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What If USTR Had Applied Its February 2025 Port Fees Proposal? An Economic Analysis of U.S. Dry Bulk Agricultural Exports

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In February 2025, the Office of the U.S. Trade Representative (USTR) proposed a set of trade measures to counter China's maritime and shipbuilding dominance. These proposals raised concerns about potential impacts on U.S. agricultural exports. However, such concerns were substantially revised in the final April 17, 2025, determination. This white paper—the first series of analysis in USTR's Section 301 actions—examines the February 2025 proposal and simulates its hypothetical impacts on U.S. agricultural products exported via ocean bulk cargo shipping. The findings, related to USTR's original proposal, indicate that port entry fees on Chinese-built vessels could increase U.S. bulk cargo agricultural export costs, while proposed fees targeting Chinese operators would likely have a more modest impact. Additionally, the proposed mandate to shift exports to U.S.-built vessels would be extremely challenging over the proposed timeline, given the current limited availability of U.S.-built vessels. Readers should interpret these findings as an upper bound estimate of the impact of the previously proposed policies, rather than a reflection of current policy. Part 2 of this series will assess the finalized measures.

On March 12, 2024, a coalition of five U.S. labor unions filed a Section 301 petition to request an investigation into the acts, policies, and practices of China targeting the maritime, logistics, and shipbuilding sectors for dominance. USTR determined that China's targeting of these sectors for dominance, burdening, or restricting U.S. commerce was unreasonable. In response, USTR proposed fees and restrictions on certain maritime transport services on February 21, 2025. These measures are intended to encourage the use of American-built ships and reduce reliance on Chinese maritime ships and services. **Table 1** summarizes the initial proposed policies related to U.S. agricultural exports. Although USTR argued that proposed measures are necessary to counter China's unfair dominance in the maritime and shipbuilding sectors, U.S. agricultural exporters raised concerns about the unintended consequences these measures may have, particularly on bulk agricultural exports where the fees could put U.S. exports at a competitive disadvantage. After reviewing public comments, USTR issued its final determination on April 17, 2025, addressing some of the feedback.

This white paper—the first in a series analyzing USTR's Section 301 policies against China's maritime and shipbuilding dominance—examines the policy compliance levels based on USTR's February 2025 proposal in U.S. waterborne agricultural exports and simulates its hypothetical impacts on U.S. agricultural exports.

Table 1. USTR's February 2025 Section 301 Actions on China's Shipbuilding Dominance

Policy	Enforcement target	Details of the proposal
Policy 1	Chinese-operators	• Fees up to $1 million per port entry or $1,000 per ton on Chinese-operated vessels
Policy 2	Any operators with Chinese-built vessels in the fleet	• Stepped fees up to $1.5 million per port entry on Chinese-built vessels based on Chinese-built vessel composition in the fleet: >0 and <25%, $500,000; 25-49%, $750,000; ≥50%, $1 million
Policy 3	Any operators with future orders placed with Chinese shipyards	• Additional stepped fees up to $1 million based on the Chinese-built vessel composition in that operator's future orders: >0 and <25%, $500,000; 25-49%, $750,000; ≥50%, $1 million
Policy 4	Any U.S. exporters	• Phased-in requirements for U.S. exports: - Year 1: 1% must be transported on U.S.-flagged vessels - Year 3: 3% on U.S.-flagged vessels - Year 5: 5% on U.S.-flagged; 3% on U.S.-built vessels - Year 7: 15% on U.S.-flagged; 5% on U.S.-built vessels

Source. The table summarizes the USTR's February 21, 2025, proposed actions on China's shipbuilding dominance. The federal register notice of the proposal is available at https://www.federalregister.gov/d/2025-03134.

Compliance Levels Under the February 2025 Proposed Policy in U.S. Waterborne Bulk Agricultural Exports

U.S. agricultural exports depend heavily on ocean shipping, with bulk vessels carrying the majority of volume-based trade in grains and oilseeds—particularly corn, wheat, and soybeans.[1] In addition, the dry bulk shipping market is highly competitive, with freight rates largely driven by immediate capacity supply and demand.[2] Bulk vessels are primarily used to transport large volumes of homogeneous, cost-sensitive commodities like grains and coal, making them especially vulnerable to increases in transportation costs. As a result, USTR's February 2025 policy proposals are more likely to have a direct and immediate impact on bulk agricultural exports, where added shipping costs could significantly reduce global competitiveness. Thus, in this analysis, we examine policy compliance levels under USTR's February 2025 proposals within U.S. waterborne bulk agricultural exports, focusing on corn, wheat, and soybeans. We use Customs and Border Protection's (CBP) Vessel Entrance data, which

