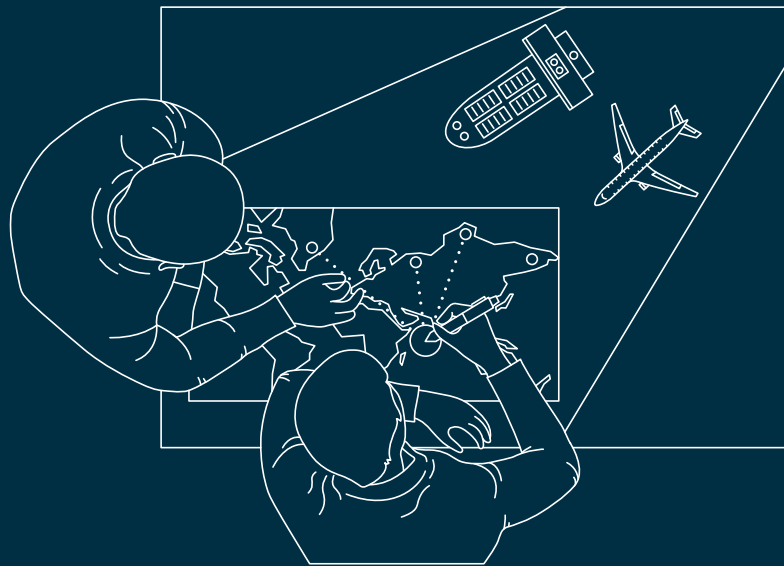




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Shipping Lines: '22 Recap and '23 Outlook

Trans Middle East, Dubai
January 24th 2023



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.

Demand & Traffic Advisory

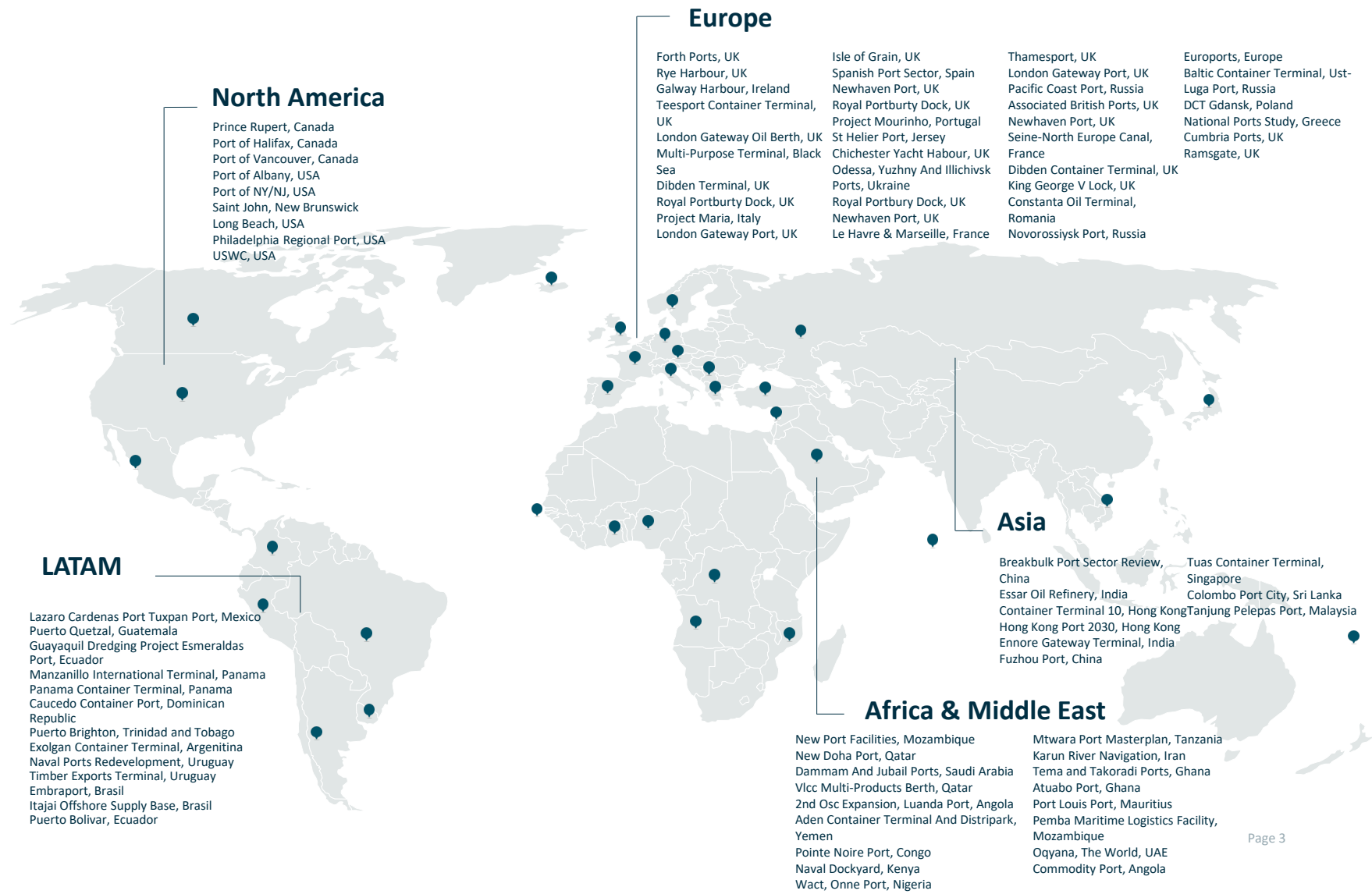
We believe that accurate traffic forecast analysis is crucial to making a shrewd investment in infrastructure. Market analysis and sector insight help us evaluate revenue potential with our clients.

