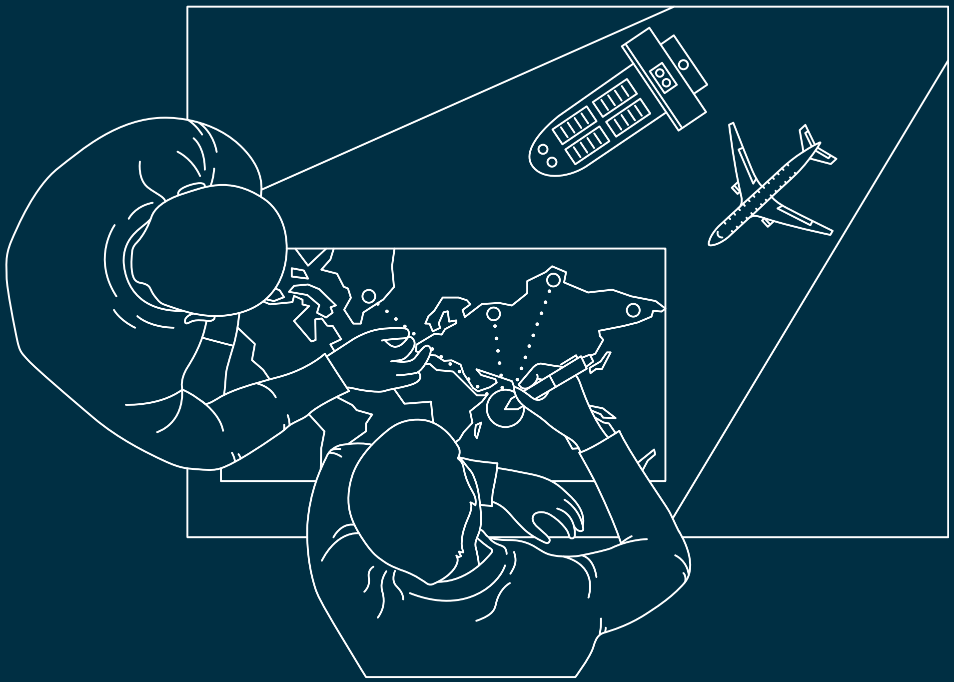

Shipping Lines: ’23 Recap and ’24 Outlook

Black and Caspian Sea Ports & Logistics 2024

Constanta

3rd July 2024

Services

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Technical Advisory

Our technical advisory services underpin all the work that we do. Our advisors are with you every step of the way, from the stage of evaluating investment opportunities and risks, to value creation and divestment.

Strategic & Commercial Advisory

Infrata brings a track record of developing bespoke solutions to meet the specific needs of its individual clients, from O&M Advisory Support role at bid stage to Asset Management services post-transaction. This creative approach is essential to our success, and that of our clients.

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We believe that accurate traffic forecast analysis is crucial to making a shrewd investment in infrastructure. Market analysis and sector insight help us evaluate revenue potential with our clients.

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The infrastructure landscape is changing. Increasingly, Environmental, Social, and Governance (ESG) are playing a key role in investment decisions. We are able to support you in this key transition.

Container Shipping Trends – Vessel Size Increases

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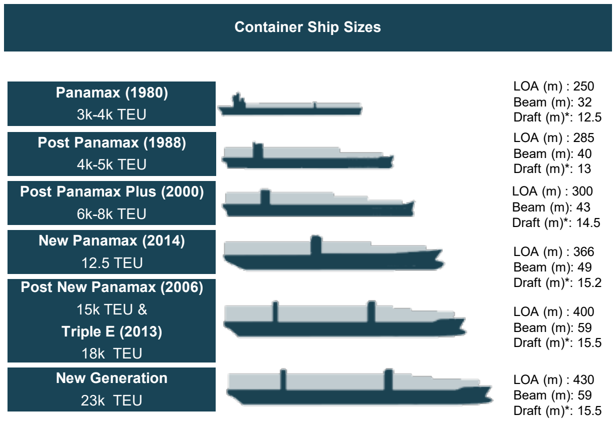
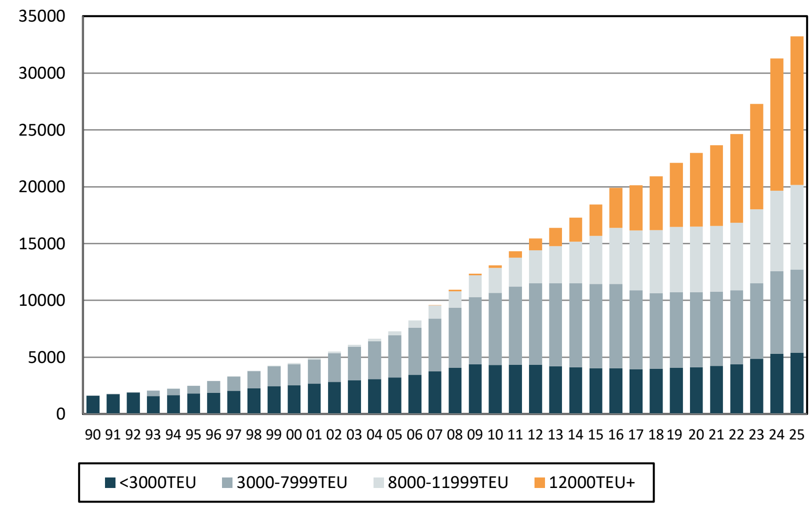
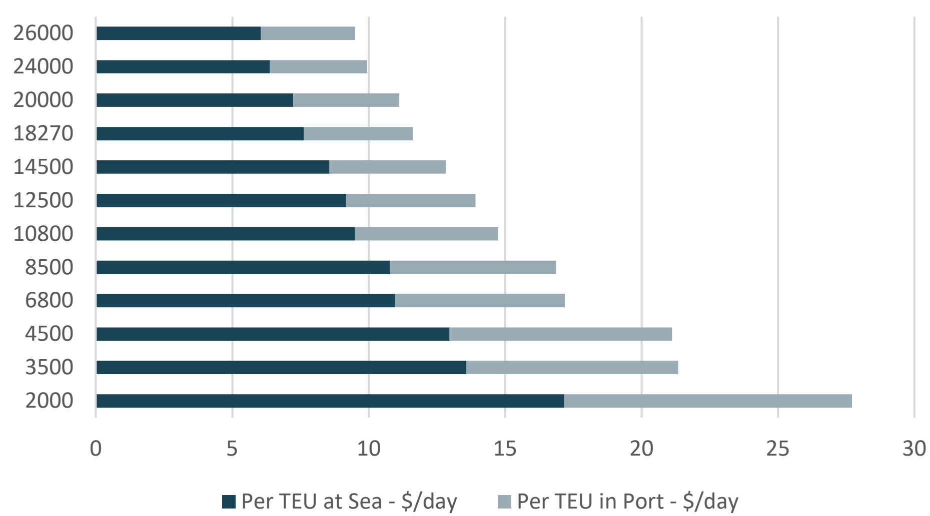
Trend for larger ships is well-established – all major lines committed to Ultra Large Container Vessels (ULCVs)



