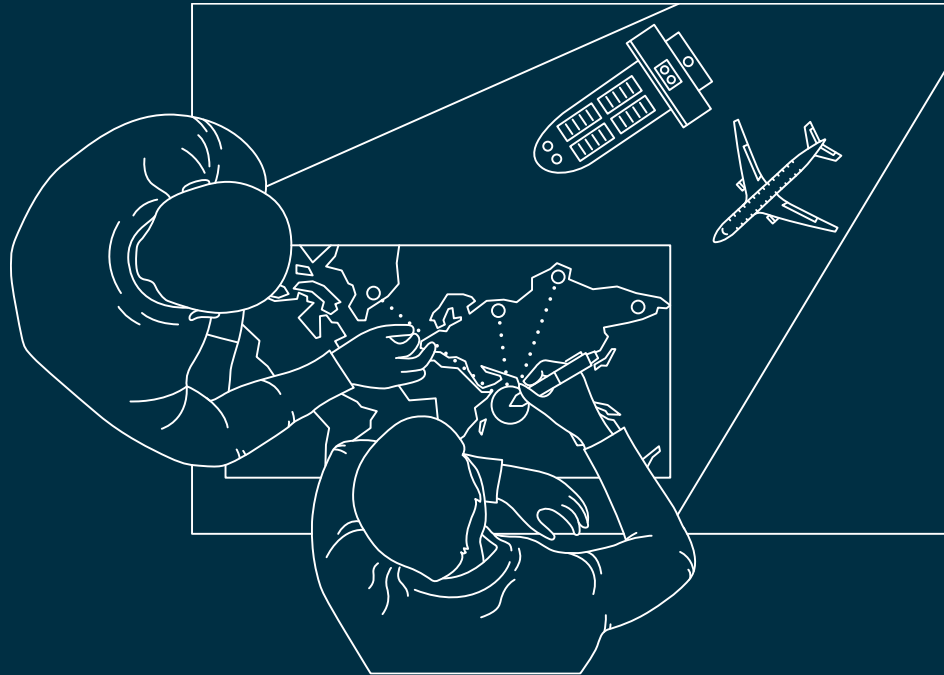


# infrata



## Shipping Lines: '22 Recap and '23 Outlook

Baltic & Black Sea Ports & Shipping Conference

Istanbul, Turkey

5<sup>th</sup> July 2023

# 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.

# 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

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  
 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  
 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  
 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

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  
 Mtwara Port Masterplan, Tanzania

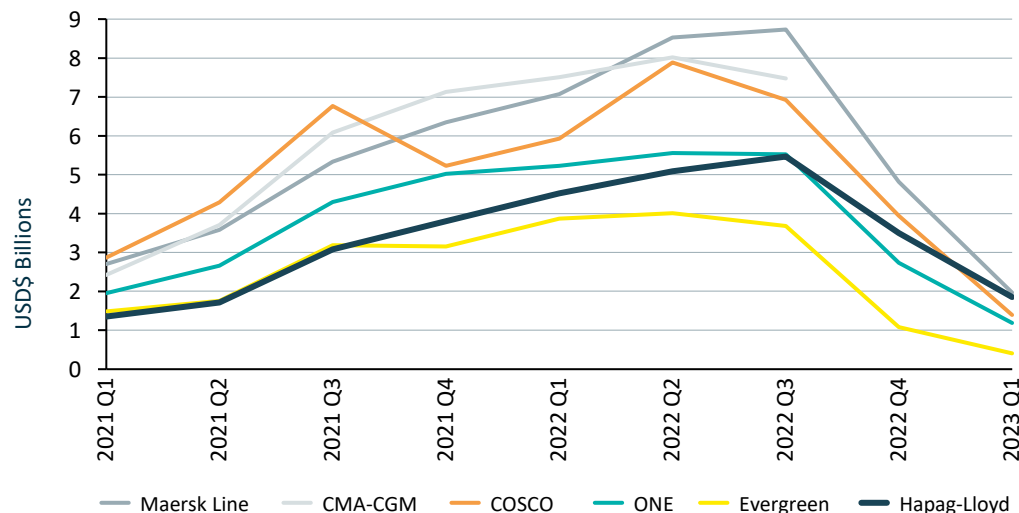
Karun River Navigation, Iran  
 Tema and Takoradi Ports, Ghana  
 Atuabo Port, Ghana  
 Port Louis Port, Mauritius  
 Pemba Maritime Logistics Facility, Mozambique  
 Oqyana, The World, UAE  
 Commodity Port, Angola  
 Tangier Med, Morocco  
 Alexandria Port, Egypt  
 Algiers Port, Algeria

## Recent Financial Results of Major Shipping Lines

Several major shipping lines have seen high profits in 2022 – but the EBIT position in Q1 2023 is significantly lower than in Q1 2022

- From Q1 2021 to Q1 2023, total EBIT of the six lines shown has decreased at a CAGR of -46.8%.
- Maersk Line EBIT Q1 2023 came to 1.97 billion, -72.2% relative to Q1 2022.
- Evergreen Q1 2023 revenues were -89.6% relative to Q1 2022.
- Significant drop-off in Q1 2023 as rates weakened on major routes.
- Lines bank huge revenues in 2021-22, but 2023 is seeing declines.
- CMA 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.

Top Shipping Lines EBIT Q1 2021- Q1 2023



Top Shipping Lines EBIT Q1 2021- Q1 2023

Shipping Line	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4	2023 Q1
Maersk Line	2,700	3,580	5,337	6,346	7,072	8,526	8,734	4,817	1,969
COSCO	2,420	3,704	6,083	7,134	7,505	8,015	7,478	n/a	n/a
CMA-CGM	2,865	4,289	6,769	5,230	5,931	7,887	6,920	3,940	1,393
ONE	1,951	2,657	4,295	5,019	5,225	5,561	5,528	2,732	1,184
Hapag-Lloyd	1,486	1,754	3,187	3,156	3,868	4,006	3,678	1,076	402
Evergreen	1,354	1,713	3,079	3,806	4,523	5,089	5,464	3,499	1,852

