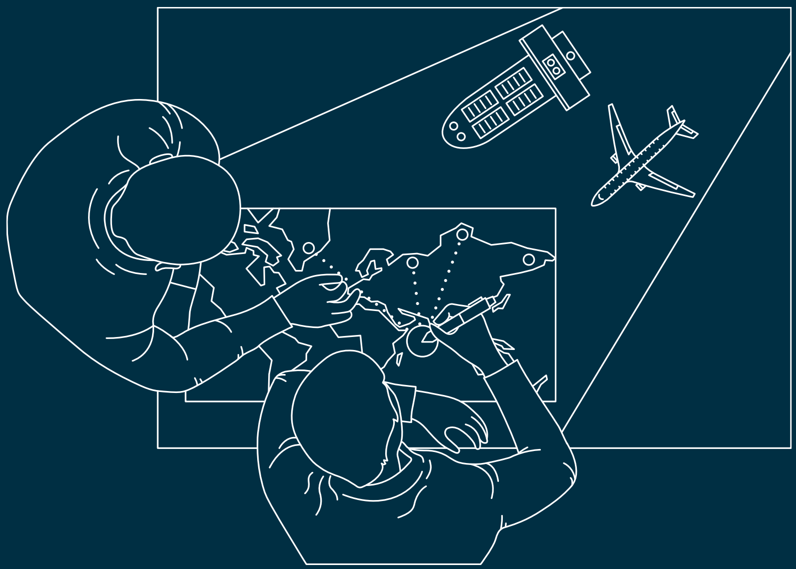

Shipping Lines: ‘22 Recap and ‘23 Outlook

Baltic & Black Sea Ports & Shipping
Conference
Gdansk, Poland
17th May 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.