* Fully laden draft. Vessels require 10-15% under keel clearance at the berth.



Diminishing Returns of Investment - Economies of Scale



Key Conclusions:

- As vessels increase in size , so number of ports (and Canals) that can handle them has declined
- The continued introduction of ever-larger ships means that the cascading process will continue
- Desire for shipping lines to continue to seek economies of scale will also continue, but only up to a point because of diminishing returns on investment beyond 24,000TEU
- Additional “spare” capacity will become available in the short-term and can be used to provide additional calls in regions such as The Mediterranean, Baltics, ME/ISC
- Lines will also “use” additional tonnage in an attempt to save fuel, by increasing the number of vessels deployed and reducing vessel speed

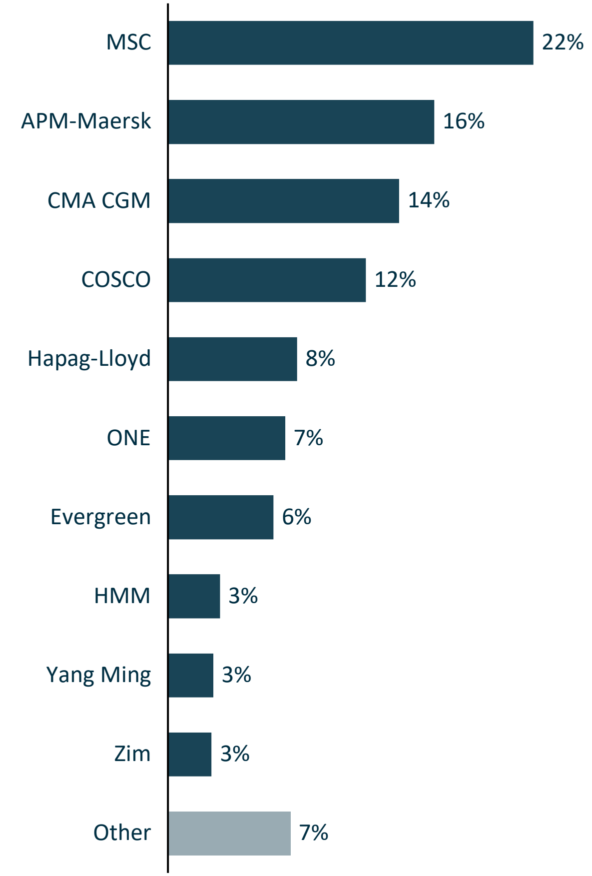
Market Share and Capacity Growth

The top ten shipping lines hold 93% of the total capacity share, with MSC at #1 after overtaking Maersk as the largest container line in 2022

- Frequent consolidations and M&As have resulted in the top ten shipping lines dominating the container shipping market.
- Larger operators are more insulated from changing market conditions, as they can easily change the networks they offer and move vessels within much wider global schedule networks.
- MSC is now the leading shipping line in terms of TEUs deployed following a +19% increase in capacity YoY. With continued strong ordering, it is likely that CMA CGM could also overtake Maersk Line.
- Other major vessel investments by Zim (+22%), ONE (+21%), Hapag-Lloyd (+15%), COSCO (+9%), and CMA CGM (+7%) to keep up with competition and alliance partners.

2024 Rank	Line	Capacity 01/05/2024	Capacity 01/05/2023	Gain/ Loss	% Change	2023 Rank
1	MSC	5,824,984	4,903,185	921,799	+19%	1
2	APM-Maersk	4,265,354	4,161,321	104,033	+3%	2
3	CMA CGM	3,686,957	3,442,537	244,420	+7%	3
4	COSCO	3,156,429	2,893,152	263,277	+9%	4
5	Hapag-Lloyd	2,060,926	1,799,935	260,991	+15%	5
6	ONE	1,864,291	1,539,464	324,827	+21%	7
7	Evergreen	1,679,941	1,664,956	14,985	+1%	6
8	HMM	816,077	807,997	8,080	+1%	8
9	Yang Ming	713,586	712,162	1,424	+0%	9
10	Zim	707,018	580,952	126,066	+22%	10

