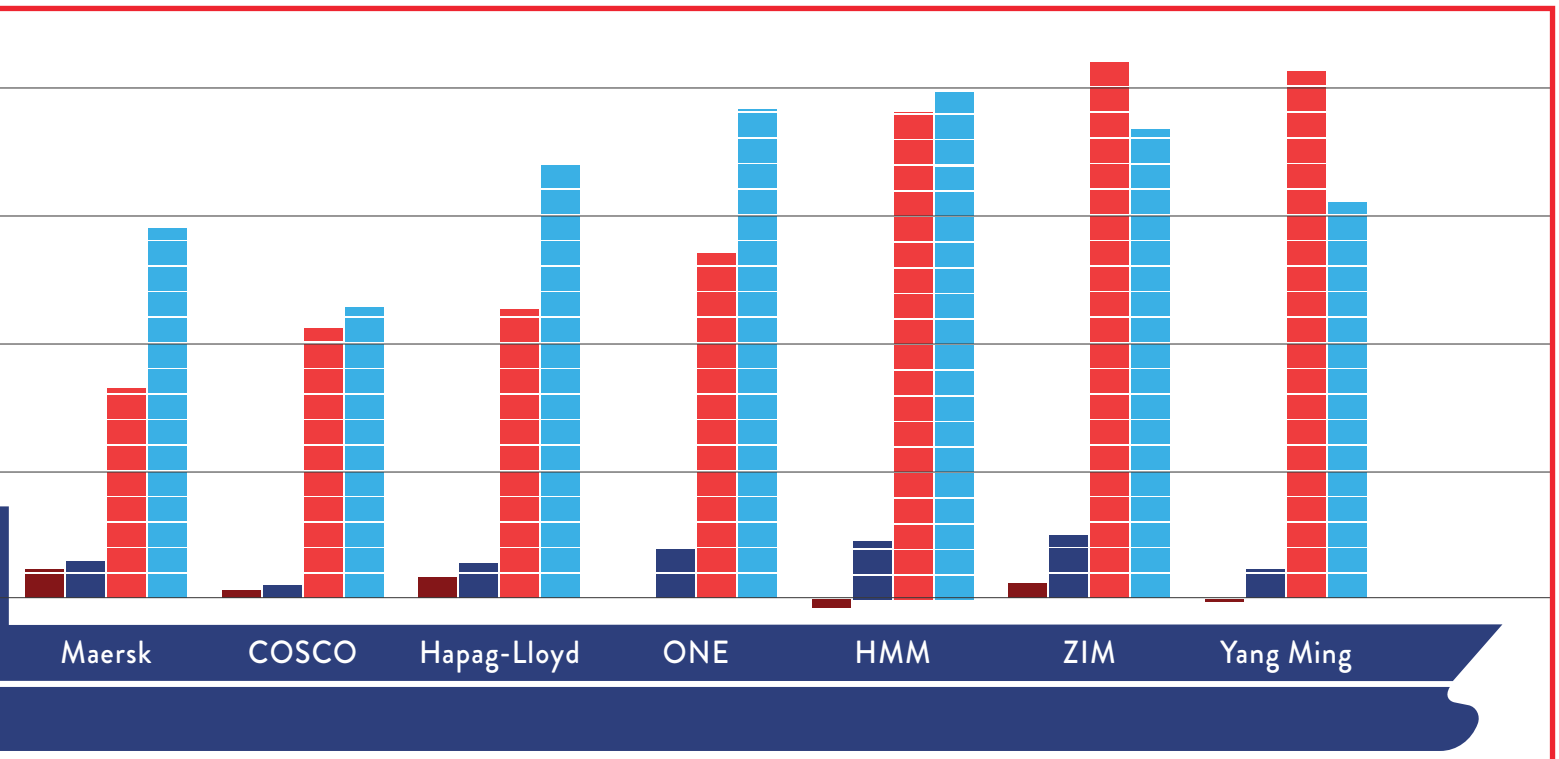


Figure 1. Ocean Shipping Quarterly Profits 2019-2022. The figures represent the profit per shipping container for seven of the largest ocean carriers.

It wasn't only importers who were hit. For American farmers and export businesses, the breakdowns in ocean shipping exacerbated longstanding vulnerabilities. From July to November 2020, foreign-owned ocean carriers rejected 297,997 containers representing $1.1 billion of U.S. agricultural exports, preferring to return to China to fill empty containers with more profitable Chinese exports.[1] American shippers who were able to find slots often paid 10 to 100 times more than before the crisis.

The gross economics of the event are stunning. In 2021, as the cost of spot contracts for moving containers from China to West Coast ports rose by over 1,000 percent, foreign shipping cartels raked in a record $190 billion in windfall profits.[2] In America, the breakdown helped to trigger the worst bout of inflation since the 1970s. Critical sectors of the economy that are highly dependent on ocean shipping, such as electronics and textiles, saw prices for imports increase by more than 10 percent because of ocean shipping instability.[3] Manufacturers, unable to obtain critical components, were forced to shutter factories even as demand surged, driving prices up. The breakdown in ocean shipping also restricted overall growth. A United Nations report estimated that each 10 percent increase in container freight rates contributed to a 1 percent contraction of industrial production in the United States, even as the U.S. economy was recovering from the pandemic.[4]

Along the way, Americans learned startling facts about the many ways this critical sector has become concentrated – especially in the hands of foreign ocean carrier cartels and shipbuilders, often in close alliance with their governments, including that of China. For instance, by 2021, just three major ocean carrier "alliances" composed entirely of foreign corporations had captured 91 percent of transpacific trade and 89 percent of transatlantic trade.[5] By contrast, the largest U.S. carrier controls a mere 0.2 percent

of the world's shipping capacity.[6] U.S.-flagged ships now carry less than 1.5 percent of the country's imports and exports.[7]

Other key maritime sectors are similarly concentrated. Nearly 95 percent of new shipbuilding orders are placed in just three countries, China, South Korea, and Japan.[8] China now represents 58 percent of all new shipbuilding orders, producing over 1,000 oceangoing vessels a year.[9] China also produces 95 percent of the world's shipping containers, 86 percent of the world's chassis, and 80 percent of the ship-to-shore cranes in U.S. ports.[10] By contrast the United States, which stood as a world leader in shipbuilding after World War II, now produces less than 10 commercial oceangoing vessels a year.[11]

The collapse of U.S. capacity to build ships poses major threats to U.S. national security. Perhaps most dire, the United States no longer efficiently constructs or repairs sealift vessels or naval ships. As tensions in East Asia grow ever more acute, China is rapidly expanding its navy to more than 400 ships by 2027. In contrast, the U.S. Navy is on course to continue to shrink to an estimated 280 by that same year. As Senator Dan Sullivan (R-AK) has noted, "The U.S. Navy is in the midst of a shipbuilding crisis that will leave the United States and our men and women in uniform perilously overmatched in an increasingly dangerous world."[12]

None of these problems should have come as a surprise. The acute crisis during the pandemic simply highlighted problems that have grown progressively worse since the 1980s and '90s when the United States abandoned longstanding laws designed to ensure that the maritime industry serves the larger public interest. In this same period, the United States allowed for the near total destruction of its shipbuilding industry by relinquishing well-established government support for U.S. shipyards even as countries like Japan, Korea, and China deeply subsidized their own.

The time has come for the United States to radically rethink how we regulate this entire system of maritime transportation services, industrial capacities, and human resources. The list of problems created by the failed maritime policies of the last generation helps to illustrate both the magnitude and extent of the crisis, as well as the need for rapid policy change:

ECONOMIC HARMS

- **Higher Costs for Imports:** During periods of high demand, large foreign-owned ocean shipping carriers exponentially raise rates and charge high ancillary fees while also denying service to shippers with less-profitable service contracts by choosing to carry spot-market cargo that offers a better return. They also cancel sailings and provide poor service quality to importers. This raises the direct and indirect costs of shipping, leading to increased uncertainty, transport times, and inventory costs for shippers and higher prices for consumers. Economists at the Federal Reserve, United Nations, and European Central Bank have all noted that increases in shipping costs led to higher costs for imported goods during the pandemic.[13]
- **Choking Off of Exports:** During periods of high import demand, export shippers face last-minute canceled sailings, wild fluctuations of spot rates, exorbitant detention and accessorial fees, and refusals to deal. During the COVID pandemic, estimates suggested that 22 percent of typical foreign agriculture sales were lost because U.S. farmers could not reliably

bring their products to foreign markets.[14] In fact, overall U.S. exports fell by over 13 percent across all commodity sectors tracked by the Census Bureau, including industrial supplies, capital goods, food and beverage, automotive, and consumer goods. This was in part because of ocean shipping disruptions.[15]

- **Broad Inflation:** Shipping breakdowns contribute to broad-based inflation across the American economy. Breakdowns in shipping cause delays in shipments of critical manufacturing inputs, subsequently shuttering domestic production. During the COVID pandemic, delays and breakdowns raised the cost of critical inputs and products such as electronics and textiles.[16]

THREATS TO NATIONAL AND INDUSTRIAL SECURITY

- **Lack of Military Sealift Capacity:** More than 90 percent of equipment and supplies for the U.S. armed forces travels via sea.[17] The ability of the U.S. commercial fleet to ramp up and sustain supply lines for the armed forces in times of crisis has declined sharply in recent years.[18] After the last major American shipping lines were acquired by foreign owners in the 1990s, the United States was left with no domestic ocean carriers capable of providing a robust international infrastructure of terminals and bunkering to transport military equipment. Since then, the U.S. military has become reliant on U.S. subsidiaries of foreign-owned carriers for surge sealift capacity. As a result, the U.S. military's ability to maintain supply lines can be seriously imperiled if a single foreign carrier chooses to cut service.[19]

- **Loss of Specialized Skills:** In 1975, before the elimination of shipbuilding subsidies, the U.S. shipbuilding industry employed 180,000 workers. By 2021, the shipbuilding industry had lost nearly 70 percent of its shipyards and 45 percent of its workforce.[20] A skilled worker shortage in the shipbuilding industry slows production and increases inefficiencies in shipyards. It makes the cost of building commercial ships in the United States uncompetitive with East Asia, and it increases the costs of purchasing new vessels to augment sealift capacity.[21]

- **Loss of Capacity in Key Related Industries:** Reduced commercial shipbuilding capacity negatively affects other key industries, such as steel manufacturing. When commercial shipbuilding — a key downstream user of steel — atrophies, the steel industry also shrinks. Conversely, when a robust shipbuilding sector presents a strong demand signal, upstream industries such as steel thrive. This is clearly demonstrated in Chinese industrial policy. China, in its series of five-year plans, expressly planned for the coordination of Chinese shipbuilding and steel industries.[22] As a result, Chinese shipyards produce over half of all new large vessels and Chinese steelmakers represent six of the top 10 steel producers worldwide.[23] Steel manufacturers in the United States, on the other hand, lack a strong demand signal from shipbuilding, which has contributed to the steel industry's atrophy.[24]

- **High Costs and Long Delays in Naval Shipbuilding and Repair:** Diminished

commercial shipbuilding and maintenance capacity also affects naval readiness. Reduced capacity erodes the supply of raw material, machinery, skilled labor, and economies of scale required to efficiently replace aging naval ships, to rapidly build new warships, and to keep today's ships at sea. Worse, the United States entirely lacks surge construction capacity in case of a crisis. At present, only 36 percent of the Navy's repairs are finished on time, and the Navy is forced to decommission viable ships because of diminished repair capabilities.[25] As Representative Ken Calvert (R-CA), the chair of the Defense Subcommittee of the House Committee on Appropriations noted in April 2024, "This creates both near-term risk to the fleet readiness and a bow wave of costly future maintenance requirements."[26]

OLDER, SLOWER, DIRTIER TECHNOLOGIES

- **Lack of Innovation in Shipbuilding:** Innovation in shipbuilding is required to facilitate global trade, improve national security, and foster a greener climate. The United States has historically been a pioneer in creating groundbreaking technologies in shipbuilding, having built the first steamship to cross the Atlantic Ocean, vastly reducing travel times and transport costs.[27] During the First World War, the United States pushed new technology, introducing new oil-powered vessels to replace coal power. The U.S. carrier Sea-Land pioneered container-based shipping, contributing to the rapid growth of international trade in the 1960s and 1970s.[28] Without strong public policy interventions, the United States will remain powerless to drive the sort of technological changes required to ensure resilient, efficient, clean, safe, and fair transport in the 21st century.

- **Lack of Capacity to Meet New Maritime Challenges and Opportunities:** Since the pandemic, other events and developments have underscored how America's near total dependence on foreign shipbuilders creates other vulnerabilities. The viability of large offshore wind farm projects in the Northeast, for example, has been deeply threatened by delays and cost overruns in the construction of domestically built ships needed to install them.[29] Efforts to recapitalize the U.S. fleet of icebreakers, originally expected to be delivered in 2024, are now delayed by at least three years because of limited shipbuilding expertise and capacity.[30]

This report provides a broad vision and specific proposals for creating a maritime policy that will serve the commercial and military needs of the United States in the 21st century. It does so in part by examining what worked, and what did not during previous eras of American history and by considering different models for regulating competition in this sector going forward. We conclude that market competition must play an important role in this sector. But we also find that in the absence of sound government regulation and public investment, competition alone does not maximize efficiency or serve public purposes.