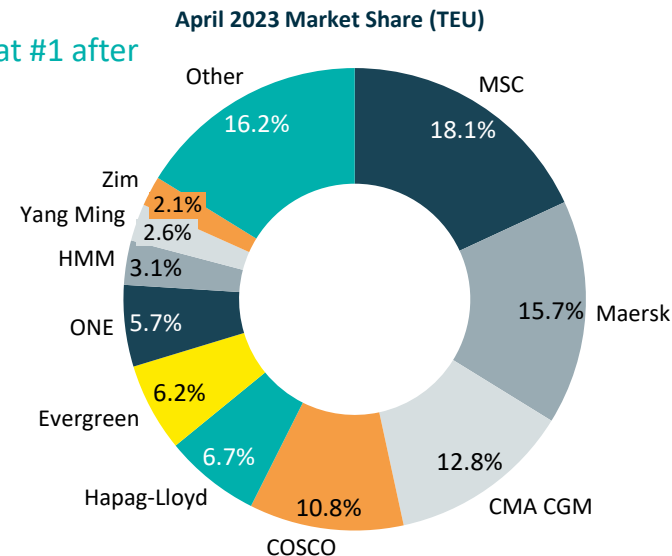
Shipping Line	Q1 22- Q1 23 EBIT YoY % Change
Maersk Line	-72.2%
COSCO	n.a.
CMA-CGM	-76.5%
ONE	-77.3%
Hapag-Lloyd	-89.6%
Evergreen	-59.1%

\*MSC is private and therefore does not release financial information

## Market Share and Capacity Growth

The top ten shipping lines hold 83.8% of the total market share, with MSC at #1 after overtaking Maersk Line as the largest container line in April 2023

- Previous industry consolidation and M&A activity has resulted in the top ten largest capacity 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.
- Regulatory pressure increasing in EU and USA over lack of a competitive environment, which would be resolved with a break-up of alliances.
- MSC is now the leading shipping line in terms of tonnage deployed. However, nearly all shipping lines has shown a decline versus April 2022. The decline in TEU deployed is driven by an initial surge in demolitions ahead of the arrival of large quantities of newbuilds.
- Little change to the list of largest capacity liner operators listing is expected, though some fluctuation in the ranking may occur based on orderbooks.



Ranking	Line	Capacity April 2023	Capacity April 2022	Gain/Loss	% Change	2022 Ranking
1	MSC	4,832,709	4,334,906	-497,803	(10.3%)	10
2	Maersk Line	4,187,534	4,284,712	97,178	2.3%	9
3	CMA CGM	3,409,776	3,274,775	-135,001	(4.0%)	8
4	COSCO	2,886,908	2,931,338	44,430	1.5%	7
5	Hapag-Lloyd	1,798,866	1,742,844	-56,022	(3.1%)	6
6	Evergreen	1,667,848	1,504,564	-163,284	(9.8%)	5
7	ONE	1,534,426	1,528,386	-6,040	(0.4%)	4
8	HMM	816,365	820,520	4,155	0.5%	3
9	Yang Ming	705,614	666,164	-39,450	(5.6%)	2
10	ZIM Line	566,935	451,728	-115,207	(20.3%)	1

# Shipping Line M&A Activities

Owing to the financial success of 2022, shipping lines have been able to invest in offering end-to-end supply chain services through acquisition of logistics, e-commerce, and air freight companies

## Notable Acquisitions of 2022



- + Senator International
- + Pilot Freight Services
- + LF Logistics
- + B2C Europe
- + Visible SCM



- + Gefco
- + Colis Privé
- + Ingram Micro CLS
- + Bolloré Transportation and Logistics Group



- + Bolloré Group

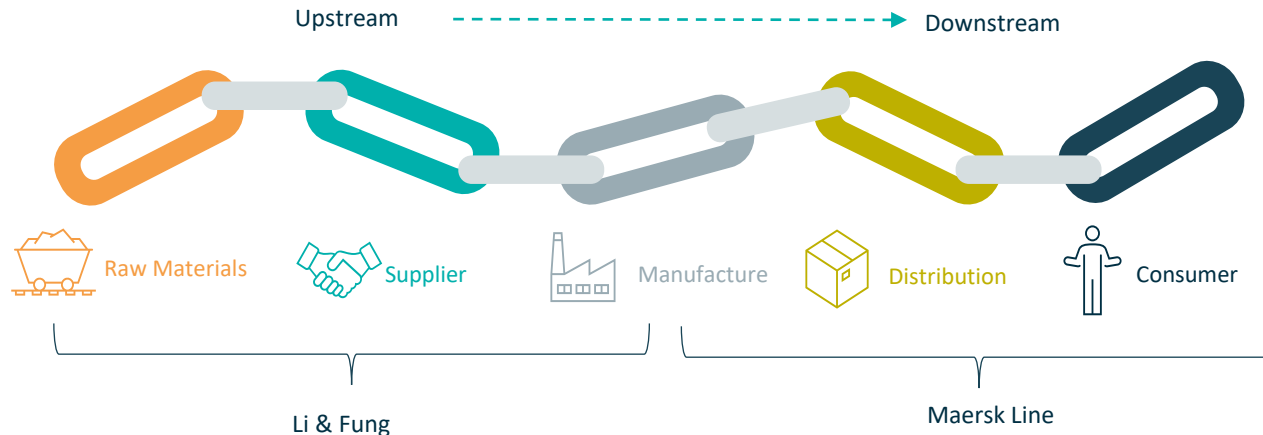


- + Launched own Supply Chain Logistics Division



- + SM Saam Terminal Operator & Logistics S.A.
- + Spinelli Group
- + 40% share of JM Baxi Ports + Logistics (India)

## A Strategic Partnership Example



# 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	Americas	Europe / Baltic	Africa
<ul style="list-style-type: none"> <li>• <u>Khalifa Port</u> <ul style="list-style-type: none"> <li>• CMA CGM subsidiary CMA terminals owns 70% stake in new container terminal port expected operational by 2025.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <u>Bayonne and New York Tmls</u></li> <li>• CMA CGM Group acquisition               <ul style="list-style-type: none"> <li>• <u>Port NOLA Louisiana</u></li> <li>• TiL to invest in new tml</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <u>Jade Wesrer Port Wilhelshaven</u> <ul style="list-style-type: none"> <li>• H-L 30% stake of CT and 50% of rail.</li> <li>• <u>Tollerort GmbH</u></li> </ul> </li> <li>• Minority stake (&lt;25%) acquisition of HHLA's Container Terminal Tollerort GmbH by COSCO               <ul style="list-style-type: none"> <li>• <u>Swinoujscie privatization</u></li> <li>• <u>Klaipeda South expansion</u></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <u>Abu Qir Port, Egypt</u> <ul style="list-style-type: none"> <li>• Evergreen 20% stake in HPH operated facility</li> </ul> </li> <li>• <u>Terminal TC3, Morocco</u> <ul style="list-style-type: none"> <li>• Hapag-Lloyd</li> </ul> </li> <li>• <u>Damietta, Egypt</u> <ul style="list-style-type: none"> <li>• Hapag-Lloyd building new transshipment terminal</li> </ul> </li> </ul>

