RED SEA ATTACKS

LEAVES THE SHIPPING SECTOR IN A LIMBO

January 2024

LSEG DATA & ANALYTICS

Contents

Executive Summary

- The Red Sea crisis began on 19 November 2023 with the Iran-backed Houthis in Yemen launching their first attack on the 'Galaxy Leader' which was enroute from Turkey – Southbound. Over 25 attacks have been reported till date which encompass anti-ship missiles, piracy, ballistic missiles, and UAV strikes.
- The location of Yemen at the choke point of Bab-El-Mandeb gives them a strategic advantage as all maritime vessels funnel through the narrow 20 mile wide strait.
- The major response from most of the major shipping carriers who have their fleet transiting the strait has been to reconsider the voyage being performed through the Red Sea and instead divert around the Cape of Good Hope, while a few others have resorted to AIS message transmissions to indicate their non-Israel interest.
- Transits through Suez have had the most impact following the red sea attacks. Avg monthly transits through the Suez from June to November 2023 was seen at 1914. This dropped to 1672 in December, a 12.6% drop in transits and January month-to-date transits are assessed at 947 as of 22nd Jan, which translates to a 32.6% decline.
- Daily container vessel traffic within the Red Sea have dropped by almost 60% since mid-December, with the larger container ships being the most responsive to avoid the region as their transits have declined by over 80%.
- LSEG Shipping chokepoint analysis helps to see in the case of Container / Oil Tanker / LNG ships, how the decline in Northbound Suez transit correlates to an increase in the Westbound Cape of Good Hope transit and vice-versa.
- By diverting the vessels round the cape, there is a significant increase in the OPEX cost in terms of bunkers consumed. For an Aframax tanker, this cost increases by 110%, while for a large container vessel it increases by 35% for a voyage between Asia to NW Europe.
- LSEG Freight calculator determines the incremental cost accounts for about USD 932,905 plus the additional time it takes to go round the cape. Voyage time doubles from 16 days via the Suez to 32 days round the cape.
- LSEG TonnEdge, provides valuations for ships, where a Suezmax less than 10 years of age is valued at about USD 65 million. This implies that the vessel would incur an additional USD 650,000 in voyage cost due to insurance premiums along with the increased risk in the Red Sea.

Red Sea Crisis – Summary and Facts

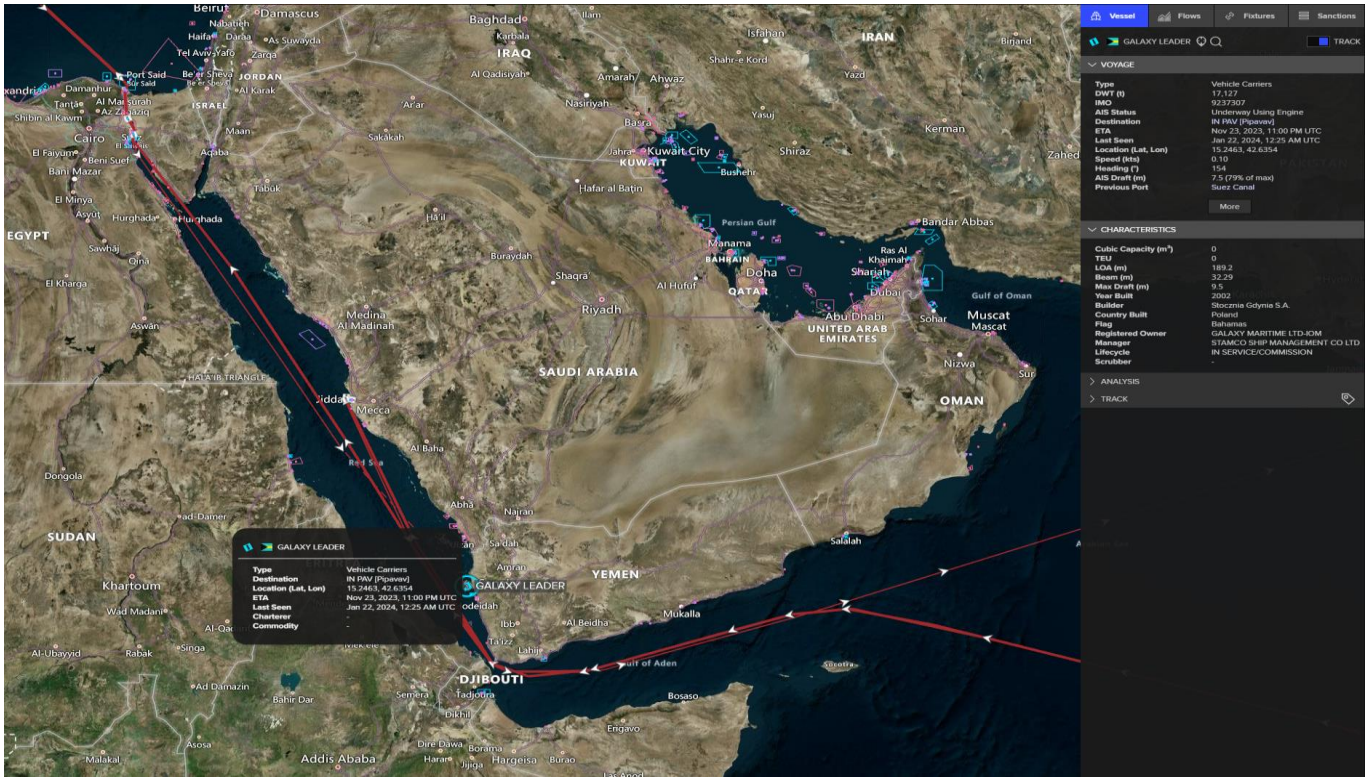
The Hamas attacks on Israel on 07th October was the largest and most sophisticated attack on Israel since the Yom Kippur war in 1973. In the earlier Special report that was published by LSEG in November 2023, the potential escalations and impact to the wider commodity sector was highlighted with the impact it could create when major regional forces get involved.

Looking at the current scenario, the conflict has certainly escalated in the region with Yemen's Houthis disrupting the Red Sea maritime corridor for the past couple of months. Although the focus has been reported to have been primarily on ships owned by Israelis or those that are deemed to be en-route to Israel, it is quite clear that the crisis has sent ripples through the global maritime industry, affecting global supply chain, vessel transit times, crude oil markets, exports, and freight rates. The Red Sea is a critical maritime corridor, connecting the Mediterranean Sea to the Indian Ocean via the Suez Canal.

In terms of the significance of the Suez Canal, based on 2023 transit details:

- A total of 21,344 ships made the transit through the canal.
- An average of 1,780 ships transits the Suez Canal every month → 59 ships a day.
- Tankers (Oil / LNG / LPG) accounted for the maximum transits at 36.4%
    - Oil – 29.9%
    - LNG – 3.2%
    - LPG – 3.3%
- Container ships accounted for a third of the total transits at 32.5%.
- Bulk carriers accounted for 31.1% of the total transits.

The Red Sea crisis began on 19 November 2023 with the Iran-backed Houthis in Yemen launching their first attack on the 'Galaxy Leader' which was enroute from Turkey – Southbound. The location of Yemen at the choke point of Bab-El-Mandeb gives them a strategic advantage as all maritime vessels funnel through the narrow 20 mile wide strait. Over 25 attacks have been reported till date which encompass anti-ship missiles, piracy, ballistic missiles and UAV strikes.