The first reason is the cost structure inherent to ocean shipping. Because operating ships tends to involve high fixed costs and low marginal costs, the sector is prone, in the absence of appropriate government interventions, to waves of destructive discounting and bankruptcies

followed by monopolistic mergers and the formation of cartels. The second main reason for persistent market failure in this sector is the massive subsidies used by other governments to support their own shipbuilding industries and merchant marines. Because of these subsidies, the laissez-faire policies adopted by the United States since the 1980s were doomed to failure.

Accordingly, this report advocates for a return to policies that will once again manage market entry, and establish transparent, uniform prices and terms of service for America's exporters and importers. In this report, we also advocate for smart, targeted public support for the renovation of America's shipbuilding capacities and expansion of the U.S. merchant marine. We also strongly urge policymakers to view any such public support for this program as an investment in the security and prosperity of the United States and its citizens. We are also confident that any near-term costs to shippers and taxpayers more broadly will soon be allayed by more efficient and more trustworthy service, as well as sharp declines in the real cost of transportation, mass manufacturing, and the construction and maintenance of U.S. naval ships.

THE STATE OF POLICY AND POLICY DEBATE

In response to the the near demise of America's shipbuilding industry, some U.S. officials have proposed more outsourcing of commercial and naval construction and repair to allied nations such as Japan and South Korea.[31] This approach ignores the fact that U.S. Navy vessels being built or repaired in the drydocks of these nations would be within easy range of Chinese missiles. It also ignores the fact that these nations face rapidly shrinking workforces due to the aging of their populations. Finally, and most critically, it ignores the threats to military and economic security that will only deepen as the U.S. remains dependent on foreign governments and corporations for its basic naval and ocean shipping needs.

Another frequent proposal calls on the U.S. to become even more dependent on foreign shipyards and carriers through the elimination of the Jones Act, a 104-year-old maritime law. The act's best-known and basically only remaining operative provision is Section 27, which requires that all vessels transporting cargo between two U.S. points be U.S.-built, U.S.-owned, and mostly U.S.-crewed. A cottage industry of critics led by Colin Grabow at the Cato Institute and Clifford Winston at the Brookings Institution have attacked the vestigial Jones Act as a wasteful and inequitable form of special interest legislation.[32]

To be sure, Section 27 – as a standalone policy – does place an unfair and disproportionate burden on a few small communities within the nation as a whole. These include the residents of Puerto Rico, Hawaii, and Alaska, who pay higher prices for a broad range of goods due to their reliance on more expensive U.S.-made ships and U.S. crews.[33] In some cases, the U.S.-built vessels they must use under the Jones Act can be three to four times more expensive than similar vessels built in foreign yards.[34]

However, critics of the Section 27 fail to put their objections into context. The shipyard capacity crisis would be significantly worse without these mandates. More important, critics of the Jones Act fail to acknowledge that, as this report notes, the underlying reason for America's shipbuilding and ocean transporation crisis is not Section 27 but the longstanding bipartisan failure to fund

and enforce other sections of the Jones Act and related maritime policies, specifically those policies that once provided critical subsidies for domestic shipbuilding financed out of general revenue.

Another increasingly common proposal is simply to wait for new developments in naval technology, such as greater use of drone vessels, to reduce the need for the types of ships that have dominated the world's navies over the last century. This would in turn, it is argued, lessen the need for domestic shipbuilding capacity. Yet in reality the opposite is more likely true. We may need to build fewer aircraft carriers in the future. But the current rate of technological change in drone warfare is rapidly increasing the need for a faster, more flexible, more distributed capacity to produce both large and small, manned and unmanned vessels designed to meet the specific threat environment of the moment.[35]

The Biden administration, by contrast, did take some serious steps towards addressing the intertwined crises in the U.S. shipbuilding and ocean carrier industries. Most notably, President Biden did so by signing into law the Ocean Shipping Reform Act of 2022, which directs the Federal Maritime Commission (FMC) to:

- Prevent foreign ocean carriers from unreasonably declining to carry American exports,
- Crack down on the abuse of demurrage and other charges,
- Define and proscribe "unfair and unjustly discriminatory methods,"
- Expand investigations into regulatory violations by ocean carriers.

Critically, the Biden administration recognized the need for a "whole of government" approach to address the ocean shipping crisis. The Administration's Executive Order on Competition called on the FMC to enforce maritime competition policy more vigorously and included the FMC in the White House Competition Council.[36] The Department of Justice and the FMC executed two memoranda of understanding to enable closer cooperation for competition enforcement.[37]

The Biden administration also took significant steps to expand sealift capacity thorugh direct acquistions of foreign-built ships and by signing up privately owned tankers and cargo vessels to serve the military as needed. [38] Finally, the Biden administration also recognized the critical role that foreign industrial policy plays in distorting the maritime industry. In January 2025, the administration concluded a probe into China's practices in the maritime industry, which found that "China targeted the shipbuilding and maritime industry for dominance using financial support, barriers for foreign firms, forced technology transfer and intellectual property theft and procurement policies to give its shipbuilding and maritime industry an advantage."[39]

Parallel to the Biden administration, Congress has also begun to recognize the multifold failures of extant U.S. maritime policy. In the last Congress, key allies of the Biden administration, including Senator Mark Kelly and Representative John Garamendi worked with key Republicans, including Senator Marco Rubio and Representative Mike Waltz, to draft the groundbreaking SHIPS for America Act. The legislation is designed to restore a cogent maritime policy through several key provisions including:

- Establishing a National Maritime Strategy;
- Establishing a Maritime Security Trust Fund to finance mariner training,

shipyard expansion, and maritime innovation, among other key priorities;

- Establishing a Strategic Commercial Fleet subsidy to ensure the presence of U.S.-built, U.S.-flagged vessels in international commerce and bolster U.S. sealift capacity; and
- Establishing financial incentives for shipyard investments including an investment tax credit.[40]

This legislation – together with the Biden administration's policy reforms – add up to a formal renunciation of the laissez-faire approach to maritime policy the United States adopted in the beginning of the 1980s, as well as a blunt recognition that these policies resulted in significant and sometimes extreme harms to economic, national, and industrial security.

Nevertheless, these actual and proposed reforms – even if fully enacted – do not adequately address the core issues underlying the instability and fragility of the ocean shipping industry or the risks that depleted shipbuilding capacity pose to military readiness and economic competitiveness.

A COURSE FORWARD

As this report will explore, the overwhelming cause of the maritime crisis is not the Jones Act or other regulation, but rather a reckless and naive experiment in extreme laissez-faire policy. In the 1980s and 1990s, the Reagan and Clinton administrations abandoned sensible regulation and vitally needed public investments in America's maritime sector. Absent a coherent effort to rebuild the entire integrated system of transportation regulation, taxation, shipbuilding, and merchant mariner training that held through most of the 20th century, all the conditions that brought us to this point are likely to grow only worse.

The good news is that the United States has several broadly successful regulatory models from the past to learn from and build upon today. The comprehensive system of maritime policy enacted in the early and mid-20th century created a system of managed competition that allowed for collaboration amongst carriers while directing competition toward public purposes. Other policies, some stretching back to colonial times, successfully used public money and indirect subsidies to secure a robust domestic shipbuilding industry and domestic merchant marine. Working as an interlocking whole, these policies also ensured that U.S.-flagged vessels and U.S. crews were available to secure U.S. national interests.

An integrated systems approach could do so again. This system would once again combine robust utility-style economic regulation to ensure non-discrimination of ocean shipping markets, with strong, coordinated industrial policies aimed at supporting domestic production of both commercial and naval vessels.

In the short term, such a system is likely to raise some shippers' costs, especially those who now have enough market power to secure concessionary prices and terms of service from carriers. But longer term, public investment in U.S. shipbuilding capacity will bring economies of scale to U.S. shipyards, thereby helping to make them competitive with the deeply subsidized shipyards of China, Japan, and South Korea. At the same time, fair market rules for ocean shipping can overcome the dead hand of monopoly and stimulate more innovation, efficiency, and beneficial trade. Most important, reforming maritime policy will break the stranglehold over U.S. economic and national security that foreign shipping cartels and shipbuilders currently hold.

CHAPTER I.

THE DEEPENING CRISIS

The following section details the present state of the U.S. maritime industry. It provides an up-to-date survey of the present fleet, construction capacities, and workforce, and of the container ocean shipping industries. These surveys, in turn, provide a basis on which to more fully and carefully catalog the threats to national and industrial security, as well as economic harms caused by 40 years of failed laissez-faire maritime policy.

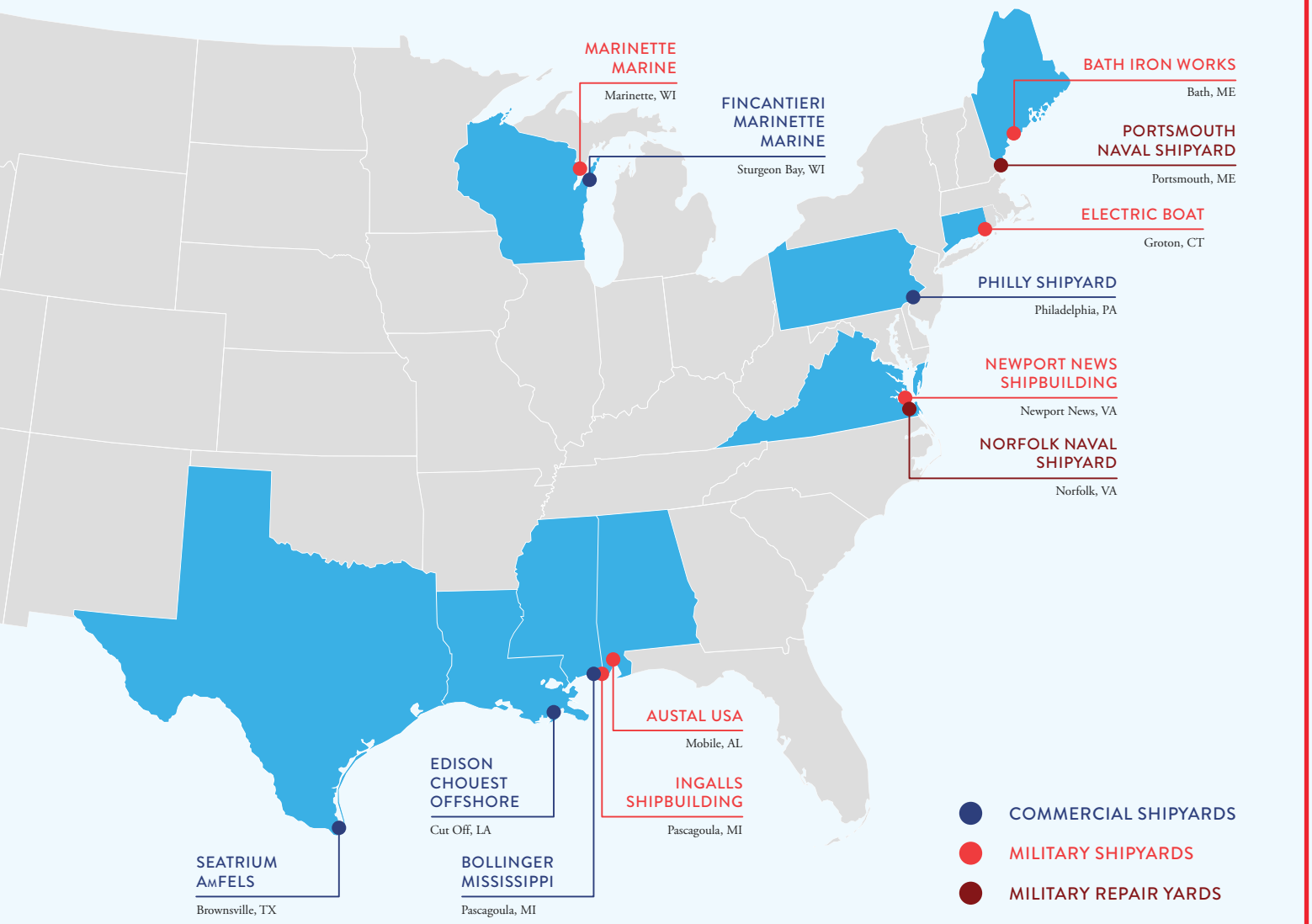


Figure 2. Map of Commercial and Military Shipbuilding Locations.

DEPLETED MARITIME CAPITAL

U.S. SHIPYARD CAPACITY

Corporate control of naval shipbuilding is highly concentrated. Seven shipyards owned by four corporations produce most of the U.S. Navy's vessels. These yards include:

- Newport News Shipbuilding in Newport News, Virginia, and Ingalls Shipbuilding in Pascagoula, Mississippi. These yards are owned by American shipbuilder Huntington Ingalls Industries, headquartered in Newport News, Virginia.
- Bath Iron Works in Bath, Maine, Electric Boat in Groton, Connecticut, and National Steel and Shipbuilding Company (NASSCO), headquartered in San Diego, California, which are all owned by American defense manufacturer General

Dynamics, headquartered in Reston, Virginia.

- Marinette Marine in Marinette, Wisconsin, which is owned by Italian shipbuilder Fincantieri, headquartered in Trieste, Italy.
- Austal USA in Mobile, Alabama, which is owned by Australian shipbuilder Austal, headquartered in Henderson, Australia.

