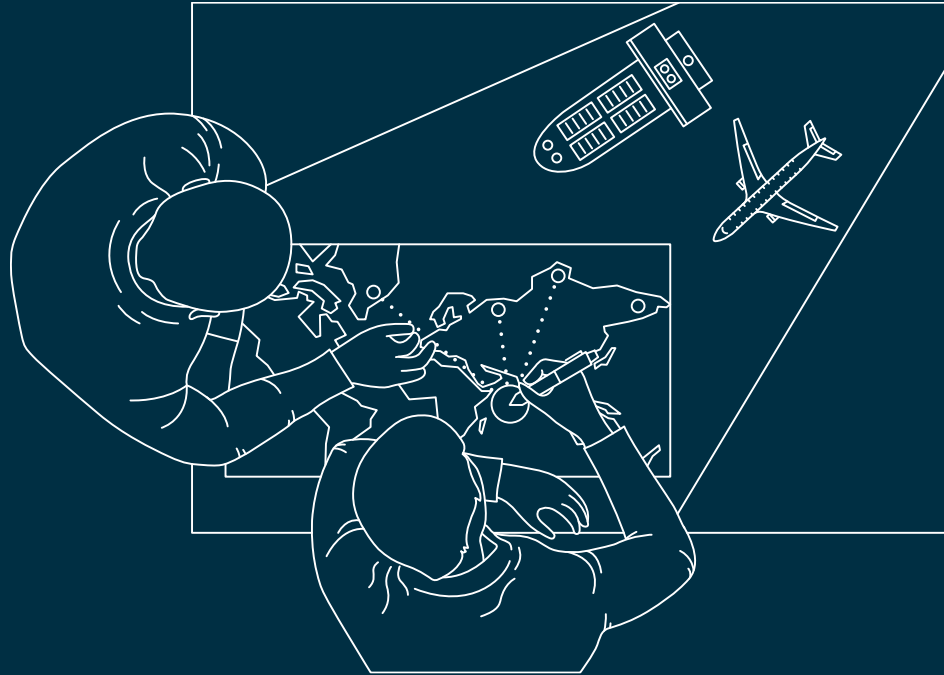


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Shipping Lines: '23 Recap and '24 Outlook

Transport Middle East Conference

Abu Dhabi, U.A.E.

24th January 2024

Services

infrata



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.

Demand & Traffic Advisory

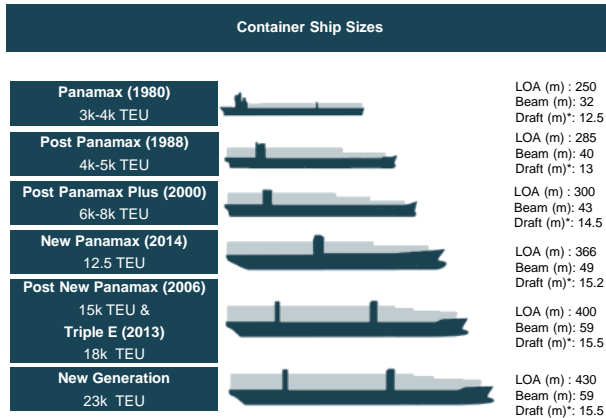
We believe that accurate traffic forecast analysis is crucial to making a shrewd investment in infrastructure. Market analysis and sector insight help us evaluate revenue potential with our clients.

Environmental, Social & Governance Advisory

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.

