WHITE PAPER

Scenarios for Container Shipping in the Red Sea Crisis

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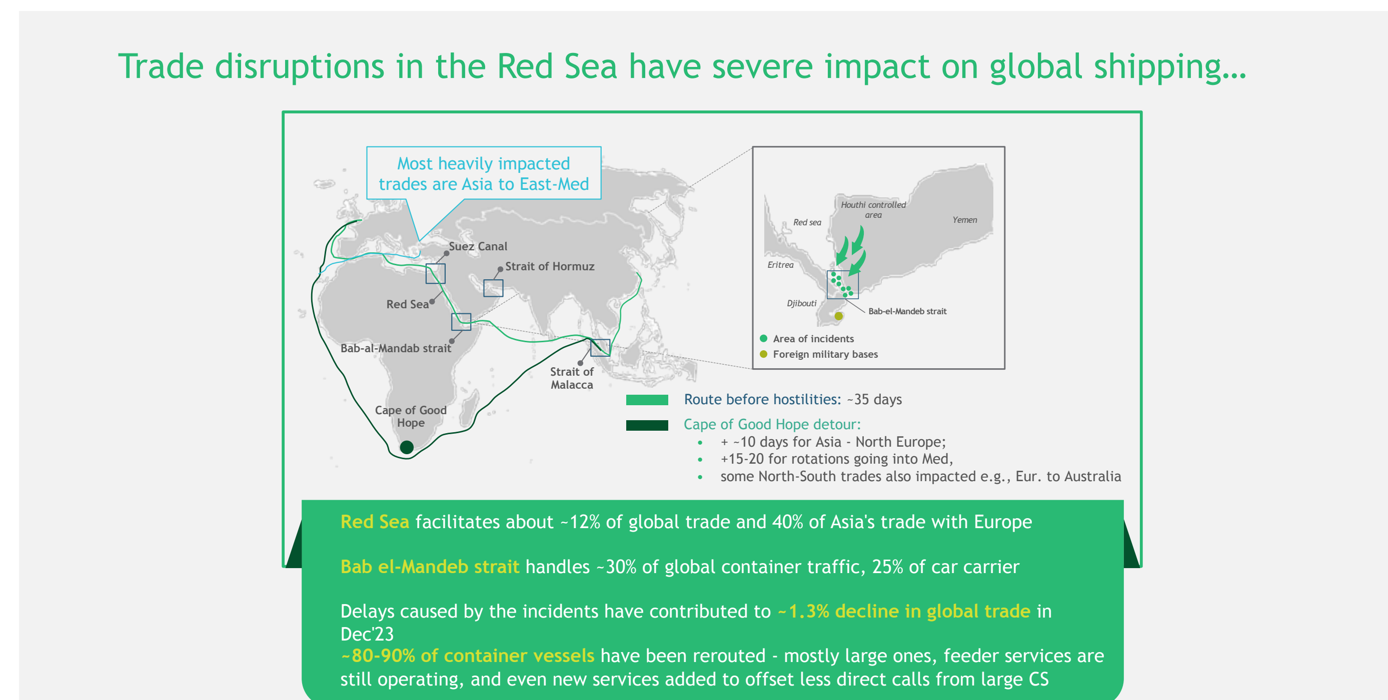
With continued Houthi attacks on the Bab el-Mandeb strait between the Red Sea and the Gulf of Aden, container executives face a balancing act: optimizing rates to preserve margins, but without reducing cargo demand. And even if the crisis ends soon, it marks a shift in the container industry away from the apparent post-Covid normalization in Q3 2023. It's a signal for the industry to invest in greater preparedness for future disruptions.

Exhibit 1 - Houthi Attacks Are Affecting Global Shipping



Why the Crisis?

