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Red Sea Shipping Disruptions: Estimating Economic Effects

Attacks by the Yemen-based Ansar Allah (Houthi) movement in the Red Sea and Gulf of Aden since November 2023 have disrupted a critical maritime passage for global supply chains, creating bottlenecks at the Suez Canal and Bab al-Mandab Strait—one of the world's most significant trade chokepoints—and forcing vessels into longer and more costly journeys around Africa. These shipping disruptions compound ongoing challenges to the global economy created or exacerbated by the COVID-19 pandemic, Russia's war against Ukraine, conflict and tension in the Middle East, and a drought that has substantially scaled back shipping through the Panama Canal, another key artery of global trade flows. Members of Congress may have an interest in monitoring the situation to help inform potential U.S. economic policy responses.

The Suez Canal—which connects the Red Sea with the Mediterranean Sea and links Europe, Africa, and Asia—handled approximately 12% to 15% of global trade volumes in 2023. This strategic passage is also significant to trade in specific products; by some estimates, it has handled 25% to 30% of all container shipping, 12% of seaborne oil, 8% of seaborne liquified natural gas, and 8% of the grain trade in recent years. The disruptions to the safe use of this waterway have highlighted the vulnerability of global supply chains to ocean-based security threats.

Preliminary information suggests that the global economic effects of the Houthi attacks on ships have been limited thus far, although they have rippled across various industries and countries differently, primarily via trade linkages (e.g., delays and shortages). Potential remains for greater near-term risks and challenges to the economies of Europe, the Middle East, and the Horn of Africa. As two analysts from the St. Louis Fed noted in February 2024, "[w]hile geopolitical conflict often takes place in relatively narrow geographic areas, the global nature of the market for international shipping services could act as a channel through which local shocks are amplified and transmitted to the rest of the global economy."

The attacks have increased shipping costs and affected humanitarian flows of food, fuel, and medicine into in these regions. If prolonged, disruptions to Red Sea shipping could contribute to global inflationary pressures and exert a drag on the global economy. Ultimately, the overall impact of the crisis will depend on its duration and the extent to which its fallout is contained, and on the responses of all stakeholders, including governments, shipping companies, and international organizations.

Challenges of Economic Forecasting

Projections of the economic impact are based on limited data that includes a mix of statistical indicators from government agencies, business and consumer surveys, financial market variables, and real-time ship and port tracking databases. They are also based on specific assumptions and simplifications—which may not capture the complexity and dynamics of the situation. Forecasts are also subject to considerable uncertainty that can affect their accuracy and reliability, including about what actions the Houthis might take and what the shipping industry and other countries might do to protect ships in the Red Sea.

Figure 1. The Red Sea and Middle East Region

Source: Congressional Research Service (CRS).

Measuring the effects of an evolving crisis and isolating them from those of the other unfolding regional and global developments, however, is a challenging task. For example, customs records, from which official trade statistics are derived, may be affected by shipping disruptions. Issues such as these could complicate efforts to timely and accurately assess the trade and economic effects of the disruptions (e.g., imports/tariff revenue recorded in April that would have been recorded in February had it not been for the rerouting of ships).

Estimating the Impact

The economic backdrop to the current disruptions is different than the situation three years ago when, in the midst of the pandemic, a container ship became grounded in the Suez Canal (see **textbox**). In 2021, there was a surge in global demand for physical goods that resulted, in part, from economic stimulus programs and a sharp shift in spending from services to consumer durables, while pandemic-induced constraints on production and transportation continued to restrict supplies.

Some analysts assess that if the current situation does not escalate into a wider conflict, near term effects of the shipping disruptions may be limited to a marginal, overall reduction in global economic growth and a minor uptick in global inflation. Disruptions, in their view, have been priced in by markets—that is, actual and potential ramifications of the disruptions are reflected in current prices. These analysts expect that the inflationary impact of higher freight costs will be largely contained given the relatively minor share of maritime trade costs in total input costs, the ability of firms' profit margins to absorb rises in input prices, and ample ship availability. The World Trade Organization (WTO) also has noted that weak consumer demand and backup inventory are helping to mitigate inflationary pressures resulting from transport delays.