[1] USDA AMS, Waterborne Agricultural Trade by Commodity, available at https://agtransport.usda.gov/Ocean/Waterborne-Agricultural-Trade-by-Commodity/9gtn-qema

[2] Ardelean, Adina Teodora; Lugovskyy, Volodymyr; Skiba, Alexandre; Terner, David Michael. *Fathoming Shipping Costs: An Exploration of Recent Literature, Data, and Patterns (English)*. Policy Research working paper; no. WPS 9992 Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/099436104042241280

provides information on vessel characteristics and management details, along with Kpler's Global Port Calls data.

- Policy 1 compliance level: Under Policy 1, a vessel operator's nationality determines compliance with the policy. We classify the nationality based on the country codes listed in the country of the operator in the Vessel Entrance data. **Figure 1** shows the nationalities of operators serving U.S. waterborne bulk agricultural exports in 2024. China ranks third among operator nationalities for vessels carrying corn, soybeans, or wheat, following the Marshall Islands and Liberia. Disaggregating Policy 1 compliance by commodity, approximately 87% of corn and soybean shipments and about 88% of wheat shipments complied with Policy 1 (see column (a) in **Table 2**).
- Policy 2 compliance level: The key determinant of Policy 2 is the fleet composition of the vessel operator, specifically the share of Chinese-built vessels in that operator's fleet. To determine the fleet composition of a vessel operator, we assume that all vessels under a given operator landed at U.S. ports at least once in 2024. We calculate the percentage of Chinese-built vessels by dividing the total tonnage of Chinese-built vessels by the total tonnage of all vessels operated by the same operator. Based on this calculation, about 50% of corn and soybeans shipments and 56% of wheat shipments complied with Policy 2 (see column (b) in **Table 2**).
- Policy 3 compliance level: Policy 3 introduces additional fees based on operators' future vessel orders placed with Chinese shipyards. To assess the potential policy compliance level, we analyze the current and expected supply of vessels. This analysis utilizes CBP's Vessel Entrance data for the current supply and Kpler's Global Orderbook data, provided by the International Grains Council (IGC), for the future vessel deliveries. **Figure 2** displays the current and future market shares in the shipbuilding sector. In 2024, non-Chinese-built dry bulk vessels accounted for 59.1% of the vessel capacity that serviced bulk corn, soy, and wheat shipments globally. However, non-Chinese-built vessels are 2 years older than Chinese-built vessels (12 years versus 10 years) on average, and the share of the non-Chinese-built fleet has been declining since at least 2012. Looking ahead, only 23.5% of new dry bulk vessel orders scheduled for delivery in 2026 are from non-Chinese shipyards, highlighting a significant shift toward Chinese dominance in shipbuilding. Among the non-Chinese-built orders, Japan leads the sector, making up 79.2% of all new dry bulk vessel orders placed outside of China.
- Policy 4 compliance level: Column (c) in **Table 2** shows the availability of U.S.-flagged and U.S.-built vessels. Currently, the capacity of U.S.-built and U.S.-flagged vessels capable of handling bulk agricultural exports is near zero. Thus, immediate implementation of the minimal mandate—requiring that 1% of U.S. exports be transported on U.S.-flagged vessels—is infeasible without significant expansion in domestic shipbuilding capacity.