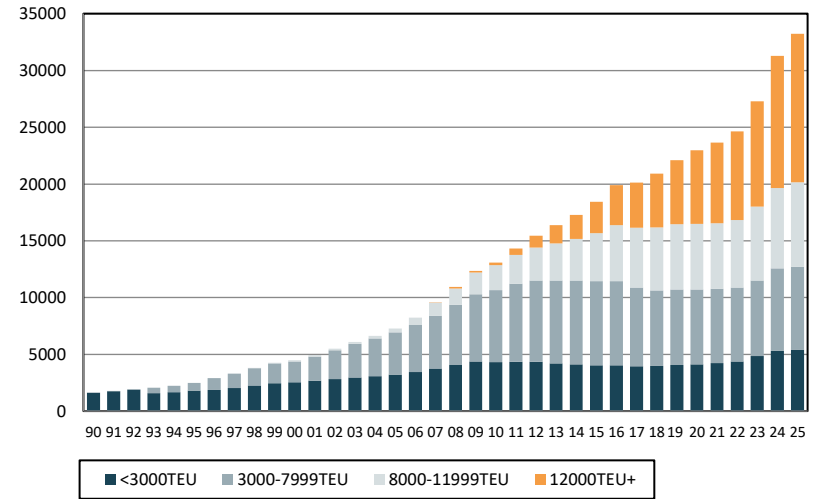
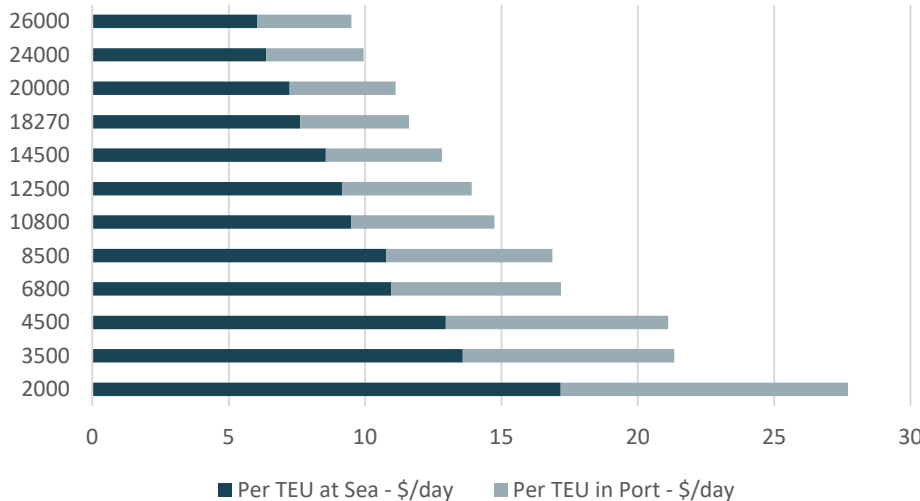
Container Shipping Trends – Vessel Size Increases

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



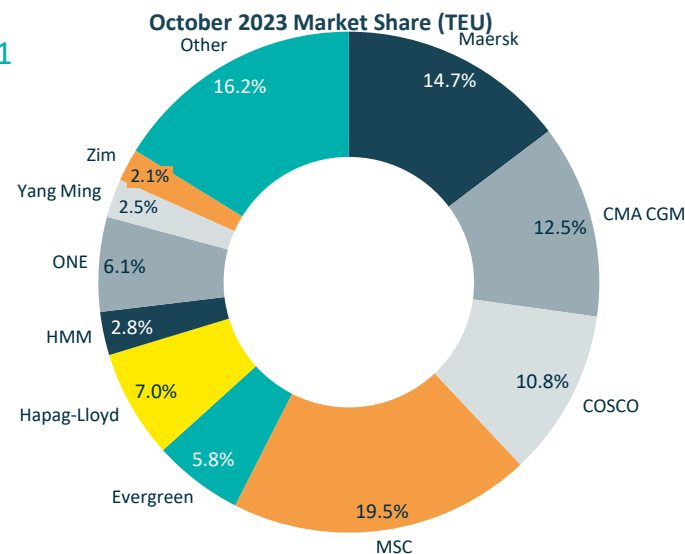
Key Conclusions:

- 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 84% of the total market 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 tonnage deployed following a 20% increase in capacity. With continued strong ordering, it is likely that CMA CGM could also overtake Maersk Line in the near future.
- Other major vessel investments by Zim (9%), Hapag-Lloyd (10%), CMA (5%) and ONE (13%) to keep up with competition and alliance partners.