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.



Selection of Teams Ports Experience



North America

- Prince Rupert, Canada
- Port of Halifax, Canada
- Port of Vancouver, Canada
- Port of Albany, USA
- Port of NY/NJ, USA
- Saint John, New Brunswick
- Long Beach, USA
- Philadelphia Regional Port, USA
- USWC, USA

LATAM

- Lazaro Cardenas Port Tuxpan Port, Mexico
- Puerto Quetzal, Guatemala
- Guayaquil Dredging Project Esmeraldas Port, Ecuador
- Manzanillo International Terminal, Panama
- Panama Container Terminal, Panama
- Caucedo Container Port, Dominican Republic
- Puerto Brighton, Trinidad and Tobago
- Exolgan Container Terminal, Argentina
- Naval Ports Redevelopment, Uruguay
- Timber Exports Terminal, Uruguay
- Embraport, Brasil
- Itajai Offshore Supply Base, Brasil
- Puerto Bolivar, Ecuador

Europe

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> Forth Ports, UK Rye Harbour, UK Galway Harbour, Ireland Teesport Container Terminal, UK London Gateway Oil Berth, UK Multi-Purpose Terminal, Black Sea Dibden Terminal, UK Royal Portbury Dock, UK Project Maria, Italy London Gateway Port, UK | <ul style="list-style-type: none"> Isle of Grain, UK Spanish Port Sector, Spain Newhaven Port, UK Royal Portbury Dock, UK Project Mourinho, Portugal St Helier Port, Jersey Chichester Yacht Harbour, UK Odessa, Yuzhny And Illichivsk Ports, Ukraine Royal Portbury Dock, UK Newhaven Port, UK Le Havre & Marseille, France | <ul style="list-style-type: none"> Thamesport, UK London Gateway Port, UK Pacific Coast Port, Russia Associated British Ports, UK Newhaven Port, UK Seine-North Europe Canal, France Dibden Container Terminal, UK King George V Lock, UK Constanta Oil Terminal, Romania Novorossiysk Port, Russia | <ul style="list-style-type: none"> Euroports, Europe Baltic Container Terminal, Ust-Luga Port, Russia DCT Gdansk, Poland National Ports Study, Greece Cumbria Ports, UK Ramsgate, UK |
|--|---|---|--|

Asia

- Breakbulk Port Sector Review, China
- Essar Oil Refinery, India
- Container Terminal 10, Hong Kong
- Hong Kong Port 2030, Hong Kong
- Ennore Gateway Terminal, India
- Fuzhou Port, China
- Tuas Container Terminal, Singapore
- Colombo Port City, Sri Lanka
- Tanjung Pelepas Port, Malaysia