Capacity share, TEU, 05/2024



Source: Alphaliner

Recent Financial Results of Major Shipping Lines

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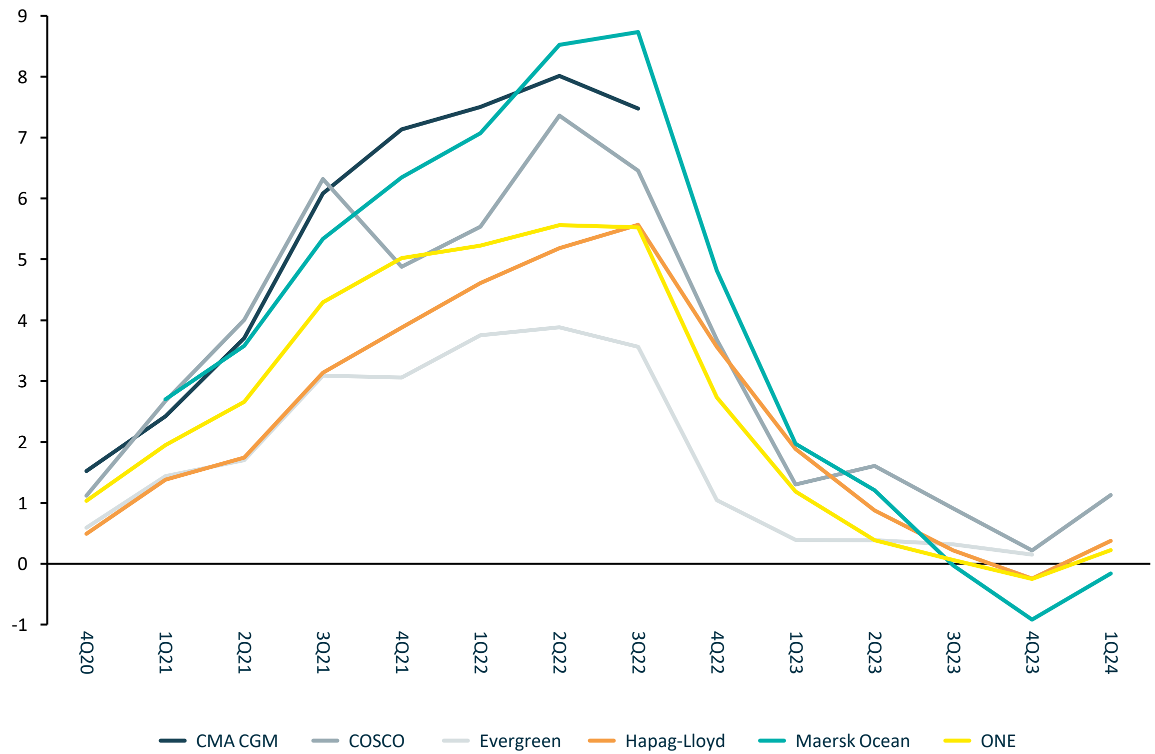
Several major shipping lines saw high profits in 2021 and 2022 –sue to capacity constrains post-Covid – Currently a similar but lesser effect is observed with the Red Sea Crisis

- Recent shipping line financial results outline the ongoing trends impacting the ocean carrier industry:
  - Red Sea crisis requiring vessel rerouting through the Cape of Good Hope and improving freight rates due to “artificial” capacity constraints.
  - From Q3 2022 to Q4 2023, total EBIT of the six lines shown has decreased to almost zero or even into the negatives.
  - Maersk EBIT Q4 2023 came to -920 million, while in Q4 2022 it still maintained a strong 4,817 million into the green.
  - Significant drop-off in Q1 2023 as rates weakened on major routes.
  - Lines bank huge revenues in 2021-22, but 2023 saw massive declines.
  - CMA CGM net profit drop from $5bn in Q4 2022 to $2.01bn in Q1 2023; COSCO $3.8bn to $1.3bn; Maersk $4.8bn to $2.0bn.
- Moving forward, further consolidation in the liner shipping industry is anticipated.
- The challenge for the smaller liner operator’s is maintaining financial stability, especially while the major lines consider further acquisition activities.
- Shipping lines are looking for new ways to gain more revenue, with the introduction of surcharges.

Top Shipping Lines EBIT, Bn USD, 4Q2020 – 1Q2024



Note: MSC is a private held and therefore does not have to disclose financial information

Source: Alphaliner

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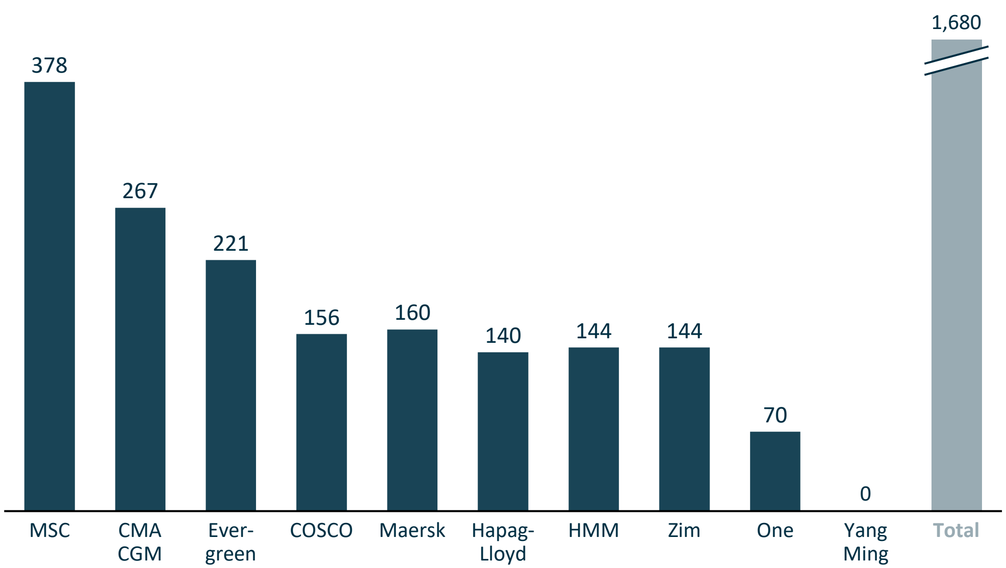
Investment in Vessels