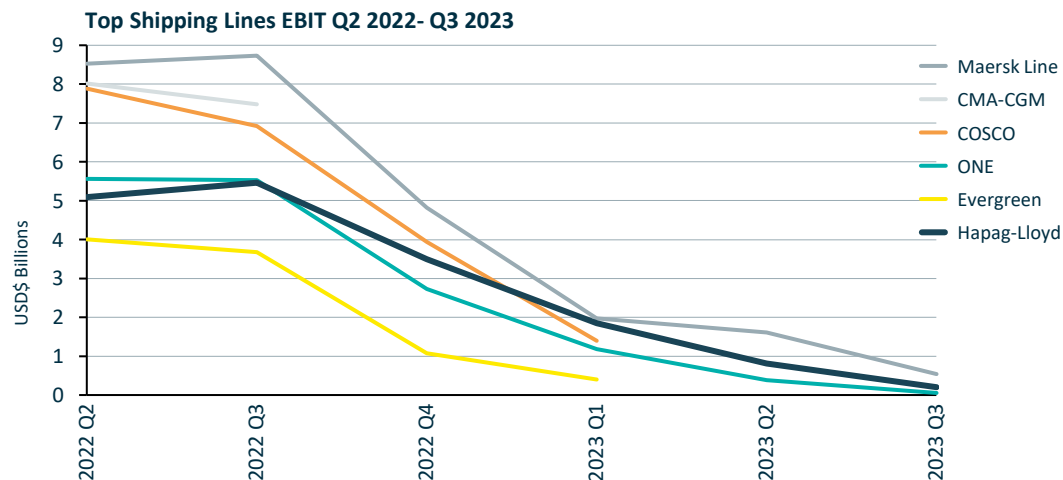


Rank	Line	Capacity 1/12/2023	Capacity 1/12/2022	Gain/Loss	% Change	2022 Rank
1	MSC	5,506,913	4,572,036	934,877	20%	1
2	Maersk Line	4,152,375	4,225,710	-73,335	-2%	2
3	CMA CGM	3,542,748	3,384,601	158,973	5%	3
4	COSCO	3,051,113	2,867,140	183,973	6%	4
5	Hapag-Lloyd	1,968,136	1,786,730	181,406	10%	5
6	ONE	1,731,270	1,527,159	204,111	13%	7
7	Evergreen	1,642,979	1,636,837	6,142	0.4%	6
8	HMM	783,732	818,063	-34,331	-4%	8
9	Yang Ming	707,423	707,354	69	0%	9
10	ZIM Line	585,010	537,522	47,488	9%	10

Recent Financial Results of Major Shipping Lines

Several major shipping lines have seen high profits in 2022 – but the EBIT position in Q3 2023 is significantly lower than in Q3 2022 and worsening in 2024

- Recent shipping line financial results outline the ongoing trends impacting the ocean carrier industry:
 - From Q3 2022 to Q3 2023, total EBIT of the six lines shown has decreased at a CAGR of -96%.
 - Maersk Line EBIT Q3 2023 came to 538 million, -89% relative to Q3 2022.
 - 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 Q3 2022- Q3 2023

Shipping Line	Q3 22- Q3 23 EBIT YoY % Change
Maersk Line	-89%
COSCO	n/a
CMA-CGM	n/a
ONE	-98%
Hapag-Lloyd	-81%
Evergreen	n/a

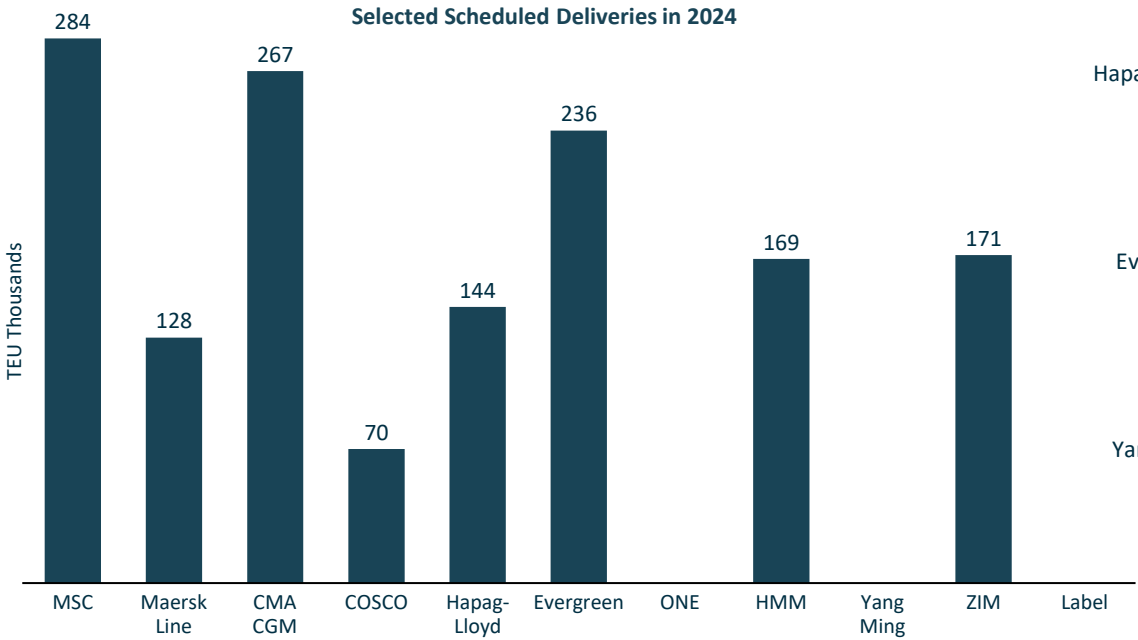
Shipping Line	2022 Q2	2022 Q3	2022 Q4	2023 Q1	2023 Q2	2023 Q3
Maersk Line	8,526	8,734	4,817	1,969	1,607	538
COSCO	8,015	7,478	n/a	n/a	n/a	n/a
CMA-CGM	7,887	6,920	3,940	1,393	n/a	n/a
ONE	5,561	5,528	2,732	1,184	386	58
Hapag-Lloyd	4,006	3,678	1,076	402	808	204
Evergreen	5,089	5,464	3,499	1,852	n/a	n/a