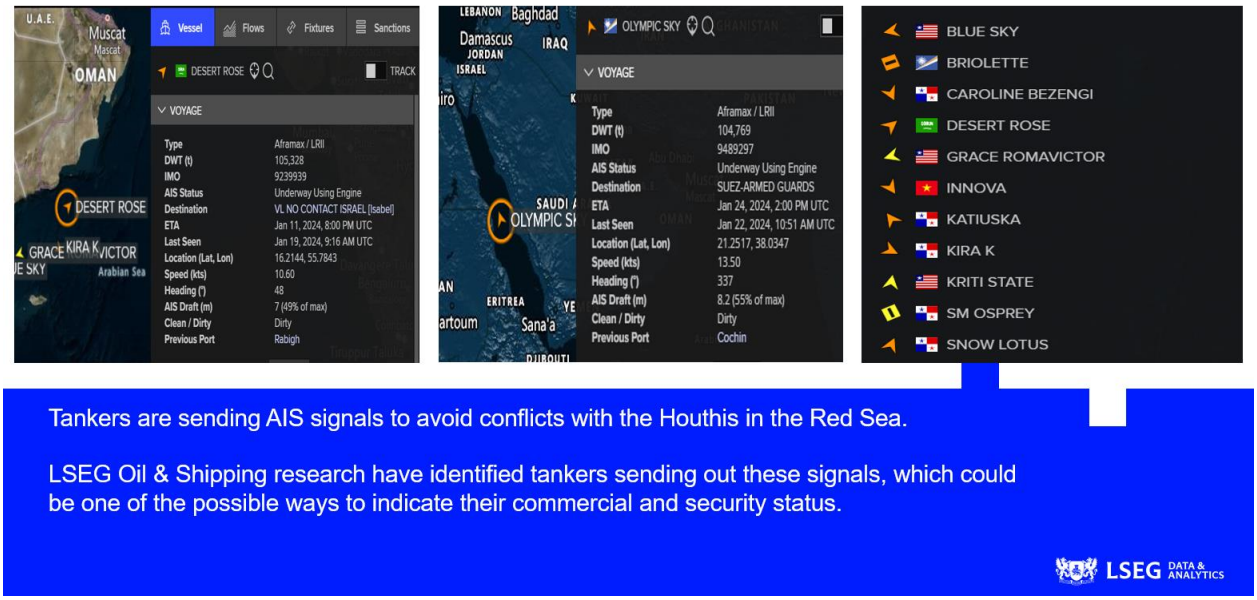


Source: LSEG Workspace (Interactive Map)

Shipping sector response following the attacks

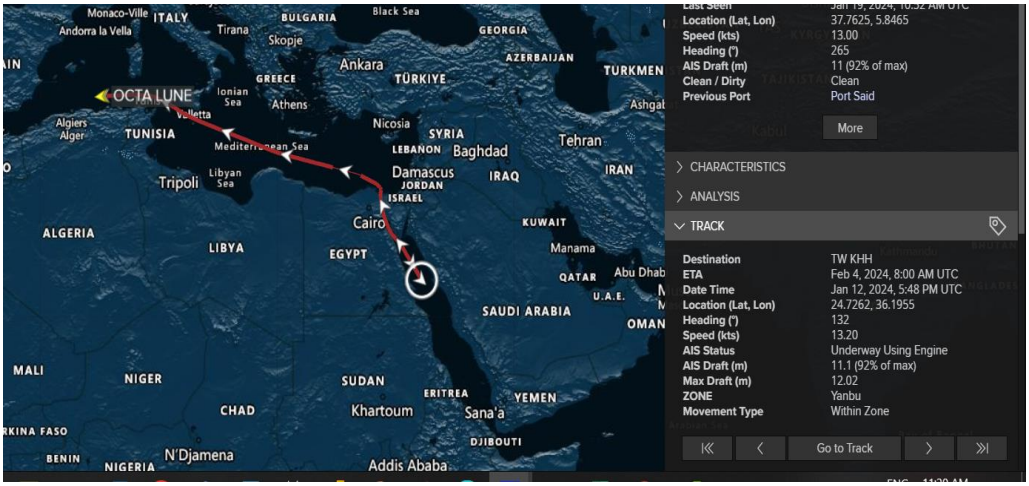
Based on the trade pattern or route, carriers have resorted to diversion where feasible, but for a good portion of the maritime fleet that are trading within the East of Suez – Mediterranean market and do not have the possibility to do the long haul, AIS message transmissions have been one of the measures. There are two types of messages that have been seen displayed:

- No contact with Israel – To limit the asset being of interest for the Houthis
- Armed guards onboard – To deter any close contact attack (predominantly used for Piracy, but being extended for High-risk transits)

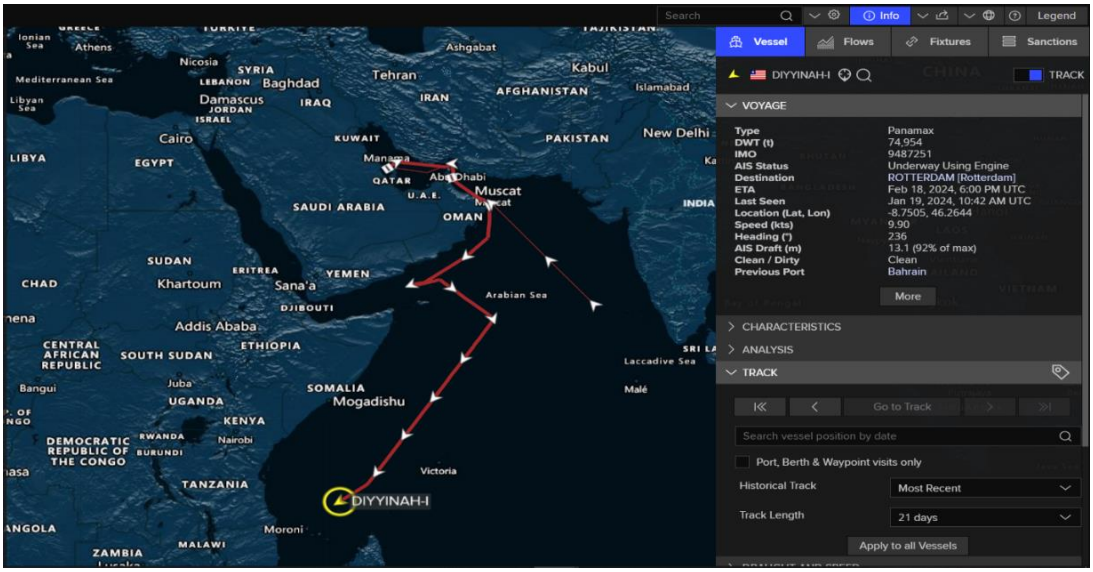


The major response from most of the major shipping carriers who have their fleet transiting the strait has been to reconsider the voyage being performed through the Red Sea and instead divert around the Cape of Good Hope. LSEG ship tracking data shows several ships that have diverted to sail around the cape, in what otherwise would have been a voyage through the Suez Canal. Some examples of vessels seen diverting are as below.

The Panamax tanker OCTA LUNE (9294678) – which had loaded 60,000 mt of Naphtha in France and scheduled to discharge in Taiwan in February – crossed the Suez Canal on January 11 only to reverse course two days later.



The vessel DIYYINAH-I, which was carrying Jet fuel and en-route to Rotterdam, has been diverted and is currently passing through the longer route to avoid the Red Sea.