Houthi spokespeople claim the attacks are a way to show solidarity with Palestinians opposition to Israel's assault on Hamas in the Gaza Strip. Yet most of the targets have no obvious connection to Israel or its allies, and have even included ships bringing humanitarian aid to Yemen. The Houthis actually began attacking shipping in 2020, but escalated after October last year, and have so far refused attempts to negotiate peace. Unlike pirates, they have not tried to board ships or steal cargo. While their goals are unclear, the attacks have been surprisingly effective. Combining guerilla tactics with drones and mobile launchers, the Houthis have carried out dozens of attacks and inflicted significant damage on five cargo ships.

As of March 1, U.S.-British forces had escalated their military response, targeting both surface and underground infrastructure. Yet the Houthis have not backed down, and shipping remains perilous. They are attacking at a choke point. By value, Red Sea shipping carries 12% of global trade, and 40% of Asia's trade with Europe. The Bab el-Mandeb strait itself sees about a third of global container traffic.

So far, container liners have responded with only short-term adjustments. They have rerouted 80-90% of their Far East–Europe vessels south, through the Cape of Good Hope. That adds 30% of the time for shipping to Northern Europe, and more to the eastern Mediterranean. As for the Suez Canal, its deep-sea cargo transits have already fallen by more than half compared to 2023. (Feeder vessels and oil tankers that originate north of Yemen are still going through.) Many global freight rates tripled in January but have been tapering down since, though still higher than pre-crisis.

Indeed, the crisis has not yet led to big shifts in the container industry. Demand for shipments has actually fallen, because cargo owners reduced their demand – they had enough inventory, were put off by the higher freight rates, and expected the crisis to end quickly. The liners have not boosted their deployed fleet by adding charters or by cascading capacity from other lanes.

While we understand their expectation of a quick resolution, pessimistic scenarios remain plausible, and the consequences require assessment. Container liners need to prepare for a range of possibilities.

How the Crisis Could Unfold

While political and military leaders try to manage this geopolitical crisis, here we focus on the impact on container shipping. With attention to four key variables, we have built a model to predict the impact.

Rerouting, the number of twenty-foot equivalent units (TEU) diverted from the Red Sea through the Cape of Good Hope and elsewhere;

Shipping demand, both short-term (some customers postponing shipments to wait for lower rates) and long-term;

Speed, liners' willingness to increase vessels' speed to reduce delays from rerouting, or at least reduce "slow steaming";

Capacity, liners' willingness to increase TEU capacity by chartering additional vessels, cascading capacity from other lands, or accelerating fleet renewal. The industry is benefitting from earlier fleet renewal orders arriving in 2024, which will reduce its vulnerability here.

That model generates four scenarios:

1. **Swift ending:** The attacks continue at a high intensity, but the crisis ends by late March. The Allies disable most of the Houthi attack infrastructure, and normal shipping resumes in the second quarter of the year. Rerouting continues through much of March, and some customers continue to postpone demand in the short term. But the liners largely keep their speed and capacity at pre-crisis levels.