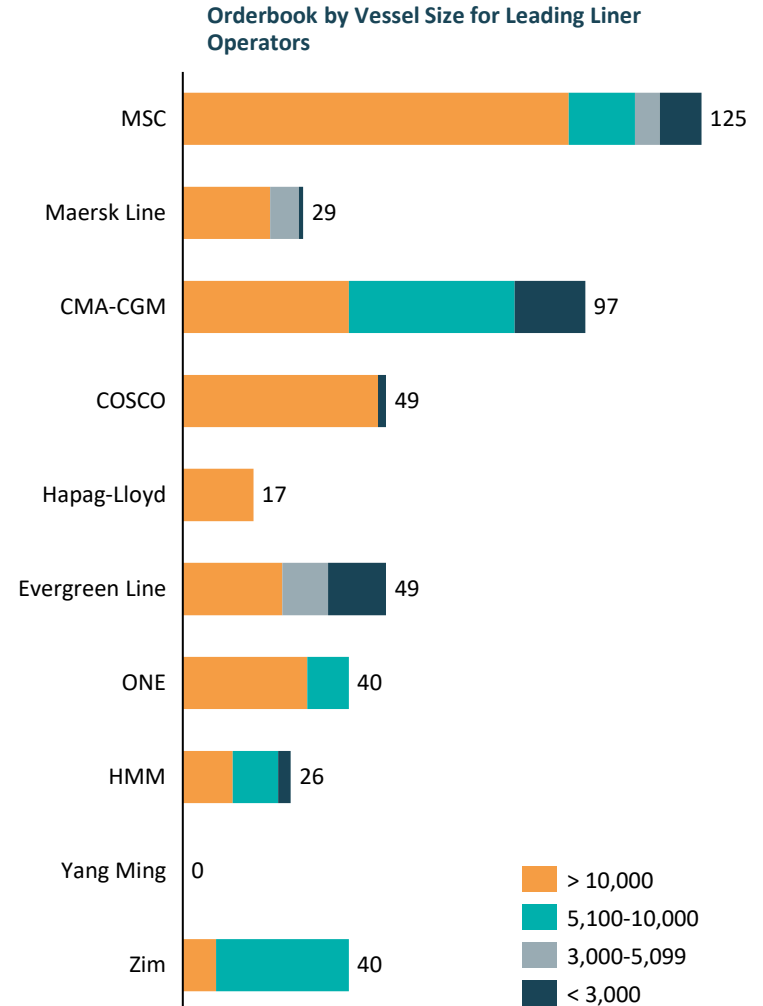
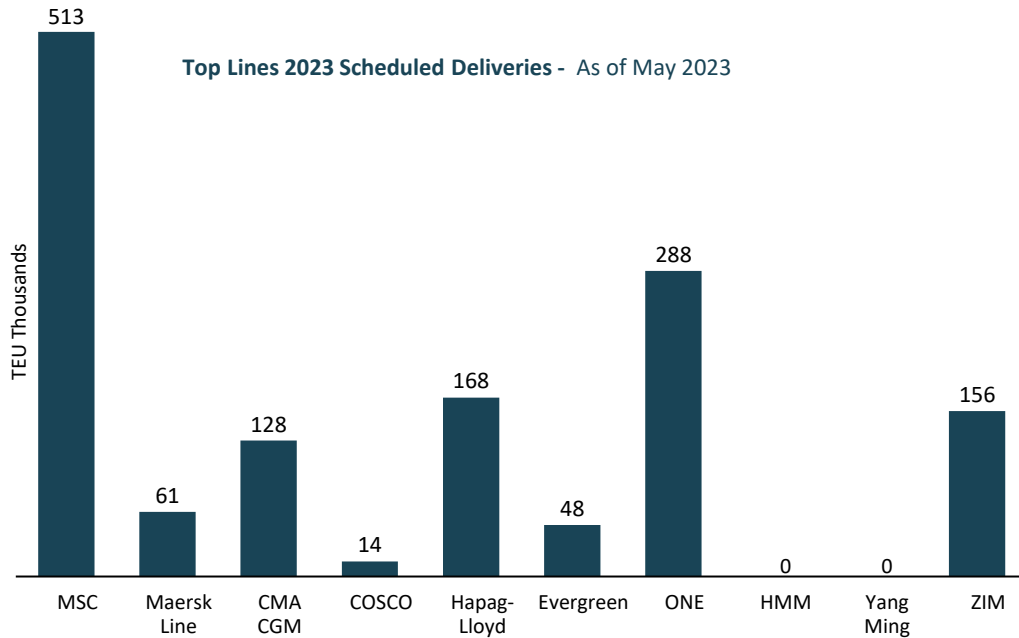
## Russia

- 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 Continuing – Focus on ULCS

Many of the larger capacity operating lines are continuing to invest in bigger ships

- An estimated 7.7 million TEU in new ship tonnage is currently on order. Almost 6 million TEU is attributable is for the top 10 largest TEU capacity lines.
- Approximately 1.38 million TEU is scheduled for delivery for the remainder of 2023. The focus remains on larger ships, with 270 ULCSs on order by the top 10 largest TEU capacity operators.
- In 2022, MSC received the largest container ship to enter service, resulting in a further size increase to 24,346 TEU.
- MSC and CMA CGM have the largest orderbooks, with 125 and 97 new ships, respectively. MSC’s orderbook is dominated by ULCS units, as the chart shows.



Source: AlphaLiner

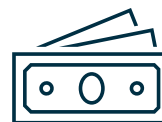
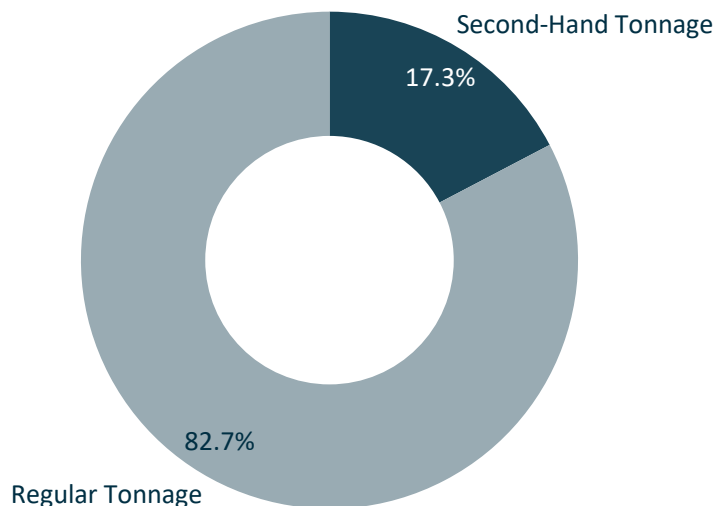