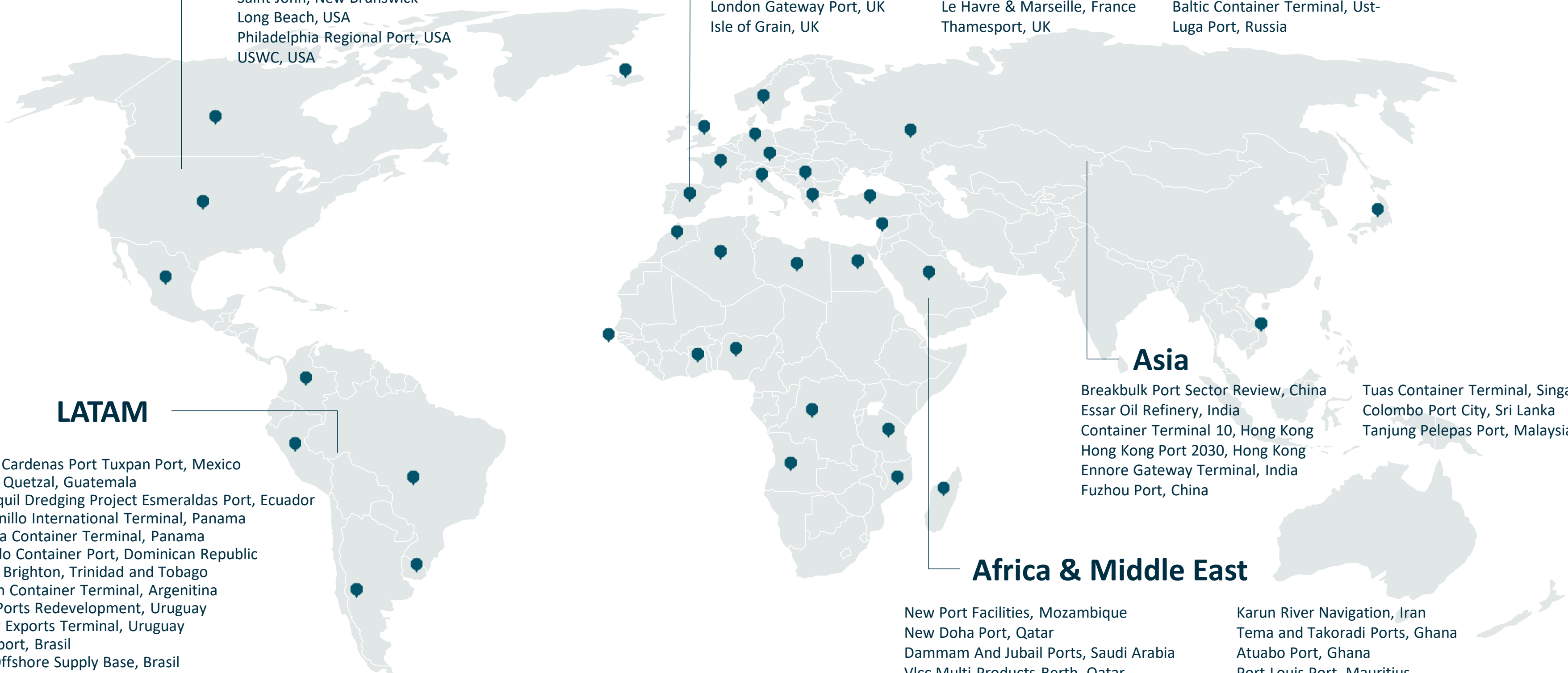
Demand & Traffic Advisory

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



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 Portburty Dock, UK
Project Maria, Italy
London Gateway Port, UK
Isle of Grain, UK
Spanish Port Sector, Spain
Newhaven Port, UK
Royal Portburty Dock, UK
Project Mourinho, Portugal
St Helier Port, Jersey
Chichester Yacht Habour, 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

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

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

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, Argenitina
Naval Ports Redevelopment, Uruguay
Timber Exports Terminal, Uruguay
Embraport, Brasil
Itajai Offshore Supply Base, Brasil
Puerto Bolivar, Ecuador

Africa & Middle East

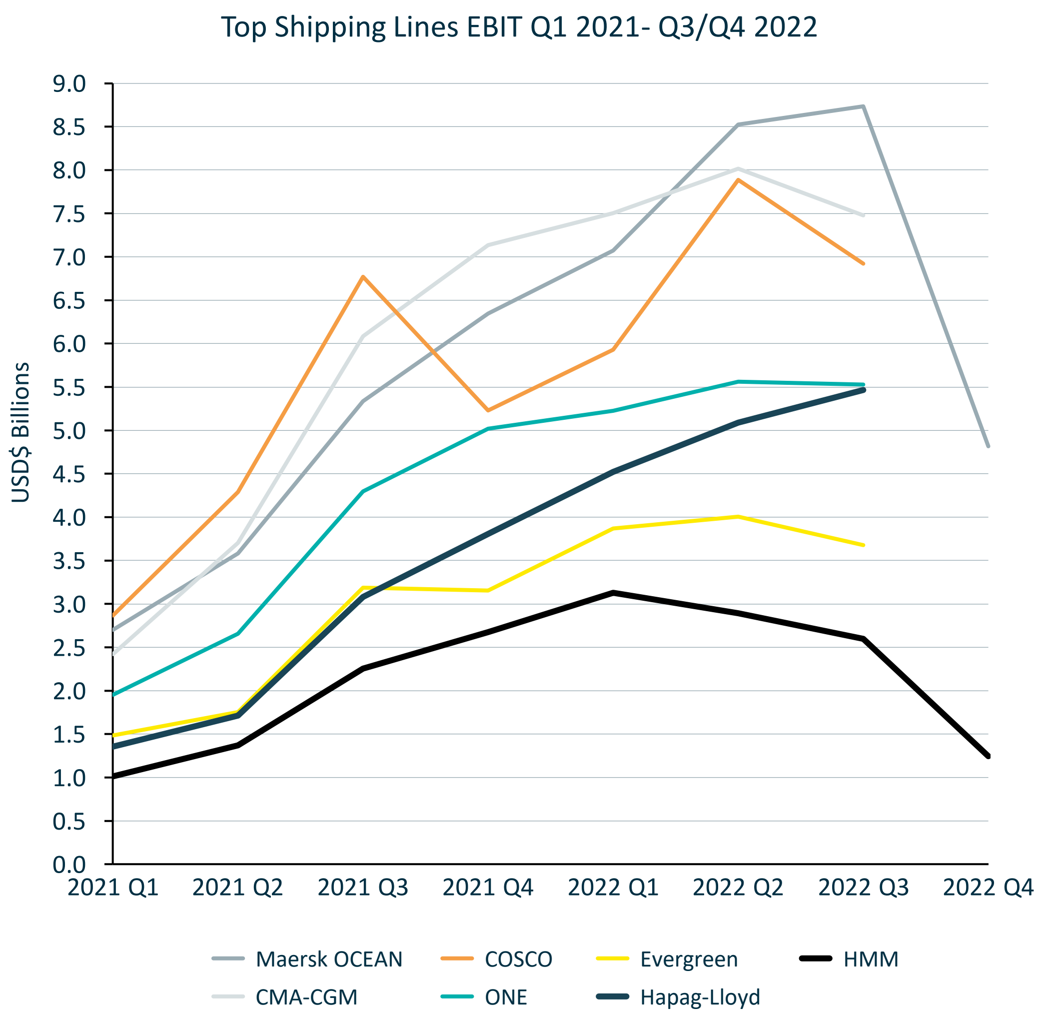
New Port Facilities, Mozambique
New Doha Port, Qatar
Dammam And Jubail Ports, Saudi Arabia
Vlcc Multi-Products Berth, Qatar
2nd Osc Expansion, Luanda Port, Angola
Aden Container Terminal And Distripark, Yemen
Pointe Noire Port, Congo
Naval Dockyard, Kenya
Wact, Onne Port, Nigeria
Mtwara Port Masterplan, 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