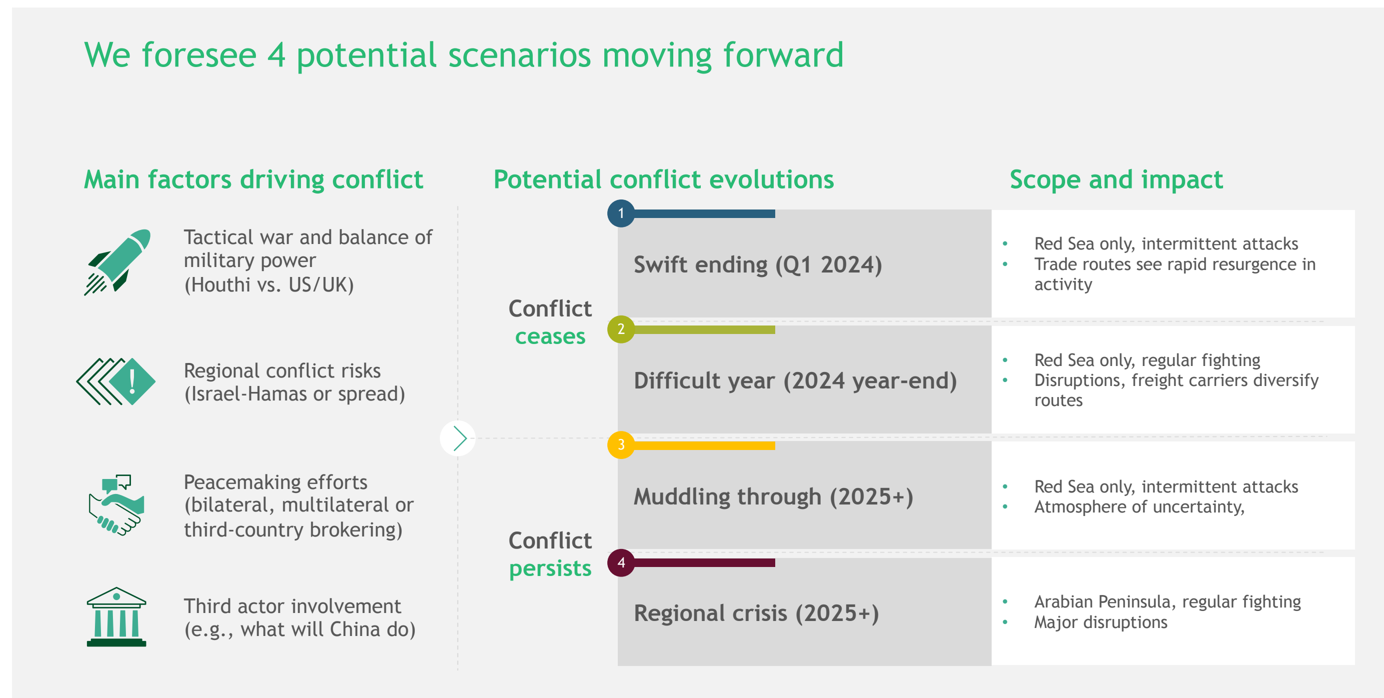
2. **Difficult year:** Attacks continue at a high intensity throughout the year, but finally conclude in a tenuous cease-fire agreement. The liners reroute 90% of their capacity. By the second half of the year, they are increasing their speed by 6% and boosting their capacity with substantial chartering. Most cargo owners resume their demand by the second half of the year, as everyone adjusts to the persistent threat. While shipping overall returns to normal, liners diversify routes to avoid conflict and see a moderate shift to other trade corridors.

3. **Muddling through:** Attacks become only intermittent, but continue past the end of 2024 due to difficulties in disabling the infrastructure and in finding a geopolitical resolution. The crisis ends only in early 2025 as the Houthis slowly lose capabilities. Liners reroute 85% of their capacity, increase speed by 7%, and add substantial chartered capacity. Clients resume full demand by the second half of the year. Yet shipping remains compromised, as sporadic attacks create uncertainty. Liners see a medium aggregate trade loss, along with substantial shifts to other trade corridors.

4. **Regional crisis:** The attacks continue at a high intensity and warfare engulfs the Arabian Peninsula, with a broad economic impact continuing into 2025. The Bab el-Mandeb strait is effectively closed. Liners reroute all of their capacity, and speed rises 7% along with substantial chartering. They face a high aggregate trade loss as well as a shift to other corridors. Maritime trade begins to adapt on a long-lasting basis. Demand for shipping from the Far East to Europe could fall as much as 3%.