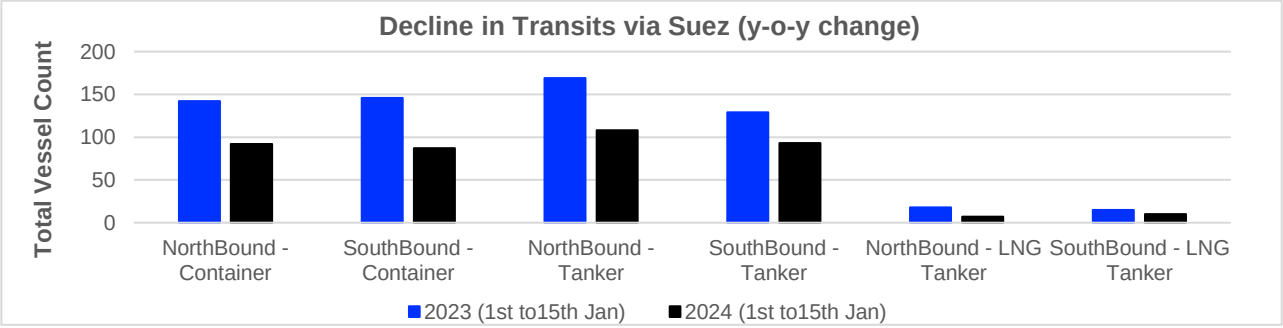
Source: LSEG Workspace (Interactive Map)

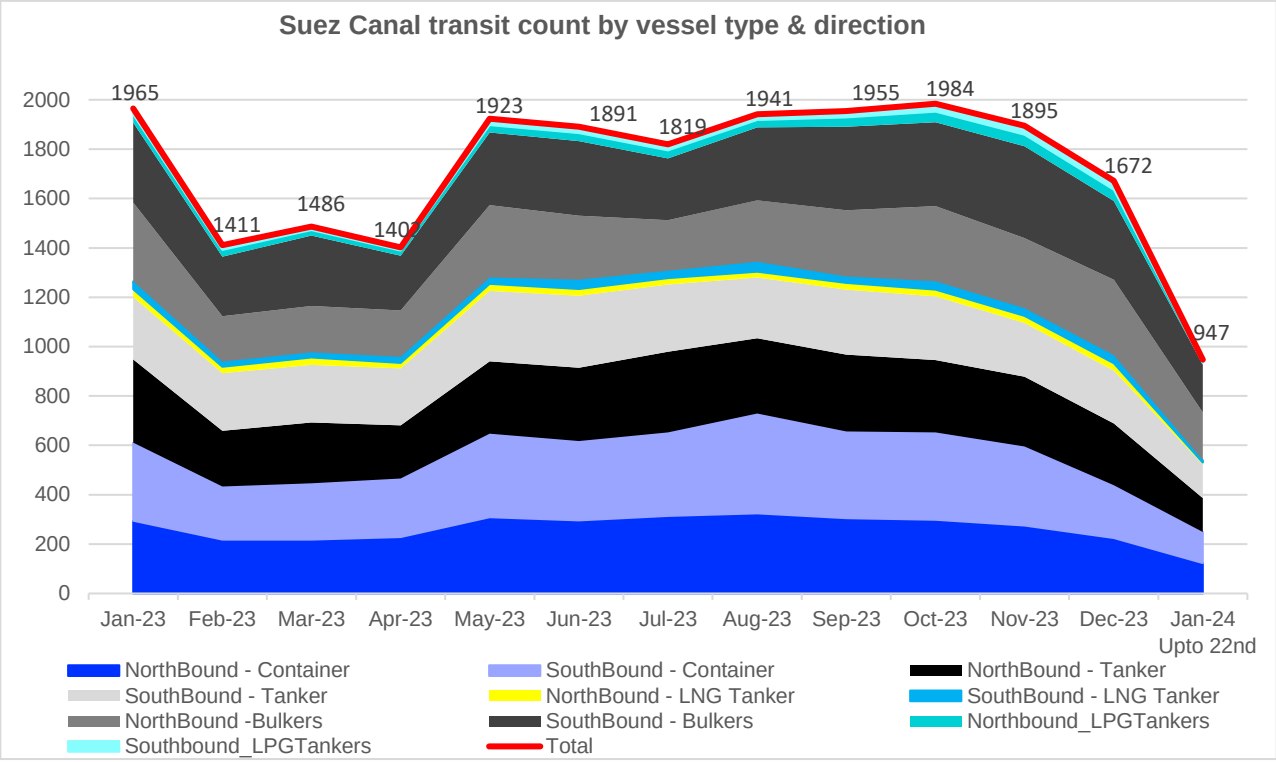
Red Sea disruptions - Quantifying the Impact

Impact on the Suez Canal transit

To understand the impact on shipping trade flows, an analysis of the Suez Canal transit gives the indication on how shipping lines have moved on to choose alternate routes. Analyzing the Suez Canal transit data for the first 15 days of January, a year-over-year comparison reveals significant changes in the number of vessels passing through the canal. There has been a 35.21% decrease in northbound container ships and a 40.41% decrease in southbound container ships. Additionally, there has been a 36.09% decrease in northbound tankers and a 27.91% decrease in southbound tankers. Notably, there has been a 61.11% decrease in northbound LNG tankers and a 33.33% decrease in southbound LNG tankers. The decrease in transits through the Suez Canal following the Red Sea attacks will have far-reaching effects on shipping, trade flows, and freight rates. Additionally, the environmental impact of these changes will be explored in the following sections.

Transits through Suez have had the most impact following the red sea attacks, as the total number of transits have had a steep decline in December and January, when the major diversion started being seen as more attacks became prevalent. Avg monthly transits through the Suez from June to November 2023 was seen at 1914. This dropped to 1672 in December, a 12.6% drop in transits and January month-to-date transits are assessed at 947 as of 22nd Jan, which translates to a 32.6% decline.



