

Maritime Pathways of Commerce

Ocean shipping and the U.S. flag merchant marine.

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Innovations in ocean shipping have helped to shape the trajectory of history. For example, harnessing the wind power of sailing vessels and later powering vessels via steam engines altered trade and even global power dynamics. "Containerization" has shaped the current age of globalization, which has seen immense advances in the global standard of living and a potential shift in the balance of power to the East.

Ocean shipping has also been intimately associated with the security and defense of the U.S. since the country's founding, and remains a dominant mechanism by which America is connected to the rest of the world.

The U.S. as a Trading Nation

The U.S. is one of the world's leading trading nations, and trade makes up a significant portion of our total economic output. For example, the Business Roundtable estimates that more than 30 million American jobs are attached to trade, amounting to approximately 18.2 percent of total employment.

While the U.S. is one of the world's largest exporters (behind Germany and China), our domestic market is so large that only a small portion of U.S. businesses view exports as a viable market. That percentage is likely to grow, however, under the current administration's national export initiative, which seeks to greatly increase this country's exports.

Alternatively, the U.S. is dependent on trade for an array of goods that are not available domestically. For example, even though the U.S. is a major producer of crude oil, it is by far the largest consumer and importer. America produces roughly 8.3 million barrels of crude per day, but consumes about 20.6 million. Canada sup-



Ocean shipping is a major means by which the U.S. interfaces with the world. All photos courtesy of Maersk Line, Limited.

plies about 2.5 million barrels per day via pipeline, leaving just under 10 million barrels per day that we need to import by ship.¹



There are no U.S.-flag oil tankers in the foreign commerce of the U.S.

as U.S. production of natural gas ramps up through development of shale gas, it is entirely possible the U.S. will become a major exporter of liquefied natural gas (LNG).

But even though 72 percent of U.S. trade is in bulk commodities, perhaps the most visible reminder to the average citizen of the role maritime commerce plays in daily life is the container.⁴ Roughly 30,000 containers enter the U.S. by water every day, 365 days per year. China is the source of 48 percent of them. China (including Hong Kong) is also the single largest destination of U.S. containerized exports.⁵

Though it's probably not news to anyone that we need to import significant quantities of oil, it probably will surprise many that we are also not remotely self-sufficient in uranium for our nuclear power. The U.S. imports roughly 86 percent of the 50 million pounds of uranium we consume in commercial power plants in a year.²

Trade is ubiquitous in our daily life, and global shipping trade is the reason we have fresh fruit in winter, flat panel displays, inexpensive computers, pharmaceuticals, and a host of other products. There can be ingredients imported from about 15 different countries in a loaf of whole grain bread and shirts sold in our department stores carry labels reading "Made in Honduras," with a separate label that says "Made from 100% Pakistani cotton."³

Trade, in short, is indispensable to our way of life and economic well-being.

Ocean Shipping in Global Trade

A significant amount of global trade moves by water. Some would argue that approximately 90 percent of international trade travels via waterways. That's close, but I contend that about 80 percent of global trade in physical "stuff" as measured by volume moves by water. Regardless, there is no argument that ocean shipping is a critical component of our overall economic security.

The U.S. is a world leader in the export of agricultural products that move primarily by bulk (although containerized bulk agriculture products are becoming more common). Our oil imports move by tanker, and

Containerization and parallel developments in information technology have led directly to the globalization we see today. Disaggregation of supply chains, trade in intermediate goods, and leveraging of comparative advantage at ever more granular levels has afforded the average consumer a range of goods almost unimaginable not long ago, at prices that are lower than could otherwise be the case, making those goods accessible to more people.

Further, to the extent that our national defense is built on a strong, vibrant economy and our economy is in a large way dependent on trade, our national security is indirectly dependent on ocean shipping. Our national defense is directly dependent on ocean shipping since various weapons systems are crafted from imported materials or components. Additionally, ocean shipping is a major means by which the U.S. military deploys its equipment and supplies around the world.

The Role of a U.S. Fleet

There can be little doubt that balanced and vigorous trade is indispensable to our economic security. The role of ocean shipping in our foreign commerce is also without question. What is in question: the role of the U.S.-flag merchant marine in our foreign commerce.

At the moment that role is insignificant. While much visibility is given to our dependence on foreign oil, it's not well known that we depend 100 percent on foreign tankers to deliver it. There are no U.S.-flag crude tankers in international trade, and there have not been for years.

Likewise, agricultural exports—a crucial component of our overall exports—also all go via foreign-flag bulkers. While there are a few U.S.-flag bulkers, they are engaged in food aid, an extension of U.S. foreign policy. Overall, U.S.-flag ships carry less than two percent of the foreign commerce of the U.S.⁶ The question we need to ask: Does that matter?