Africa & Middle East

- | | |
|--|---|
| <ul style="list-style-type: none"> New Port Facilities, Mozambique New Doha Port, Qatar Dammam And Jubail Ports, Saudi Arabia Vlcc Multi-Products Berth, Qatar 2nd Osc Expansion, Luanda Port, Angola Aden Container Terminal And Distripark, Yemen Pointe Noire Port, Congo Naval Dockyard, Kenya Wact, Onne Port, Nigeria | <ul style="list-style-type: none"> Mtwara Port Masterplan, Tanzania Karun River Navigation, Iran Tema and Takoradi Ports, Ghana Atuabo Port, Ghana Port Louis Port, Mauritius Pemba Maritime Logistics Facility, Mozambique Oqyana, The World, UAE Commodity Port, Angola |
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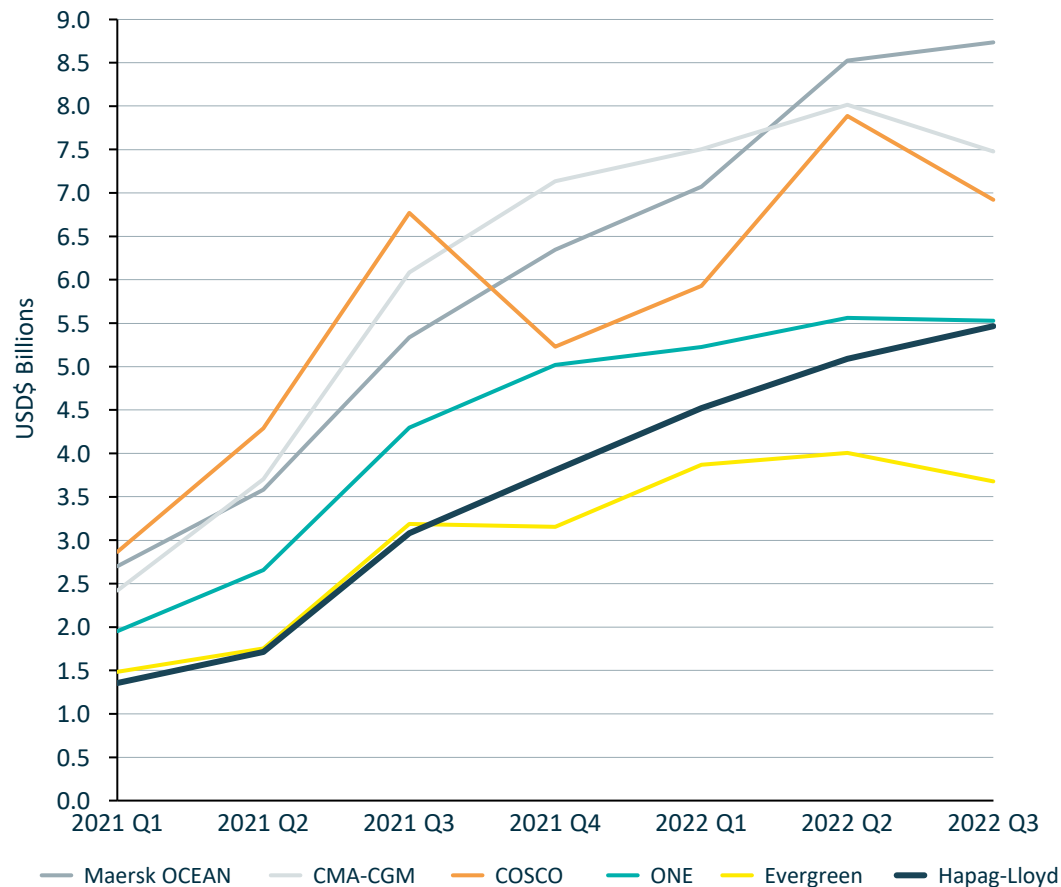
Financial Results of Major Shipping Lines

2022 has seen huge profit margins for the major shipping lines. 2022 Q3 had EBITs significantly higher compared to the same period in 2021.

- From Q1 2021 to Q3 2022, total EBIT of the six lines shown has increased at a CAGR of 195.9%.
- Maersk Line EBIT Q3 2022 came to 8.7 billion, 63.6% higher than Q3 2021. Evergreen Q3 2022 revenues were 77.5% than Q3 2021.
- Slight drop-off in Q3 2022 in preparation for 2023 drop.
- Expectations for lessening demand & revenue in 2023.