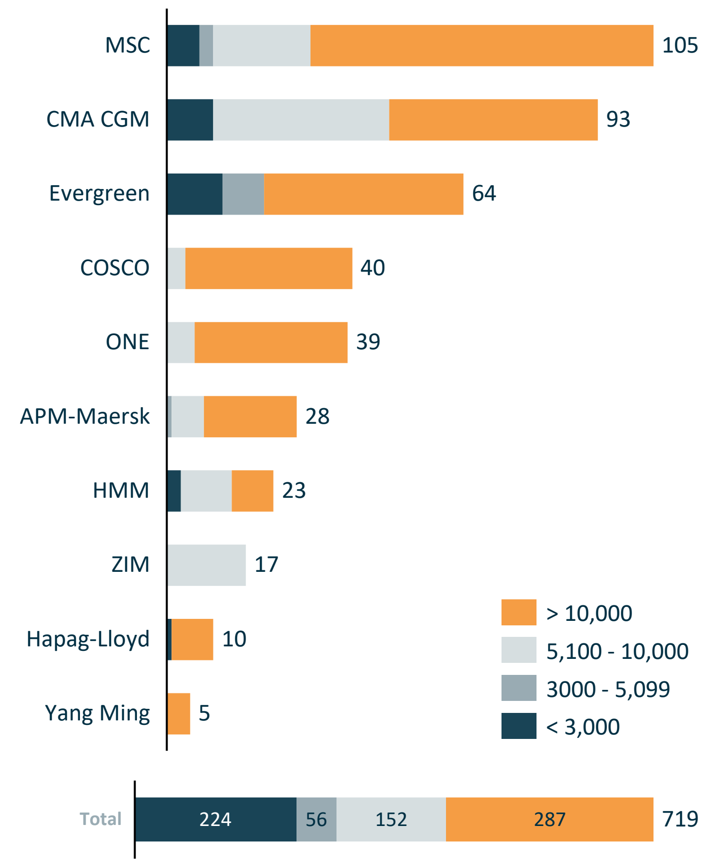
The top lines are investing in increasingly larger capacity ships with their orderbooks comprised of many ULCS orders

- An estimated 6.2 million in new TEUs is currently on order by the major twenty shipping lines.
- Approximately 1.7 million TEU are scheduled for delivery by the end of 2024 to the 10 major shipping lines.
- There is a focus on larger ships, with 168 ULCSs (>15,000TEU capacity) on order among the major twenty shipping lines.
- In 2022, MSC received the largest ship ever built, a further increase in size to 24,346 TEU.
- MSC, CMA CGM, and Evergreen have the largest orderbooks, with a significant number of megamax ships on order.

Estimated scheduled deliveries in 2024 of major lines, '000 TEUs, as of 05/2024



Vessel orderbook of major lines by ship size, number of ships, as of 05/2024



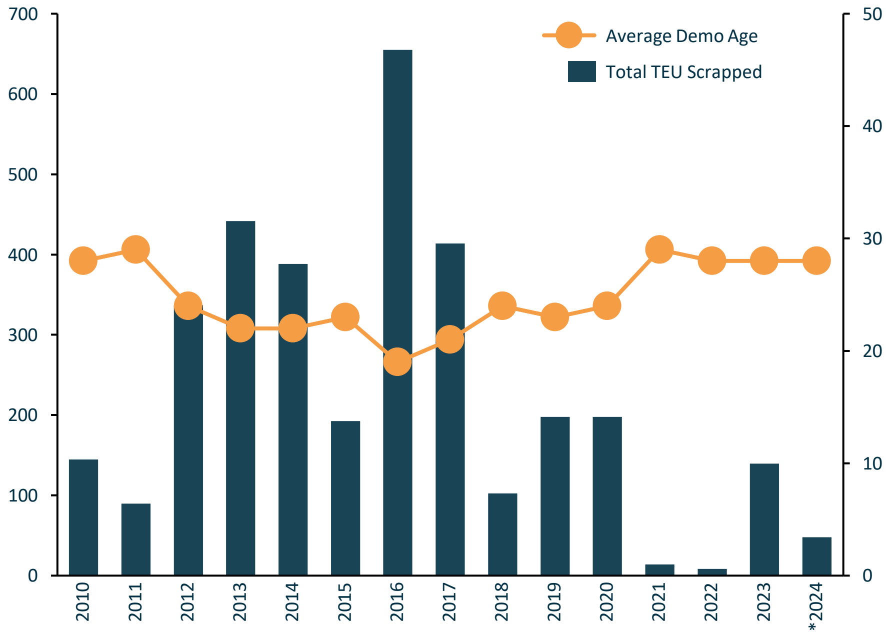
Source: Alphaliner

Demolitions

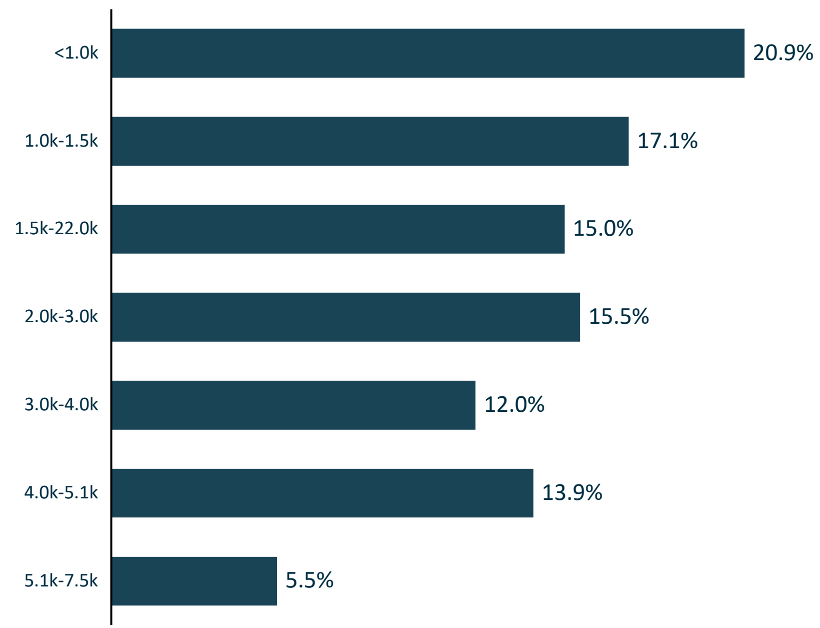
In 2021-2023, ship demolitions significantly declined, and the highest average demolition ship age was recorded since 2011