(See exhibit 2, Four Scenarios)

Exhibit 2 - Four Scenarios

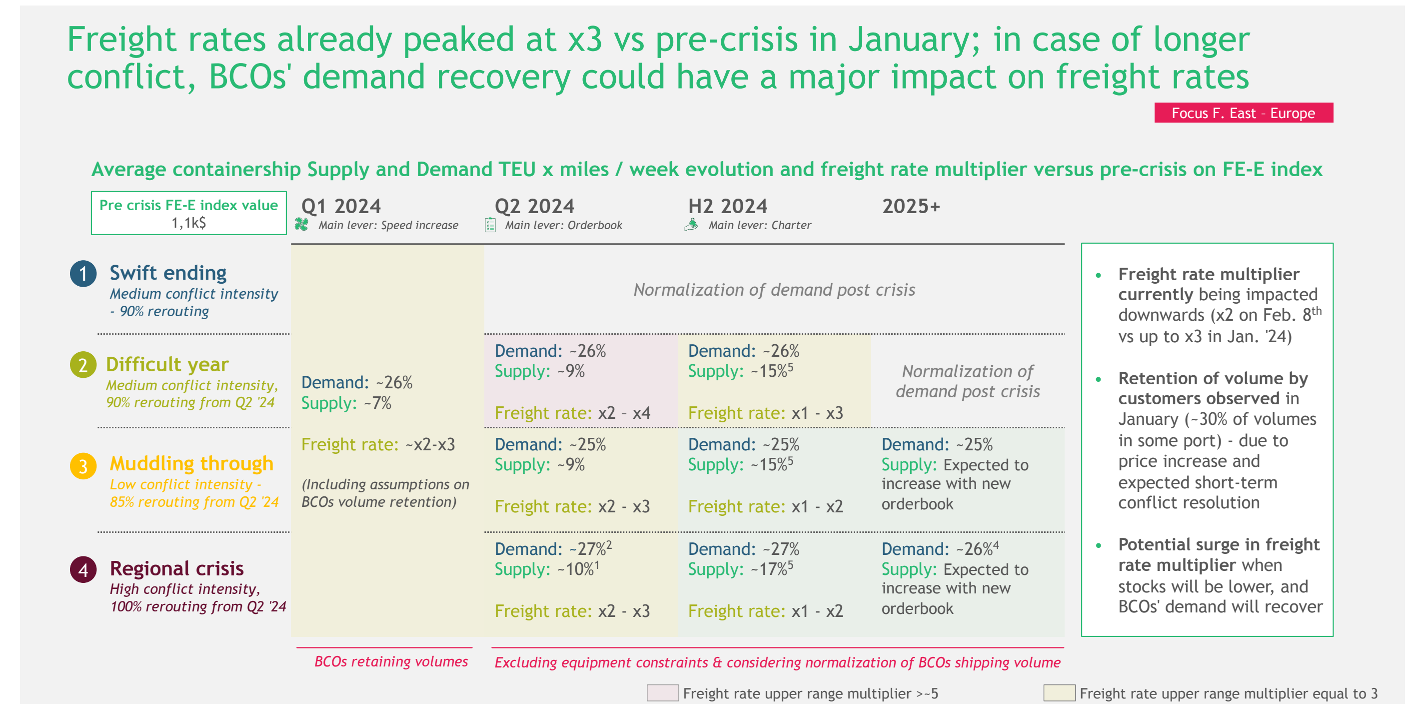


Source: BCG analysis. Note: These analyses represent only potential scenarios and are not intended as a prediction or forecast

Shipping Dynamics

If the crisis continues beyond Q1, liners will face immediate decisions. They must balance the benefits of higher freight rates with higher costs from the rerouting, as well as customers' willingness to sustain volumes. *(See exhibit 3, "Freight rates")*