Shipping Line	Q3 21- Q3 22 EBIT YoY % Change
Maersk Line	63.6%
COSCO	22.9%
CMA-CGM	2.2%
ONE	28.7%
Hapag-Lloyd	15.4%
Evergreen	77.5%

Top Shipping Lines EBIT Q1 2021- Q3 2022



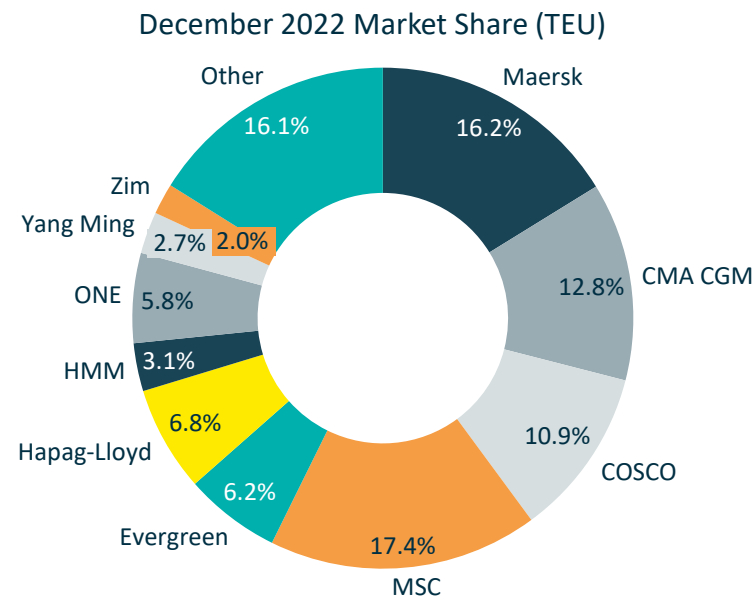
*MSC is private and therefore does not release financial information



Market Share and Capacity Growth

The top ten shipping lines hold 83.9% 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 are now the leading shipping line in terms of tonnage deployed following a 7.5% increase in capacity.
- Other major vessel investments by Zim (29%), Evergreen (12.5%), CMA (7.1%) and Yang Ming (6.8%) to keep up with competition and alliance partners.



Rank	Line	Capacity 1/1/2023	Capacity 1/1/2022	Gain/Loss	% Change	2022 Rank
1	MSC	4,598,373	4,276,918	321,455	7.5%	2
2	Maersk Line	4,219,395	4,281,100	-61,705	-1.4%	1
3	CMA CGM	3,393,190	3,167,922	225,268	7.1%	3
4	COSCO	2,871,859	2,934,447	-62,588	-2.1%	4
5	Hapag-Lloyd	1,782,689	1,751,027	31,662	1.8%	5
6	Evergreen	1,661,865	1,477,644	184,221	12.5%	7
7	ONE	1,528,921	1,542,261	-13,340	-0.9%	6
8	HMM	816,365	819,790	-3,425	-0.4%	8
9	Yang Ming	707,354	662,047	45,307	6.8%	9
10	ZIM	533,823	413,862	119,961	29.0%	11



Port Investments

Shipping lines increasingly look to investing in port terminals to consolidate assets, reduce costs, and increase efficiency. Some divestment occurring due to the Russia-Ukraine conflict.

GCC Region

- Khalifa Port
- CMA CGM subsidiary CMA terminals owns 70% stake in new container terminal port expected operational by 2025.

Americas

- Bayonne and New York Tmls
- CMA CGM Group acquisition
 - Port NOLA Louisiana
 - TiL to invest in new tml

Europe / Med

- Jade Wesrer Port Wilhelshaven
- H-L 30% stake of CT and 50% of rail.
- Tollerort GmbH
 - Minority stake (<25%) acquisition of HHLA's Container Terminal Tollerort GmbH by COSCO
- Port of Livorno
 - MSC buys 100% stake in Terminal Darsena Toscana

Africa

- Abu Qir Port, Egypt
 - Evergreen 20% stake in HPH operated facility
- Terminal TC3, Morocco
 - Hapag-Lloyd
- Damietta, Egypt
 - Hapag-Lloyd building new transshipment terminal

Russia

- Maersk divests 30.75% shareholding in Global Ports Investments PLC. Line is no longer involved in any entities operating in Russia.
- CMA CGM divests in Moby Dik Terminal (Saint Petersburg) and Yanino Logistics Park (Leningrad) through asset swap with Global Ports.