- Less than 25,000 TEU was reportedly scrapped in both 2021 and 2022 combined, which is significantly lower than previous years. As of March 2024, about 37k TEU had been scrapped throughout the year.
- Ships with smaller TEU capacities and older ages are more likely to be scrapped. In 2022 and 2023, the average age of ships scrapped was 28 years. These are the highest average demolition ages since 2011, when it was recorded as 29 years.
- With the large orderbook tonnage expected to join the global fleet between 2023-2025, demolition will be essential to mitigate overcapacity risks; however, with an average age of approximately 13.8 years, there may not be enough tonnage deemed 'scrapable'. Inevitably, the imminent EEXI and CII carbon regulations to introduced in 2023 will force some older and less efficient ships to be scrapped.

Evolution of scrapped vessel capacity, '000 TEUs, 2010-24



Scrapped Ships by Size Range 2010-2022

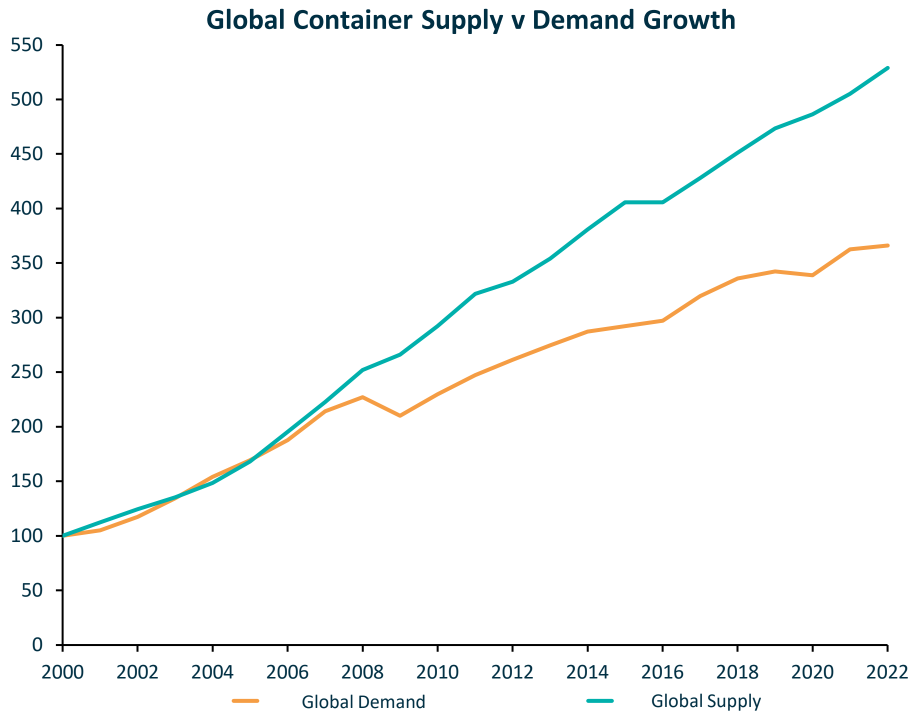


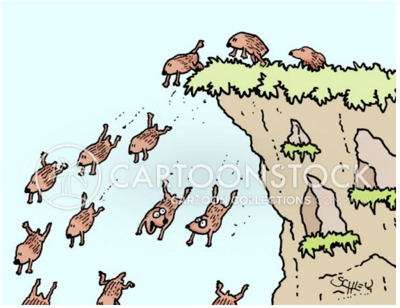
*Up to 05/2024
Source: Alphaliner

Global Container Supply v. Demand

New orders of ULCSs by Shipping lines as a result of huge profits at same time as global demand (especially from China) stagnates

- Continuation of large orders of vessels as a result of huge profits for the major shipping lines.
- Supply increases with the order of new ULCSs, global demand has stagnated creating a wide gap between supply/demand.
- With increased tonnage available, lines will have to look at different ways to ensure that they are still able to fill their vessels and take advantage of the economies of scale.





Smoke & Mirrors

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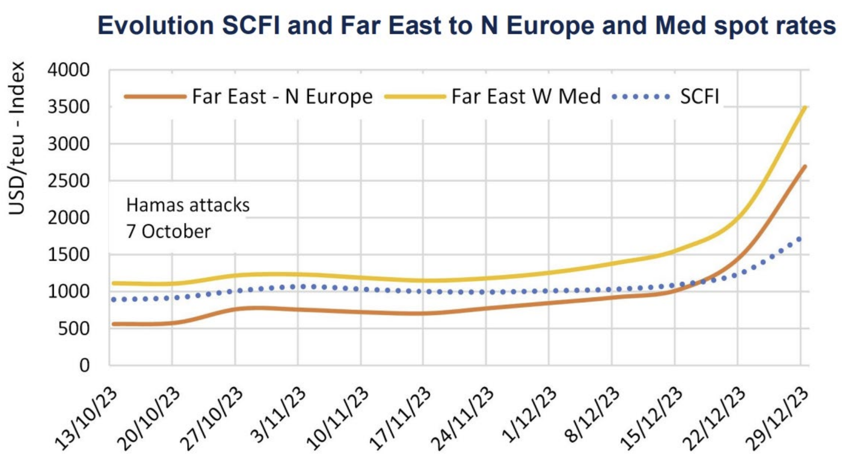
Lines are using many different measures to ensure that they can deal with their self-inflicted increase in capacity from 2024 onwards.