Note: MSC is private and therefore does not release financial information

Investment in Vessels

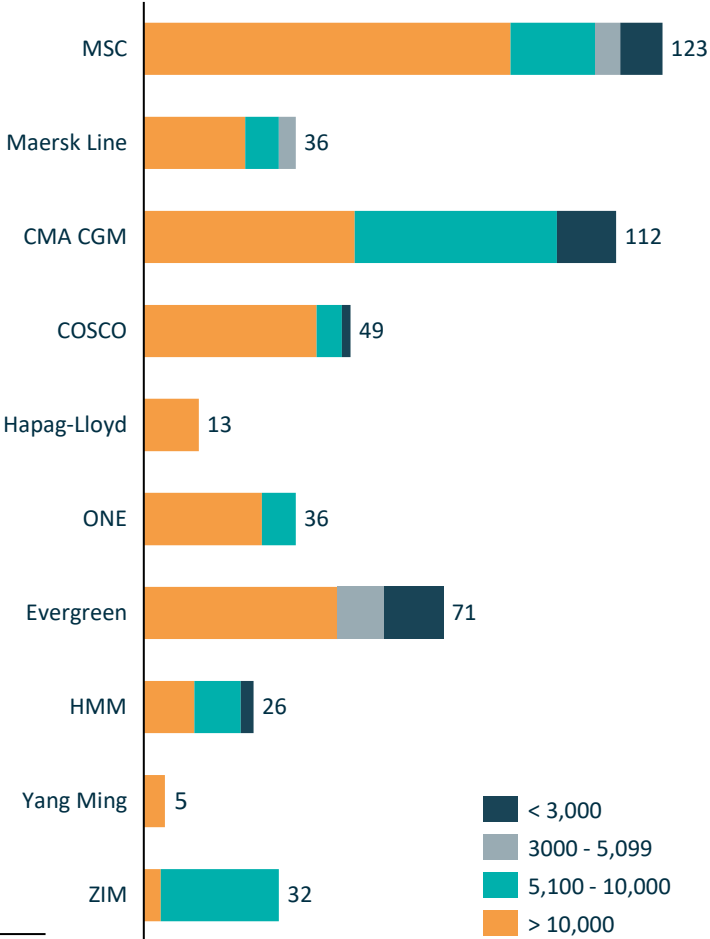
The top lines are continuing to invest in increasingly larger capacity ships with their orderbooks comprised of many ULCS orders

- An estimated 7.5 million in new tonnage is currently on order.
- Over 6.1 million of that new tonnage is for the top 10 lines. Approximately 3 million TEU is scheduled for delivery in 2024.
- There is a focus on larger ships, with 319 ULCSs on order among the top ten lines.
- In 2022, MSC received the largest ship ever built, a further increase in size to 24,346 TEU.
- MSC and CMA CGM have the largest orderbooks, with a significant number of megamax ships on order.