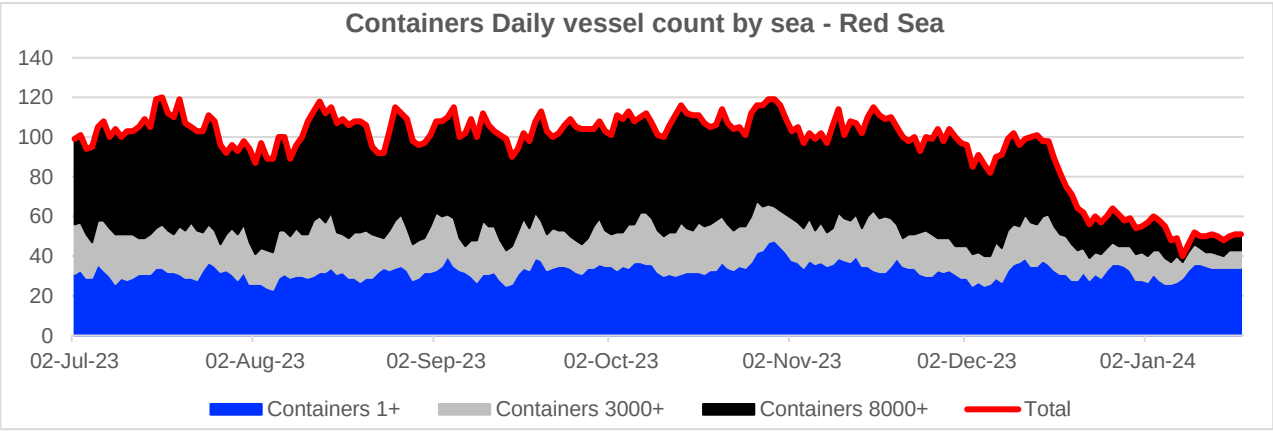


Source: LSEG Oil & Shipping Research

Monitoring the Impact by Vessel count at Sea

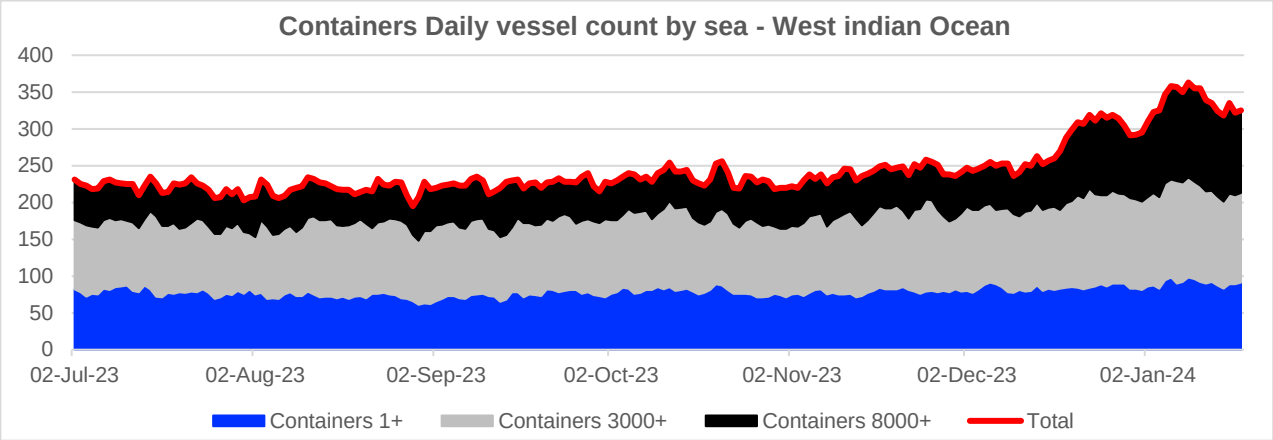
As the region becomes more prone to attacks, LSEG Oil & Shipping research looked at how the vessel traffic in trade lanes have evolved over the past few months to determine the preference for avoiding the high-risk areas by the Tanker and Container fleets. It's quite evident that vessel operators and owners are reluctant to place their vessels in the Red Sea, unless absolutely required to perform the voyage which has resulted in a decline of assets in the region.

Daily container vessel traffic within the Red Sea have dropped by almost 60% since mid-December, with the larger container ships being the most responsive to avoid the region as their transits have declined by over 80%. An average of 50 large (8000+ TEU) container ships used to transit daily through the Red Sea for the second half of 2023, until mid-December. However, for Jan 2024 – these averages at less than 10 transits a day.

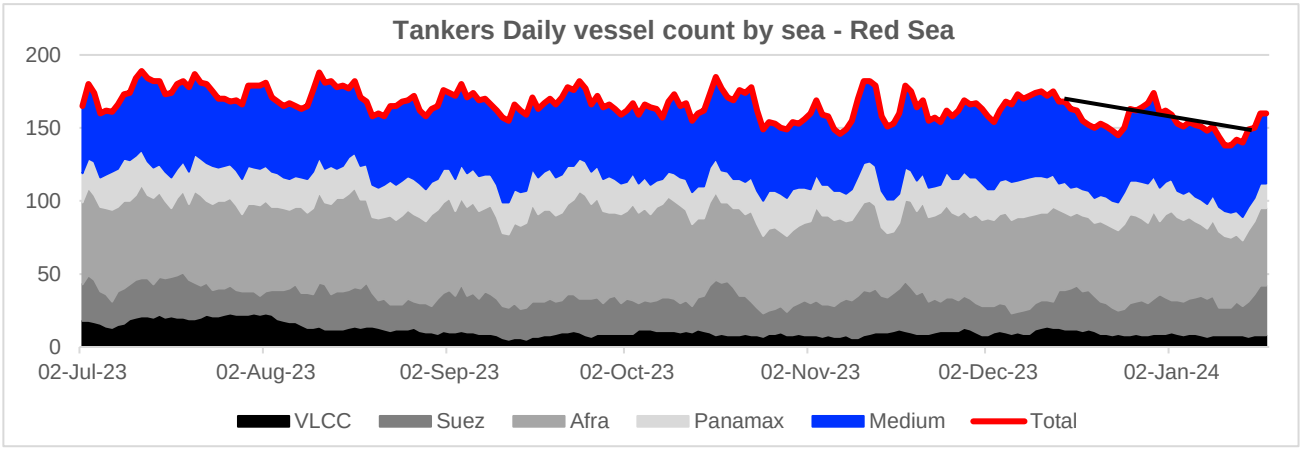


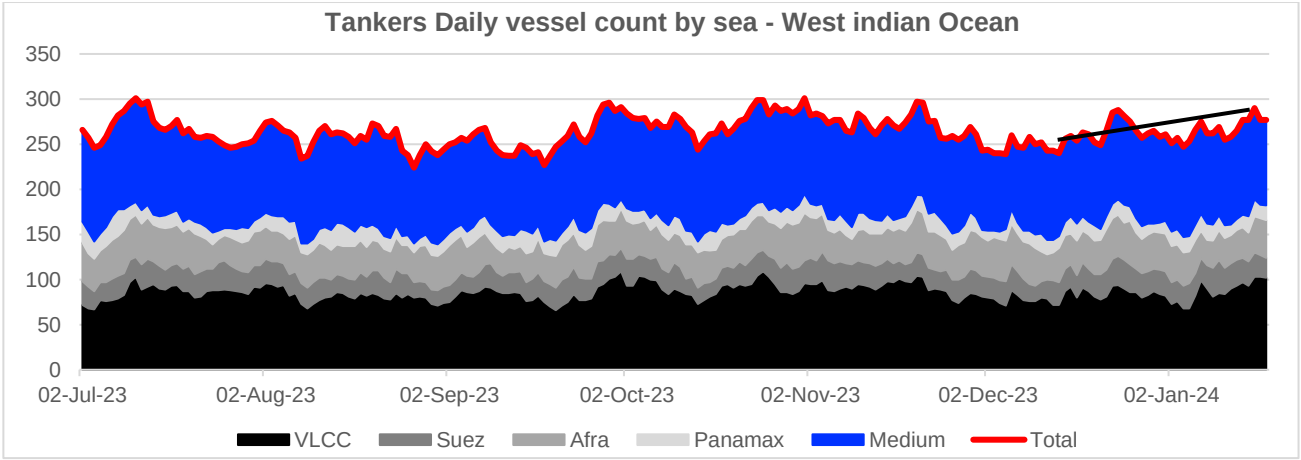
Source: LSEG Oil & Shipping Research

On the other hand, there's a stark increase in the number of Container ship transits through the West Indian Ocean which encompasses ships transiting through the Cape of Good Hope. LSEG data shows an increase of 45% in the number of container ships transiting through the Cape for Jan 24 (Avg daily count of 335) compared to the second half of 2023 until mid-December (Avg daily count of 230). There was a 120% increase in the transits by large container ships (over 8000+ TEU) and a 27% increase by medium container ships (over 3000+ TEU).



On the Tanker voyages, this is less pronounced, although the trend does exist. Comparing the count of tankers (for the second half of 2023 until mid-Dec to January 2024) transiting the Red Sea, total tanker transits have dropped by 10%, with VLCC's declining by 32%. While on the other hand, the number of transits through the West Indian Ocean had a marked difference only for the Suezmax fleet, which went up by 12.5% over the same period, while the overall transit count remained at similar levels.