- Shipping lines are taking multiple courses of action to protect themselves against over capacity and potential drops in rates. They can:
  - Artificially decrease capacity by suspending services / laying up vessels – not seen as a "long term" fix.
  - Issue rate increases when capacity has been reduced to help "push" rate increases through.
  - Various surcharges are also being introduced to help protect "bottom line" rate levels. Graph shows increase in rates as a result.
  - Demolish old tonnage where possible.
  - Slow steam.
  - Form new VSAs to give other lines access to their services to help vessel utilization.
  - Add calls to rotations so that additional demand is collected but also "spare" tonnage is utilized. This has the bonus of saving some feeder costs , where charter rates for small vessels are increasing for the coastal route.
  - Avoid Suez Canal and route via Cape of Good Hope.



- The reality is that lines will use a combination of all these things to protect themselves during 2024.
- The next slide highlights some typical schedule change examples.

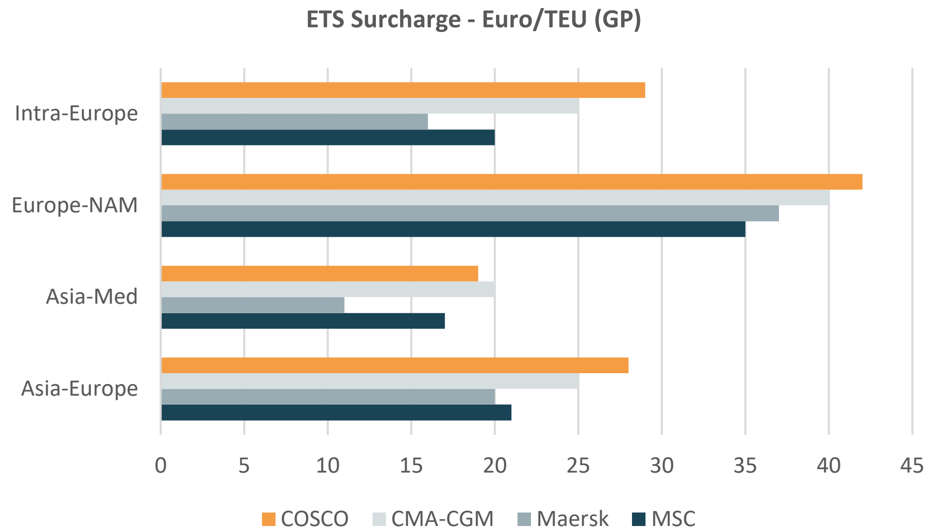
Source: Alphaliner

Surcharges – More Smoke & Mirrors? Pragmatic/Lucky Lines

Lines are introducing PSSs and ETS surcharges and like CABAFs before them, the argument is whether they are justified or just an attempt to increase revenues?

- **Emergency peak surcharge (PSSs)** is to be levied by lines who are looking to avoid the Suez Canal region because of drone strikes resulting from the Israel conflict. ONE Alliance have advertised $500/TEU on Asia-Europe service to cover fuel costs for +3,000nm to go around the Cape of Good Hope. Zim, H-L, Maersk, MSC, CMA-CGM, HMM, Evergreen and YML are likely to follow. An extra 5-9 days transit will require additional tonnage.

- **ETS (Emissions Trading System)** surcharge aimed at reducing carbon emissions. Charges effective 1 January 2024.
- MSC have explained that their surcharges are calculated based on the tons of CO_2 emitted by a vessel, divided by the TEUs shipped. The result is then applied to the average 3-month price of the EU Allowance index, multiplied by the phase-in level, i.e. 40% in 2024; 70% in 2025 and 100% in 2026.
- No other lines have explained the logic of their calculations, here shown.
- It has been extremely "convenient" for lines to stop calling at the Suez so that they can both increase the ETS and PSS charges as well as add "spare" capacity to the rotation.
- Lines have been quick to take advantage of this situation, which some might say is pragmatic and others say it is lucky to help lines solve their over capacity challenge.
- Whichever you believe, shipping lines are again able to increase rates as a result of congested ports and lack of tonnage caused by the Red Sea crisis. Rates will soon be at pandemic levels.



Source: Alphaliner

MSC's Methodology for calculating ETS surcharges

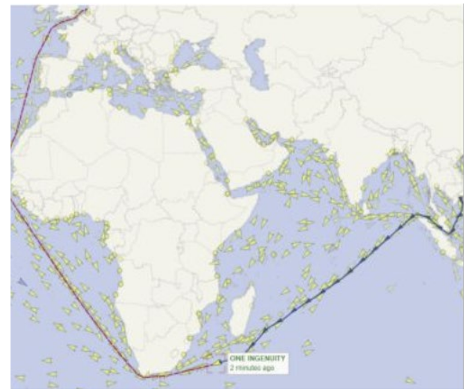
Impact of Schedule Changes – Suez Canal Omission

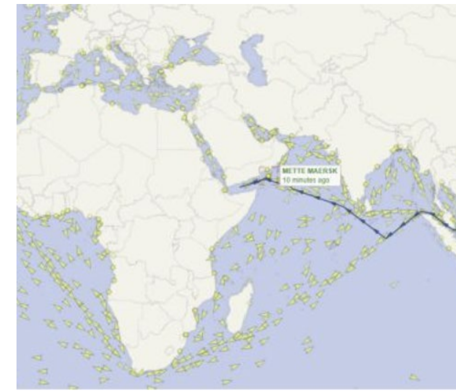
Finally, all container shipping lines have taken the decision to divert voyages away from the Red Sea and potential pirate attacks and instead of transiting the Suez Canal are sailing around the Cape of Good Hope