All these yards, except for NASSCO, are almost entirely reliant on government contracting.[41] There are also four government-owned and operated shipyards. These public yards only perform maintenance and decommissioning of submarines and aircraft carriers.[42]

The U.S. commercial shipbuilding industry is also similarly concentrated in just a few shipyards. Only 13 U.S. shipyards produce large commercial vessels. A mere five of these control most of the market. These five yards include:

- NASSCO
- Philly Shipyard, in Philadelphia, Pennsylvania, which is owned by South Korean shipbuilder Hanwha, headquartered in Seoul, South Korea.[43]
- Seatrium AmFELS in Brownsville, Texas, which is owned by Singapore's state-owned shipbuilder, Seatrium, headquartered in Singapore.
- Bollinger Mississippi Shipyard in Pascagoula, Mississippi, which is owned by Ben Bordelon, the grandson of Donald Bollinger, the founder of Bollinger Shipyards, and Edison Chouest Offshore, an American shipbuilder headquartered in Cut Off, Louisiana.
- Fincantieri Bay Shipbuilding in Sturgeon Bay, Wisconsin, which is owned by Italian shipbuilder Fincantieri, headquartered in Trieste, Italy.[44]

Further shrinkage in the number of commercial orders for U.S. shipyards will likely continue to drive privately owned shipyards to merge with one another or to close entirely, which in turn will further erode the skilled shipbuilding workforce. Public shipyards, meanwhile, will become even less competitive as they lose access to even more economies of scale.

U.S. SHIPBUILDING WORKFORCE

Skilled laborers are quitting or aging out of the shipbuilding industry in record numbers. Feeding the trend is the intensely cyclical nature of the shipbuilding industry, which relies singularly on stop-and-start naval contracting. Pipelines for skilled workers that feed the shipbuilding sector have also atrophied for the same reason. In 1980, the number of shipyard workers was over 180,000.[45] By 2021, the number of workers had fallen by nearly 45 percent to just over 100,000.[46]

The loss of workers attributable to a shrinking commercial shipbuilding sector has knock-on effects to naval shipbuilding, because the shipbuilding workforce has been cut too deep to sustain even naval contracting. According to a recent report, in just the Hampton Roads region of Virginia, which is a major hub for naval construction and repair, the worker shortfall was over 10,000. The shortfall in the region is projected to grow to 40,000 by 2030.[47] This growing shortage not only makes it difficult to achieve any long-term rebuilding of the naval and commercial fleets, it is already a major contributor to the soaring costs and growing project times for all forms of U.S. shipbuilding and related industries. The primary trades

in short supply include welders, shipfitters, pipefitters, and mechanists.[48] Other trades in short supply include marine electricians, coating applicators, sheet metal workers, fiber optics technicians, and Q.A. professionals. [49]

The long delays in naval shipbuilding underscore the seriousness of the challenge. As of this writing, the Virginia-class Block IV submarines under construction at Electric Boat and Newport News Shipbuilding are delayed by 36 months. The next generation Enterprise aircraft carrier (CVN 80), which is under construction at Newport News Shipbuilding, is delayed by 18 to 26 months. The Constellation-class frigates under construction at Marinette Marine are delayed by 36 months.[50]

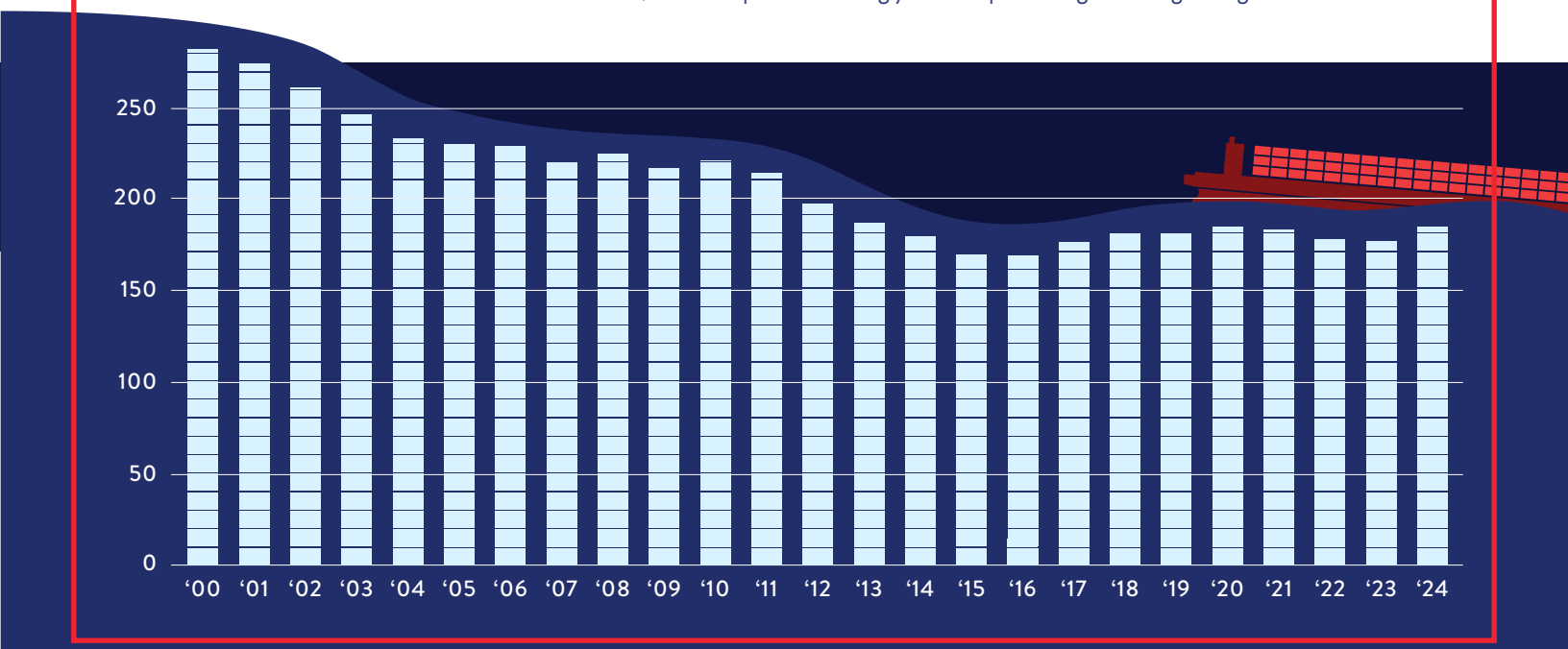
THE STATE OF THE U.S. FLEET

The number of commercial oceangoing vessels registered in the U.S. has declined by nearly a third since 2000 to a mere 185 vessels today. Only 93 of these were built in the U.S. By contrast, China has over 5,500 merchant vessels.[51]

The number of cargo and container ships owned or controlled by the U.S. government is also in steep decline. The fleet of non-naval vessels owned and operated by Department of Defense, Department of Transportation, Department of Commerce, and Department of Homeland Security has shrunk to the point that it can no longer adequately support sealift. Meanwhile, the U.S. government's National Defense Reserve Fleet (NDRF) primarily consists of World War II-era vessels pending scrappage. The average age of the Maritime Adminstration's 48-vessel Ready Reserve Force (RRF) fleet is 46 years old, more than twice the typical lifespan of a commercial foreign-flag ship. A test activation of ships in 2019 demonstrated that only 37 percent met their mission capability, underscoring the dire lack of sealift capacity.[52]

A recent study estimated that the United States has a shortage of at least 500,000 square feet of roll-on/roll-off (Ro/Ro) vessel capacity. This imperils the ability of the United States to transport containerized cargo and military rolling stock. This gap is likely significantly

Figure 3. Decline of U.S.-Flag Vessels. While the downward trend of the U.S. flag merchant fleet has stabilized, it takes up an increasingly smaller percentage of the growing world's fleet.



greater, as the study unwarrantedly assumes that aging Ro/Ro vessels in the U.S. government RRF are mission- capable.[53]

The tanker shortage is significantly worse. Even if the United States were able to use all available tankers for sealift, the United States would still fall at least 25 percent below wartime tanker requirements projected by the U.S. Transportation Command.[54] As a result, the U.S. military will be forced to contract with foreign-flag tankers, a strategy that has proven unreliable in past conflicts, including the Gulf War. The tanker shortage will only grow more dire, especially since the closure of the Red Hill fuel depot in Hawaii has lengthened supply lines for naval fleets in the Pacific, creating an upward pressure on tanker capacity requirements.

A knock-on effect of the reduced number of vessels in the U.S.-flag commercial fleet is an increased reliance on U.S. operators controlled by foreign parent companies. In fact, the U.S. has no domestic carriers with a robust global presence capable of serving the U.S. military during wartime. This lack of domestic capacity poses risks when the foreign parent companies' support of U.S. military operations falters. This shortfall is aggravated by the Trump administration's trade and tech disputes with European and Asian allies, which increase the risk that foreign parent corporations will not be as responsive to the U.S. government during times of crisis.

Another effect of the shrinking U.S. commercial fleet on sealift is the downstream risks on mariner availability. Fewer U.S. ships mean fewer U.S. mariners are employed on vessels. The Maritime Administration (MARAD) estimated in 2018 that the United States had a shortfall of at least 1,800 mariners to undertake sustained sealift operations.[55] This number is likely vastly understated as MARAD assumed that all mariners will be willing and able to sail when required. In fact, the mariner shortage is so acute that the effects are visible even during peacetime. For example, in August 2024, the Military Sealift Command drafted a plan to lay up 17 Navy support vessels, including a vessel that was delivered as recently as January 2024, because of a shortage of mariners.[56]

LOSS OF INNOVATION

For most of its history, the United States was a leading innovator of maritime technology. In the 19th century, U.S. shipyards constructed the fastest sailing ships in the world. In the early 20th century, U.S. shipyards, with the assistance of the U.S. government, led the transition from coal steamships to oil-powered vessels. Later in the century, American firm Sea-Land became the first to create and implement containerization.[57]

Today, however, the United States is a laggard in maritime innovation. For example, with the International Maritime Organization poised to adopt new standards for decarbonization, the United States remains far behind other countries in the construction of new green propulsion systems.[58] British and French carriers are pioneering the use of solid sails to propel cargo and container ships, thereby reducing emissions by more than a third.[59] Chinese shipyards are taking the lead in constructing dual-fuel vessels powered by methanol or ammonia.[60] Japanese carrier ONE recently ordered 12 methanol-powered dual-fuel containerships from China; French carrier CMA CGM recently received six similar vessels from Chinese yards.[61] Singaporean Pacific International Lines ordered four vessels capable of conversion to ammonia power from Chinese shipyards.[62] Owing to the lack of commercial shipbuilding in the U.S., innovation in naval shipbuilding will also likely slow. For example, the Navy's next-generation unmanned

vehicles programs are facing significant delays and cost overruns resulting in part from issues in the shipbuilding supplier base.[63]

The U.S also lags in other maritime innovations, such as reducing carbon emissions through greater use of inland towing. Moving a ton of cargo by barge produces barely one-tenth the emissions as moving it the same distance by truck.[64] French firms have achieved even greater reductions in greenhouse gas emmisions by shifting to barges towed by hydrogen- or battery-powered vessels.[65] But in the United States, inland towing and coastal shipping remains underutilized due to lack of government support and mandates for cleaner freight transportation.

These lost opportunities are the direct result of the lack of a sound maritime policy. In fiscal year 2024, the Marine Highways program, which is designed to shift domestic freight to navigable waterways, received a paltry $4.8 million in funding.[66]

The dwindling of U.S. shipbuilding capacity has also slowed the country's ability to ramp up industries that rely on ships. One notable example is the offshore wind industry.[67] Construction of offshore winds farms requires the use of large commercial vessels called wind turbine installation vessels (WTIV). According to the National Renewable Energy Laboratory, the United States requires four to six WTIVs to meet U.S. targets of 30 gigawatts of offshore wind capacity by 2030.[68]

These large vessels carry and install components of the turbine including the foundation, tower, and blades. Because these vessels carry U.S. cargo from a U.S. port to U.S. waters for installation, they must be Jones Act-compliant. Accordingly, they must be U.S.-built, U.S.-flagged, and U.S.-crewed. However, the U.S. currently has only one WTIV in operation. As a result, firms looking to build offshore wind farms must charter European WTIVs to be operated out of ports in Canada. This adds significant cost and time to offshore wind farm installation.[69] Orsted, a firm that installs offshore wind vessels, scrapped two offshore wind projects, citing a lack of wind turbine installation vessels as a contributing factor.[70]

CORNERED – AND STRATEGICALLY MANIPULATED – OCEAN FREIGHT SERVICES

This section details the economic characteristics of the ocean shipping industry, including its cartelization by foreign corporations. Also discussed are the grave harms to the prosperity and liberties of U.S. citizens and businesses posed by the cartels' chokehold over the lanes of commerce.