Source: LSEG Oil & Shipping Research

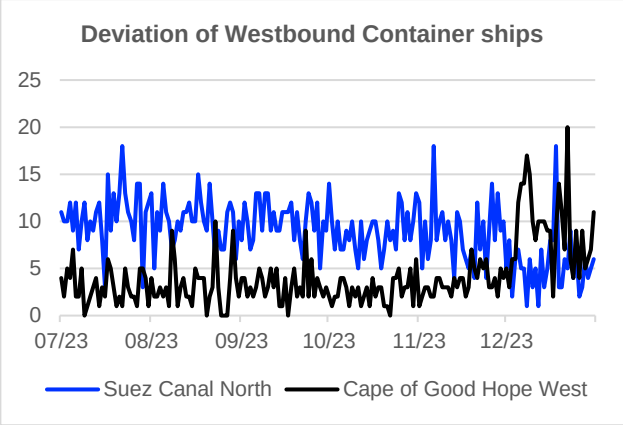
Decline in transits to the Bab al-Mandeb Strait

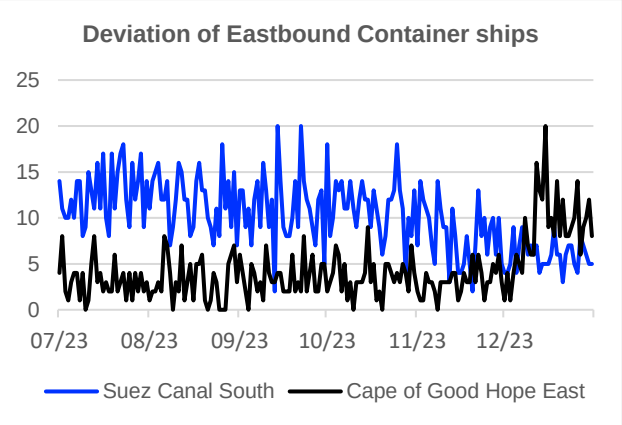
As vessel owners exercise caution in deploying vessels near the Bab al-Mandab Strait, a substantial decline in the transit of container vessels from the Arabian Sea to the Gulf of Aden has been observed. This decrease has been observed across all types of vessels in the aftermath of the Red Sea attack. The diversion was towards West Indian Ocean

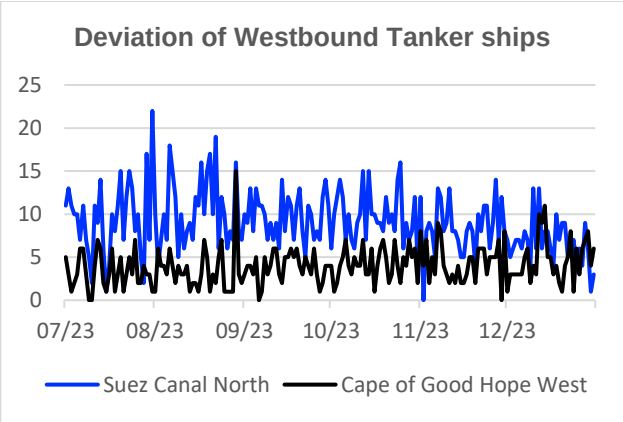
Vessel Transit route	2023 (Dec 15 to End of Year)	2022 (Dec 15 to End of Year)	Change (y-o-y)	Trend
Arabia Sea to Gulf of Aden - Bulkers	153	156	-2%	↓
Arabia Sea to Gulf of Aden - Containers	43	140	-69%	↓
Arabia Sea to Gulf of Aden - LNG Tankers	12	20	-40%	↓
Arabia Sea to Gulf of Aden - LPG Tankers	17	25	-32%	↓
Arabia Sea to Gulf of Aden - Oil Tankers	168	194	-13%	↓

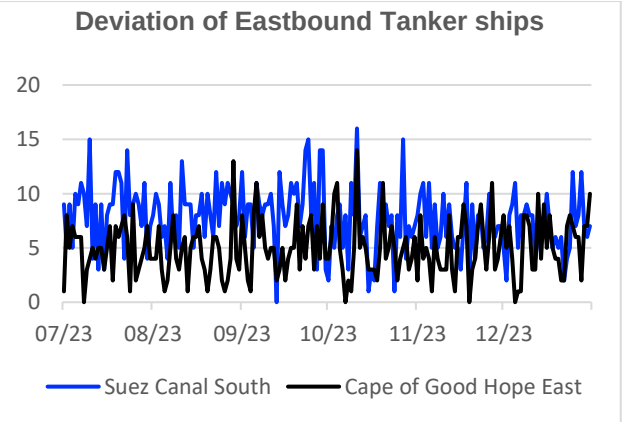
Shipping Chokepoint analysis

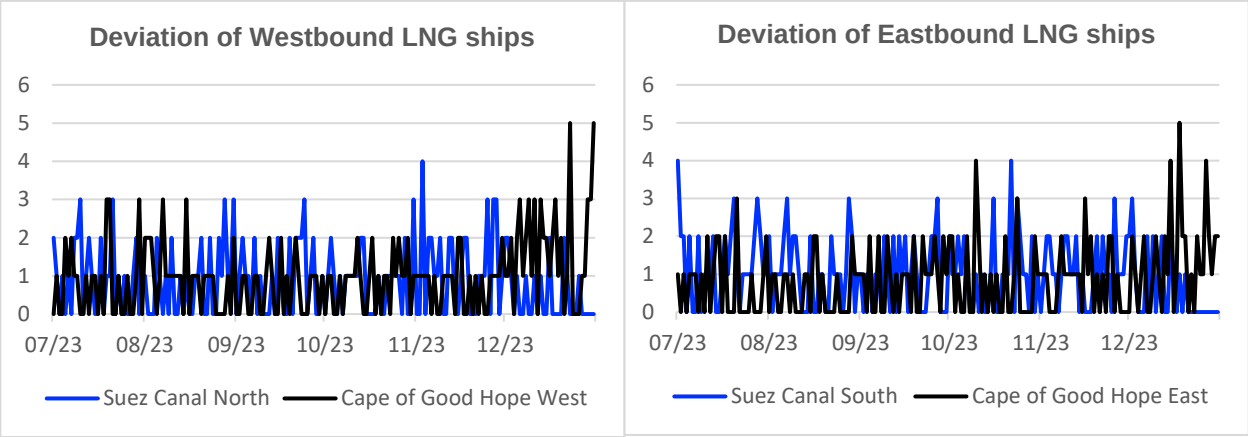
LSEG Shipping Research hosts data on all major shipping chokepoints which help determine the transits for all major vessel types. The chart below helps to understand the alternate route options that shippers have and how real-time transit data can be visualized on LSEG Eikon. This also clearly helps to see in the case of Container / Oil Tanker / LNG ships, how the decline in Northbound Suez transit correlates to an increase in the Westbound Cape of Good Hope transit and vice-versa.







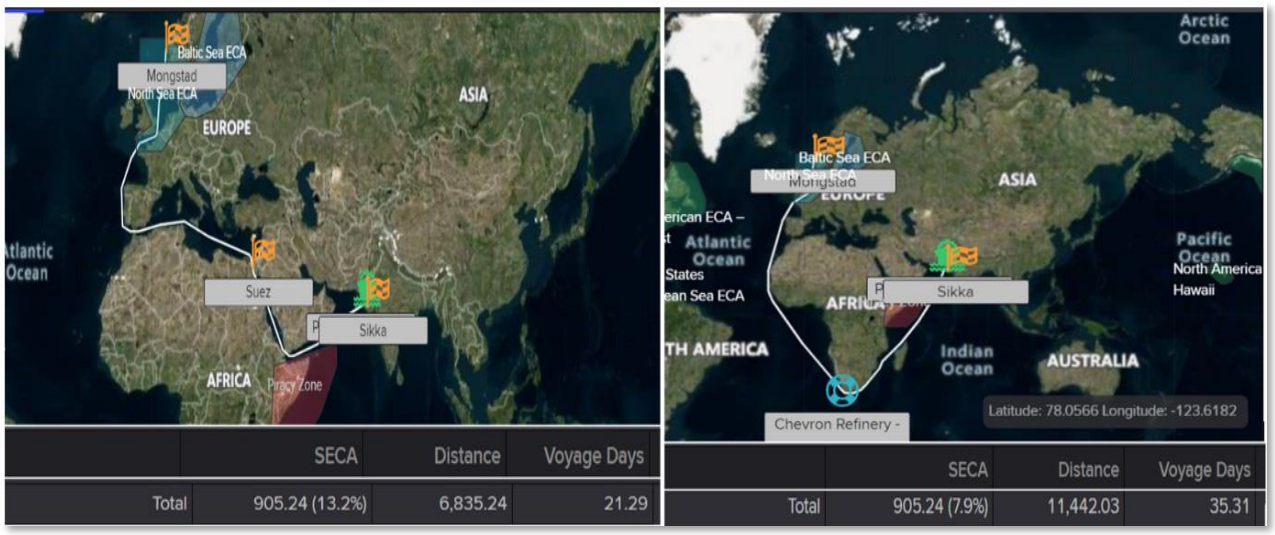




Voyage Analytics

Route Analysis

LSEG Eikon distance calculator helps determine the voyage distance from Point A to B, giving the breakdown on the voyage split between SECA and non-SECA areas. It also enables to include or exclude canal and straits transits to determine the route taken by the vessel.