Shippers Perspective

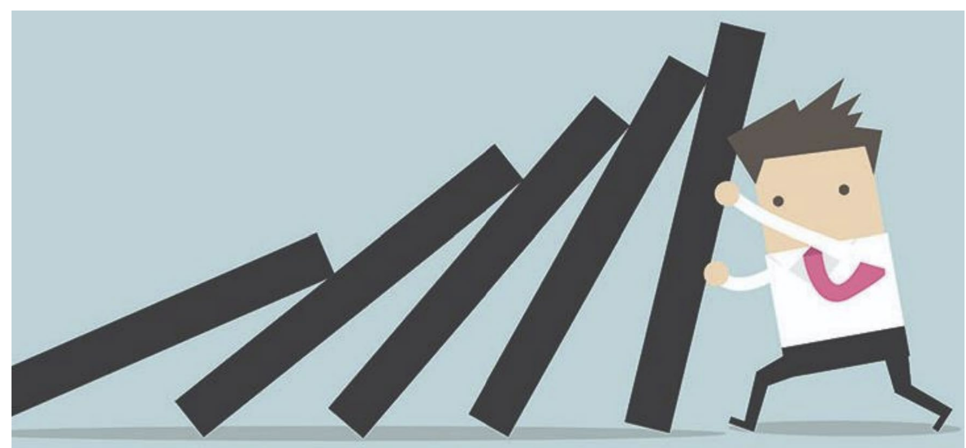
- Suez transits are down 67% YOY and now all shipping lines are avoiding the area.
- Shippers can always choose who to book with, but have the potential dilemma in the future of:
  - A longer transit time (8-10 days) if Suez Canal and Red Sea is deemed safe again or of using the Cape option.
  - Unpredictability of using Suez Canal if it still isn't safe and last-minute changes are made.
- If shippers choose to use the "safer" option of the Cape of Good Hope, then they can expect serious cargo time delays, but at least the new ETA's are unlikely to change. Additional ETS are likely given a longer route. Potential serious impact on supply chains.
- The "usual" Suez transit option is expected to remain unpredictable for the next month or so, but if Suez transit proves to be uneventful, then the total transit times will remain the same, with same advertised arrival times, but costs will increase due to PSSs and some ETS as discussed previously.
- Cost of goods will increase and be passed over to shopper and shipping line profits will show signs of improvement. We are close to pandemic freight levels.

Route Options – January 2024





Supply Chain Resiliance



Impact of Schedule Changes – Suez Canal Omission
… extra calls opportunity

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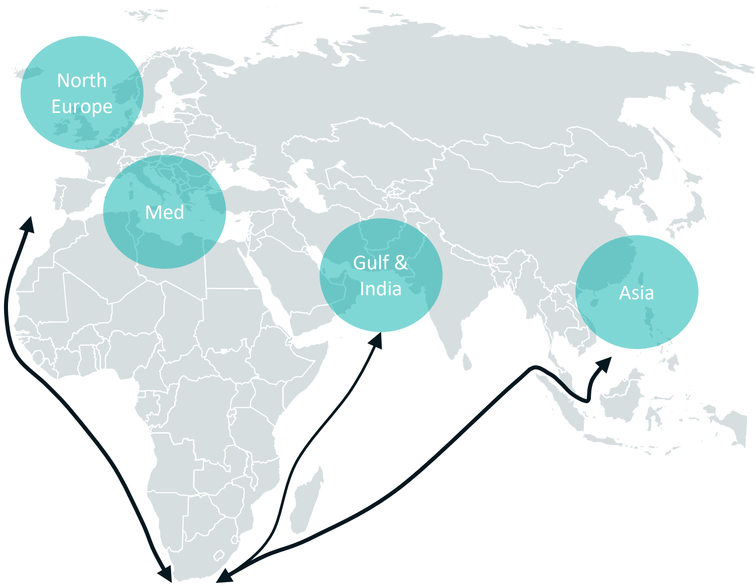
The increase in vessel traffic via Cape of Good Hope is an opportunity for African ports, with potential increase in calls and offering a strategic location for T/S volumes to/from Europe-Asia

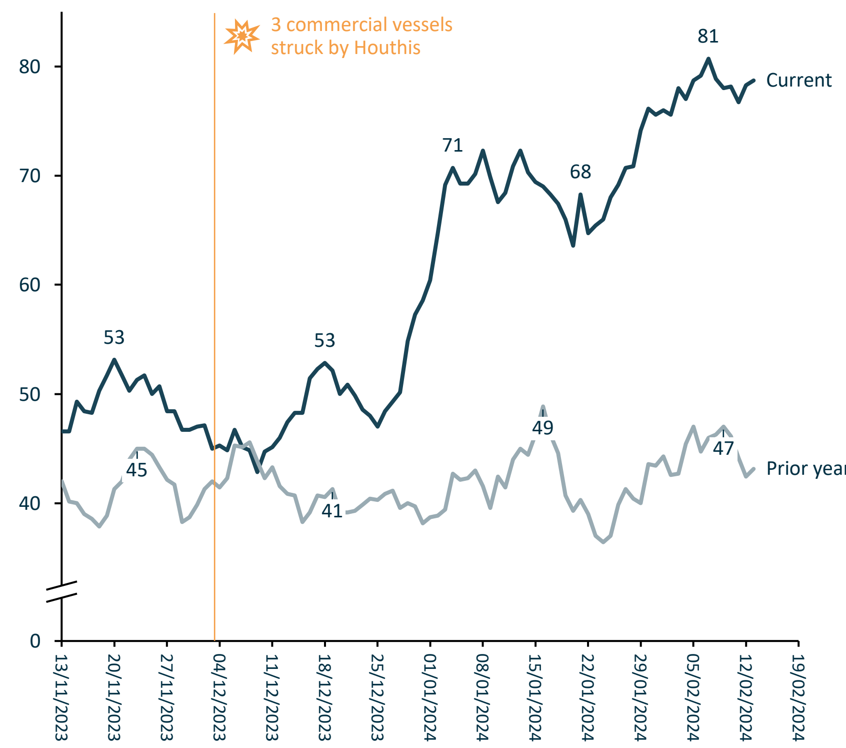
Rational for the potential increase in volumes/calls in African ports



+ additional calls

+ T/S volumes

Cape of Good Hope daily transit calls, 7-day moving average, 11/2022 to 02-2023 & 11/2023 to 02-2024



Change of route to avoid Suez Canal also offers potential opportunities for calls in South Africa:

- Possible transshipment opportunity to Europe if calls end rotation in SAF and return to Asia.
- Possible extra calls to help fill vessels to Europe.