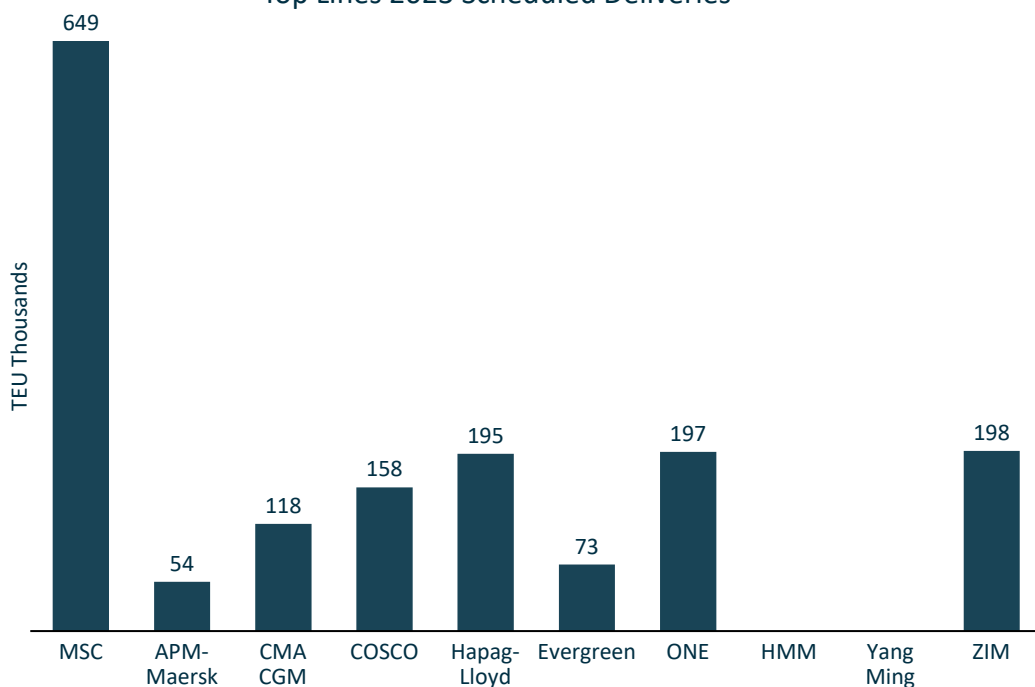


Investment in Vessels

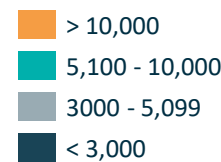
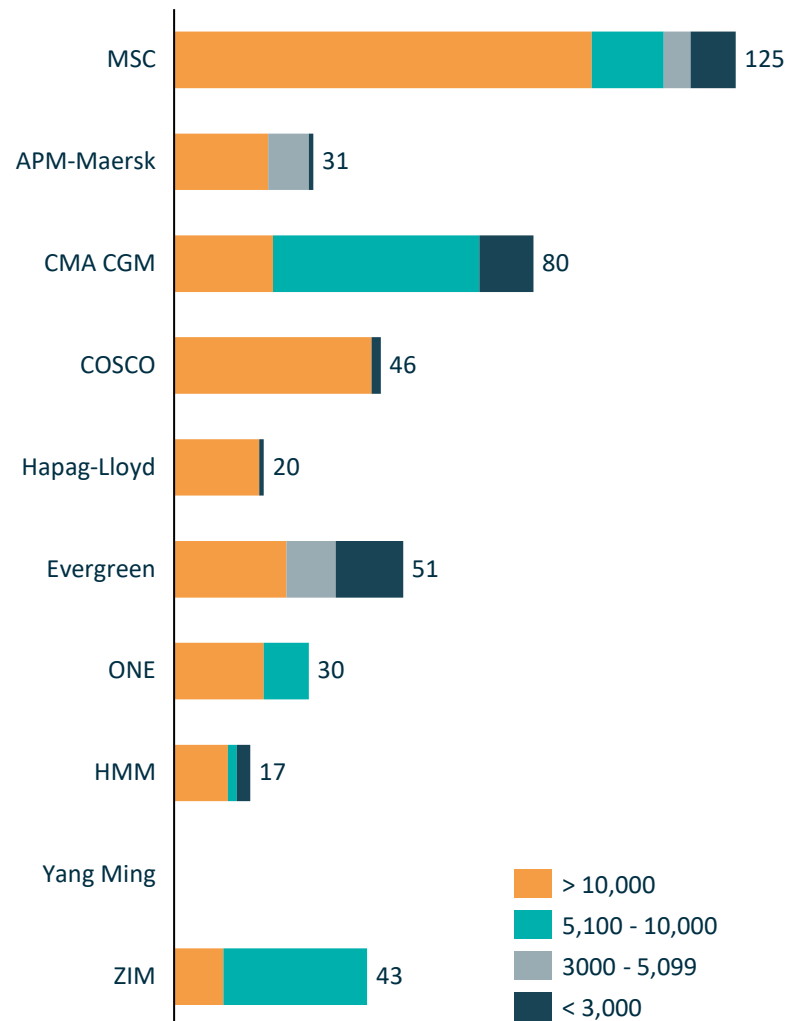
The top lines are investing in increasingly larger capacity ships with their orderbooks comprised of many ULCS orders.