Source: Alphaliner

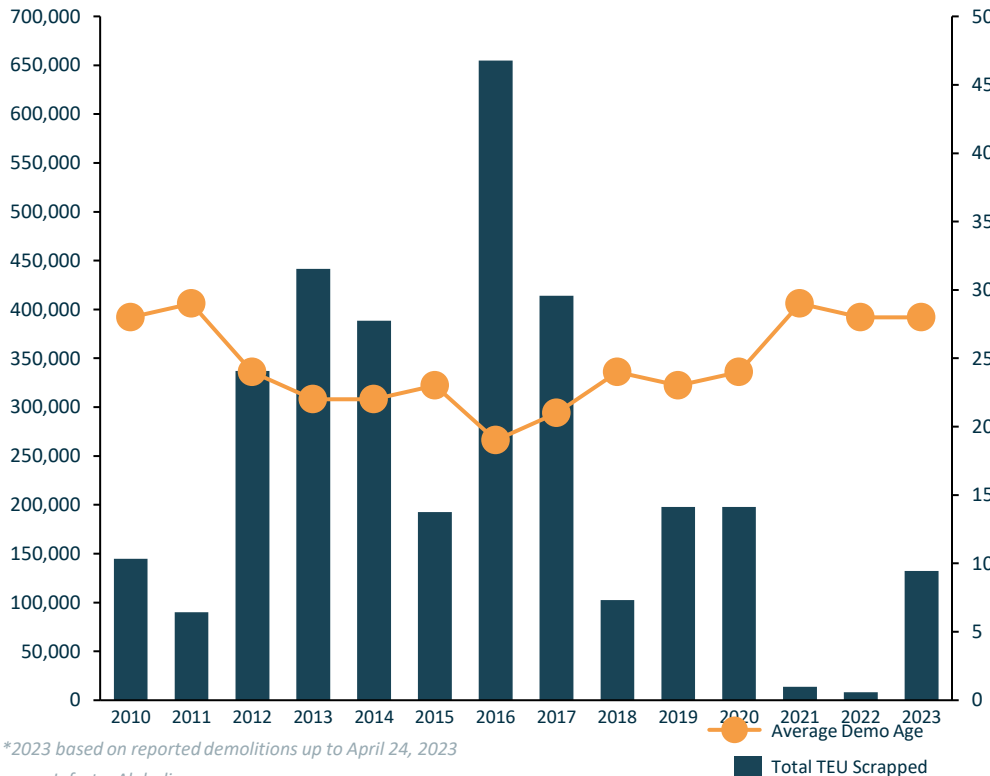
Total Orderbook Vessel Sizes for Major Lines



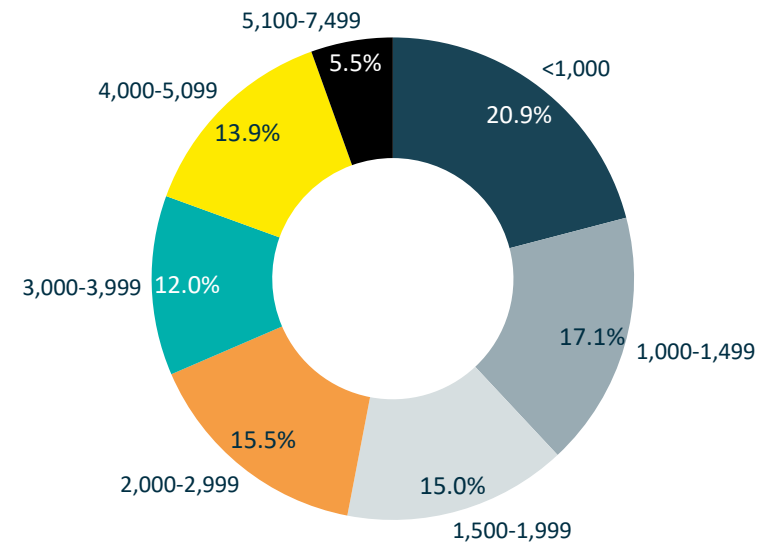
In 2021-2023, ship demolitions significantly declined - the highest average demolition ship age was recorded since 2011

- Less than 25,000 TEU was reportedly scrapped in both 2021 and 2022 combined, which is significantly lower than previous years. As of December 2023, about 132,116 TEU has been scrapped throughout the year.
- Ships with smaller TEU capacities and older ages are more likely to be scrapped. Since 2010, there have been no ships above 7,500 TEU 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 13.5 years, there may not be enough tonnage deemed 'scrapable'. Inevitably, the imminent EEXI and CII carbon regulations to be introduced in 2023 will force some older and less efficient ships to be scrapped.