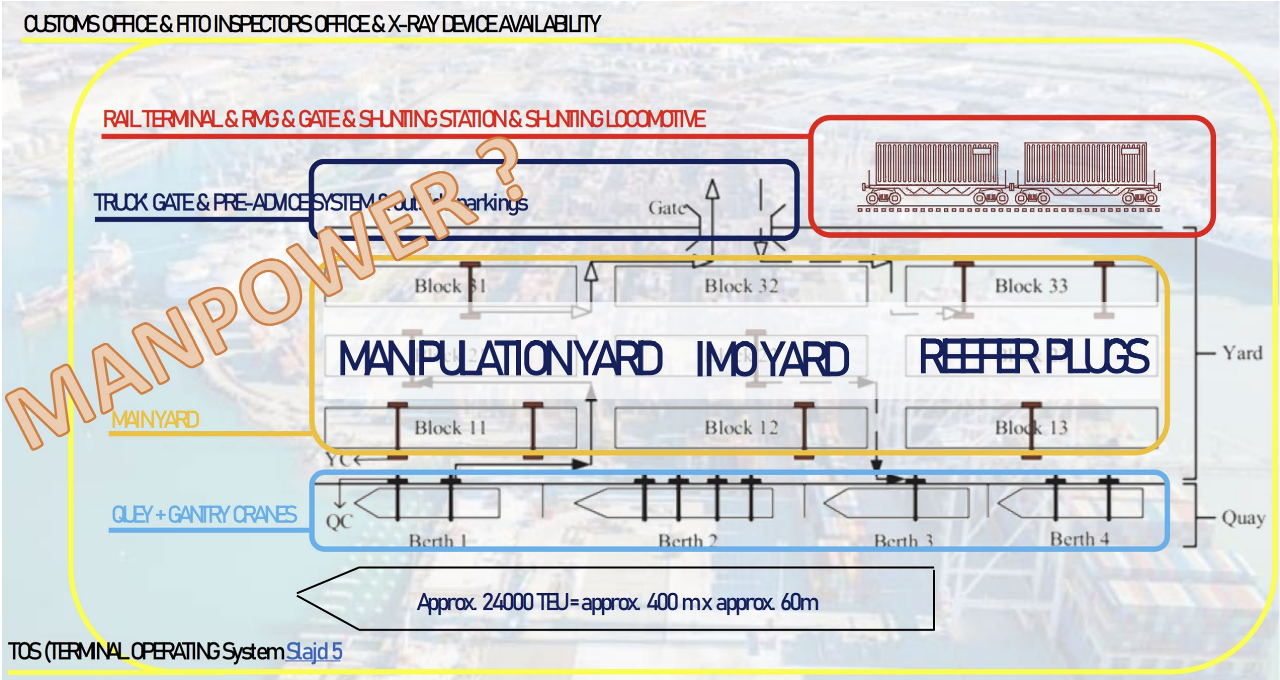
Source: IMF | Port watch

Impact of Schedule Changes – Suez Canal Omission

Shipping lines have taken the decision to divert some vessels away from the Red Sea and potential pirate attacks and instead of transiting the Suez Canal are sailing around the Cape of Good Hope

Port Operators Perspective

- Last minute port omissions in the event of a change of route can adversely affect the financial performance of a port/terminal.
- Last minute additional calls, especially at transshipment hubs can positively affect ports involved in terms of increased volume/revenue.
- Last minute additional calls can lead to challenges as far as berthing windows and port planning are concerned – may lead to longer than usual port stays / delays.



Impact of Schedule Changes – Suez Canal Omission

Shipping lines have taken the decision to divert some vessels away from the Red Sea and potential pirate attacks and instead of transiting the Suez Canal are sailing around the Cape of Good Hope

Shipping Lines Pragmatic view – avoiding Suez Canal

- Great Public Relations – avoiding "war zone" to protect everyone's goods.
- Save $'000s (c.$0.5 million) by not transiting the Suez Canal – off-set with some additional fuel costs etc. ($1 million) of longer transit.
- Able to use more "spare" tonnage that lines have created with latest round of newbuild purchases on the back of big profits.
- Charge additional surcharges for additional emissions and/or peak surcharges (PSSs) – extra revenue.
- Artificially reduce available capacity.
- Increase sea freights on spot markets.
- Possibility of extra calls to "top up" volumes to Europe and to bunker.

The Devil's Advocate View

- Shipping lines need to utilise "spare" tonnage.
- Bulkers are still transiting the Canal.
- Geo-politically not acceptable to continue avoiding Red Sea due loss of Trade in region.
- Surcharges and higher spot rates will all contribute to additional revenues.
- Shipping lines return to profitability and spot rates return to Pandemic levels

"The Devil's Advocate"

Conclusions

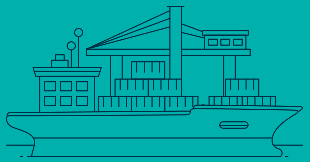
1. Services from the Far East may stop at additional ports in the short-term to ensure vessel capacity is utilised and “spare” tonnage used.

2. Bigger ships offer opportunities for more transshipment in the longer term and more additional calls in general in order to maximise the utilisation of assets deployed

3. Expect shipping lines to continue to be “inventive” to offset the pressure on additional vessel capacity (supply/demand issue) and freight rates – New Routes such as Suez Canal omission /Extra port calls / Demolitions / Lay-Ups /Slow steaming / Surcharges etc.

4. When the Red Sea crisis is over, it is assumed that shipping lines will still have “spare” tonnage, which could result in additional calls to the benefit of ports such as Constanta where t/s is a major opportunity.

5. Geo-politically it is hoped that the Red Sea crisis will not continue indefinitely and shipping lines can return to “normal” rotations via Suez Canal, creating more opportunities in the wider region. Meanwhile shipping lines will continue to improve profitability.



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