- An estimated 6.6 million in new tonnage is currently on order.
- 5.5 million of that new tonnage is for the top 10 lines. 1.65 million TEU scheduled for delivery in 2023.
- Focus on larger ships, with 267 ULCS on order among the top lines.
- In 2022, MSC received the largest ship ever built, a further increase in size to 24,116 TEU
- MSC has 14 megamax and 22 neo-panamax ships scheduled for delivery in 2023.

Top Lines 2023 Scheduled Deliveries



Top Lines Total Orderbook Vessel Size



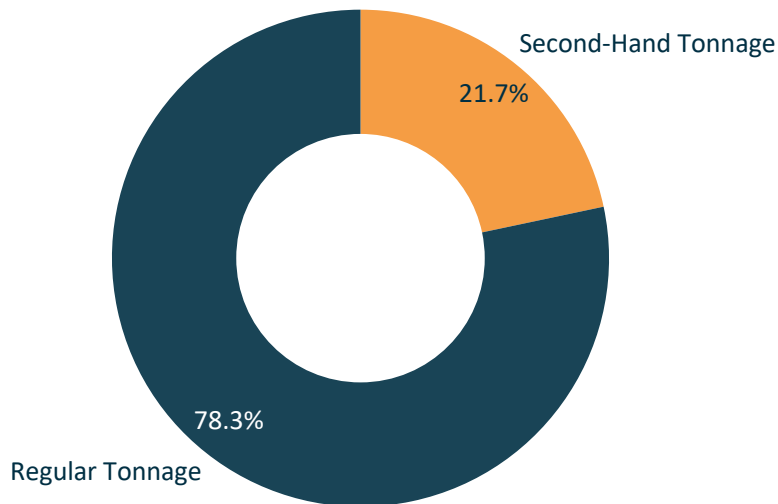


MSC Fleet Expansion: Second-Hand Vessels

MSC has deviated from the trend by acquiring second-hand vessels to bolster their fleet.

- In addition to newbuilds, MSC's impressive growth can be attributed to their continued acquisition of second-hand tonnage.
- Estimated to have spent close to \$10 billion since the COVID-19 pandemic on second-hand tonnage.
- The line has purchased 263 second-hand container ships comprising 1 million TEU.
- Taking advantage of falling ship values to continue fleet expansion.
- May run into difficulties in mid/long term with older vessels needing to be replaced sooner than newbuilds, especially with new environmental laws