The table below breaks down the increase in voyage OPEX cost with the below assumptions factored in:

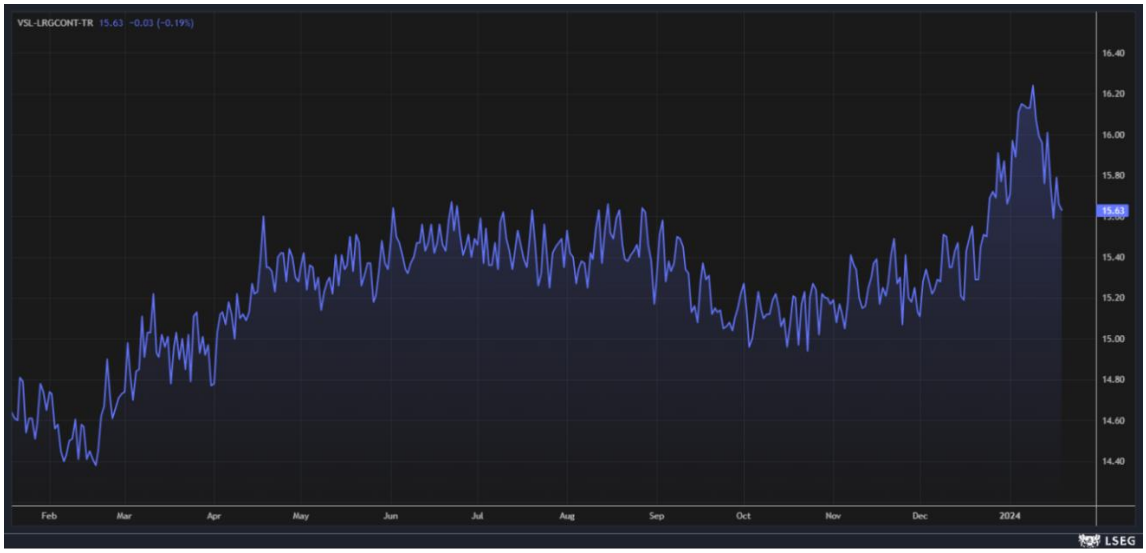
- For the tanker voyage between West coast India and Norway, the preferred bunkering point would be Fujairah and hence the Fujairah bunker cost is used in the analysis for the Suez leg.
- For the voyage through the Cape, Durban could be the alternate bunkering option and hence Durban bunker cost is used in the analysis for the Cape of Good Hope leg.
- For the container ship voyage from China to Netherlands, Singapore is assumed as the preferred bunkering point considering its common transit for both the Suez & Cape leg.
- VLSFO (0.5% S) has been used as the bunker for non-SECA voyage.
- LSMGO has been used as the bunker for SECA voyage.

	Aframax Tanker			Large Container	
	Via Suez	**Via Cape**		**Via Suez**	**Via Cape**
Load Point	Sikka	Sikka		Shanghai	Shanghai
Disch Point	Mongstad	Mongstad		Rotterdam	Rotterdam
Total Distance (nautical miles)	6800	11388		10667	14016
SECA (nautical miles)	905	905		416	416
Speed (knots)	13.5	13.5		15	15.5
Voyage Time (Days)	20.99	35.15		29.63	37.68
Average Cons (MT/day)	25	25		150	160
Voyage cons (MT) - non SECA	454.86	808.87		4271.25	5849.46
Voyage cons (MT) - SECA	69.83	69.83		173.33	178.92
Bunker Cost - VLSFO ($/MT)	595	770		625	625
Bunker Cost - LSMGO ($/MT)	910	1130		775	775
Total fuel cost ($)	334,187.89	701,740.74		2,803,864.58	3,794,580.65
% increase in OPEX cost		**110%**			**35%**

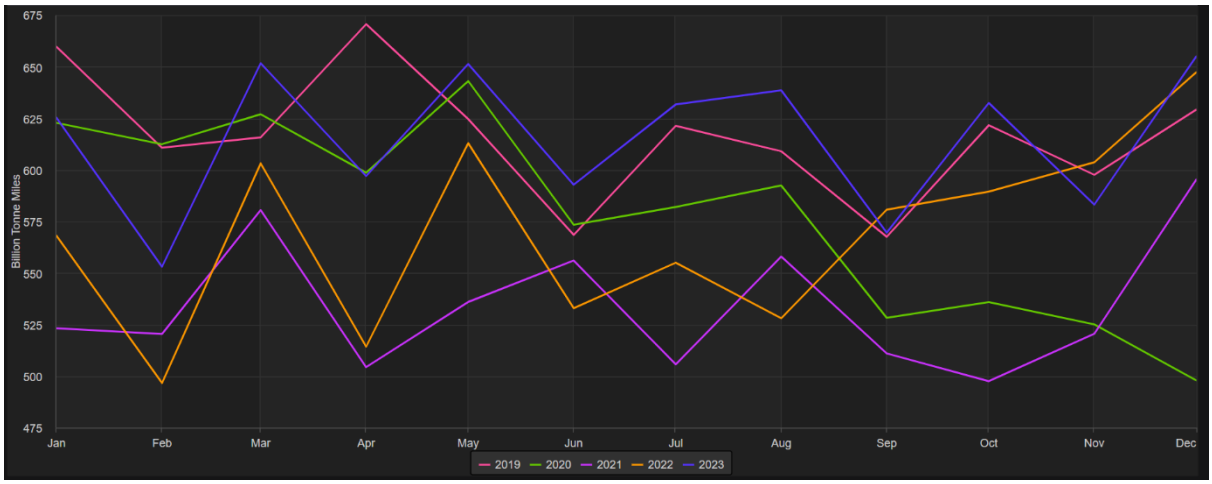
By diverting the vessels round the cape, there is a significant increase in the OPEX cost in terms of bunkers consumed. For an Aframax tanker, this cost increases by 110%, while for a large container vessel it increases by 35% for a voyage between Asia to NW Europe. This does not factor the commercial loss of the additional time that is taken for the voyage, which in turn locks up the ships for a longer period thereby reducing the available tonnage to the market. This in the medium to long term is expected to have an impact on the vessel availability which in-turn would have an impact on the freight cost. If ships are to continue doing the voyages round the cape, these additional costs will be factored in as part of the voyage costs.

Increase in Average Speed

Following the significant number of diversions, LSEG Shipping Research has seen the average speed of large container ships increased to expedite the transportation of goods amidst ongoing conflicts in key maritime regions. This shift also leads to an increase in bunker fuel requirements, resulting in higher operational costs for shipping companies. Notably, the average speed peaked at 16.24 nautical miles per hour for large container ships in early January of this year compared to the average of 15.20 nm/hour through the major part of last year.