Exhibit 3 - Freight rates

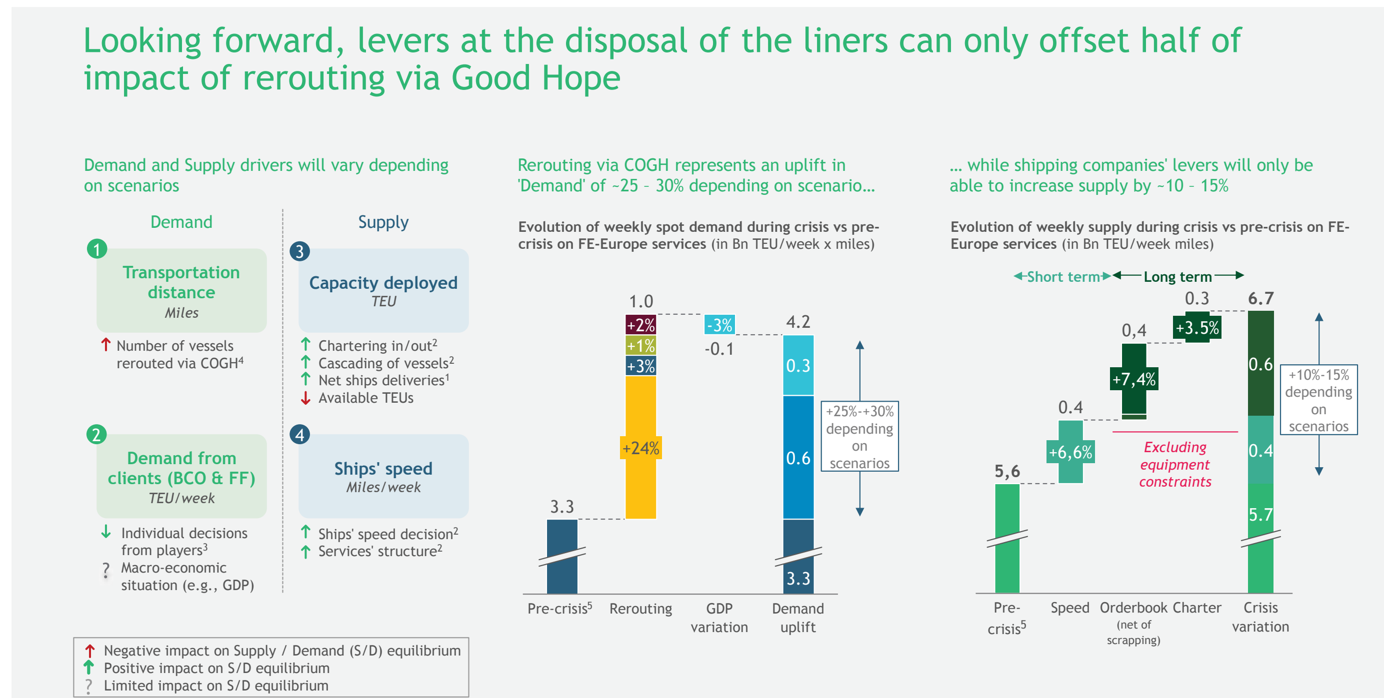


1.Increased effect of speed due to higher rerouting 2. Higher share of rerouting (100%) but downward impact of GDP (-2%) 4. Increased impact of GDP from 2025 5. Increase versus Q2 due to chartering of new ships

Source: Clarkson (Red Sea attack: Update n°5), Alphaliner

Under scenarios 2-4, with the crisis continuing past March, our model finds that liners can offset only half of the impact of rerouting through the Cape of Good Hope. If clients' demand resumes, freight rates could triple or even quintuple over pre-crisis levels. To compensate for the rerouting of ships, liners would have to deploy 25 to 30% more capacity (measured in TEU miles/week). They can either add ships, by cascading or chartering, or increase the speed of their ships. But realistically, many cargo owners will either reduce their demand, accept longer delivery times, or find alternative transportation. *(See exhibit 4, "Offsetting the Impact of Rerouting")*

Exhibit 4 - Offsetting the Impact of Rerouting



1. Net new ships deliveries = Planned deliveries – ships scrapping – idling ships (decided by shipping companies) 2. Shipping companies' decision 3. E.g., stakeholders reducing their level of shipping due to high costs, current drop in demand from clients to shipping companies observed, up to 30% in some ports 4. Cape of Good Hope 5. Average demand in TEU miles/week before crisis

Indeed, an extended crisis, under any of scenarios 2-4, would raise rates and hurt customers' profitability, especially those with high value/low volume cargo. The liners' themselves would benefit, unless demand fell substantially. Similar to what happened during Covid, the greater revenue from high freight rates generated by the crisis would be far higher than the increased operational costs from longer transit time.