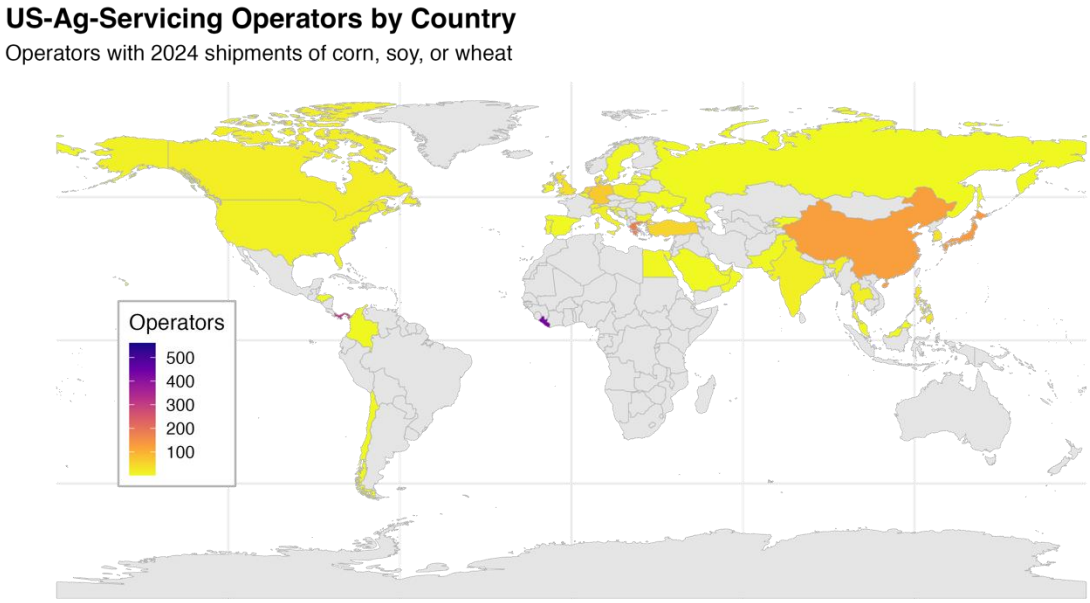

Figure 1. U.S.-Agricultural-Servicing Operators by Country

Source. Authors' calculations based on CBP's Vessel Entrance and Kpler's Global Port Calls.

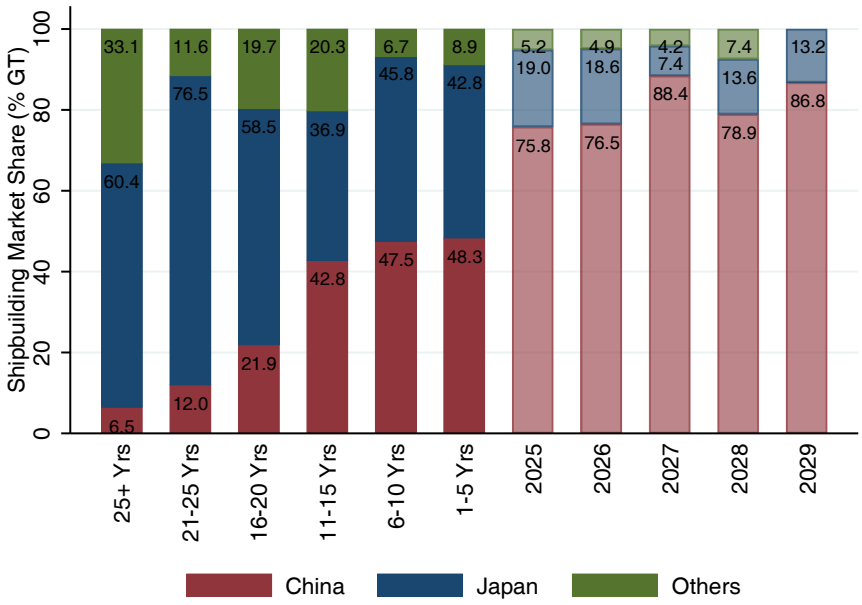

Figure 2. Shipbuilding Market Shares by Vessel Age and Expected Delivery Date

Note. The x-axis represents the age categories of dry bulk vessels landing at U.S. ports in 2024 and the expected delivery date of current orders. The y-axis shows the shipbuilding market share based on the gross tonnage of vessels. The solid bars represent the country share of U.S.-serving dry bulk vessel operators. The transparent bars indicate each shipbuilding country's share of the 2024 dry bulk orderbook. Source. Authors' calculations based on CBP's Vessel Entrance and Kpler's Global Orderbook.

Table 2. Policy Compliant Shares Under the February 2025 Proposed Policy in U.S. Grain Exports by Commodity

	Policy 1 Compliant Share	Policy 2 Compliant Share	Policy 4 Compliant Share
	(a)	(b)	(c)
Commodity	%	%	%
Corn	87	50	0
Soybeans	87	50	0
Wheat	88	56	0

Note. Policy-compliant shares are calculated based on the total cargo tons.

Source. Authors' calculation based on CBP's Vessel Entrance provided by the U.S. Department of Transportation and Kpler's Global Port Calls provided by the International Grains Council.