MSC Current Tonnage



\$10b spent



+1m TEU



+263 ships

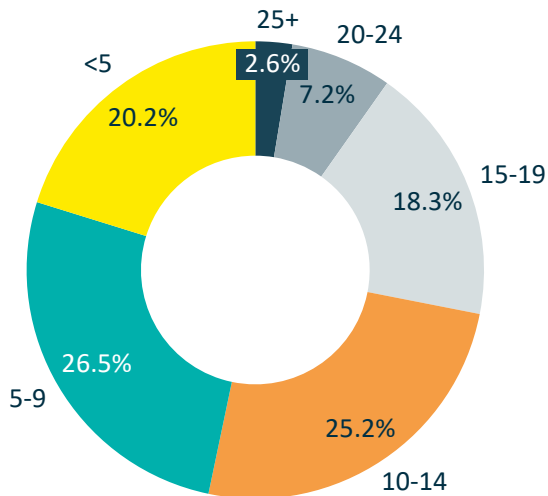


Fleet Assessment

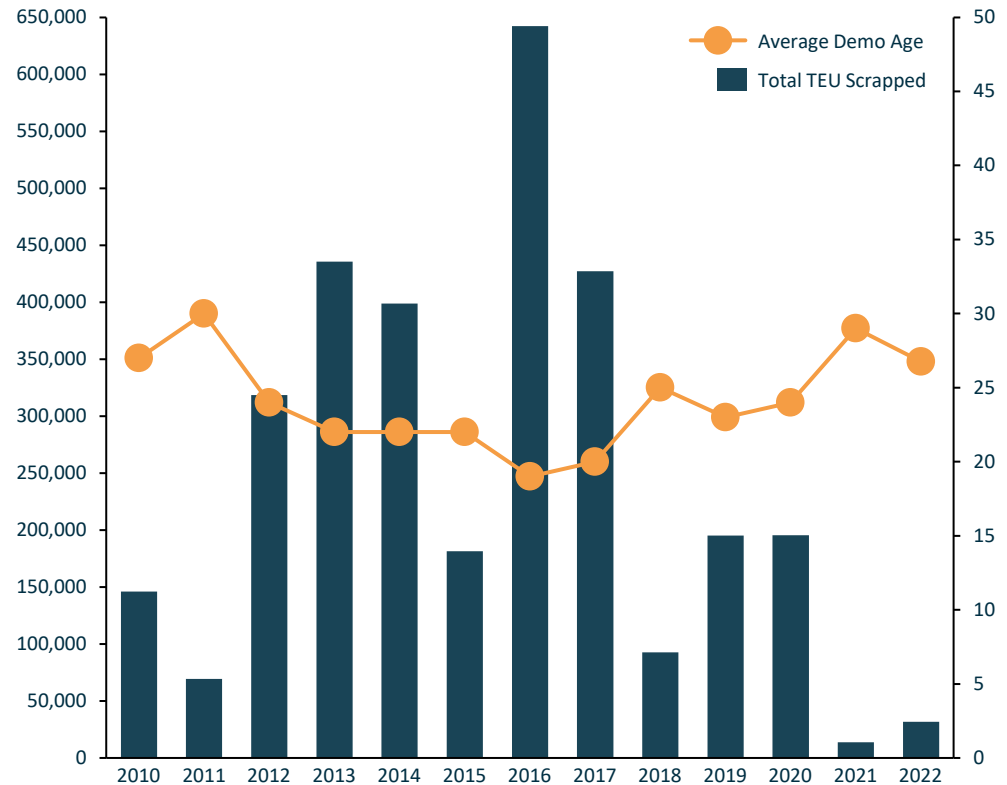
Only 2.6% of TEU tonnage of the current total cellular fleet is overage (25+ years). With a large orderbook tonnage expected, oversupply poses a plausible risk.

- The average age of vessels that were deletions between 2018-2021 was 25 years of age.
- The average age of the cellular fleet is only 13.34 years and 10.7 years TEU weighted.
- Approximately 670,000 TEU is delivered by the cellular fleet above 25 years of age, accounting for only 2.6% of the total TEU delivered – lower size classes.
- Older tonnage with typically lower tonnage likely to be replaced with new and larger tonnage.
- How will lines deal with overcapacity & decide which ships to scrap?