OCEAN SHIPPING CONSOLIDATION AND CARTELIZATION

The largest container shipping companies have organized themselves into three global "alliances," or cartels, of unprecedented size and scope. Previously, cartels typically comprised one large carrier paired with several smaller carriers. This dynamic changed starting in 2012 as the largest carriers in the world began to join

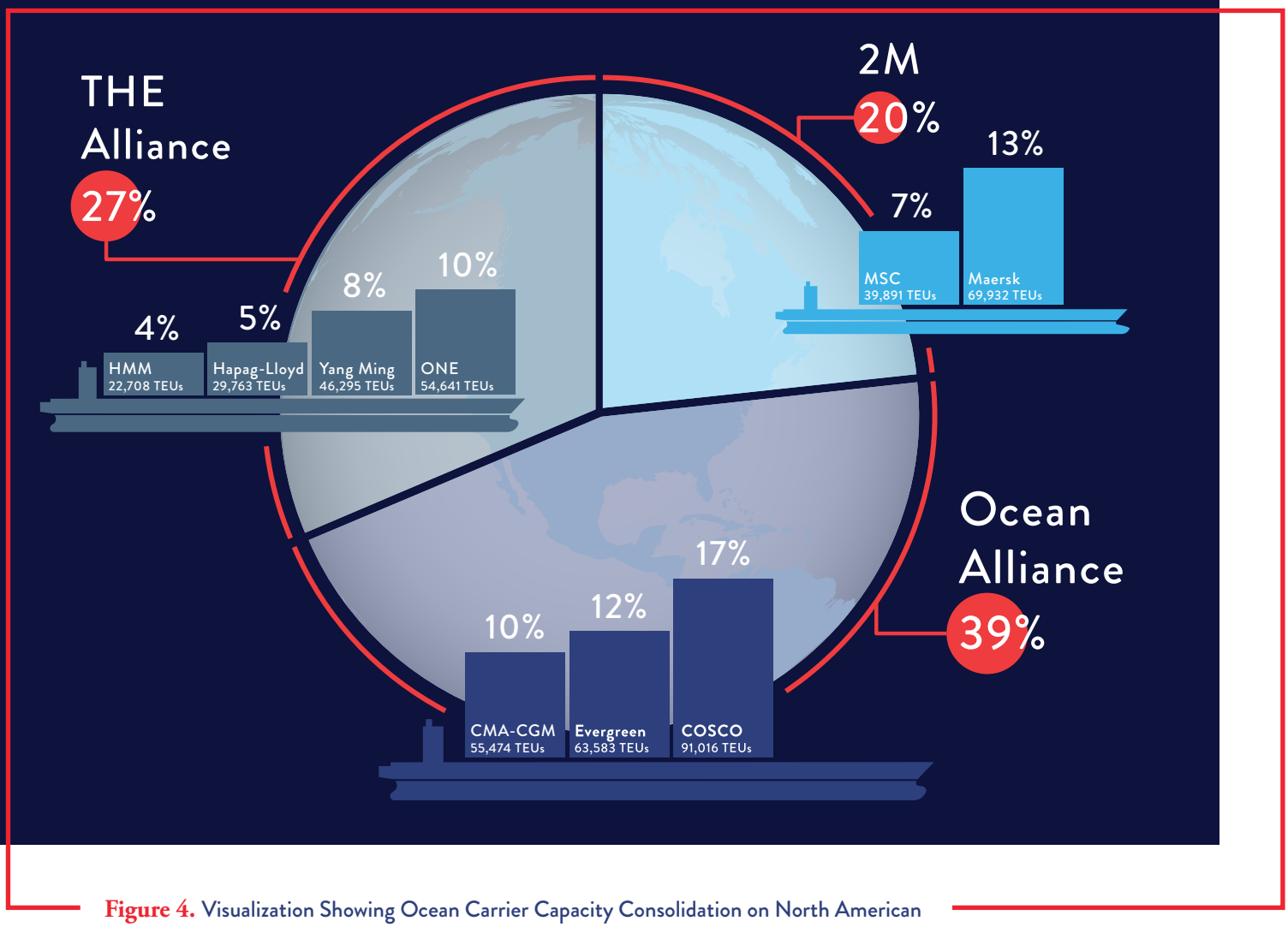


Figure 4. Visualization Showing Ocean Carrier Capacity Consolidation on North American Trade Lanes Prior to Alliance Reshuffling in Early 2025. Data from Alphaliner, July 2024.

alliances to finance ultra-large containerships.[71] Apart from the marginal reforms passed by the Biden administration, the United States lightly regulates these cartels, leaving them free to decide how much capacity to deploy, what kinds of ships to order, and what ports to serve with little to no regard to U.S. national interest; the interest of U.S. manufacturers, exporters, and importers; the costs borne by American consumers; or any other conceivable public purpose.

The lack of market regulation and the ocean carrier industry's high fixed and low marginal cost structure has historically subjected the industry to periods of deep instability. Owners of megaships, for example, have historically carried cargo at below cost because the resulting net revenue helped them to at least defray their high fixed costs and debt burdens. As a result of these and other business dynamics, carriers have frequently failed to meet their cost of capital.

For example, the period from 2012 to 2020 reflected a "soft" market for ocean carriers. The entire industry eked out a profit of just $6.9 billion during the entire period.[72] In response to slow demand, ocean carriers attempted to "rationalize" by rapidly consolidating. The period was marked by six major mergers and the bankruptcy of shipping giant Hanjin Shipping.[73]

As a result of the recent consolidations, corporate concentration in the industry has reached

unprecedented levels, allowing carriers to untilaterally dictate extractive prices and terms of service to U.S. businesses. As recently as 1998, the top 20 ocean carriers controlled 50 percent of the world's capacity. Today, the top 20 ocean carriers own 90 percent.[74] This unprecendented concentration has eliminated the resiliency built into the ocean carrier industry, allowing exogenous shocks to cascade into systemwide failures, as witnessed during the COVID pandemic. The result for U.S. businesses and consumers is reduced manufacturing, empty store shelves, and higher prices.

OCEAN CARRIER ABUSE OF U.S. IMPORTERS AND EXPORTERS

During times of elevated demand, shippers are often subject to skyrocketing prices, exorbitant fees, and poor service. These effects are made worse by the widespread consolidation of carriers and their collusive behavior. Cargo owners and freight forwarders note that throughout much of the business cycle the alliance system allows carriers to adopt a "take it or leave it" stance for service contracts, such as by imposing peak season surcharges and demurrage ("late" pick up) and detention ("late" drop off) fees for containers.[75] Additionally, shippers report being charged for the most basic of "amenities" such as on-time delivery and guaranteed port calls.[76]

Ocean carriers also abuse shippers amid peak demand by refusing to honor previously booked shipping slots. Instead, the carriers sell those slots on the spot market, where they fetch much higher prices. This in turn forces the original shippers to rely on the spot markets, thus driving up prices still more. During the COVID pandemic, for example, prices on the spot market rose up to 1,000 percent on certain lanes.[77]

Moreover, ocean carriers often refuse to deal with certain classes of customers – particularly U.S. exporters – when there is high demand. Due to the U.S. trade deficit, carriers can charge significantly higher prices for import loads than export loads, and heightened demand can lead to the import-export price differential increasing substantially. For example, in November 2021, carriers were able to charge 17 times more for import containers as compared to export containers.[78] Because of this differential, during times of high demand, carriers are incentivized to quickly ship containers back to China without loads. By doing this, carriers hurt U.S. exporters while also avoiding costs associated with moving empty containers between import customers and export customers, who are often located far from each other.[79]

The effect of such policies can be extreme. Between 2019 and 2022, the ratio of export to import loads on U.S. to Asia routes dropped from 39 percent to 28 percent. The effects were made even worse by the fact that carriers demanded a significant premium for import loads.[80] This practice by ocean carriers is particularly harmful for U.S. agricultural exports, which lose value as the cargo sits in yards and marine terminals. Agricultural export shippers, desperate to avoid carrier-caused delays in shipment, are often forced to reroute cargo to terminals thousands of miles away at additional cost. One dairy exporter noted in testimony before the House of Representatives that "over 99 percent of our 2021 ocean shipments have been canceled and re-booked for a later date at least once, if not twice, and in some cases up to 10 times or more."[81]

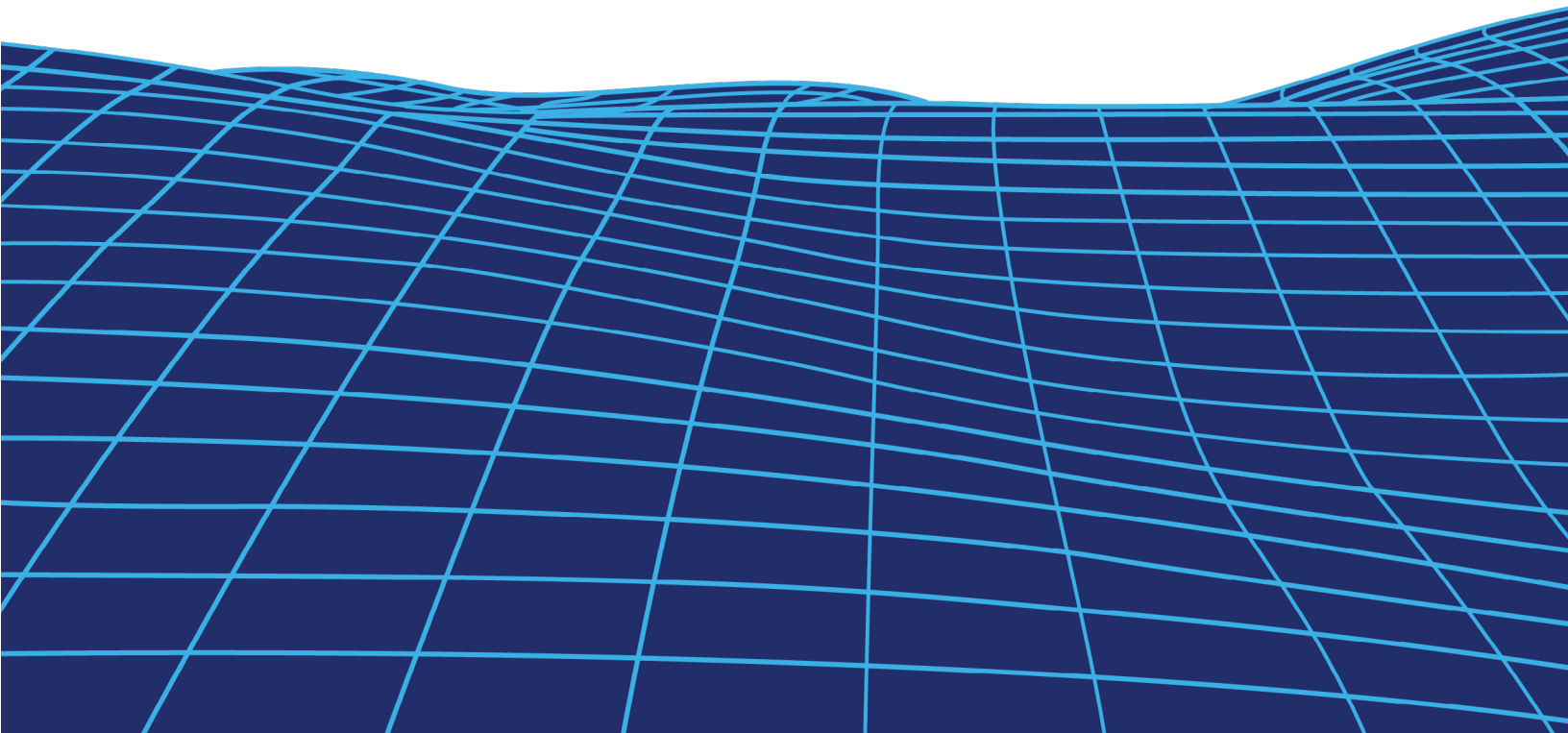
Smaller shippers are particularly harmed by these and other power imbalances in the ocean shipping

market. A recent study shows that ocean carriers charge smaller shippers significantly more than larger shippers, even though the marginal cost to ocean carriers of carrying a small shipper's containers are not significantly different that carrying a larger shipper's container. Carriers are able to engage in such discrimination because shipping markets are no longer regulated and because time and resources required to "shop around" for more favorable ocean shipping contracts is comparatively higher for smaller shippers than it is for larger shippers.[82] This trend is likely to accelerate. Many analysts believe the industry is now so concentrated it will be able to tightly control capacity and engage in even more abusive business practices, during periods of high demand or constricted supply, such as during port strikes.[83]

HARMS TO REGIONAL EQUALITY

The current market structure of ocean shipping results in regional inequities and skewed patterns of economic development. Smaller ports deemed unprofitable for megaships to call are routinely being skipped over by alliances. Consolidation and cartelization in ocean shipping has also led to concentrated market share among ports. In 1995, the 10 busiest U.S. ports handled 78 percent of traffic. By 2009, the 10 busiest ports were handling 85 percent of traffic.[84] Driving this trend is the decision by dominant cartels to maximize their profits by serving fewer ports less often and using ever-larger megaships, which they can do only because of the rollback of traditional regulation. A significant reason for the COVID supply chain crisis was that the concentration of ancillary services for giant containerships at the Ports of Los Angeles and Long Beach precluded using less busy ports.[85]

Finally, with their concentrated market power, today's shipping cartels are increasingly able to force ports to use public money to build the new infrastructure they need, such as giant cranes to accommodate their ever-larger ships.[86]



CHAPTER II.

HOW WE GOT HERE

Since even before the nation's founding, government has played a vital role in structuring markets for shipping and shipbuilding. For example, one of the earliest examples of a tax in modern England was "Ship Money."[87] As part of an integrated maritime policy, the "Ship Money" tax was levied on early modern-era coastal communities to finance the construction of naval and commercial ships. In colonial America, Massachusetts exempted shipmasters and shipbuilders from service in the colonial militia so they could focus full time on shipping and shipbuilding.[88] This ensured availability of shipbuilding and shipping capacity in times of need.