Policy Scenarios and Projected Implications for Shipping Costs

This section analyzes the potential impacts of the proposed policies under the February 2025 Section 301 actions on U.S. agricultural exports by computing the average unit shipping costs for U.S. bulk agricultural commodities under different policy scenarios. The analysis models three distinct scenarios, each reflecting a different set of assumptions regarding policy responses and alternative policies:

- Scenario 1 No Adjustment: We assume that shipping routes, vessel availability, and landings from 2024 remain constant, and then calculate the average shipping cost per bushel for corn, soybeans, and wheat under the current proposed Policies 1 and 2. This outcome, in the highly competitive global market for these commodities, would represent the upper bound of the cost to be absorbed and would be unsustainable, leading to some shipping reallocation.
- Scenario 2 Alternative Policy 2 Fee Schedules (25% Threshold and Linear fee): Under the proposed Policy 2 fee schedules, an operator with at least one but less than 25% of Chinese-built vessels in its fleet would pay a $500,000 fleet composition fee, unless the operator has no Chinese-built vessels. The current fee structure is unlikely to incentivize operators to reduce reliance on Chinese-built vessels. Rather than abrupt fee jumps, we consider a smoother schedule that varies more gradually with fleet composition. One alternative is to relax the Policy 2 fee threshold from any Chinese-built presence (>0%) to a fleet composition of 25% or more. Another alternative is a linear fee structure, where fees increase proportionally to the share of Chinese-built vessels in an operator's fleet.
- Scenario 3 Reallocation of Non-U.S.-Serving and Non-Chinese-Built Vessels to U.S.-Serving Operators: We assume that U.S.-serving operators can mitigate the Policy 2 fee burdens by expanding their fleets with non-Chinese-built vessels. This expansion could occur either through obtaining additional non-Chinese-built vessels or through merging with operators outside the U.S. that maintain low share of Chinese-built vessels in their fleets, with no added costs for vessel reallocation.

Table 3 provides the simulated costs for Policy 1 and Policy 2 for corn, soybeans, and wheat. These values represent the per bushel fee costs that would have been required in 2024 had the proposed policy been in place. These values are calculated by identifying the hypothetical owed fees for every export shipment of a particular commodity in 2024 and dividing the sum of these fees by the total

number of bushels exported. We find that the costs of Policy 2 (fees on operators using Chinese-built vessels) are higher than the costs of Policy 1 (fees on Chinese operators). We find substantial costs across all commodities.

Table 3. Simulated Costs of Policies 1 and 2 with No Adjustment

	Policy 1 Compliant Share	Policy 2 Compliant Share
Commodity	$ per bushel exported	$ per bushel exported
Corn	0.17	0.64
Soybeans	0.13	0.49
Wheat	0.26	0.90

Source. Authors' calculation based on CBP's Vessel Entrance provided by the U.S. Department of Transportation and Kpler's Global Port Calls provided by the International Grains Council.

To investigate how effective potential ship and shipping reallocation and routing could be in reducing the fee burden on agricultural exports, we calculate the size of the fleet that is not built in China. While reallocating shipments to policy-compliant vessels may incur additional costs as demand in policy-compliant vessels increases, we assume cost-free reallocation to simplify the analysis. **Figure 3** displays the global distribution of Chinese-built and non-Chinese-built vessels' capacity, based on 2024 global grain exports data. Under the assumption of cost-free reallocation, approximately 108 million metric tons of agricultural-serving vessel capacity, never engaged in U.S. trade in 2024, could potentially be reallocated to support U.S. bulk agricultural exports.