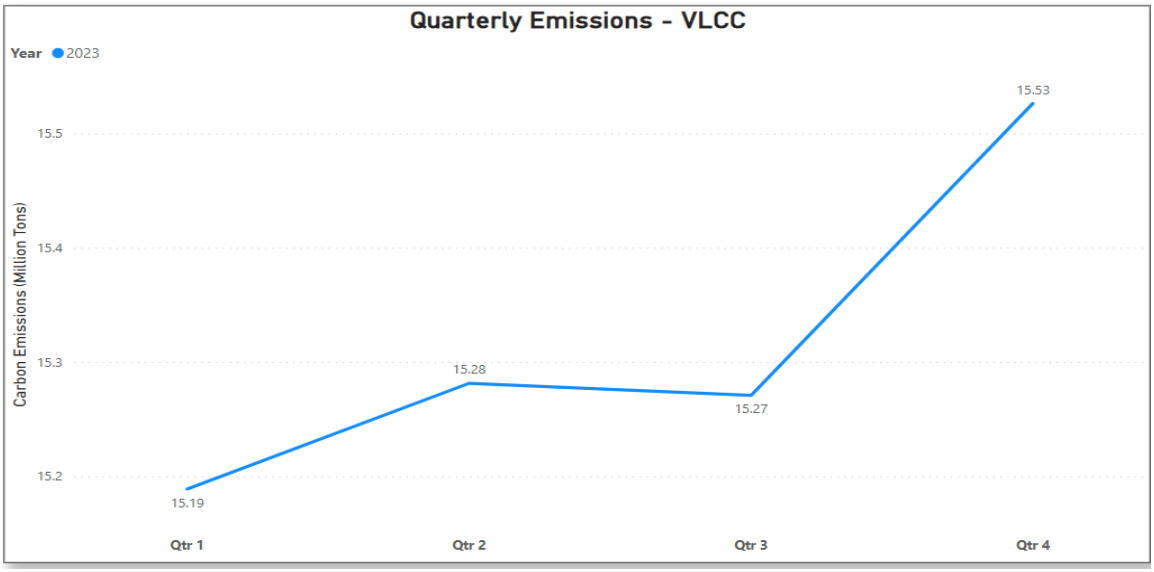
Shipping Ton-miles and Emissions



Source: LSEG Shipping VLCC-Tonne-Miles Data

The graph clearly shows the increase in ton-mile of VLCCs between Nov-2023 and Dec-2023. And it has a huge impact overall.

Looking broadly, shipping has a huge impact on everything that is going around the globe. Therefore, for every benefit it provides, we also pay a price in carbon currency. The Red Sea, being the spotlight not only affects the global supply through shipping, but it also adds up more burden to the initiatives taken by shipping industry to reduce carbon emissions. With increased distances and delays in voyage time the level of carbon emissions by vessels also increases.



Source: LSEG Shipping Ton-Mile data, ICCT Conversion factors

With the help of correlation between ton-miles data and carbon emissions, the quarterly chart shows us how the last quarter of 2023 has an increase in CO_2 emissions.

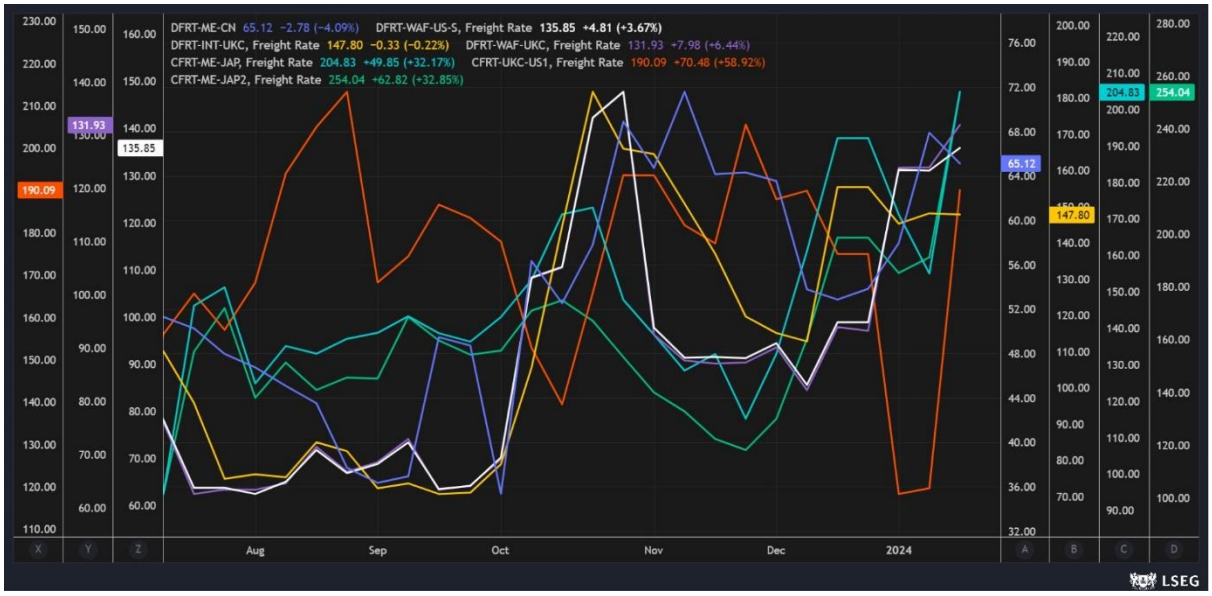
According to the International Council on Clean Transportation (ICCT), the average CO_2 emissions by VLCC are 0.0083 kilograms of CO_2 per tonnage mile (taking MGO as fuel).

Using the above conversion factor, VLCCs alone contributed ~61.267 million Tons of CO_2 emissions in 2023, and if the effect of increase in distance is taken under consideration due to the Red Sea crisis, then it comes out to be 5.2 million Tons of CO_2.

Impact on Shipping Freight Rates

The Red Sea crisis has significantly impacted global shipping, leading to increase in freight costs. As ships choose to transit through the longer Cape of Good Hope, transit times increase, causing delays and higher fuel consumption further escalating shipping costs.

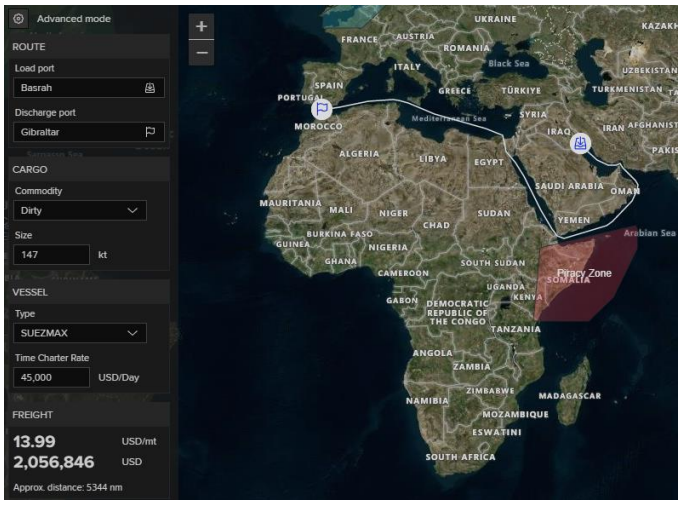
LSEG Shipping app shows tanker freight rates on major clean and dirty trading routes (In world scale).