After the War for Independence, Americans continued to actively use government policies to ensure that the United States had a robust and fully independent capacity to construct naval and commercial shipping and to transport cargo and people. In 1789, Congress passed the Tariff Act, which allowed American-built, American-owned vessels a tariff reduction of 10 percent and a reduction in the port tonnage tax.[89] Writing in 1794, during President Washington's second term in office, Secretary of State Thomas Jefferson noted:

> *For a navigating people to purchase its marine afloat would be a strange speculation, as the marine would always be dependent on the merchants furnishing them. Placing as a reserve, with a foreign nation or in a foreign shipyard, the carpenters, blacksmiths, calkers, sailmakers, and the vessels of a nation, would be a singular commercial combination. We must, therefore, build them for ourselves.* [90]

President Washington and other lawmakers also realized the critical interdependence between the merchant marine and the Navy. In fact, the construction of the first six frigates of the U.S. Navy was in response to piracy of U.S. merchant vessels off the central and western coasts of North Africa.[91] Naval vessels along with American privateers, who were private citizens and authorized to engage enemy warships, played a critical role in reaffirming American independence during the War of 1812.[92]

Between 1789 and 1828, American lawmakers passed 50 laws designed to support American shipbuilding capacity and a domestic merchant marine. These included the Navigation Acts of 1817, which barred foreign ships from entering the domestic trade and barred ships from other countries from carrying American imports unless the country suspended any restrictions on American shipping.

> **"For a navigating people to purchase its marine afloat would be a strange speculation, as the marine would always be dependent on the merchants furnishing them. Placing as a reserve, with a foreign nation or in a foreign shipyard, the carpenters, blacksmiths, calkers, sailmakers, and the vessels of a nation, would be a singular commercial combination. We must, therefore, build them for ourselves."**
>
> – Thomas Jefferson

In the decades to come, laws supporting the merchant marine allowed America's shipyards and its U.S.-flagged vessels to thrive during what came to be known as the "Golden Age" of American shipping. Americans designed and built packet and clipper ships unrivaled in their speed and technological sophistication, in the process creating the world's first liner companies. During this period, the United States also built the first steamship to cross the Atlantic Ocean, the SS Savannah, harnessing the steam propulsion technology advanced by American inventor Robert Fulton. National support for the merchant marine allowed American ships to carry roughly 90 percent of America's imports and exports in the 1820s, including nearly all trade from the Far East.[93] American vessel capacity doubled from 1836 to 1856, and the number of packet ships increased from 36 to 56.[94]

Image 1. Clipper ship "Red Jacket": In the ice off Cape Horn, on her passage from Australia, to Liverpool, August 1854. Drawn by J.B. Smith & Son, Brooklyn, L.I. ; on stone by C. Parsons.

FALLING BEHIND IN THE AGE OF IRON AND STEAM

America's dominance in shipbuilding waned, however, in the second half of 19th century. The primary reason was its failure to match the subsidies that other nations – especially the United Kingdom – used to capitalize on newly available steam-powered and ironclad ships.

The British government early on recognized the technical superiority of steamships and began to encourage their domestic development by offering subsidies to such ships in the form of lucrative mail contracts. In 1834, the British government signed its first contract for the

private carriage of Royal mail to Rotterdam, Hamburg, and Gibraltar.

These subsidies had a fourfold purpose. First, they ensured that the British Empire was served by a sturdy communications network. Second, the subsidies increased the markets for industrial investments that had been made to process coal, iron, and machine tools. Third, the subsidies allowed the British government to serve as a technology-pusher to usher in a new era of reliable steam liner services, as the mail subsidies gave preference to new steamship and ironclad ship technology. Fourth, the subsidies provided valuable experience and economies of scale to British shipyards to construct steamships. The British government's bold investment allowed the British steamship liners to make significant inroads into the American sail-packet trade.[95]

The U.S. government responded by passing short-lived policy interventions that provided national support to the burgeoning steamship industry. The Postal Act of 1845, for example, was immensely successful. By 1851, the American steam fleet rivaled the British fleet, despite the U.K's 10-year head start in subsidies. However, the sectoral politics of the antebellum era soon began to undermine the subsidy system, and initial successes were not sustained.[96]

The Civil War, shortly thereafter, had two knock-on effects. It resulted in a dramatic advance in the design of warships, including the introduction of the gun turret, with the launch of the USS Monitor in 1862. But attacks on Northern merchant vessels by Confederate commerce raiders, such as the infamous Alabama, resulted in a dramatic decline in the U.S. merchant fleet. As maritime historians Andrew Gibson and Arthur Donovan noted, "An offshore fleet that totaled 2,490,894 tons in 1861 had shrunk by war's end to half that size, 1,387,756 tons. Three-quarters of the loss was attributed to the work of Confederate raiders."[97] Other ships were reflagged to avoid the rising cost of war risk insurance.[98]

After the war, the decline of the merchant marine and shipbuilding industry continued. American industrial policy focused on projects like the Transcontinental railroad and westward expansion.[99] Meanwhile, government polices allowed foreign-built ships to operate under the U.S. flag, thereby enabling subsidized foreign shipbuilders to nearly monopolize the transatlantic trade. By the turn of the 20th century, American vessels carried a mere one-tenth of U.S. imports and exports, and U.S. shipyards were left with little business aside from Naval contracts.[100]

By the end of the 19th century, the negative economic and national security consequences of these policy choices were becoming apparent. The Spanish-American War of 1898 especially demonstrated the dangers posed by the decline in the U.S. merchant marine. Diminished sealift capacity during the Spanish-American War required that Congress pass emergency legislation to buy expensive foreign-built transports.[101] Many foreign crews and officers of foreign chartered vessels refused to serve on their ships. Critical missions, such as the military's planned amphibious landing in Daiquiri, Cuba, found themselves short of the required numbers of barges, tugs, and lighterage. Teddy Roosevelt, who was Assistant Secretary of the Navy at the time, recounted that his horse, Little Texas, had to be thrown into the water to swim ashore because of a lack of vessels during the mission.[102]

The British war against the Boer rebellion in South Africa between 1899 and 1902 further highlighted the costs of America's diminished merchant marine. During the war, the British government called back many of the merchant ships that were serving the U.S. trade and

Image 2. Photo shows the collier USS Ajax, a transport vessel for the Great White Fleet, in a dry dock at the Norfolk Naval Yard. Detroit Publishing Co. Source: C. Seavey, 2017

increased freight rates for the remaining ships to offset the costs of the war, severely hurting American importers and exporters.[103]

Even Teddy Roosevelt's "Great White Fleet" expedition of 1907, designed as demonstration of his successful efforts to rebuild U.S. naval strength, was hampered by the absence of an adequate merchant marine. Operating the fleet required the government to purchase and charter a fleet of foreign vessels to deliver coal to fuel the U.S. warships.[104] Of the 434,906 tons of coal delivered to the fleet, 73 percent was delivered via foreign vessels. Even when anchored in San Francisco Bay, the fleet was reliant on coal replenishments from British and Norwegian ships.[105]

EARLY 20TH CENTURY MARITIME POLICY

Coming into the 20th century, not only was America's merchant marine dangerously inadequate, but its ocean carrier industry was also increasingly dominated by foreign cartels. In part, this reflected the high fixed costs associated with building modern steamships. To help defray the high and unavoidable debt payments on such vessels, owners would often cut prices even if it meant operating at a loss, since they could recoup part of their fixed costs. This set off rounds of ruinous competition, which in turn led shipowners to combine into unregulated cartels to coordinate supply and boost prices.

In the early 20th century, not only was America's merchant marine dangerously inadequate, but its ocean carrier industry was also increasingly dominated by foreign cartels.

The cartels were politely known as "conferences" and included carriers engaged in a particular trade. The cartels allowed carriers to limit market entry, set rates, and allocate shares of the trade among the conference's members.[106] After the first conference was formed in 1875 by English companies serving Indian ports, conferences quickly spread to most of the world's main trade routes.

Conferences used a variety of tactics to prevent market entry. One tactic was the use of the "fighting ship." These ships would engage in predatory pricing by arriving in port just before another, non-conference line's ships and offering below-cost freight rates. The cost of deploying the fighting ship was then defrayed among the conference's members.[107] Fighting ships were often used by foreign carriers against independent American liners. As one line owner explained:

> *A combination was formed by the English and German steamship lines to put on a steamer for New York at the same port and on the same day that the vessels of this line were to sail, and to take freight and passengers to New York at reduced rates. The result of this combination was death to the line.*[108]

Other tactics to foreclose competition included offering deferred rebates to shippers when they used conference ships exclusively and refusing to deal with shippers who used outside competitors. The conference also used its market power to negotiate contracts with American railroads that gave their vessels preference in dockside handling to reduce costs of dockside handling for conference members.[109]

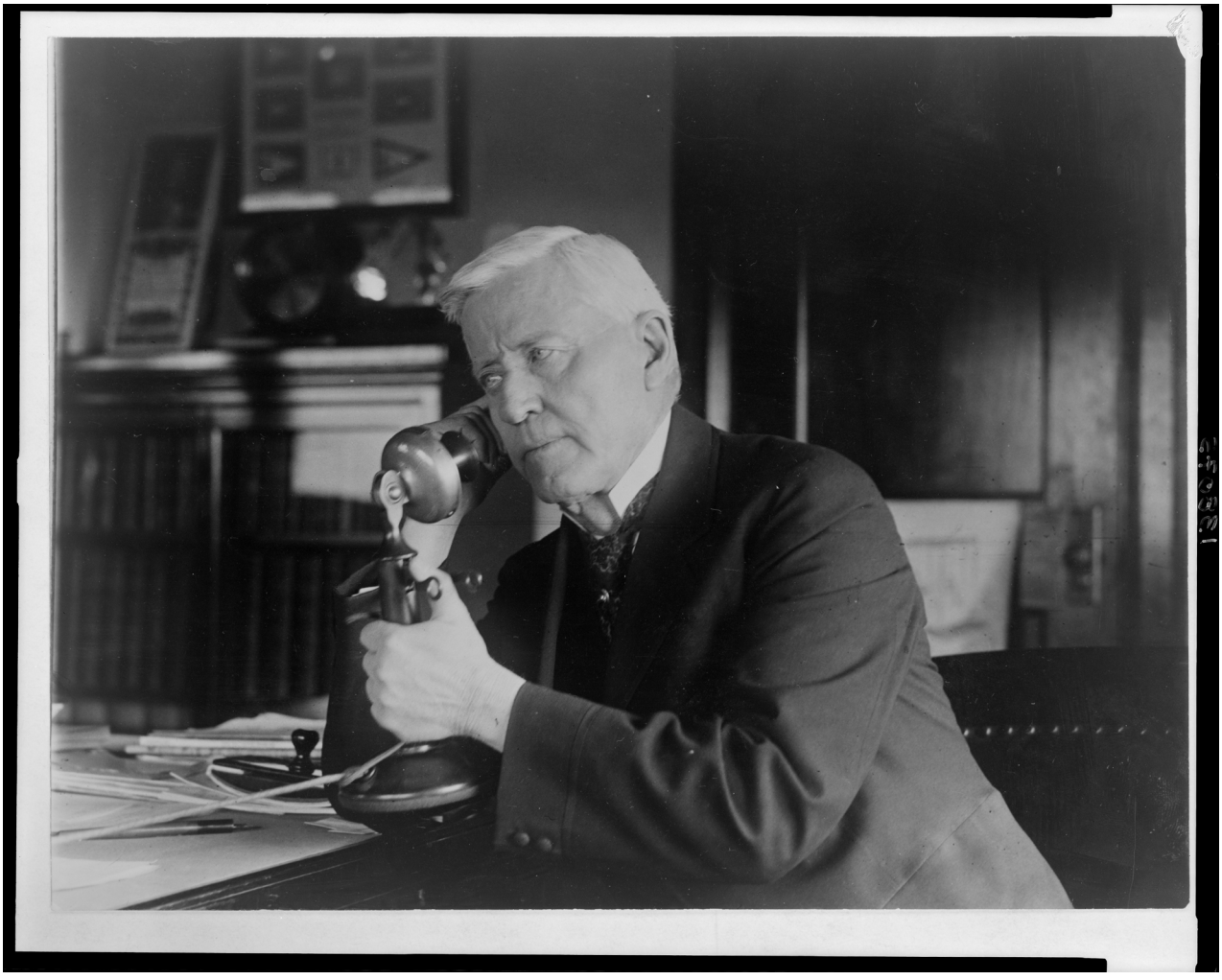
Asserting that such agreements constituted a plain violation of the Sherman Act, the Department of Justice (DOJ) sued various steamship conferences in 1911. The DOJ argued that the courts should disregard any beneficent results from a combination that sought to "destroy competition, to acquire dominion over rates and to fix them as the result of monopoly."[110] Before the cases could be resolved, however, World War I broke out and the conferences dissolved.[111]

The anticompetitive conduct of conferences also attracted attention from the legislative branch, particularly from Congressman Joshua W.

Alexander. In 1913, Alexander, the chairman of the House Merchant Marine and Fisheries Committee, launched a comprehensive investigation of steamship conferences. Alexander was opposed to financiers, including J. P. Morgan, using conference agreements to limit capacity and attempt monopolization of transatlantic lines through horizontal agreements with foreign lines.[112] At the same time, however, the committee conceded the reality of ruinous competition, concluding that the shipping lines' "only hope for survival would be either consolidation or horizontally collusive output constraints, because [unmanaged] competition would be destructive."[113] In either case, the result would be the monopolization of the trade.

Despite noting the shortcomings of the unregulated system of conferences, Alexander's report also noted that conferences brought benefits to both shippers and ocean carriers. These benefits included "greater regularity and frequency of service, stability and uniformity of rates, better distribution of sailings, equal treatment of small and large shippers, economical distribution of costs of service, and equal treatment of shippers through the elimination of secret arrangements and underhanded methods of discrimination."[114]

Image 3. Joshua W. Alexander, Democrat Congressman from Missouri. Source: National Photo Co., Washington, D.C.