Total Scrapped TEU



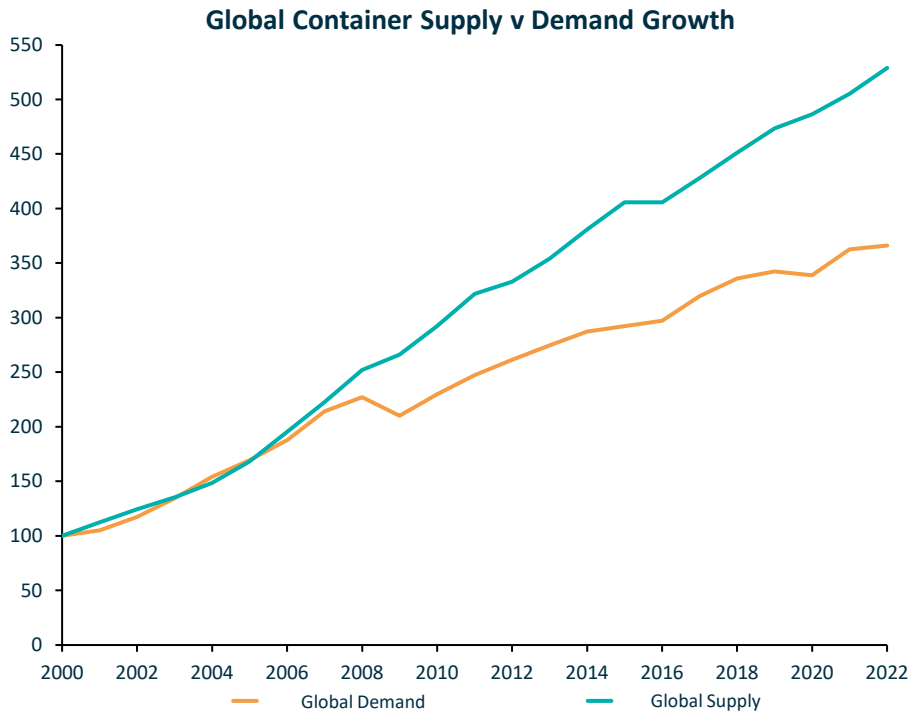
Scrapped Ships by Size Range 2010-2022



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

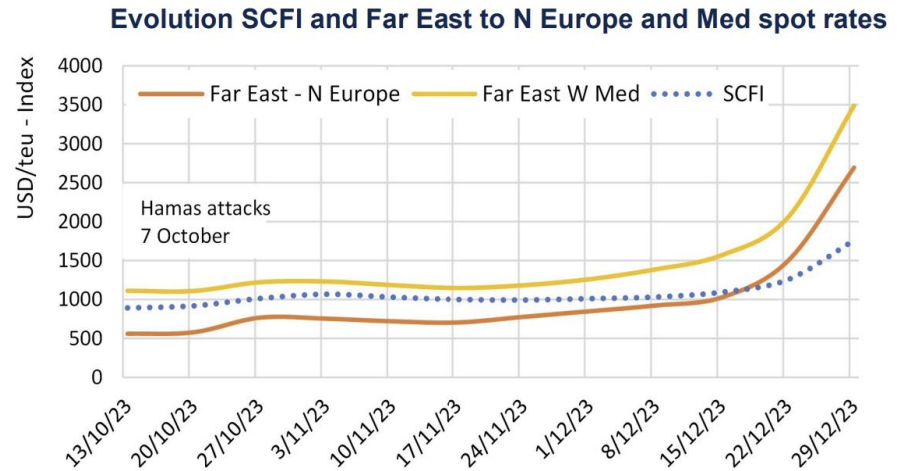
- Continuation of large orders of vessels as a result of huge profits for the major shipping lines.
- Supply increases with the order of new ULCSs, global demand has stagnated creating a wide gap between supply/demand.
- With increased tonnage available, lines will have to look at different ways to ensure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



Smoke & Mirrors

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

Examples of Planned Liner Action – Additional Calls

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

- In December, THE Alliance (HL, ONE, HMM and YML) announced that in 2024 they will deploy additional tonnage to ensure a comprehensive coverage and provide a more reliable service schedule.
- What this means:
 - More slow steaming to add additional tonnage to services and save fuel costs.
 - More calls in different markets to increase vessel utilization and use up “spare” tonnage.
- THE Alliance plans to add calls to four of their FE-Europe strings: Damietta to FP1; London-Gateway to FE4; Jeddah to FE2 and Colombo to FE4.

- In December MSC Sentosa Shikra extended service to cover Pakistan. India-FE-USWC.
- CMA CGM add Haiphong to PSH1. Additional Vietnam call to California for Ocean Alliance. THE Alliance also adding Haiphong to PN3 on their Trans-Pacific service.
- THE Alliance to add Manzanillo (Mexico) to FE-USEC service (EC2)
- Zim Line returns to the Trans-Pacific service to use up vessels.
- Maersk and CMA upgrade Asia-WAF service from early December 2023. Upgrade FEW3/WAX from 4,500TEU to 14,000TEU.
- General increase in secondary trade lanes. YOY reduction of 4.5% on Trans-Pacific but increase in LATAM carriers (17.5%) and Africa (21.1%).
- Avoid Suez Canal.