Liners, directly or through their logistic arm would probably have to develop a wider product offering to give alternative options to their clients. Examples might be routes to Europe via the India-Middle East European Economic Corridor (IMEC), or Um Qasr in Iraq.

Should the crisis last into 2025, under scenario 3, cargo owners will likely to reorganize production flows and alter their manufacturing and supply chain networks. They would also increase their prices where possible to preserve margins, which might reduce volume. Some are already exploring different transportation routes.

In scenario 4 where the entire region becomes dangerous for shipping, the IMEC and Um Qasr options would be off the table, and liners would have to get truly creative. Many cargo owners will resign themselves to the Cape of Good Hope route, but others will seek faster and cheaper routes that might develop through investment.

Impact on the Arabian Peninsula

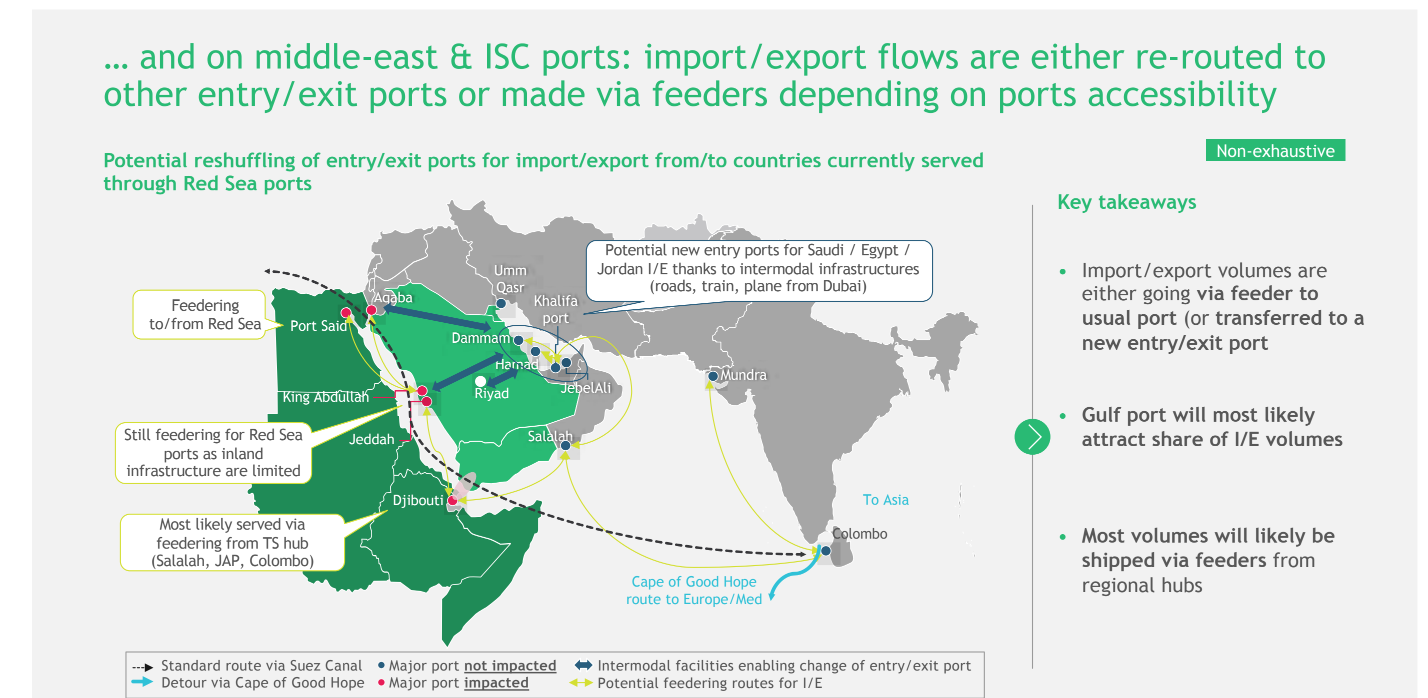
While a continuing crisis will affect all global shipping at least indirectly, ports on the Arabian peninsula are already seeing the greatest impact. Most affected are those along the Red Sea, especially Saudi Arabia's west coast ports of Jeddah Islamic and King Abdullah.