## MSC Fleet Expansion: Second-Hand Vessels

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 271 second-hand container ships comprising 1 million TEU as of the beginning of 2023.
- 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 Total Tonnage (current and ordered)



**\$10b spent**



**+1m TEU**



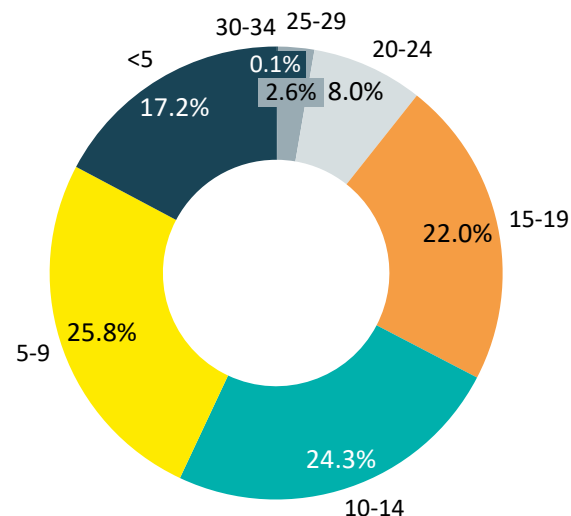
**+271 ships**

## Fleet Assessment

Approximately 3% of the current total TEU cellular fleet is over age (25+ years) – the large orderbook means oversupply is a realistic issue moving forward

- As of May 2023, the current cellular fleet comprises 5,762 ships and 26.3 million TEU, with the average age of vessels being approximately 14 years and 11.4 years TEU weighted.
- While shipping lines do own a majority share of the existing tonnage, approximately 44% of the total number of ships and 45% of total tonnage is chartered.
- Between 2021-2023, the average age of vessels being demolished was 28 years, which is significantly higher than the average age of the current cellular fleet.
- Approximately 712,000 TEU of the cellular fleet is currently above 25 years of age, equivalent to just 2.7% of the total TEU in service and is all in lower sub-Panamax size of ships.

Age of Total Cellular Fleet Tonnage



### Overview of Total Cellular Fleet

Market Status	No. of ships	Market Share (ships)	TEU	Market share (TEU)
Owned	3,221	55.9%	14,626,084	55.3%
Chartered	2,541	44.1%	11,827,736	44.7%
<b>Total</b>	<b>5,762</b>	<b>100%</b>	<b>26,453,820</b>	<b>100%</b>

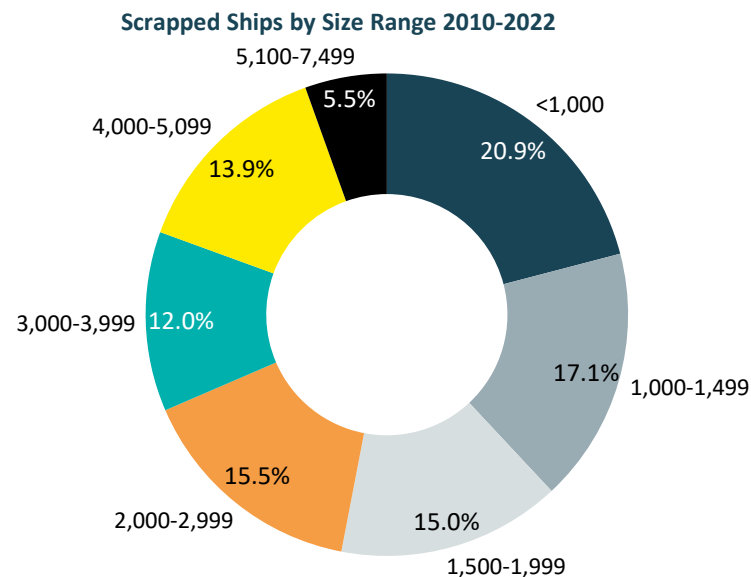
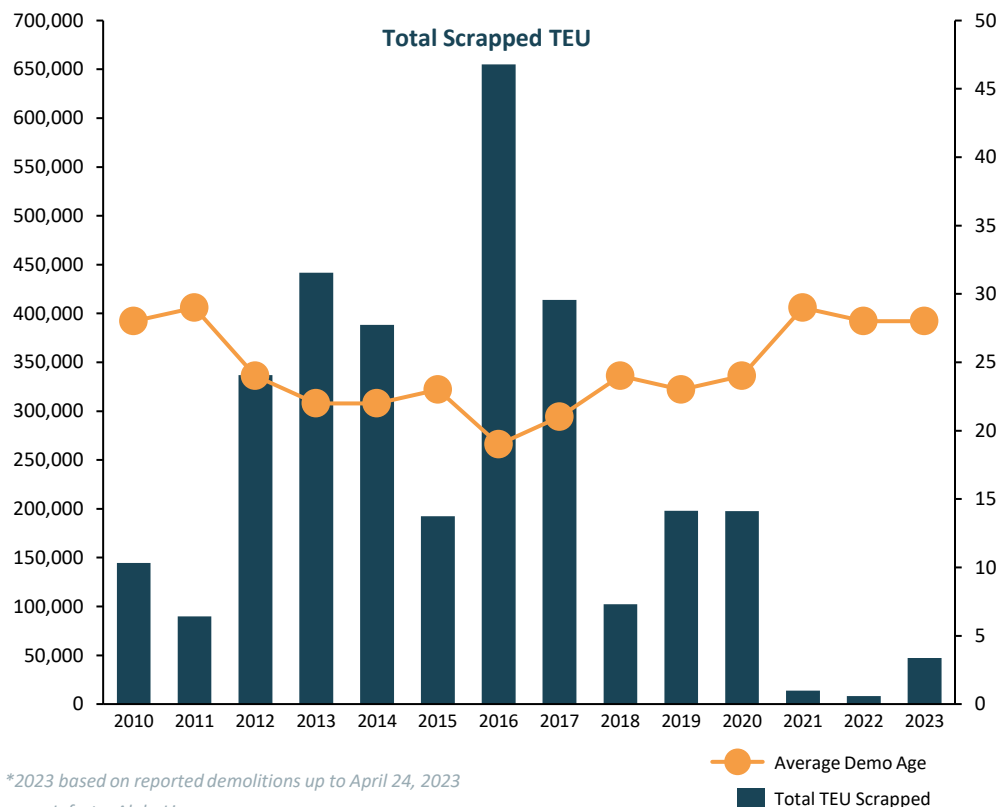
### Key Conclusions:

- As of May 2023, the container cellular fleet totalled around 26.3 million TEU – of which, 53% is owned
- Around 97% of the current liner fleet is under 25 years of age and with a large orderbook the position is not going to change

## Demolitions – Significant Decline During 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 2021 and 2022 combined – this is significantly lower than previous years. As of April 2023, about 47,000 TEU has been scrapped year-to-date.
- 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 demolished. In 2021 and 2022, the average age of ships scrapped was 29 years and 28 years respectively. 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’, although the imminent EEXI and CII carbon regulations to be introduced in 2023 will force some older and less efficient ships to be scrapped.