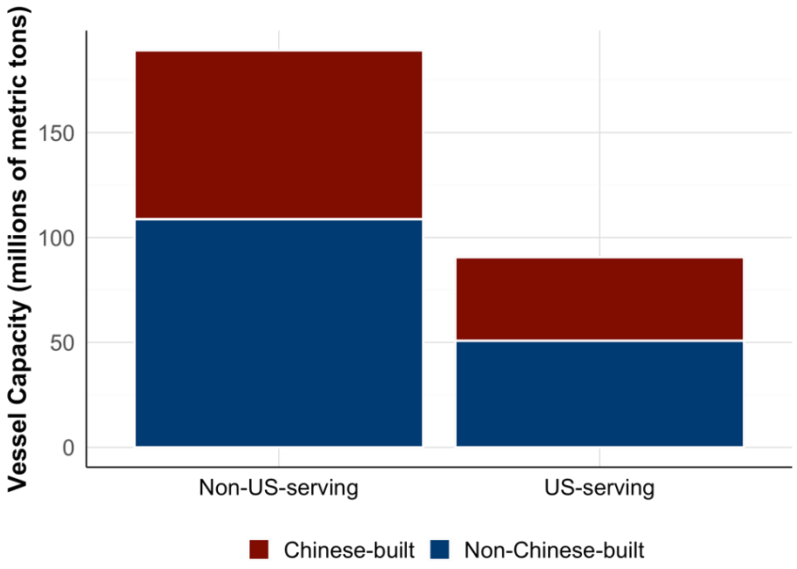

Figure 3. Global Capacity of Fleet Servicing for Corn, Soybeans, and Wheat

Source. Authors' calculations based on CBP's Vessel Entrance and Kpler's Global Port Calls.

Figure 4 presents the simulation results across Scenarios 1 to 3. Under different Policy 2 fee schedules, estimated shipping costs can vary considerably. Waiving the fee for operators with a small fraction of Chinese-built vessels, or charging a proportional fee that increases linearly with the fraction

of an operator's fleet that is Chinese-built, lowers costs to agricultural exporters considerably. Even assuming that 60% of currently non-U.S.-serving, non-Chinese-built vessels across all vessel types are acquired by U.S.-serving operators, shipping costs remain between $0.34 and $0.65 per bushel higher than baseline levels (see **Figure 5**). These added shipping costs under the scenarios, which reflect USTR's original proposal, could reduce local basis and ultimately lower farm-gate prices, as well as lead to logistical challenges due to the rapid elimination of Chinese-built capacity from the current fleet.

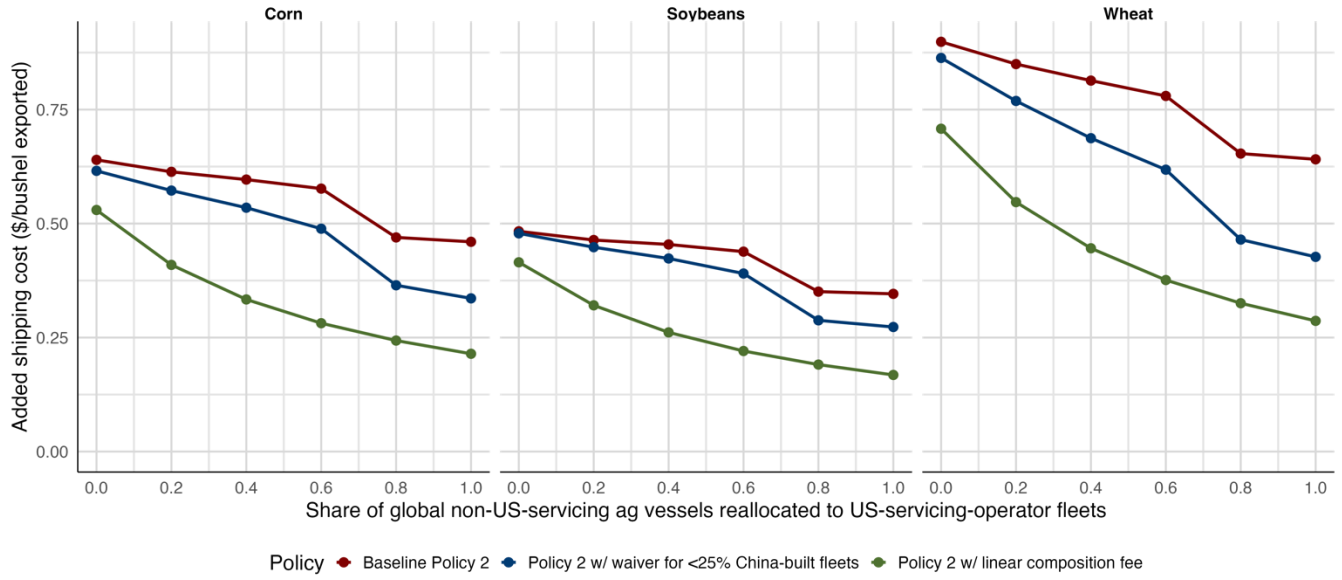

Figure 4. Costs with Reallocation of Non-U.S.-Agricultural-serving vessels to U.S.-serving operators

Note. The x-axis represents the share of global non-U.S.-agricultural-serving vessel capacity reallocated to U.S.-serving operator fleets. Source. Authors' calculations based on CBP's Vessel Entrances and Kpler's Global Port Calls.