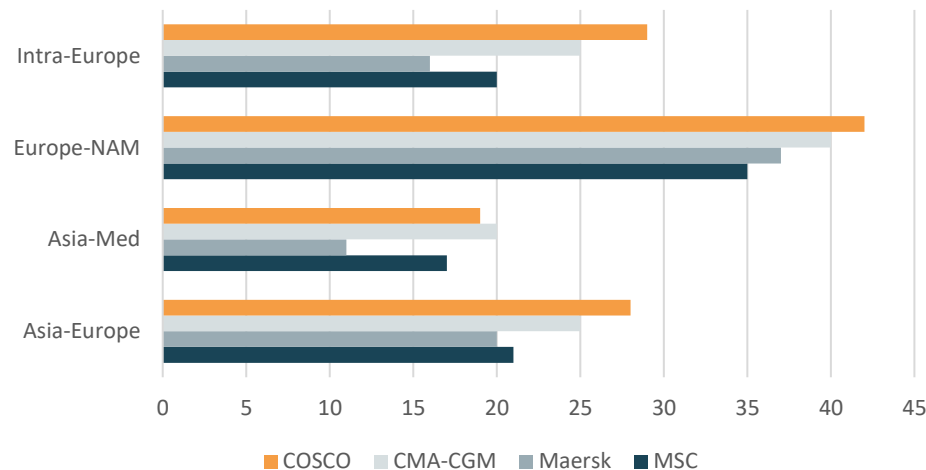
- Expect more additional calls to help fill vessels and also use “spare” tonnage. Ports in Middle East and ISC remain likely options given growth in demand in these regions compared to Asia (China). Jebel Ali, Jeddah and Colombo remain plausible.
- Other likely East-West markets include Japan, Indonesia, India, Pakistan.

Surcharges – More Smoke & Mirrors?

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 CO2 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.
- Is it just “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?
- I don’t think for one minute that it is but its certainly helped their capacity challenge.

ETS Surcharge - Euro/TEU (GP)



Source: Alphaliner

MSC’s Methodology for calculating ETS surcharges



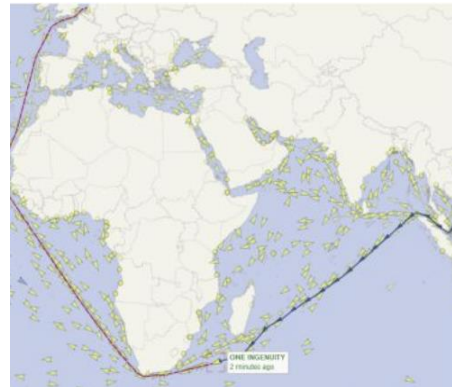
Impact of Schedule Changes – Suez Canal Omission

Some 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

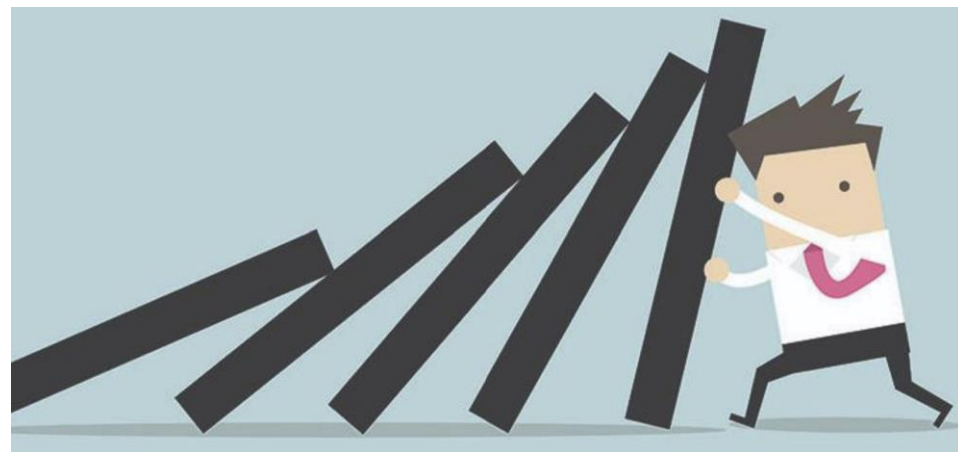
Shippers Perspective - To “stick” or “twist” ?

- Based on information available on 3rd January 2024, Mette Maersk is still considering a NB Suez transit whereas the ONE Ingenuity is going around the Cape of Good Hope.
- Shippers can always choose who to book with, but have the dilemma currently of:
 - A longer transit time (8-10 days) if Suez Canal and Red Sea is deemed safe again 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.