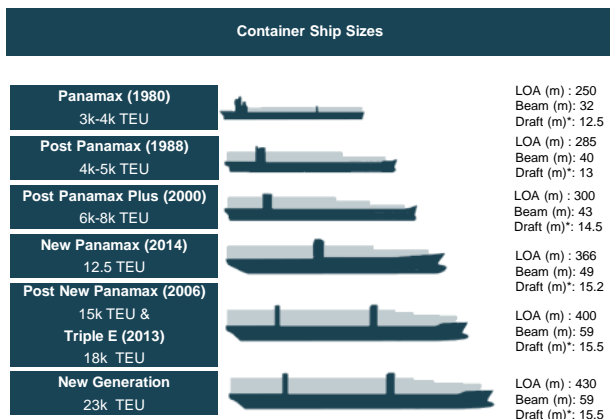


\*2023 based on reported demolitions up to April 24, 2023

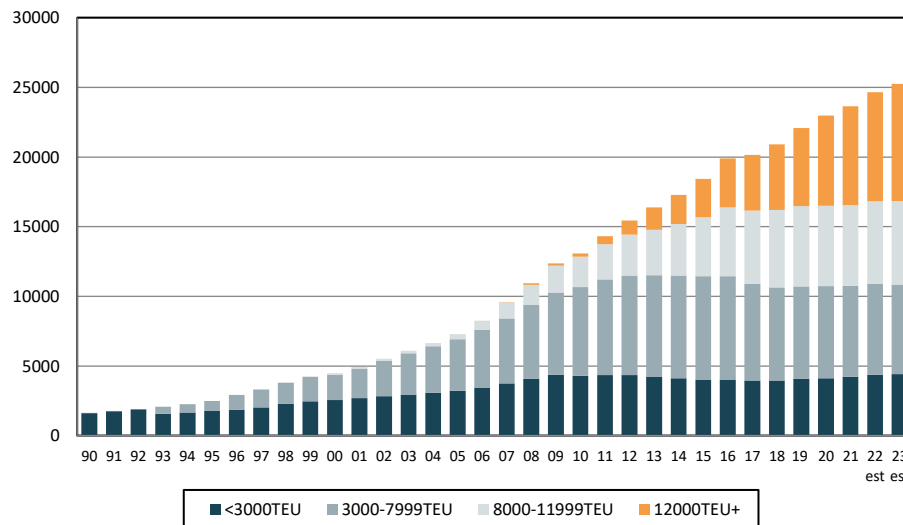
Source: Infrata, AlphaLiner

# Container Shipping Trends – Vessel Size Increases

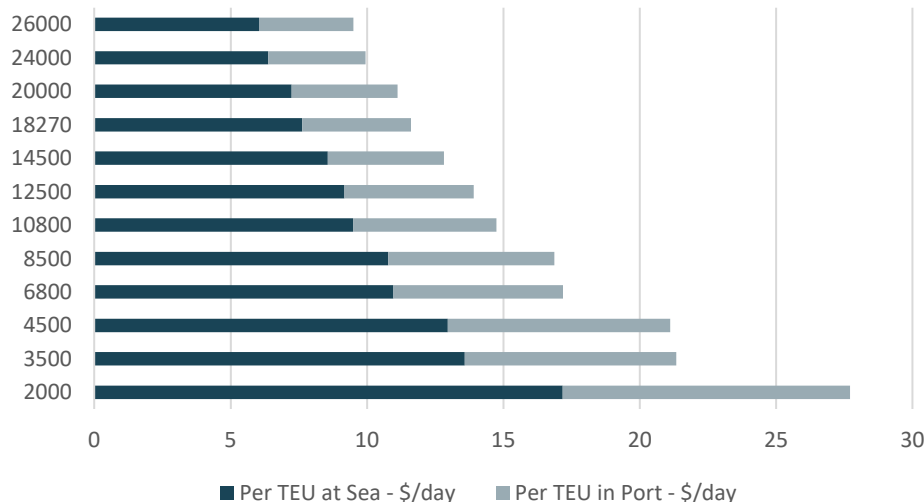
Trend for larger ships is well-established – all major lines committed to Ultra Large Container Vessels (ULCVs)



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



## Diminishing Returns of Investment - Economies of Scale



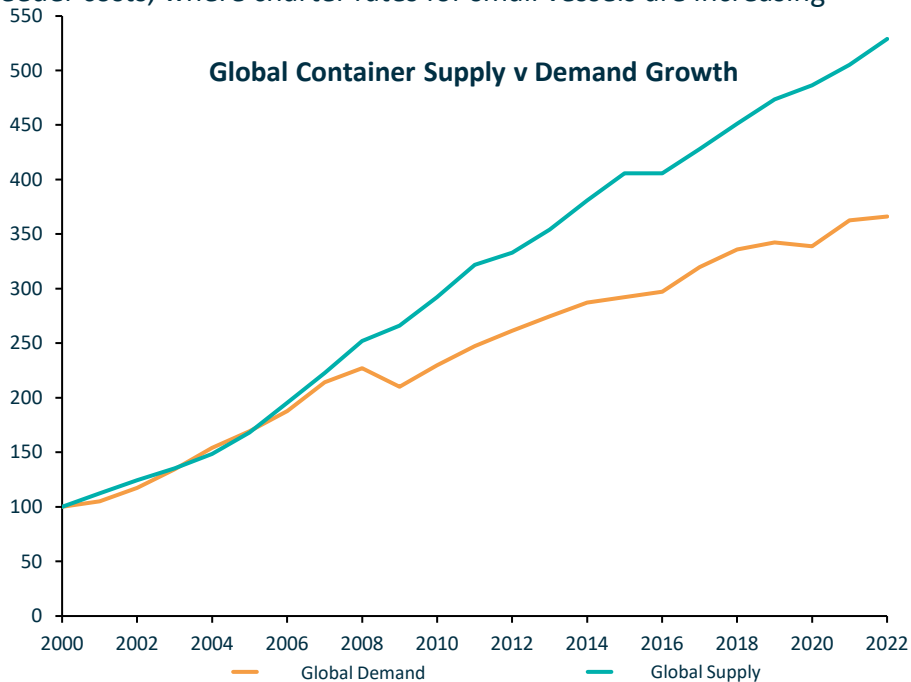
## Key Conclusions:

- 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

# Global Container Supply v. Demand

New orders of ULCSs by Shipping lines as a result of huge profits at same time as global demand stagnates

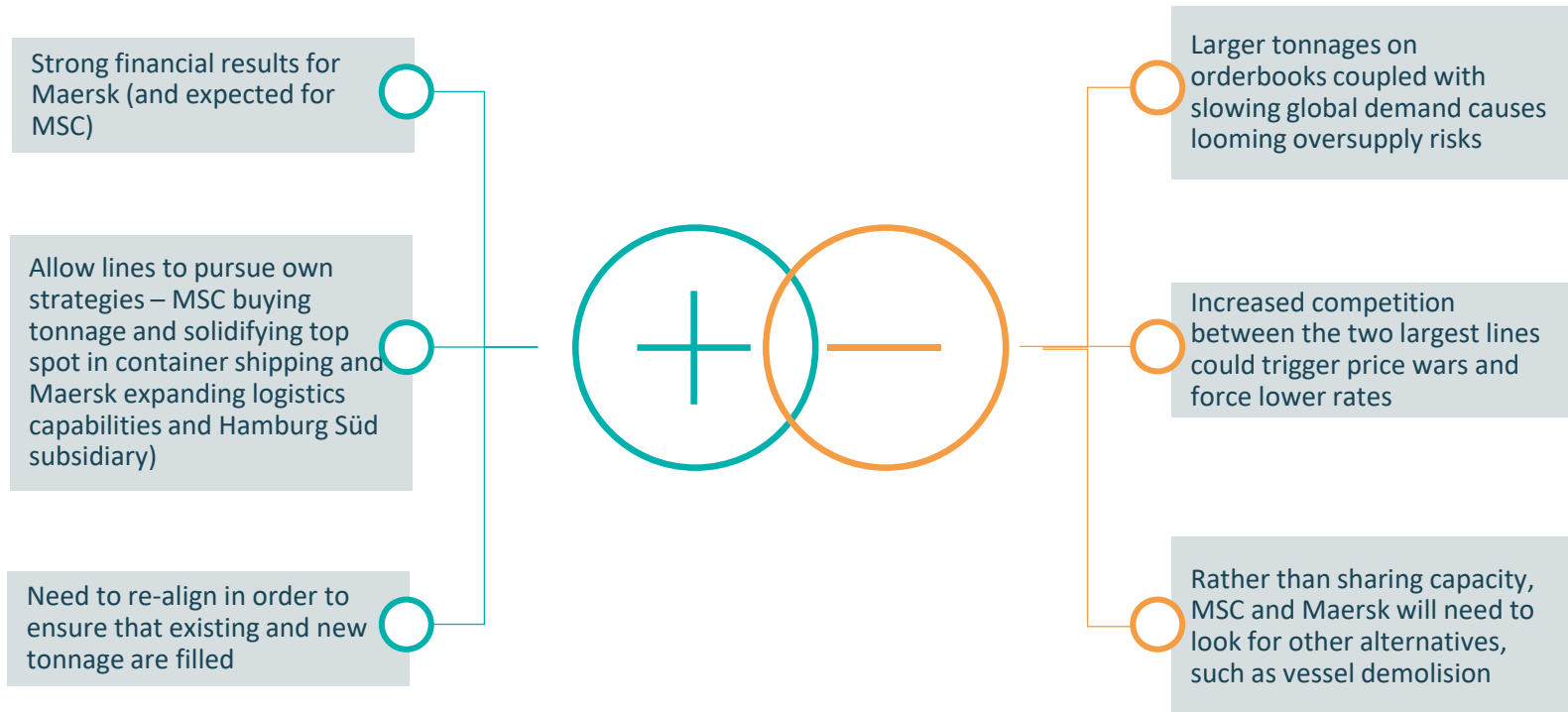
- Continuation of large orders of vessels as a result of huge profits for the major shipping lines.
- Supply increases with the order of new ULCSs, global demand has stagnated creating a wide gap between supply/demand.
- With increased tonnage available, lines will have to look at different ways to ensure that they are still able to fill their vessels and take advantage of the economies of scale.
- They can:
  - Demolish old tonnage where possible
  - Slow steam
  - Form new VSAs to give other lines access to their services
  - 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



## 2M Alliance Break-up

In January 2023, the world's two largest container shipping lines, MSC and Maersk, announced that their "marriage of convenience" would be terminated from 2025.

- Since 2015, Maersk and MSC have maintained a Vessel Sharing Agreement (VSA), allowing the lines to use capacity on each other's ships on certain routes between Asia-Europe, Transatlantic, and Transpacific trade lanes, to optimize operations and cost efficiency.
- The VSA has allowed Maersk and MSC to move more than 4 million TEUs together.
- Alliances have been able to mitigate the looming risk of oversupply.
- Though the alliance breakdown will not be official until 2025, it should be expected that their networks will start to diverge much sooner.
- Speculation that this breakup could instigate others, such as Ocean Alliance and THE Alliance, to also reevaluate their own VSAs.
- Continued speculation about future positions of Hapag-Lloyd and CMA-CGM in particular.



## Shipping Trends Conclusions / Short-Term

Liner strategies – global service strategies are entering two phases of operations designed for major lines to maximise their profits under varying circumstances

- Following the COVID-19 pandemic, the orderbook for largest TEU capacity operating container lines in 2021 had slowed, but following high profits recorded during 2021-2022 an ordering frenzy started for new, larger capacity vessels, but just when global demand had also started to plateau.
- This approach suggests a split of strategies over both the short-term and longer-terms, as follows:

### Short-Term Future

- Need to increase vessel utilization by making additional calls, as a result of a drop in global trade demand just at a time when lines again decided to order more and bigger vessels.
- Need to deploy “spare” tonnage to ensure that lines are able to maximise the assets deployed.
- Some lines will slow down vessels to save fuel and also to use up additional tonnage.
- Additional calls on coastal rotations will also save feeder costs as expensive feeder services can be reduced in exchange for coastal voyages in some cases.
- Expense of charter market driven by fuel costs should not be understated and possibility of “challenges” for 3<sup>rd</sup> party operators’ profitability leading to more owned feeders, or “coastal” shipments and less options for shippers.
- Maersk and MSC will need to find additional partners to ensure that vessels are full and they can take advantage of the economies of scale. This may upset the structure of the other alliance groups, with CMA-CGM and Hapag-Lloyd in particular linked with possible VSA’s with Maersk and/or MSC.
- Shipping lines are looking to diversify inland, but also into more ethically challenging areas (e.g. MSC recent acquisition of Bollore assets in Africa and CMA-CGM’s purchase of Bollore Logistics). More focus on inland links is expected in the future.