There are currently just fewer than 100 U.S.-flag ships in non-domestic service.⁷ Sixty of these are in the maritime security program, which provides an operating stipend to partially offset the higher cost of operating under the U.S. flag in exchange for making the ship available to the military in times of need. That stipend is not enough to fully offset the higher costs, so access to U.S. government cargo preference volume—a separate government funding stream—is also required. In short, these ships exist to serve the U.S. military, not U.S. commerce.

The balance of U.S.-flag ships in non-domestic service also are dependent on U.S. cargo preference programs such as food aid, the military, or Export-Import Bank-financed cargo. As such, these ships are also not genuinely in the foreign commerce of the U.S.; they are extensions of government programs, and therefore dependent on U.S. government money.

These programs have been unsuccessful in sustaining a commercially viable U.S.-flag merchant marine, as the only ships in foreign service depend on government money to survive. In addition, these programs have led to a U.S. merchant marine fleet that is increasingly behind the international community in technology. The median age of the U.S. Jones Act⁸ fleet is 27.5 years; the median age of U.S.-flag ships in foreign trade is 14 years. In comparison, the median age of Maersk ships in the international fleet is six years.

Additionally, U.S. mariners are working with technology that is at least a generation behind that of their foreign counterparts, and for the Jones Act folks, several generations, casting doubt on claims that the U.S. flag fleet is either modern or efficient.⁹ The real tragedy: Our cadets from the maritime schools are typically training on outdated ships, which means that they graduate with a disadvantage as compared to graduates of international maritime programs.



What is the future of the U.S.-flag merchant marine?

U.S.-Flag Merchant Marine—Worth the Effort?

The U.S. has no overarching maritime strategy that focuses specifically on the U.S. merchant marine or the role of waterborne shipping within an integrated multi-modal international supply chain.

A fundamental question that the country must ask is whether a U.S.-flag merchant marine is worth the effort to have. At the moment, the answer, based on what we see and how we act, is “no.”

While strategies like the maritime security program and cargo preference will act as life support, they will not address the long-term structural issues that are afflicting the U.S.-flag merchant marine. They will be successful at staving off death for as long as Congress funds them, but they will not provide the necessary



environment for a vibrant industry with the capacity to grow along with our economy and trade.

The structural issues that must be dealt with are much deeper than simply stating the U.S. flag is too expensive. There are fundamental reasons for this that businesses cannot correct and that require a serious policy analysis strategy to address, and legislative action to implement. Remember, many of the operators of U.S.-flag, foreign-going ships also have large and profitable globally competitive foreign-flag fleets. It is my contention, therefore, that American shipping companies understand how to operate in the international arena, and would be quite capable of running commercially viable U.S.-flag fleets independent of government support if the underlying environment was correct.

much more needs to be done. If the answer is “no,” then current policy is too much and certainly a redirection of resources needs to be investigated.

Either way, the status quo is unacceptable over the long term.

About the author:

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Endnotes:

1. Derived from statistics at U.S. Energy Information Agency Web site: <http://www.eia.doe.gov/>.
2. Ibid.
3. “A Multinational Loaf,” New York Times, June 15, 2007.



Container ships are the workhorses of globalization.

Dependence on a continuous flow of government money is dangerous. Dependence on multiple sources of government money, the failure of any one of which is debilitating, is even more dangerous at any time, but never more so than now. The U.S.-flag merchant marine is just one appropriation cycle away from oblivion.

The question at hand: Does this country need a viable U.S.-flag merchant fleet for its economic security? If the answer is “yes,” then current policy is inadequate and

4. “Assessment of the Marine Transportation System (MTS) Challenges,” Volpe National Transportation Systems Center, USDOT, Dec. 2009.
5. Calculated from U.S. Maritime Administration data at http://www.marad.dot.gov/library_landing_page/data_and_statistics/Data_and_Statistics.htm.
6. American Shipper online 7/21/2010 reporting on Testimony by the Maritime Administrator to the House Subcommittee on the Coast Guard and Maritime Transportation, <http://www.americanshipper.com/NewWeb/SNews/shippers-newswire/transport-ocean/163805--congressman-calls-for-bigger-us-fleet.html>.
7. U.S. Maritime Administration, U.S. Water Statistical Snapshot, http://www.marad.dot.gov/documents/US_Water_Transportation_Statistical_snapshot.pdf.
8. Maersk Line Limited calculations based on fleet data from the U.S. Maritime Administration and internal Maersk data.
9. Ibid.