AMERICAN SHIPPING DURING THE GREAT WAR

The outbreak of World War I soon turned the deficiencies of the U.S. merchant marine into a national emergency. In 1914, Great Britain, France, and Italy immediately diverted most of their shipping capacity to support their war effort. Because Americans were heavily reliant on foreign shipping capacity and German U-boats threatened what little capacity Americans did deploy, available capacity plummeted and freight rates soared.[115] The lack of U.S. ships to carry freight allowed foreign lines to raise the rate to charter a ship by 20 times and the price to ship key goods such as cotton by more than 17 times.[116] Edward Hurley, chairman of the United States Shipping Board, explained the ills of foreign concentration of the merchant marine: "While there was some justification for these enormous increases in charter rates, ship costs and freight rates, it was evident that they had been artificially inflated."[117]

Image 4. E.N. Hurley. Photograph shows businessman and manufacturer Edward Nash Hurley (1864-1933). Source: Flickr Commons project, 2014.

The war jolted Congress into passing a series of critical bills designed to bolster U.S. shipbuilding capacity and the domestic merchant marine, and to limit foreign control over cargo services. This included the War Risk Insurance Act, which underwrote war risk insurance for U.S. merchant marine ships facing peril from German U-boats. More significantly, Congress also passed the Shipping Act of 1916, which created the United States Shipping Board (USSB). The USSB immediately set to work constructing, equipping, and acquiring 50 vessels suitable for commerce, military, and naval purposes.[118]

The USSB was also tasked with creating the Emergency Fleet Corporation. Within its first six months, the EFC assembled a team of 1,000 technical experts to oversee a massive construction program and create designs for new steel ship construction. The EFC developed an Industrial Service Department to hire, train, and retain skilled shipbuilders. It also commandeered existing yards and constructed new yards.[119] Finally, the EFC was given the authority to directly operate vessels under its Division of Operations. The program was a massive success. By 1922, the EFC had shattered foreign concentration over U.S. shipping by constructing over 2,300 ships.[120] The investment in shipbuilding capacity demonstrated the

ability of the United States to act as a technology-pusher as many of the ships pioneered a new fuel source, oil, to avoid dependence on Great Britain's worldwide network of coal-fueling stations.[121]

The Shipping Act also empowered the USSB to regulate ocean shipping as a utility, using common carriage principles and other tools that were also applied during this era to railroads and other networked industries. This meant that ocean carriers could no longer engage in price discrimination and offer unfair terms of service. Meanwhile, the government also gained the power to prevent conferences from acting in ways that foreclosed competition. The law required conferences to submit agreements to the USSB, which in turn disapproved or altered any liner agreements that it found to be discriminatory or unfair. The 1916 Act also allowed the USSB to disapprove conference agreements that "operate to the detriment of the commerce of the United States" or employ any newly outlawed methods of competition, including fighting ships and deferred rebates.[122]

These regulatory powers were not always effectively enforced. Years later, a 1959 report by the Antitrust Subcommittee of the House Judiciary Committee uncovered, for example, that lax oversight of ocean carrier conferences had led to carriers engaging in secret rate agreements, unapproved divisions of traffic and territories, secret rebates, conference admission restrictions, and discriminatory treatment of shippers.

But overall, the paradigm of managed competition begun by the 1916 Act had the benefit of allowing for economies of scale while checking monopoly power. By subjecting the shipping conferences to government scrutiny, it put a brake on the predatory business practices that the biggest lines had used to get still bigger. The requirement that shipping lines not discriminate among their customers also helped to bring more equal service to different ports and regions, while assuring that small shippers could access markets as easily as big ones.

The law also resulted in sharp improvements of service. Because the 1916 Act limited how much carriers could compete on price, it forced carriers to focus more on the frequency and timeliness of their services.[123]

THE JONES ACT

After the war, many policymakers wanted to ensure that the United States was never again left without sufficient shipping and shipbuilding

Image 5. Senator Wesley L. Jones. Harris & Ewing, photographer. Retrieved from the Library of Congress.

capacity. This led to passage of the Merchant Marine Act in 1920, colloquially known as the Jones Act. The law declared:

> *That it is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency, ultimately to be owned and operated privately by citizens of the United States; and it is hereby declared to be the policy of the United States to do whatever may be necessary to develop and encourage the maintenance of such a merchant marine.*[124]

To that end, the Jones Act allowed insurance underwriters to form commercial combinations to insure American vessels, granted preferential railroad rates to cargo carried by American ships, and authorized low-cost shipbuilding loans. The USSB was tasked with identifying steamship lines critical to U.S. commerce and selling vessels to citizens willing to operate those lines. In cases where the private sector failed to provide needed service, the USSB established and ran the line itself.

Perhaps most famously, the Jones Act also reversed an emergency provision, passed at the beginning of World War I, that had temporarily allowed foreign ships to enter the domestic trade. It did so by reinstating the requirement, originally put in place by the 1817 Navigation Act, that ships moving cargo between U.S. ports and inland waters be U.S.-built, U.S.-flagged, and U.S.- crewed.[125] Senator Wesley Jones, the lead sponsor of the bill, stated that is was necessary to ensure that the United States had sufficient vessel capacity, shipyard capacity, and mariners to serve during times of national emergency.[126]

The Jones Act was successful in increasing U.S. presence on international trade routes. For example, the USSB established a New York-Bremerhaven service, which it then sold to United States Lines.[127] Pacific Mail Line operated five ships for the USSB in the Far East service until those vessels were bought by Dollar Line. Munson line purchased cargo-passenger vessels from the USSB for its New York to South America service.[128]

> **"That it is necessary for the national defense and for the proper growth of its foreign and domestic commerce that the United States shall have a merchant marine of the best equipped and most suitable types of vessels sufficient to carry the greater portion of its commerce and serve as a naval or military auxiliary in time of war or national emergency, ultimately to be owned and operated privately by citizens of the United States; and it is hereby declared to be the policy of the United States to do whatever may be necessary to develop and encourage the maintenance of such a merchant marine."**
>
> Merchant Marine Act of 1920 (Jones Act)

Yet as memories of the Great War faded, the need for strong government investment in ships and shipbuilding capacity was discounted or even forgotten, and existing subsidy programs were poorly administered. Shipyards that the government had constructed as part of the war effort all closed by the mid-1920s because the oversupply of vessels manufactured during WWI reduced the need for new vessels. Maritime historians Andrew Gibson and Arthur Donovan note, "Bethlehem Steel Corporation's many shipyards found just enough repair work to survive, as did the Newport News Shipbuilding Company. In Maine the Bath Iron Works suspended operations in 1924, while William Cramp and Sons in Philadelphia built their last ship, for the coastal trade, in 1927."[129]

MARITIME POLICY DURING THE NEW DEAL AND WORLD WAR II

By the mid-1930s, however, the combination of economic depression and renewed geo-political tensions were causing some far-sighted policymakers to call for a major new national commitment to building U.S. shipping and shipbuilding capacity. President Franklin D. Roosevelt, who came from a merchant shipping family and had served as Assistant Secretary of the Navy, was one of these policymakers. In a 1935 memo to Congress, President Roosevelt wrote that in order to have an adequate merchant marine in both peacetime and war, the U.S would have to match the subsidies granted by other nations.[130] But notably, President Roosevelt was opposed to the "disguised subsidies" such as those provided by the often abused mail contract system of the Merchant Marine Act of 1928. Roosevelt proposed instead a system of direct subsidization for the construction and operation of American vessels:

> *If the Congress decides that it will maintain a reasonably adequate American merchant marine, I believe that it can, well afford honestly to call a subsidy by its right name. Approached in this way a subsidy amounts to a comparatively simple thing. It must be based upon providing for American shipping Government aid to make up the differential between American and foreign shipping costs. It should cover first the difference in the cost of building ships; second, the difference in the cost of operating ships; and finally, it should take into consideration the liberal subsidies that many foreign governments provide for their shipping. Only by meeting this threefold differential can we expect to maintain a reasonable place in ocean commerce for ships flying the American flag, and at the same time maintain American standards.*[131]

Many of President Roosevelt's recommendations were adopted in the Merchant Marine Act of 1936. The new law provided a construction differential subsidy to offset higher U.S. shipbuilding costs and an operating differential subsidy to offset the higher costs of registering and operating a ship under the U.S. flag. Construction subsidies provided a maximum 50 percent subsidy of the cost to build an economically designed ship in a U.S. yard.[132]

The construction subsidies also acknowledged the critical role the merchant marine plays in national security by allowing the Navy to add militarily useful features to a newly constructed ship.[133] The operating subsidy covered 75 percent of the cost of insurance, maintenance, repairs, wages and subsistence of crews and officers, and other miscellaneous items. Recipients were

Image 6. Shipbuilding. "Liberty" ships. The propellers and shafting pieces are awaiting installation in the ships of the Liberty Fleet being built at a large Eastern shipyard. Source: United States Office Of War Information, Palmer, Alfred T, photographer, Baltimore United States Maryland, c. 1941.

subject to a number of conditions including requiring a specified number of voyages on a given route and mandatory replacement of vessels.[134] Finally, a 1938 amendment to the 1936 Act created a federal ship mortgage fund to insure ship mortgages.[135] The 1936 Act recognized that for U.S. shipyards and U.S. vessels to remain competitive on a global scale, it needed to take into account the subsidies provided by foreign governments to their shipbuilders and shipowners.

Passage of the merchant marine legislation proved to be fortuitous, to say the least. After the attack on Pearl Harbor, the United States undertook a massive shipbuilding program that was critical to the war effort in both the Pacific and the Atlantic. In total, the U.S. lost an estimated 733 U.S.-flagged sealift vessels during World War II, making rapid replenishment of merchant vessels essential.[136]

The War Shipping Administration (WSA) was put in charge of purchasing, chartering, and requisitioning all vessels under the U.S. flag. The WSA was also responsible for the training

of seamen. The U.S. Maritime Commission was authorized to design and construct new vessels and yards to encourage shipbuilding. The U.S. Maritime Commission's work during this time included the designing of the famous "Liberty" and "Victory" vessels for mass production in private yards under government contract.

These vessels took advantage of the "pre-fabrication" techniques developed in government yards during World War I, where subassembly was finished before bringing all the components together in a final assembly yard.[137] This construction technique allowed the United States to build over 5,100 ships from 1939 to 1945 at a cost of $12 billion.[138] Using the simple designs created by the U.S. Maritime Commission, shipyards could employ shipbuilders with little to no experience; as a result, shipyards employed 800,000 workers, and suppliers employed 596,000 workers at their peak.[139]

By the end of World War II, the United States controlled 60 percent of the world's tonnage and transported 63 percent of all the world's goods — the largest fleet ever seen in world history.

This burst in shipbuilding allowed U.S. companies to control 60 percent of the world's tonnage by the end of the war and transport 63 percent of all the world's goods. It was the largest fleet ever seen in world history.[140]

POST-WAR MARITIME POLICY

After the war, Americans grew increasingly fearful of Soviet military and industrial power and the spread of Communism, leading the government to adopt many policies designed to help both former allies and enemies build market-driven economies. This included support for rebuilding merchant marines and shipyards. The Marshall Plan, for example, provided low-cost loans for the reconstruction of foreign shipping infrastructure. The United States even disassembled some U.S.-based shipyards and transported them to foreign countries.[141] Congress also passed the Merchant Ship Sales Act of 1946, allowing the sale of surplus ships at below-market rates to allies and former enemies alike. The volume of ships sold was so great that by 1948 Great Britain's tonnage had been restored to pre-war levels and Norway, Denmark, and France were within 10 percent of their prewar tonnage.[142]

The U.S. success in subsidizing both the rebuilding of the free world's commercial fleet as well as the commercial shipbuilding capacity of allied nations resulted in many important geo-political benefits. But the policy also resulted in a sharp relative decline of the U.S. share of world shipping capacity, which dropped to 36 percent by 1948.[143] Also contributing to the shrinking of the U.S. merchant marine were policies that allowed ship owners to realize significant labor cost and tax savings if they registered in countries such as Panama and Liberia.[144] An additional factor was the aging and eventual scrapping of the large supply of World War II-era cargo ships that the United States had put aside to serve as its National Defense Reserve Fleet (NDRF).[145]

In the early stages of the Vietnam war, the U.S. government faced some familiar challenges in

meeting the unexpected surge in demand.[146] But overall, the robust investment in U.S. merchant marine and shipbuilding capacity meant that sealift operations in Vietnam were a success. Civilian crewmembers of the U.S. merchant marine transported 99 percent of the ammunition and fuel and 95 percent of the supplies, vehicles, and construction materials used during the Vietnam War.

Another bright spot during the Vietnam War was a major technological advance in ocean freight transportation – the pioneering use of shipping containers to support U.S. troops in Vietnam. The entrepreneur Malcolm McLean had launched the first containerized service in 1956 on a run from Newark to Houston. But McLean's initial efforts to push containerization were met with broad resistance as containerized vessels required a significant amount of new shoreside infrastructure. But the war provided McLean with his big breakthrough as the U.S. government turned to his company Sea-Land to help speed the offloading of cargo in Vietnam.[147]

Once again, the U.S. government had served a key role in maritime innovation.

Image 7. Malcolm McLean at railing, Port Newark, 1957. Retrieved from Wikimedia Commons.