Red Sea Shipping Disruptions vs. 2021 Suez Canal Blockage: A WTO Assessment

Some analysts estimate that the temporary blockage of the Suez Canal in March 2021 by the grounded container ship Ever Given cost world trade between $6 billion and $10 billion and reduced annual trade growth by 0.2 to 0.4 percentage points (p.p.). While the Red Sea disruptions differ significantly from the 2021 event, the WTO assessed that there are similarities that may enable analysts to draw certain conclusions. In particular, the WTO concluded that the impact of the Red Sea attacks might be more limited than initially expected due to several factors, including: (1) continued use of the Suez Canal despite reductions in traffic; (2) relatively small delays from rerouting ships around the Cape of Good Hope; (3) containment of maritime freight rates since the start of the attacks; (4) moderate consumer demand and adequate inventories; (5) relative stability of global energy markets; and (6) greater availability of shipping capacity today compared to 2021, when the COVID-19 pandemic was causing disruptions.

Source: Adapted from World Trade Organization, Global Trade Outlook and Statistics, April 2024.

The short-term economic impact will vary across countries and industries, but many analysts expect it to be more pronounced in Europe, the Middle East, and the Horn of Africa. Around 40% of Asia-Europe trade and over 95% of ships traveling between the two regions normally go through the Red Sea. In addition, maritime fees constitute a significant share of some countries' budgets and foreign exchange reserves (e.g., Egypt). Disruptions also jeopardize the movement of critical food and supplies in countries like Djibouti, a key node for East African trade and a hub for humanitarian assistance bound for Africa. Some countries situated at strategic junctures along the Asia-Europe route, such as Madagascar, could gain from the Red Sea disruptions through increased demand for bunkering and restocking services.

According to a January 2024 study by Allianz, one of the world's largest insurers, increased seaborne freight rates stemming from the attacks could push up prices globally by about 0.5 p.p. and potentially reduce gross domestic product (GDP) growth by 0.9 p.p. in Europe, 0.6 p.p. in the United States, and 0.4 p.p. globally in 2024. Similarly, in February 2024, the Organization for Economic Cooperation and Development (OECD) estimated that if these higher costs persist, they could increase short-term import price inflation across its 38 members (including the United States) by nearly 5 p.p., potentially adding 0.4 p.p. to overall inflation "after about a year." Excess container ship capacity, the OECD noted, should moderate cost pressures. Other estimates project that a prolonged conflict with shipping costs staying at current levels through 2024 could add up to 0.7 p.p. to global inflation this year. Many analysts conclude that a worsening of the situation, especially if it turns into another protracted regional conflict or threatens global energy markets, could have potentially serious knock-on effects, which could extend beyond the short term, on the economies of Europe, Africa, and the Middle East and their major trading partners.

The cost and impact of the disruptions on the environment could also be significant. According to some observers, rerouting vessels to the Cape of Good Hope is increasing carbon emissions, and damaged ships threaten the surrounding marine ecosystem—home to one of the world's most biodiverse coral reefs.

Considerations for Congress

For Members of Congress, the Red Sea shipping disruptions can raise questions about whether and how to facilitate the smooth, predictable flow of trade, improve the resilience of domestic and global supply chains for critical products, and/or limit trade dependencies on certain countries and regions. The situation presents the United States and its allies with questions about the manner and extent to which government policy can or should alter existing production and supplier arrangements. It may also present them with an opportunity to assess if and how the disruptions, especially if they worsen, have the potential to affect or undermine China's efforts to reshape global trade and solidify its centrality in global supply chains.

Congress may consider the costs and benefits of adopting legislation that attempts to alter shipping routes for imported goods or reallocate resources within the economy toward developing domestic production of imported goods. These policies could affect the cost of goods and services for U.S. consumers, alter U.S. and global trade flows, and impact the competitiveness of U.S. businesses. Congress also may examine other tools and legislative approaches, such as encouraging the Administration to coordinate new international efforts to promote the safe passage of merchant ships in the Red Sea and/or enhance the capacity of alternative modes of transportation, particularly for critical supplies.

Congress may also consider whether to reinforce U.S. support for global trade arrangements and agreements with like-minded trading partners, while also encouraging "nearshoring"—the shifting of manufacturing and production operations to neighboring or nearby countries rather than distant offshore locations—or the use of a more diverse foreign supplier base for U.S. firms to increase resilience (e.g., in initiatives such as the Indo-Pacific Economic Framework for Prosperity). Congress may also explore whether the use of U.S. and multilateral tools (e.g., humanitarian assistance and trade financing/capacity building) could help address the economic needs of those negatively impacted by the Red Sea shipping disruptions, while helping U.S. workers and firms remain competitive.

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