Age of Total Cellular Fleet Tonnage



Total Scrapped TEU



*2022 based on reported demolitions up to December 2, 2022

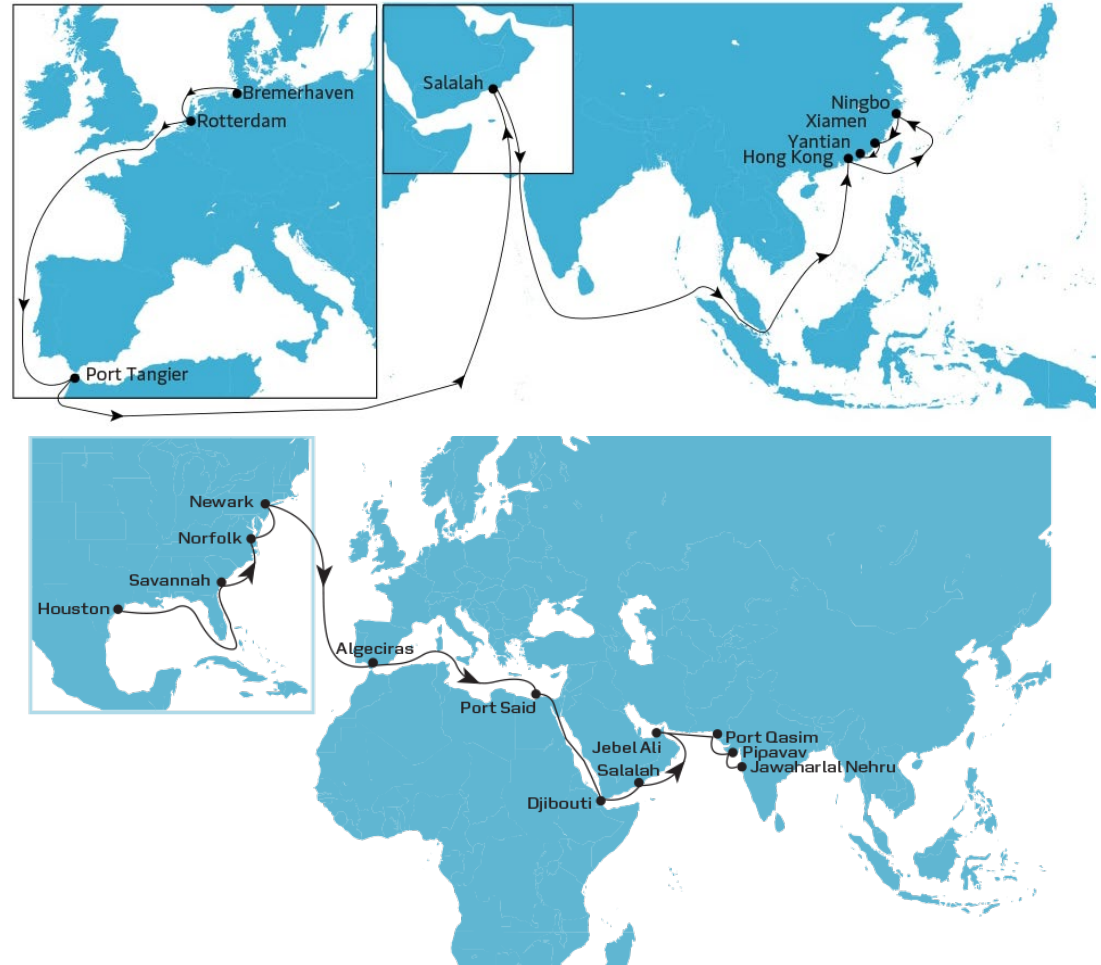


Shipping Lines Regional Interest

The Middle Eastern region remains a strategic region for shipping lines due to its geographic location.

- Located at the cross roads of Asian, African and European trade.
- Location is advantageous for transshipment or for “double dipping” for ships that are under utilised from FE to Europe/US.

Maersk Routes: Bremerhaven-Yantian & Houston-Jawaharlal Nehru





Regional Planned Port Development

Ensuring that regional ports maintain adequate infrastructure for increasing vessel sizes is essential to remaining competitive.

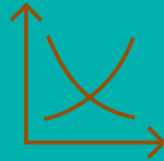
- [Khalifa Port](#)
 - CMA Terminals Khalifa Port development began in 2022, to be operational in 2025.
- [King Abdulaziz Port in Dammam](#)
 - Development and modernisation program by Mawani to turn port into a mega-port and increase capacity to 7.5 million TEU.
- [Beirut Port](#)
 - UN gives \$10 million grant to help reconstruction efforts at Beirut port after the explosion.
- [Jeddah Port](#)
 - DP World commits to invest up to \$500m to improve and modernise the terminal and increase the annual design capacity to 3.9m TEU.
 - Saudi Ports Authority (Mawani) has signed agreement with CMA CGM to build an integrated platform at Jeddah Islamic Port.
- [King Abdullah Port](#)
 - To develop a petrochemicals hub in the region in conjunction with Maersk Line
- [Jebel Ali Port](#)
 - DP World and Maersk signed agreement to deliver green solutions & bolster efficiency.





Conclusions

Unprecedented global demand



Increased demand from 2019-2022 as a result of the pandemic is expected to slow in the near future.

Record-breaking revenues



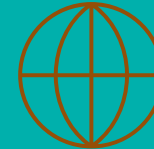
Lesser demand and lower freight rates will expectedly reduce revenues.

Increasing Ship Sizes



Lines' newbuilds and orderbooks suggest continuing increase in vessel size

Geopolitical tensions disrupt the supply chain



Lines focus on acquisitions to offer end-to-end supply chain services and port investment to improve efficiencies

M&A and Port Investments



Lines focus on acquisitions to offer end-to-end supply chain services and port investment to improve efficiencies

Port Developments



Port developments in the region focused on improving capacity, efficiency, and sustainability.



Future Outlook for the GCC

1

Services from the Far East may stop in the Middle East on the way to Europe/Americas to ensure that vessel capacity is fully utilised – “double dipping” opportunities

2

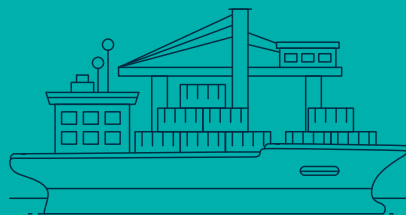
Bigger ships offer opportunities for more transshipment and the GCC is advantageously placed to handle transshipment services at its major t/s hubs

3

GCC ports must be prepared to handle bigger vessels, or lines will not call with mainline vessels

4

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



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