## Shipping Trends Conclusions / Long-Term (2030-2035)

Liner strategies – global service strategies are entering two phases of operations designed for major lines to maximise their profits under varying circumstances

### Long-Term Future

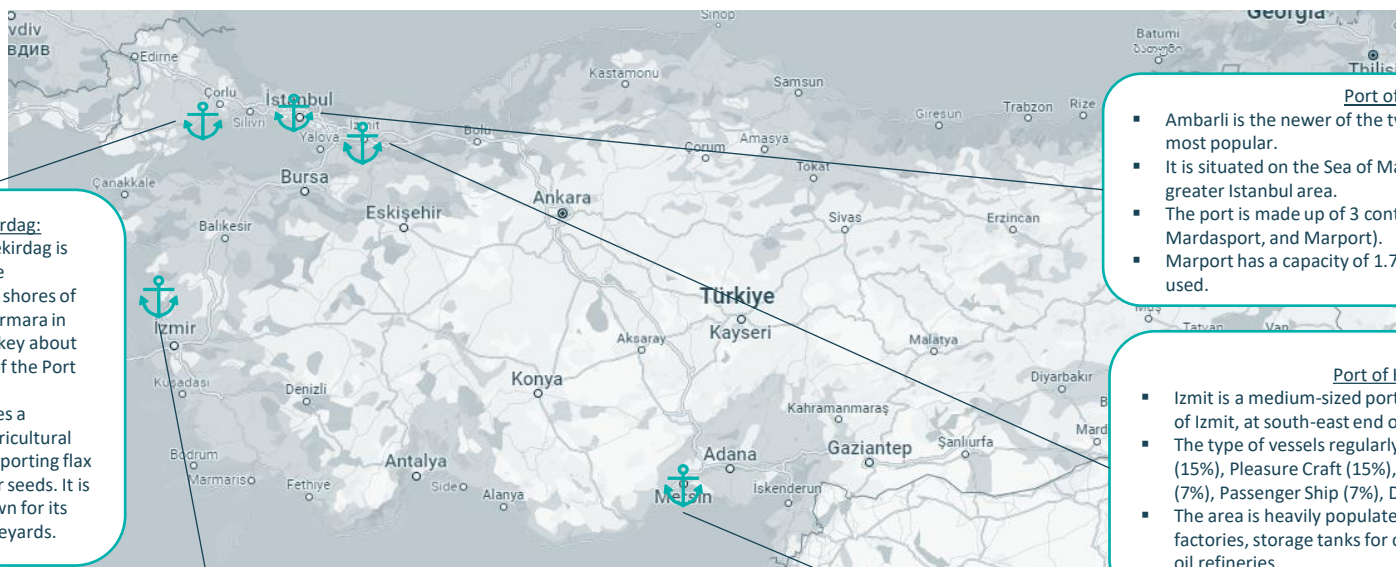
- Shipping lines want to be in charge of their own destiny and will look to avoid any alliance deals once they are able to fill the largest vessels with their own cargo.
- Expect vessels to max-out at c.24,000 TEU, because of the diminishing returns of the economies of scale as vessels increase much beyond this level.
- Lines are then expected to reduce the number of mainline calls at either end of the main rotations, with more cargo connecting to these major hubs with bigger feeder vessels.
- Lines will prefer to call at ports where they have some equity stake to ensure better performance levels.
- Larger feeder vessels are likely to handle greater volumes initially – expect 3,500-5,500 TEU to be common and even as large as 6,000-10,000TEU in some instances once the mainline vessels are able to fill without the need for extra calls when global demand recovers.
- As individual lines start to get greater owned demand, there is an increased likelihood of more sole operated services in 10-18,000 TEU range for some of the smaller lines – which will still require 500-2,500 TEU feeders. Service potential remains for ports with less deepwater during this phase.
- When the main individual lines are capable of filling 24,000 TEU vessels on their own, there is a likelihood of the continual break-up of alliances – the announcement of the break of the 2M Alliance was a little ahead of schedule and may require some short-term VSA deals until both lines can fill vessels on their own.



## 5 main container ports in Turkey – Ambarli, Mersin, Kocaeli, Tekirdag and Aliaga.

- There are currently 5 ports in Turkey that handled more than 1 million TEUs in 2022. They represent over 80% of total TEU containers in Turkey at this time.
- Mersin International Port (MIP) launched the 'Gate Project' in late 2022, a grand infrastructure project to improve traffic around the site. MIP will spend 500 million Turkish Lira (\$27 million) to allow trucks to enter and exit the Mersin port directly from the highway and upgrade the terminal's gates to reduce waiting times. The upgrade will be completed by the first quarter of 2024.

Location of Turkish Ports



### Port of Ambarli:

- Ambarli is the newer of the two main ports in Istanbul and the most popular.
- It is situated on the Sea of Marmara's northern shore serving the greater Istanbul area.
- The port is made up of 3 container terminals (Kumport, Mardasport, and Marport).
- Marport has a capacity of 1.7m TEU and is the main terminal used.

### Port of Tekirdag:

- The Port of Tekirdag is located on the northwestern shores of the Sea of Marmara in European Turkey about 125km west of the Port of Istanbul.
- The port serves a productive agricultural hinterland, exporting flax and sunflower seeds. It is also well known for its wines and vineyards.

### Port of Kocaeli/Izmit

- Izmit is a medium-sized port. It is located at the head of the Gulf of Izmit, at south-east end of the Marmara Sea.
- The type of vessels regularly calling at Izmit are Passengers (15%), Pleasure Craft (15%), Law Enforce (7%), Passenger Ship (7%), Passenger Ship (7%), Dive Vessel (7%).
- The area is heavily populated with industrial plants, shipyards, factories, storage tanks for chemical industries, paper mills and oil refineries.

### Port of Aliaga:

- Aliaga is a large-sized port. The port lies on the southern shores of the Bay of Aliaga off the Gulf of Candarli about 24km northwest of Izmir.
- The types of vessels regularly calling at Aliaga are Oil/Chemical Tanker (40%), Crude Oil Tanker (20%), Fishing (8%), Oil Products Tanker (6%), LPG Tanker (5%).