THE COMING OF MARKET LIBERTARIANISM

The late 20th century saw a rapid period of change for the maritime industry. Commercial shipbuilding shifted to the Far East; giant foreign-owned cartels emerged; carriers began to introduce vastly larger vessels; and U.S.-flagged ships virtually ceased to operate in the open seas outside of Alaska, Puerto Rico, and Hawaii.[148]

These changes were largely due to a policy revolution enacted during the Reagan administration, which came as part of a broader libertarian movement to replace the multipronged goals of regulatory agencies with only one outcome: purported economic efficiency. In the shipping sector, the revolution began in reaction to the Federal Maritime Commission's increasing success in defending its regulatory powers. In 1968, for example, the U.S. Supreme Court had affirmed the FMC's ability to apply a public interest standard to ocean carrier conference agreements. The ruling meant that the FMC could veto any conference agreement unless the carriers involved could affirmatively prove the terms were justified "by a serious transportation need, necessary to secure important public benefits or in furtherance of a valid regulatory purpose of the Shipping Act."[149] Carriers claimed that the regulatory authority afforded to the FMC made the conference system untenable and called for the Reagan administration to pass the Shipping Act of 1984 to loosen the FMC's oversight of the industry.

The 1984 Act stripped the FMC of authority to disapprove of conference agreements on public interest grounds, thereby significantly weakening the FMC's power.[150] Under the 1984 Act, conferences were also required to permit members to take "independent action" on tariff rates and allowed carriers to enter into individual service contracts with shippers. This allowed carriers to undercut the agreed-to conference rates.

The logic of the law appealed deeply to many Reagan policymakers. In addition to being generally skeptical of government regulation, Reagan officials tended to believe that a shift away from goods traveling via regulated conference tariff rates would lead to aggressive market competition on prices, and that this would serve public purposes.[151] They also believed that the measure would free the industry from what they viewed as the sclerotic machinations of the FMC and thereby force U.S. carriers to compete on a level playing field with the rest of the world.[152]

In the short term, these changes in policy seemed to work as advertised. Shipping rates had begun declining in the late 1970s thanks to widespread adoption of containerization and investment in larger ships.[153] Under the new rules, this process continued. But by eroding the regulatory power of the FMC, the 1984 Act set in motion many of the market dynamics that make ocean shipping so problematic today.

First, by allowing carriers in conferences to take "independent action" on rate-setting and by allowing them to enter into individual service contracts with shippers, the 1984 Act unleashed unrestrained price competition between carriers. As Congressman Alexander recognized in the early 20th century, ocean shipping, like other networked transportation industries, is inherently prone to destructive competition. This inherent vulnerability arises because of the unique economic characteristics of the shipping industry and transportation more broadly.

Ocean carriers operating large modern vessels financed by debt have high fixed costs. Additionally, because the cost of adding

another container on a vessel was virtually zero, ocean carriers also have very low short-term marginal costs. These two characteristics in tandem encouraged ocean carriers to engage in destructive "price wars."

These price wars in turn led debt-burdened ocean carriers to undertake round after round of consolidation, as weaker carriers tried to save themselves by defensively merging into stronger ones. Between 1984 and 1990, seven major carriers were snapped up, compared to just one from the entire period between 1966 to 1983.[154] American-flag carriers, which had high cost structures due to labor laws protecting American mariners, were particularly hurt by the rate wars unleashed by the 1984 Act.

Table 1. Table of Mergers 1966-2022. Source: Compiled from Otani, S., and Matsuda, T. (2025) , Transport Policy 165.

SELLER	BUYER	YEAR
Moore-McCormack Lines Inc	United States Lines	1970
OCL	P&O Containers	1986
Franco-Belgian Services	Maersk	1986
Y-S Line	NLS	1988
Japan Line	NLS	1988
KSC	Hanjin	1988
Finland Steamship	Finnlines	1990
Atlanttrafik/Barber Blue Sea	Wilhelmsen Lines A/S	1990
Svitzer AS	A P Moller	1996
APL Ltd	Neptune Orient Lines Ltd (NOL)	1997
ANL	CMA-CGM	1998
Prima Shipmanagement SDN BHD	Halim Mazmin Group	1999
Safmarine	Maersk	1999
Farrel Lines Inc	CSAV	2000
Oost Atlantic Lijn BV	Atlantic Horizon Group	2001
Cyprus Maritime Co Ltd	Cyprus Sea Lines SA	2002
Dansk Supermarked Invest A/S	A P Moller	2003
The Peninsular and Oriental ST	A P Moller	2004
Eurobulk Ltd	Euroseas Ltd	2005
CP Ships Ltd HAPAG-LLOYD AG	Hapag-Lloyd AG	2005
Delmas	CMA CGM Holding	2005
Horizon Lines Inc	Matson Navigation Co Inc	2005

SELLER	BUYER	YEAR
Royal P&O Nedlloyd NV	A P Moller	2005
United Thai Shipping Corp Ltd	IMC Shipping Co Pte Ltd	2005
Cheng Lie	CMA-CGM	2006
Lloyd Triestino	Evergreen	2006
Norasia	CSAV	2006
MacAndrews	CMA-CGM	2007
Lufeng	Sinotrans	2008
New Onto Shipping	GOTO Shipping International Ltd	2010
TSK	NYK	2010
China Navigation	Swire	2011
CCNI	Maersk	2015
CSAV	Hapag-Lloyd	2015
China Shipping	COSCO	2016
Shanghai Puhai Shipping	COSCO	2016
UASC	Hapag-Lloyd	2017
APL	CMA-CGM	2017
KLINE	Ocean Network Express	2018
MOL	Ocean Network Express	2018
NYK	Ocean Network Express	2018
Hamburg Sud	Maersk	2018

Next, and even more devastating were the Reagan administration's deep cuts in federal support for the U.S. commercial shipbuilding industry. Despite the importance of commercial shipbuilding innovations in subsidizing and spreading the cost of naval ship innovation and construction, the Reagan administration encouraged Congress to cease funding the construction differential subsidy, which had been in place since passage of the Merchant Marine Act of 1936.

The effects of these policy changes were immediate and devastating. The Reagan policies set into motion the "death spiral" of U.S. shipbuilding. As U.S. shipyards saw cost structures increase from the elimination of subsidies, they could not price U.S.-built vessels competitively with foreign vessels. This in turn led to carriers placing more vessel orders with Asian shipyards. With fewer and fewer carriers placing orders, U.S. shipyards could not reap economies of scale like those achieved during World War II.[155] As a result, U.S. ships are today nearly five times more expensive than foreign ships.[156] The instability in the shipbuilding sector also led to an exodus of skilled workers.[157]

As one account notes:

> *The number of large, oceangoing commercial vessels on order in U.S. yards plummeted from 69 the year President Reagan was elected to zero in his last year in office. Industry employment never again reached the level seen in 1981 (the highest year since World War II), and no new oceangoing commercial vessels were ordered after 1984 for the rest of the decade… By 1989, 46 shipyards had closed – a 42 percent decline … Shipyard production worker employment in 1982 was 112,455. By 1989, that number had decreased to 76,282, representing a loss of 35,173 production workers, which is a 31 percent decline.*[158]

All the while, construction in Far East shipyards, which remained deeply subsidized, accelerated. Today, the yards of China, South Korea, and Japan represent 95 percent of constructed vessel tonnage, with China representing more than 58 percent of all new orders.[159] Vessels built in the United States now represent a mere 0.13 percent of global capacity.[160]

The destruction of the U.S. industry also reduced technological innovation within the industry as a whole. Prior to the removal of subsidies, U.S. shipbuilders were some of the world's most innovative. They pioneered new propulsion technologies and new ship designs such as the lighter aboard ship, which was a cutting-edge intermodal concept that allowed lighter barges to be loaded on a larger vessel. They also built a series of world-class liquified natural gas carriers to address anticipated LNG shortages.

Although President Reagan eliminated subsidies for shipbuilding, he increased the budget for government-owned sealift from $40 million in 1979 to over $1 billion by 1983. In total, over $8 billion was spent acquiring and modernizing ships for the Ready Reserve Force (RRF), a fleet administered by the Maritime Administration but operated by the Military Sealift Command.[161] But nearly all the newly acquired ships were built abroad, and their numbers remained insufficient to make up for the loses to the U.S. merchant marine. By the time Iraq invaded Kuwait in 1990, the RRF had acquired just 96 of the 142 ships it was scheduled to operate.[162] In order to position sufficient materiel to support the allied nations' counteroffensive, the United States was was forced to charter over 100 foreign-flagged ships. But this soon demonstrated the difficulty of relying upon strategic allies. The crews of

The number of large, oceangoing commercial vessels on order in U.S. yards plummeted from 69 the year President Reagan was elected to zero in his last year in office. Industry employment never again reached the level seen in 1981 (the highest year since World War II), and no new oceangoing commercial vessels were ordered after 1984 for the rest of the decade… By 1989, 46 shipyards had closed – a 42 percent decline … Shipyard production worker employment in 1982 was 112,455. By 1989, that number had decreased to 76,282, representing a loss of 35,173 production workers, which is a 31 percent decline.

13 foreign-flagged ships refused to take their vessels into the Persian Gulf. At the same time, although other allies were far more dependent on Gulf oil, few allied nations mobilized any ships.[163]

Further policy changes enacted under the Clinton administration also contributed to today's crisis. In 1998, President Clinton signed the Ocean Shipping Reform Act (OSRA). This allowed conference carriers to enter confidential private contracts with shippers, thus eliminating the power of conferences to set prices or manage competition. Because contracts could now be filed secretly, the requirement that similarly situated shippers receive similar rates and terms of service was eliminated.

The Clinton Administration also made policy choices that contributed to the withering away of sealift capacity. In 1993, the administration announced that plans to end the operating differential subsidy program for U.S.-flagged vessels, even though the vessels of U.S. carriers American President Lines (APL) and Sea-Land had carried 25 percent of shipments during the Gulf War. Predictably, APL and Sea-Land announced they would reflag their vessels to foreign registries citing market instability, low returns, and high operating costs under the U.S. flag. One immediate result was to break the system that had supported the jobs of 20,000 mariners,[164] which in turn further imperiled U.S. sealift capabilities.

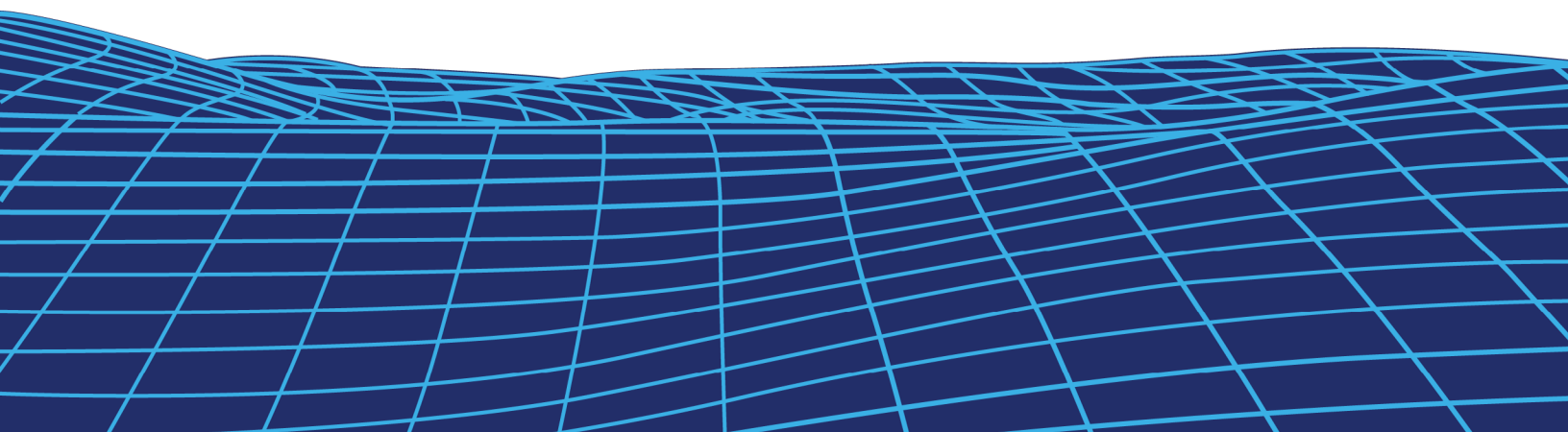
To stem the tide of reflagging, the Clinton administration passed a stopgap measure in the Maritime Security Act of 1996. This law created the Maritime Security Program (MSP), which paid stipends to ensure the availability of 47 vessels in times of national need.[165] The MSP deviated from previous maritime policy in one key aspect, however. The MSP, for the first time, allowed foreign corporations and citizens to participate in maritime promotional programs. In line with the Reagan attempts to grow sealift forces, Clinton's Maritime Security Act of 1996 allowed foreign-built ships to serve in a reserve sealift capacity, forgoing an opportunity to strengthen U.S. shipbuilding capacity.

This provision played a critical role in the late 1990s when the last two American liner companies were acquired by foreign interests. APL in 1997 merged with Singaporean Neptune Orient Lines, which in turn was acquired by French CMA CGM in 2016. Sea Land, meanwhile, was taken over by Denmark's Maersk in 1999.[166] These acquisitions were of particular concern to military planners because APL and Sea-Land were extensively involved in the Maritime Administration's MSP program. Adding to the potential national security threat was the fact that the United States was left with no major "citizen" ocean carrier companies with a global presence and a robust overland logistics infrastructure to support sealift (as APL and Sea-Land provided during the First Gulf War).