Route Options – January 2024



Supply Chain Resilience

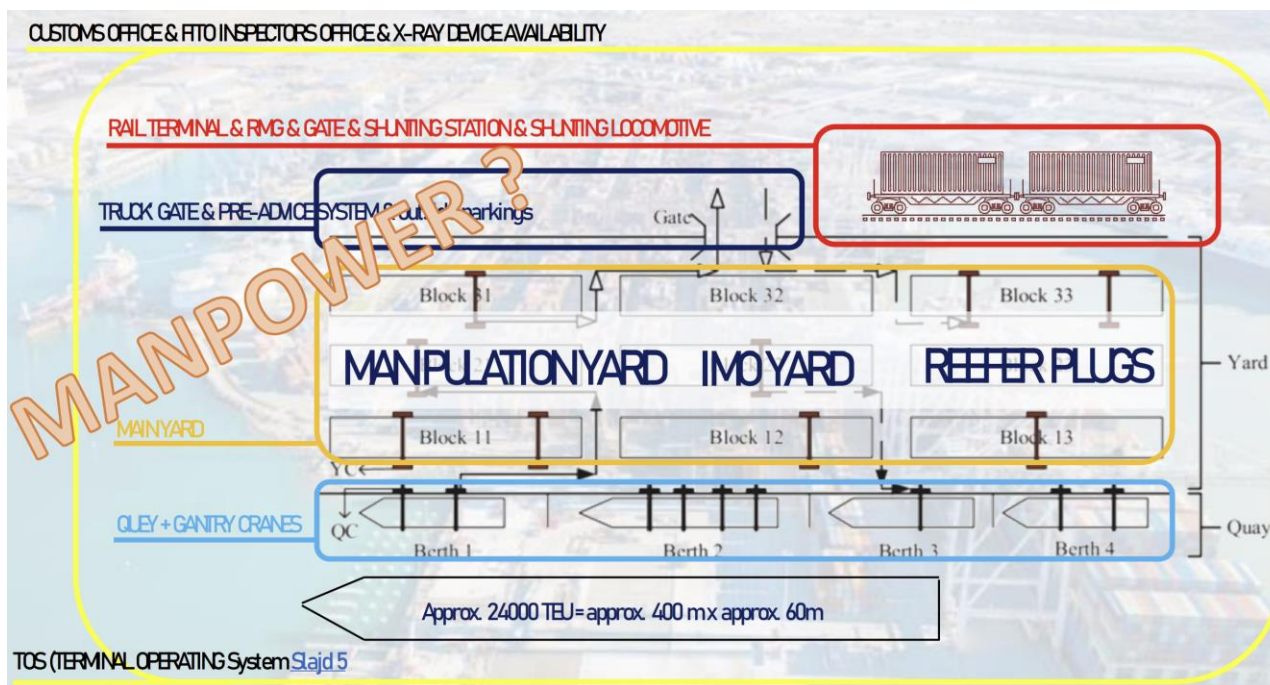


Impact of Schedule Changes – Suez Canal Omission

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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

Some 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 Perspective – avoiding Suez Canal transit

- Great Public Relations – avoiding “war zone” to protect everyone’s goods.
- Save \$’000s (c.\$0.5 million) by not transiting the Suez Canal – offset 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 in South African ports to “top up” volumes to Europe and to bunker.

The Devil’s Advocate View

- Shipping lines need to utilise “spare” tonnage.
- Tankers and 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.
- Rate increase in time for Chinese New Year expected surge in demand.

“The Devil’s Advocate”



Conclusions

1

Services from the Far East may stop at additional ports in the short-term to ensure that vessel capacity is fully utilised and “spare” tonnage used. Additional calls especially in Middle-East/ISC, Mediterranean and Black Sea, also saving feeder costs initially

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

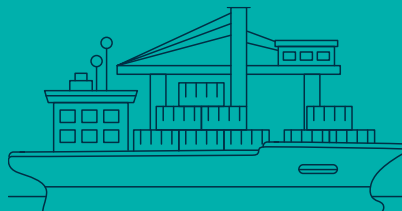
Expect shipping lines to continue to be “inventive” to offset the pressure on additional vessel capacity (supply/demand issue) and freight rates – New Routes such as Suez Canal omission /Extra port calls / Demolitions / Lay-Ups /Slow steaming / Surcharges etc.

4

Longer term - Increase in the incidence of transshipment will see a requirement for larger feeder vessels, so vessels serving outports will also see an increase in vessel size and volumes

5

Geo-politically it would seem unlikely that the issue in the Red Sea will be allowed to continue too long – Expect Suez Canal route to reopen within a couple of months maximum



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London

Bogotá

Toronto

Madrid

info@infrata.com