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## International Shipping Disruptions and Potential Impacts on Southern U.S. Agriculture

Climate and geopolitical challenges have presented significant hurdles for the agricultural export industry recently. Over the past 24 months, droughts worldwide have disrupted shipping along key inland waterways such as the Rhine, Tapajos and Mississippi rivers. Additionally, the war between Russia and Ukraine led to temporary blockages in the Black Sea, affecting supplies and increasing fertilizer costs globally. While improvements like reduced drought conditions on the Mississippi and the establishment of a "humanitarian corridor" in the Black Sea have eased some disruptions, recent conflicts in the Red Sea and ongoing droughts near the Panama Canal have forced global shipments to divert through the Cape of Good Hope, resulting in increased shipping times and costs that may impact commodity prices for U.S. producers.

To gain insight into these shipping constraints, it's essential to understand historical shipping routes compared to current reroutings. Figure 1 depicts three shipping routes originating from the Gulf of Mexico and bound for Japan, measured in nautical miles. The Panama Canal emerges as the most efficient route, followed by the Suez Canal. However, since December, drought conditions have forced the Panama Canal Authority to reduce the number of ships allowed passage, from the usual 38 per day to a projected 18 per day for February. This decrease, coupled with lowered draft levels, has caused a 50% reduction in shipping in the region. Due to high demand, the Panama Canal Authority will auction slots whenever a vessel cancels its reservations, with slots fetching prices as high as \$4 million this year, in addition to the regular transit fee, which can reach up to \$1 million depending on vessel size.

With rising transit costs through the Panama Canal, exporters are compelled to seek alternative routes like the Suez

Canal and the Cape of Good Hope, albeit with extended transit times of 10-12 days. However, these options have their own inherent risks such as piracy and higher shipping costs. The rise in the cost of shipping can be attributed to increased fuel consumption and employee compensation related to prolonged periods at sea. Moreover, geopolitical tensions in the Red Sea have led to the redirection of shipping lanes



Source: Sea-distances.org and USDA-Agricultural Marketing Service

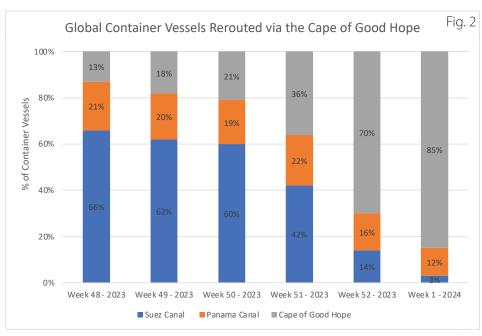


from the Suez Canal, U.S. exporters' secondary choice, through the Cape of Good Hope, further lengthening transit times and causing a significant surge in freight rates.

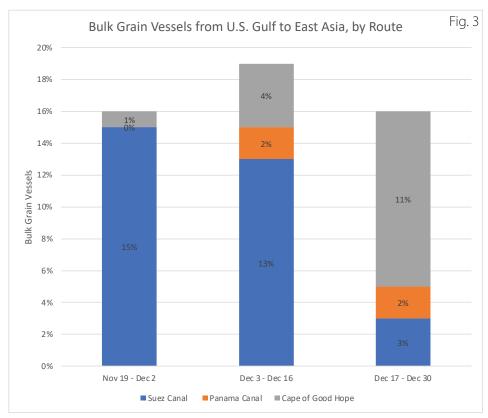
According to data from Alphaliner in Figure 2, in the week of Nov. 26 (week 48, 2023), about 66% of 7,500+ TEU (20-foot equivalent unit) container vessels were transiting the Suez Canal, while 21% transited the Panama Canal and only 13% navigated around the Cape of Good Hope. However, by the week of Dec. 31 (week 1, 2024), following vessel diversions and Panama Canal slot restrictions, about 85% of vessels were navigating around the Cape of Good Hope, with only 12% transiting the Panama Canal and 3% transiting the Suez Canal.

Figure 3 illustrates the routes followed by bulk grain vessels departing from the U.S. Gulf to East Asia (China, Japan, Korea, and Taiwan) during the final six weeks of 2023, divided into three 2-week periods.

The rerouting of ships around the Cape of Good Hope has led to a surge in ocean freight rates, as depicted in Figure 4. The average cost of transporting a standard container (measured as a twentyfoot equivalent unit, TEU) nearly tripled from approximately \$700/TEU in November 2023 to over \$1,900/ TEU in January 2024. Notably, the freight rate from China to Northern Europe surged from nearly \$750/TEU



Source: Alaphliner

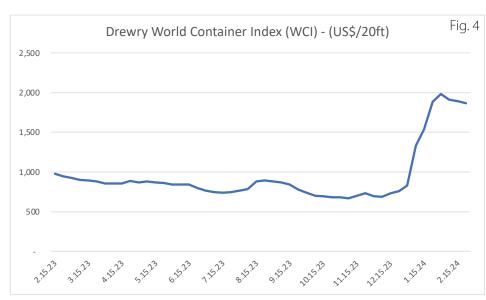


Source: USDA-Federal Grain Inspection Service and S&P Global, Market Intelligence Nectwork.

to over \$2,000/TEU as of Jan. 18. These figures, while specific to the Europe-Asia route, signify a global trend in rising freight costs, impacting the export of agricultural products shipping from the Southern U.S. to international markets.



Furthermore, the Panama Canal's limited capacity exacerbates the situation. Initially, carriers rerouted from the U.S. Atlantic seaboard and the Gulf of Mexico to Asia via the Suez Canal, but many have shifted back to the Panama Canal. This redirection is expected to worsen congestion and delays, posing logistical challenges for Southern U.S. exporters reliant on this route for efficient access to Asian markets. The situation in the Red Sea is anticipated to drive near-term shipping prices even higher, with projections suggesting rates could surpass \$3,000/TEU as significant



Source: Drewry

agricultural shipping volumes shift toward the U.S. West Coast.

What does this mean for U.S. exports? The issues at hand underscore the fragility of key maritime routes and have a cascading effect on global agricultural supply chains, potentially disrupting 2024 U.S. agricultural exports. The potential implications for exporters of major crops like corn and soybeans are significant, including increased transportation costs, potential delivery delays, and a broader reassessment of trade strategies. The increasing interdependence of environmental stability and geopolitical disruptions and their impact on the flow of agricultural commodities, crucial for U.S. farmers and ranchers, highlights a critical challenge for global trade. Unfortunately, the current state of international shipping lanes is expected to persist throughout 2024. If this projection holds, U.S. producers could experience further declines in commodity prices and/or a widen of basis as well as substantially higher storage fees and input prices. Moreover, if shipping companies persist in passing on these price increases to their customers, consumers may face higher food costs. It's vitally important for the U.S. to acknowledge that these environmental and geopolitical challenges may be opportunities for other nations like Brazil to move further into U.S. export markets. If these issues persist unresolved, traditional importers of U.S. products may begin seeking alternative sources to fulfill their demand. This stresses the importance of addressing these concerns promptly to maintain our competitiveness in the global market.





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