Because of these concerns, the Maritime Administration undertook a review process to ensure that the vessels under the MSP would remain under domestic control. During the Sea-Land acquisition, Maersk was to acquire 70 mostly foreign-built international, oceangoing vessels, including 15 containerships under MSP contracts. To retain domestic control of the MSP vessels, a new, wholly domestic corporation was created to control the MSP vessels. This domestic corporation would in turn charter the vessels to Maersk. However, a few years after approval by the Maritime Administration, Maersk took direct control of the vessels. After the expiration of the original contracts and reauthorization of the MSP program, other companies followed Maersk's example.

Since those acquisitions in the late 1990s, the

U.S. military has primarily relied on foreign-owned carriers for sealift capacity. In fact, 37 of the 60 dry-cargo ships contracted through the MSP to provide sealift capacity are controlled by subsidiaries of major foreign shipping companies.[167]



CHAPTER III.

MARITIME POLICY FOR THE 21ST CENTURY

Experience has shown that current maritime policies, enacted during the neoliberal era of deregulation and reckless offshoring of entire vital industries and production capacities, threaten both U.S. military and economic power. To fix these policy errors, we need an integrated, two-pronged approach. Our first aim should be to restore America's shipbuilding capacity through direct government action so that the U.S. military and U.S. shippers are no longer so dangerously dependent on foreign governments or corporations for sealift capacity. Our second, interrelated priority is to restructure ocean shipping markets to be fair and serve broad public purposes.

The history of U.S. maritime policy shows unambiguously that without direct government support, the U.S. shipbuilding industry cannot stay in business. As we've seen, the United States fell far behind in shipbuilding capacity and innovation in the late 19th century due to its failure to match the support offered to foreign shipbuilders by their own governments. As a result, the U.S. entered World War I with a dangerously inadequate merchant marine and with a marginal shipbuilding industry. A crash program of direct and indirect subsidies for shipbuilding allowed the U.S. to prevail in that conflict, yet two decades later, inadequate funding still left the U.S. with an aging merchant marine that was once again dangerously inadequate, forcing Americans to make huge emergency investments in shipbuilding capacity to avoid losing World War II. The pattern repeated itself following the deep cuts in federal support for U.S. shipyards that occurred in the 1980s and 1990s, which caused the domestic industry to nearly disappear.

Laissez-faire does not work in this realm. History also shows that without changes in the market rules of ocean shipping, the U.S. will continue to experience increasing supply-chain disruptions, monopoly pricing, wasteful misallocation of capital, higher costs imposed by foreign shipping cartels, and service that displays a maddening and destructive disregard for the interests of American exporters, manufacturers, and importers. Further, the overall loss of resiliency, reliability, and innovation in both manufacturing and services imposes costs throughout the whole economy while also directly threatening national security.

GOVERNMENT SUPPORT FOR U.S. SHIPBUILDING AND SHIPPING

As the Jones Act stipulates, a key pillar of a successful maritime policy is having "a merchant marine sufficiently large enough to carry a greater portion of its commerce and to serve as a naval or military auxillary during time of war or national emergency."[168] To do this, the President, along with the Department of Transportation and the Department of Defense, must determine the minimum number of vessels required to achieve these goals. At a minimum, the United States should aim for 250 sealift-capable vessels. As former Administrator of the

Maritime Administration Rear Admiral Mark Buzby noted, a 250-ship merchant marine is the minimum size needed to sustain operations in a military conflict in the Pacific.[169]

An adequate strategy to address our maritime challenges requires a systemic suite of solutions, similar to the suite of solutions presented by the maritime policies of the 20th century, including the Jones Act. These systemic solutions must both foster demand for U.S.-built, U.S.-flagged vessels and encourage construction of U.S.-built, U.S.-flagged vessels using a variety of both direct and indirect subsidies.

Demand-side policies that the United States must consider include:

- **Expanded Cargo Preference:** The United States needs to spread the cost of financing a merchant marine more equitably. To this end, cargo preference laws must stipulate that all government cargo be moved on U.S.-flagged vessels within 10 years. Expanded cargo preference laws should also stipulate that 10 percent of U.S. exports move on U.S.-flagged vessels within 10 years. A U.S.-build requirement should also be phased in for vessels carrying preference cargo with a goal that all preference cargo be moved on U.S.-built vessels within 25 years.
- **Financial Support Programs:** The United States must phase in a U.S.-build requirement for all vessels receiving financial assistance in the Maritime Security Fleet, Tanker Security Fleet, and Cable Security Fleet with a goal that all enrolled vessels be U.S.-built within 25 years.
- **Investment Tax Credit:** Congress should establish an investment tax credit of 35 percent to encourage construction of U.S.-flagged, U.S.-built vessels to match current Asian subsidies.
- **Tax Credits for Shipping American:** U.S. corporations should receive a tax credit for shipping goods on U.S.-flagged vessels and an additional incentive for shipping on U.S.-flagged, U.S.-built, U.S.-crewed vessels.

Supply-side policies that the United States should immediately consider include:

- **Investment Tax Credit:** Congress should establish an investment tax credit for expanding, upgrading, or establishing a shipyard facility.
- **Expanded Title XI Financing:** The United States should drastically expand government subsidies for the Title XI loan guarantee program, which provides loans to promote expansion and modernization of shipyards. The United States should expand the allowable uses of Title XI funding and permit Title XI loans to be used for modifications to commercial vessels to improve military usefulness.
- **Expand Financial Assistance Programs:** The United States should immediately expand the number of vessels eligible for operation subsidies through the Maritime Security Program and Tanker Security Program to meet strategic sealift requirements. The subsidies should be expanded to meet the difference in cost between U.S.-flag operational expenses and comparable foreign-flag operational expenses. Increased subsidies should be provided to vessels constructed using domestically manufactured parts and components. Priorities for subsidization should be given to U.S. citizen operators and to vessels that adopt advanced green

and robotics technologies.

- **Direct Government Procurement:** The United States should aim to expeditiously recapitalize aging vessels in the government sealift fleet, including the Ready Reserve Force and Military Sealift Command by directly procuring at least one vessel per year from U.S. shipyards. This serves the dual purpose of ensuring stability in the shipbuilding workforce and improving readiness of the sealift fleet.
- **Backstop Struggling Shipyards:** Because the market capitalization for many shipyards is small, shipyards often face high borrowing costs, as they are frequently borrowing in the junk bond market for infrastructure projects. The U.S. government should financially backstop bankrupt shipyards by creating a trust fund to guarantee shipyard debt. Doing so would lead to lower borrowing costs for shipyards, as nationalization would derisk shipyard capital investments.
- **Expand Capacity at Government Facilities:** The United States should rapidly invest in modernizing and capacity expansion at public shipyards, in collaboration with allied governments.
- **Encourage Maritime Innovation:** The United States needs to reclaim its position as a maritime technological innovator. The Maritime Administration should work with the Department of Defense, shipping corporations, shipbuilders, and components suppliers to create innovative ship designs and ship propulsion systems.
- **Bolster Government Capacity:** The United states should move to increase the size of its government workforce at the Maritime Administration to address the present shortage of workers. Such hiring will allow for better management of new subsidy programs.
- **Workforce Development:** The United States should move rapidly to rebuild its shipbuilding workforce by expanding technical education programs and strengthening the pipeline to shipbuilding professions. The United States should develop plans to modernize the U.S. Merchant Marine Academy and State Maritime Academies and to streamline the merchant mariner credentialing process.

The integrated, systemic suite of solutions must also include ways to raise revenue for these programs through taxation of transportation. The suite of policy tools available to raise revenues include sliding-scale port fees on subsidized foreign vessels based on vessel tonnage, container fees for cargo shipped on subsidized foreign lines, and tariff reductions for cargo shipped on U.S.-flagged, U.S.-built vessels.

The Trump administration can use its trade policy tools to raise such revenues to bolster domestic shipbuilding. In the waning days of the Biden administration, the Office of the United States Trade Representative (USTR) in its Section 301 proceeding identified shortfalls in U.S. maritime capacity caused by China's industrial policy. In its comprehensive report on China's policies and practices in the maritime, logistics, and shipbuilding sector, USTR found that China's domination of the maritime sector has "[disadvantaged] U.S. companies, workers, and the U.S. economy generally through lessened competition and commercial opportunities and through the creation of economic security risks from dependencies and vulnerabilities."[170]

In response, President Trump's USTR has proposed strong remedies, including fees for Chinese-operated vessels, fees for Chinese-built vessels, and refunds on port fees for port calls from U.S.-built vessels.[171] It is critical that these policies are implemented to help spread the burden of financing this vital national interest evenly across the country. As we've seen, the vestigial section 27 of the Jones Act currently provides, through its unfunded mandate, some small protections for domestic shipyards. But it places the burden of this inadequate, indirect, hidden subsidy disproportionately on Puerto Ricans, Hawaiians, and Alaskans, and not on the American people as a whole.

REGULATORY REFORM

The second pillar of a sound maritime policy is restoring market regulation in ocean shipping. As previously explained, ocean shipping markets are marked by high fixed and low marginal costs, leading to cycles of ruinous competition at first and then a later capture by predatory cartels and monopolies. Previous regulatory models dealt with these dynamics through several policy levers, including a regime of managed competition and cooperation that offers an excellent blueprint for Congress and the Trump administration to adapt for today's pressing needs.

MANAGED COMPETITION AND COOPERATION

- **Managed Competition and Cooperation:** Allowing competing carriers to cooperate can boost efficiency under the right conditions. By sharing cargo and coordinating market shares for example, carriers can ensure that fewer ships sail with empty cargo space. Yet such cooperation can easily degenerate into collusion in the absence of smart regulation. Fortunately, the Federal Maritime Commission still retains most if its ability, under 46 CFR § 502.281, to continually monitor and investigate all global alliance agreements and the actions that carriers have taken pursuant to those agreements.

  The FMC should use this power to thoroughly investigate carriers use of surcharges, blank sailings, and rolled bookings to influence price or capacity to reduce transportation services or increase transportation costs, especially during periods of exogenous shocks to the ocean shipping supply chain. Additionally, the FMC should pay special attention to whether specific alliance agreements reduce transportation service or increase transportation costs to smaller, less competitive ports.

  Unfortunately, FMC currently lacks the ability to reject alliance agreements on public interest grounds because of the Reagan Administration's decision in the 1980s to strip it of its power. Congress needs to restore this power to ensure that foreign carriers are not joining in agreements that would harm the American public.

- **Non-discrimination:** Congress also needs to restore the FMC's ability to enforce non-discriminatory pricing and terms of service. Differential pricing should only be lawful if it reflects the different costs of providing transportation service to the shipper or if it's a good faith

attempt to meet another carrier's price. Because confidential contracting enables price discrimination and discrimination on terms of service, all confidential contracting should be disallowed. Price regulation should also once again ensure that ocean carriers cannot engage in price gouging during times of tight capacity or in predatory pricing during times of slackening demand and vessel overcapacity.

- **Antitrust Enforcement:** Congress should pass legislation limiting the current antitrust immunities enjoyed by carriers so that they extend only to those operating fleets with a certain percentage of American-flagged, American-built vessels. This is hardly a radical proposal. Not only did public policy explicitly favor domestic ship carriers for most of the 20th century, similar policies, known as Open Skies Agreements, still ensure that U.S.-flagged airline carriers are not shut out from operating in foreign countries.

APPENDIX 1:

MAJOR SHIPYARDS CAPABLE OF PRODUCING OCEANGOING VESSELS

YARDS CONSTRUCTING NAVAL VESSELS

SHIPYARD	OWNER	LOCATION
Bath Iron Works	General Dynamics	Bath, ME
Electric Boat	General Dynamics	Groton, CT
NASSCO	General Dynamics	San Diego, CA
Ingalls Shipbuilding	Huntington Ingalls Industries	Pascagoula, MS
Newport News Shipbuilding	Huntington Ingalls Industries	Newport News, VA
Fincantieri Marinette Marine	Fincantieri Marine Group	Marinette, WI
Austal USA	Austal	Mobile, AL

YARDS CONSTRUCTING LARGE COMMERCIAL VESSELS AND RIGS

SHIPYARD	OWNER	LOCATION
Bollinger Lockport	Edison Chouest Offshore	Lockport, LA
Bollinger Marine Fabricators	Edison Chouest Offshore	Amelia, LA
Bollinger Houma	Edison Chouest Offshore	Houma, LA
Bollinger Mississippi Shipbuilding	Edison Chouest Offshore	Pascagoula, MS
Chouest North American Shipbuilding	Edison Chouest Offshore	Larose, LA
Chouest LA Ship	Edison Chouest Offshore	Houma, LA
Chouest Tampa Ship	Edison Chouest Offshore	Tampa, FL
Fincantieri Bay Shipbuilding	Fincantieri Marine Group	Sturgeon Bay, WI
Seatrium AmFELS	Seatrium	Brownsville, TX
Philly Shipyard	Hanwha	Philadelphia, PA
Vigor Seattle	Affiliate of Lone Star Funds	Seattle, WA
Vigor Portland	Affiliate of Lone Star Funds	Portland, OR

ENDNOTES

1 This figure represents just the rejected exports out of the ports of Los Angeles, Long Beach, and New York and New Jersey. The total number of rejected exports is even higher. LaRocco, "Shipping Carriers Rejected Tons of U.S. Agricultural Exports, Opting to Send Empty Containers to China."

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