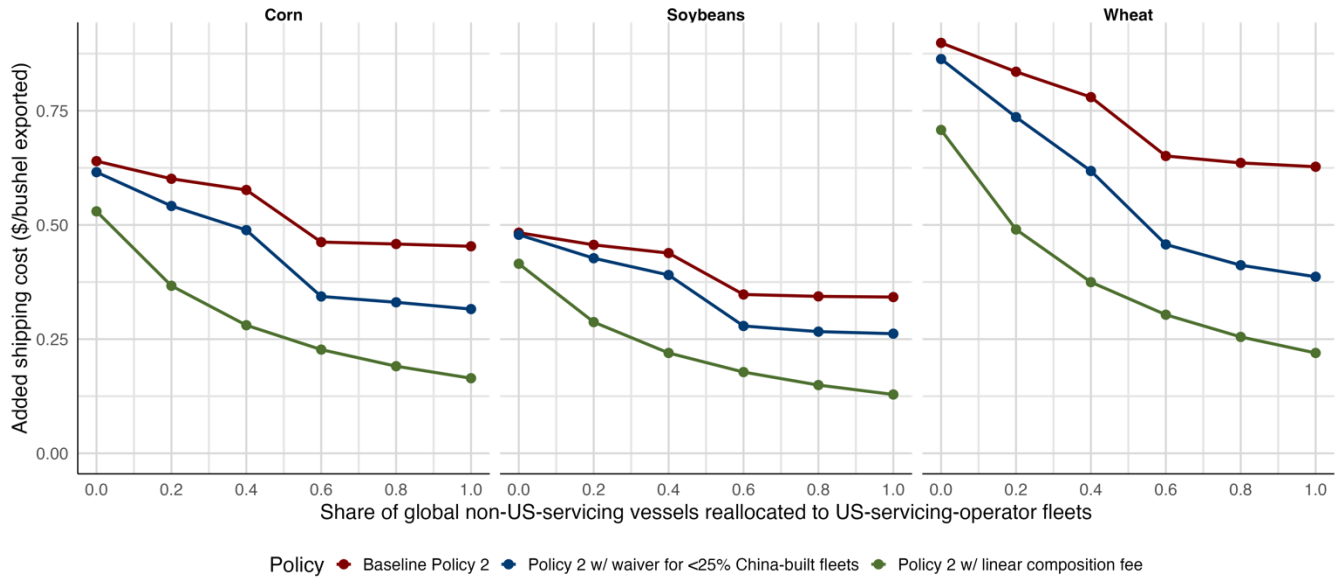

Figure 5. Costs with Reallocation of Non-U.S.-serving vessels (All Types) to U.S.-serving operators

Note. The x-axis represents the share of global non-U.S.-serving vessel capacity reallocated to U.S.-serving operator fleets. Source. Authors' calculations based on CBP's Vessel Entrances and Kpler's Global Port Calls.

Conclusions

The February 21, 2025, proposed Section 301 policies increasing fees on operators utilizing existing Chinese-built vessels or with outstanding orders for Chinese-built vessels could increase the shipping costs associated with U.S. bulk cargo agricultural exports and create logistical challenges. In contrast, we find the potential costs of the proposed fees on Chinese operators to be more modest. We do not directly assess the costs of the proposed policies mandating the use of U.S.-built vessels, but find that such policies would be extremely challenging to comply with absent an increase in the supply of U.S.-built vessels.

It is important to note that this report is based on USTR's February 2025 proposal and is intended to assess its hypothetical impacts. On April 17, 2025, USTR issued its final action, including extensive revisions in response to public comments. As such, the findings presented here should be interpreted as an estimate of what might have occurred without those revisions.

A follow-up report will examine the final Section 301 actions, providing a more complete implications for U.S. agricultural exports.

Disclaimer

This report is intended to inform discussions on USTR's February 21, 2025, proposal and its potential implications on the U.S. dry bulk agricultural exports. While it may be shared and referenced, it may not be reflective of recent changes to policy or economic conditions. The findings and conclusions presented are based on available data and economic modeling and do not reflect the views of the U.S. Department of Agriculture or any institution or organization. The authors assume full responsibility for errors or omissions. Readers are encouraged to use this analysis as a reference while considering additional sources and expert insights for policy and business decisions.

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