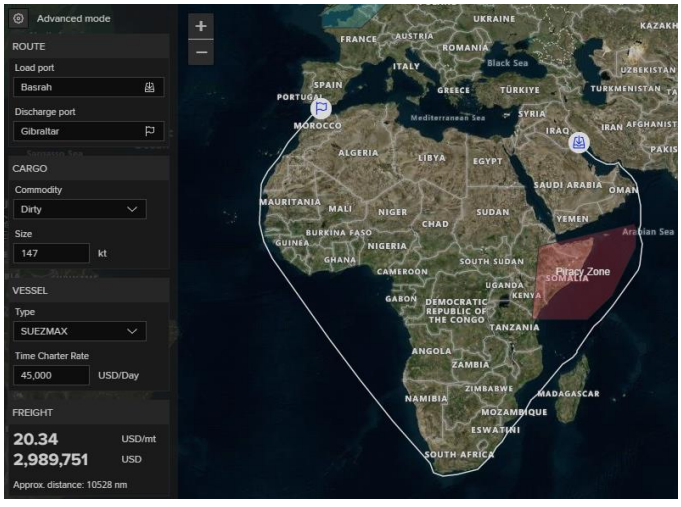


Source: LSEG Workspace

Increase in Freight Costs

We take the example of a Suezmax tanker which is navigating around the Cape of Good Hope rather than taking the shorter route via Suez Canal to Gibraltar.





Source: LSEG Workspace – Freight Calculator

The total voyage cost and the per MT cost can be determined using the **LSEG Freight Calculator**, which factors in the vessel type, cargo quantity carried, the Time charter rate, distance travelled, bunker consumed & associated bunker cost, canal transit cost and port costs. Based on this, the voyage cost for a Suezmax tanker through the Suez Canal is estimated at 2.06 million USD ($13.99/MT). For the same vessel to carry out the voyage through the Cape of Good Hope, the voyage cost is estimated at 2.99 million USD ($20.34/MT). The incremental cost accounts for about 932,905 USD plus the additional time it takes to go round the cape. Voyage time doubles from 16 days via the Suez to 32 days round the cape.

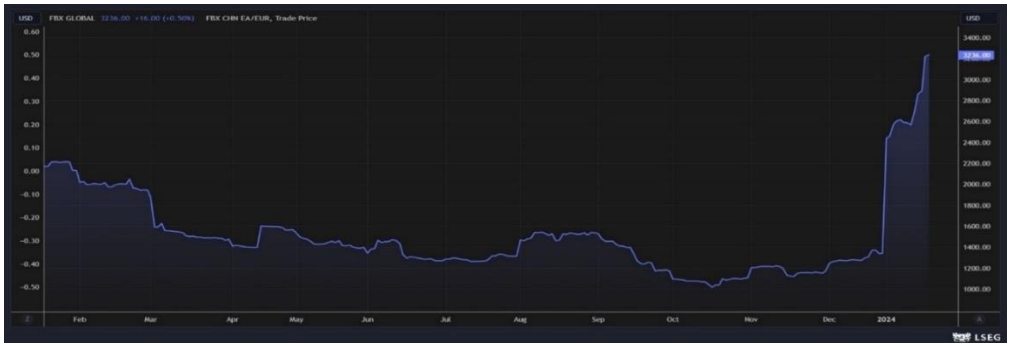
Increase in Insurance Premium

As expected, the increased attacks on commercial vessels has placed the Red Sea in the High Risk category which requires ships to notify their insurers when sailing through such areas and pay an additional premium. Prior to the escalations, the standard cover period was about seven days which are increasingly reported to being shorter to as low as 24 hours. Insurance premiums have also risen to about 1% of the ship's value. According to **LSEG TonnEdge**, which provides valuations for ships, a Suezmax less than 10 years of age is valued at about USD 65 million. This implies that the vessel would incur an additional USD 650,000 in voyage cost due to insurance premiums along with the increased risk. Hence the difference in the overall voyage cost is not very significant if these are factored in, which leaves the risk appetite of the ship and cargo owners as the deciding factor in choosing one over the other. Also, with some insurers avoiding coverage for US and UK ships for the Southern Red Sea transits, they are bound to go round the cape as the default trade route.

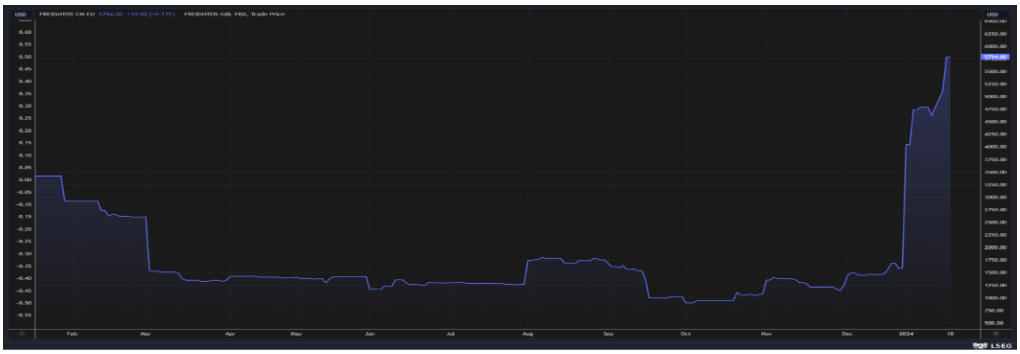
The surge in the Global Shipping Rate Index

The recent surge in the Freightos Baltic Exchange Global Container Index and the Freightos Baltic China/East Asia to North Europe Container Index points to a substantial rise in global shipping rates. This upward trajectory carries far-reaching implications for shipping companies, shippers, and importers, signaling shifts in supply and demand dynamics within the global container shipping market, primarily influenced by the ongoing attacks in the Red Sea.

Freightos Baltic Exchange Global Container Index



Freightos Baltic China/East Asia to North Europe Container Index



Annex 1:

Shipping company responses to attacks in the Red Sea: Chronological Timeline

Company	Date	Event/ Announcement
Mediterranean Shipping Company (MSC)	Dec. 16	Announced its ships would not transit through the Suez Canal
EURONAV	Dec. 18	Announced it would avoid the Red Sea until further notice
EVERGREEN	Dec. 18	Ships on regional services to Red Sea ports would head to nearby safe waters, those scheduled to pass through the Red Sea would be redirected around Africa, temporarily halted acceptance of Israeli cargo
FRONTLINE	Dec. 18	Announced its Vessels would avoid the Red Sea and the Gulf of Aden
HMM	Dec. 19	Ordered its ships which would normally use the Suez Canal to reroute around Africa
HOEGH AUTOLINERS	Dec. 20	Stopped sailing via the Red Sea
OCEAN NETWORK EXPRESS	Dec. 19	Said it would Reroute vessels from the Red Sea to the Cape of Good Hope or temporarily pause journeys and moved to safe areas
OOCL	Dec. 21	Instructed its vessels to either divert their route away from the Red Sea or suspend sailing, stopped accepting cargo to and from Israel
GRAM CAR CARRIERS	Dec. 21	Vessels were restricted from passing through the Red Sea
C.H. ROBINSON	Dec. 22	Rerouted more than 25 vessels around Africa over the previous week, expects continued blank sailings and rate increases into Q1 of 2024
KLAVENESS COMBINATION CARRIERS	Dec. 28	Said it was unlikely to sail any vessels in the Red Sea unless the situation improves
CMA CGM	Jan. 5	Confirmed plans to gradually raise the number of vessels transiting through the Suez Canal, previously rerouted vessels via the Cape of Good Hope
MAERSK	Jan. 5	Suspended Red Sea traffic "for the foreseeable future"
HAFNIA	Jan. 12	Halted all ships heading towards or within the Bab al-Mandab Strait following an advisory from the Combined Maritime Forces
HAPAG-LLOYD	Jan. 15	Announced it would continue to divert vessels away from the Suez Canal and around Africa, to take next decisions on Jan. 22
KUEHNE	Jan. 12	Executive VP for sea logistics said it will take a minimum of two months before vessels could assume normal rotational patterns
NIPPON YUSEN	Jan. 16	Suspended navigation through the Red Sea for all vessels it operates, considering route change
MAERSK	Jan. 16	Maersk sends two container ships through Red Sea for U.S. military and government
MAERSK	Jan. 18	Maersk reports congestion at container terminals, offers air freight option

Source: Reuters news

LSEG Oil & Shipping Research

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