The ports' vulnerability depends on the stickiness of their volumes. Import and exports will change little, given the geographical fixity of production and demand. Re-export volumes can shift, but that requires added distribution and transportation at rival ports. Transshipment volumes are the easiest to move to other ports, and some of this shift has happened. Already the liners seem to downplaying service to Saudi ports and preferring to stop in UAE ports and in Colombo, Sri Lanka.

If the crisis does not end until 2025 (scenarios 3-4), customers might also switch their re-export business to other ports. The new normal would not be the pre-crisis situation, but rather liners' shifting volume to other ports to serve modified demand from cargo owners.

At the country level, a prolonged crisis might prompt the Kingdom of Saudi Arabia to accelerate plans to shift volumes to its east coast (via the port at Dammam, for example) and improve connections to the Emirati ports through the emerging India-Middle East-Europe corridor (IMEC). The kingdom is launching a shipping line to develop feeders to and from Saudi ports. In the context of the current crisis, that's a clear tool to maintain flows to and from western Saudi ports. *See exhibit 5, "Potential Trade Shifts on the Arabian Peninsula"*

Exhibit 5 - Potential Trade Shifts on the Arabian Peninsula



1. JAP: Jebel Ali Port; 2. KAP: King Abdullah Port; Note: Services on FE/ISC/ME-Eur/Med routes; Djibouti with feeder only; Jeddah volumes loss for CMA estimated – no data avl.; Source: Company websites, BCG Analysis

If shipping volumes do shift, the United Arab Emirates, especially Dubai, are well positioned as an entry point for intermodal options in the region. Shippers might benefit from its investments in connecting to Saudi Arabia, and in developing the IMEC route generally.

In scenario 4's regional crisis, however, the entire Arabian peninsula could lose its position as a re-export hub. Far fewer shippers and cargo owners would rely on it for intermediate storage with connection hubs.

The Need for Preparation

Besides these largely tactical issues, we see a more substantial change in the container industry. We urge the following:

- **Embrace the new normal of geopolitical flux:** Liners are understandably assuming the continuation of the previous few decades of relative geopolitical stability. In those decades, container shipping expanded dramatically with economies of scale, and shipping rates and insurance fell substantially. But with the Covid pandemic, Russia's invasion of Ukraine, and now the intensified Israel-Palestine conflict, along with rising geopolitical tension generally, that stability is unlikely to return for a while. Seamless access to key nodes of containerized trade, such as the Red Sea, cannot be taken for granted.