### Port of Mersin

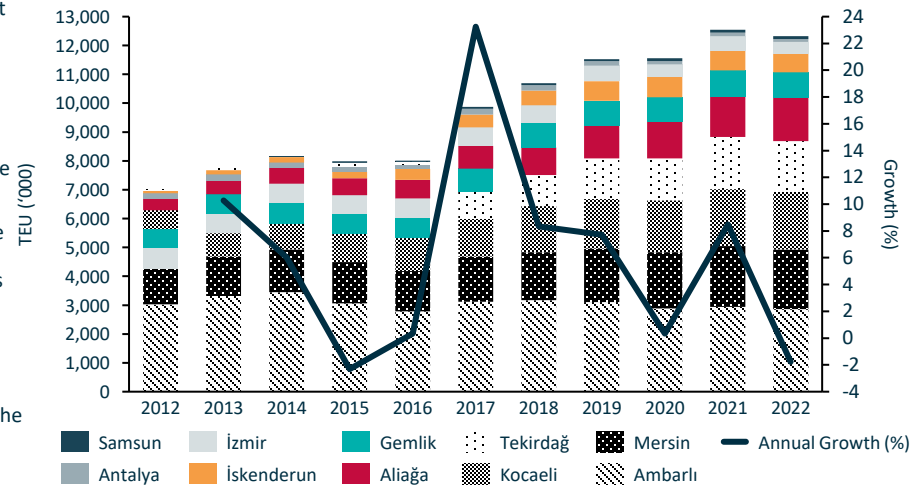
- Mersin is a relatively newly constructed port. It is the largest port in Turkey that specializes in containers with 26 berths.
- The port is located in southeast Turkey on the Mediterranean Sea.
- Southeast Mersin is well connected to the rest of Turkey and the world via the Istanbul-Baghdad railway and ferry to Cyprus.

# Container Volumes in Turkey Dominated by Ambarli, Mersin, Kocaeli, Tekirdag and İnfırata Aliaga

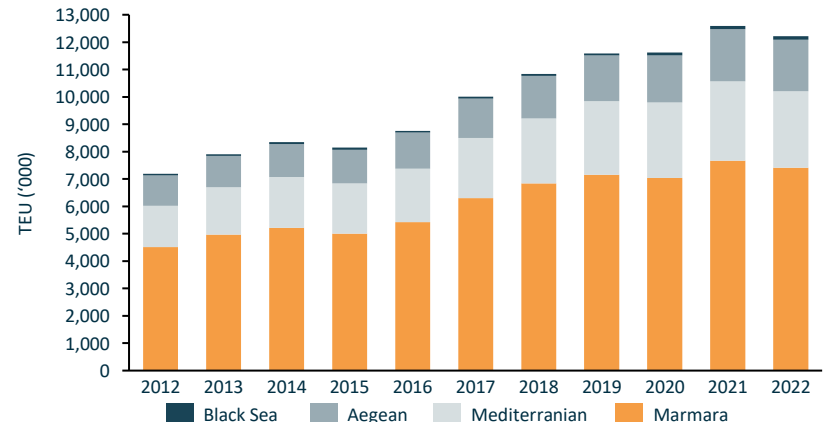
Turkey's container volume flows is dominated by shipments at the top 5 container ports, representing over 80% of the total containers in 2022. The Marmara region accounts for 61%.

- Turkish container demand has grown strongly between 2012 and 2022, growing at a CAGR of 5.4%, reaching 12.2 million TEUs in 2022, which is a slight decline from the peak achieved in 2021 of 12.6 million TEUs.
- Containers exhibited significant growth in 2017 which was driven by Tekirdag port privatization in that year,
- In 2022, the container turnover in Turkish ports weakened slightly with a decline of -3.0%. Nearly all the top ports exhibited a decline in container volume in 2022 except Kocaeli. Pandemic-related lockdowns and an unexpected surge in demand for consumer goods in early 2020 led to global supply chain pressures and container congestion across major European ports. Ports resumed quasi-normal activity only in early 2022, when congestion and waiting times started to ease and freight rates started to reduce from all-time highs in 2021.
- In some ports in the East Mediterranean coast of Turkey, the impact was twofold. First, a shift in volume type from containers to conventional cargo due to congestion in the containerised segments and high freight rates that made conventional cargo relatively cheaper. Second, some shippers shifted operations from larger ports that were at capacity to smaller ports which were still in the ramp-up phase. As some smaller ports did not have the infrastructure to handle the largest container vessels, congestion at the larger ports temporarily reversed the trend of increasing vessel sizes as smaller vessels were used to access these ports.
- The Marmara region ports has handled over half of all container volume shares in Turkish ports over the last decade. This is due to Ambarli, Tekirdag and Gemlik ports residing in the region.
- The import and export shares are roughly consistent, and transit makes up over one-quarter of containers handled in Turkish ports.

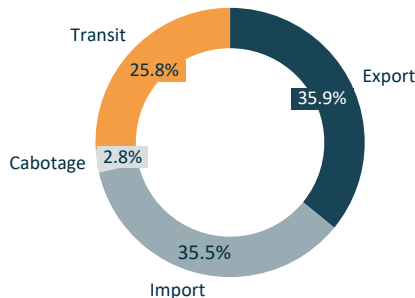
Top 10 Turkey Port Authority Container Volumes 2012-2022



Regional Distribution of Containers Handled in Turkish Ports 2012-2022



2022 Customs Regime Distribution of Containers Handled in Turkish Ports



## Future Outlook for Turkey

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 Mediterranean and Black Sea, saving feeder costs initially

2

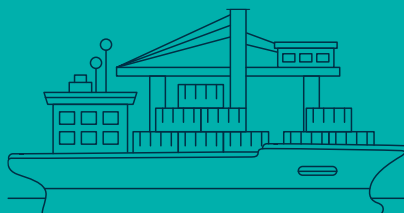
Bigger ships offer opportunities for more transshipment in the longer term

3

Select few ports must be prepared to handle bigger vessels, or lines will not call with mainline vessels. Given surplus tonnage at present, now is a great time to attract additional calls

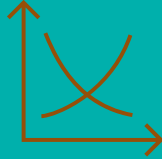
4

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



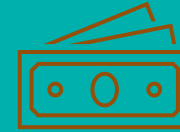
# Conclusions

## Unprecedented global demand



Increased demand from 2019-2022 as a result of the pandemic has started to slow.

## Record-breaking revenues



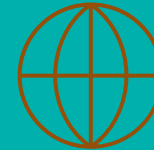
Lesser demand and lower freight rates will expectedly reduce revenues.

## 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 focused on improving capacity, efficiency, and sustainability.

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