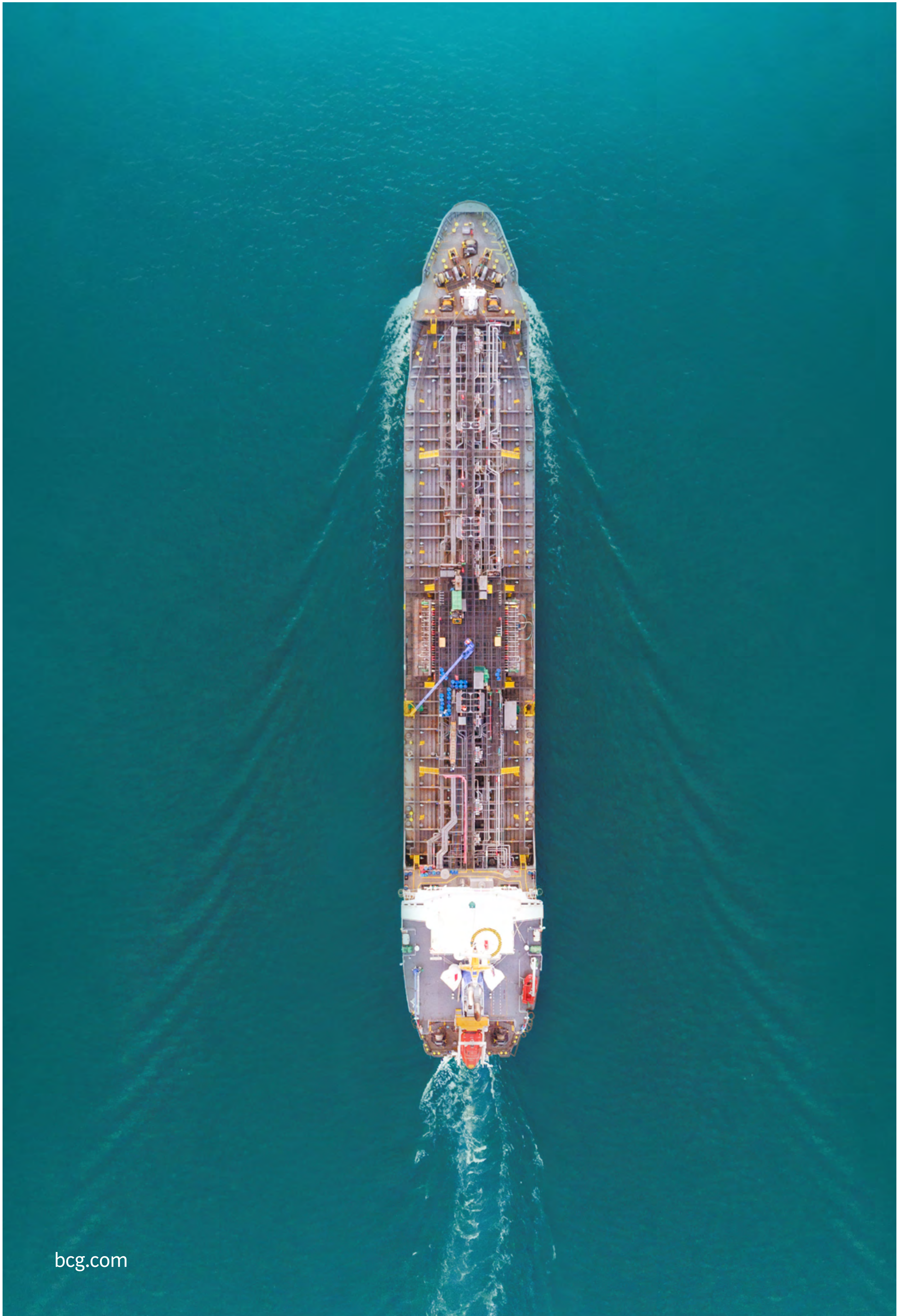
- **Forge resilience against the tide of crises:** Liners should prepare for a new era of recurring disruption. Even where navigation faces no attacks, governments may impose restrictions in response to tension. Hot spots can flare up on short notice.

- **Cultivate agility.** In the shadow of global unrest, liners need to boost their responsiveness and flexibility. Cargo owners are already likely looking to create supply chain security, with near-shoring and alternative routing among other options. Liners that can address these challenges will preserve or expand their revenues. Investing in geopolitical muscle can help here.

- **Learn from the legacy of crisis navigation.** Liners can follow the example of commodity shippers working in unstable regions, which have long invested in the capacity to address crises while maintaining long-term profitability.

- **Initiate a strategic reawakening.** The current Red Sea crisis, however resolved, can prompt a new agenda of preparation. This moment of turmoil presents an unprecedented opportunity to rethink, retool, and rejuvenate strategies for a world where stability is the exception, not the rule.

Scenarios are based on trends as of 1 March 2024. This analysis represents only potential scenarios and is not intended as a prediction or forecast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