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, but recent FY reports indicate drastic drops in Q4.

- From Q1 2021 to Q3 2022, total EBIT of the seven 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.
- Maersk reported a 45% drop off between Q3 and Q4 2022
- 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%
HMM	15%



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

Source: AlphaLiner

Market Share and Capacity Growth

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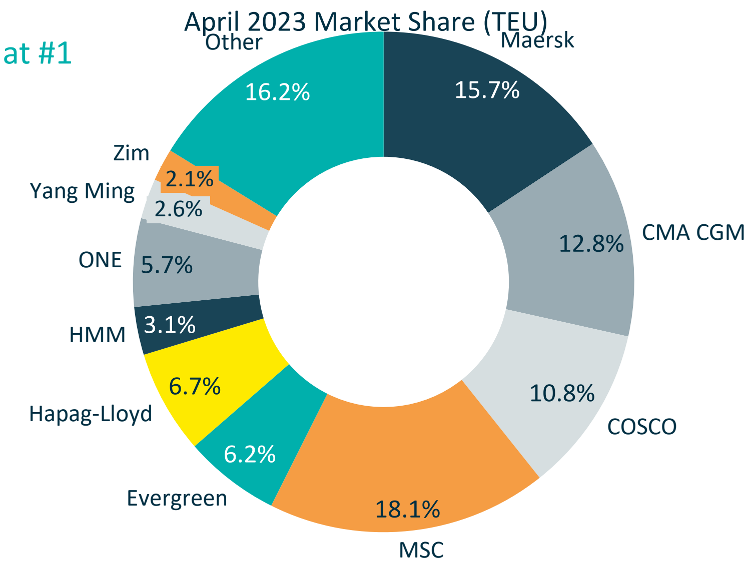
The top ten shipping lines hold 83.8% of the total market share, with MSC at #1 after overtaking Maersk as the largest container line in 2022.

- 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 Line	533,823	413,862	119,961	29.0%	11

Source: AlphaLiner

Shipping Line M&A Activities

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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

MAERSK

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

CMA CGM

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

MSC

- Bolloré Group

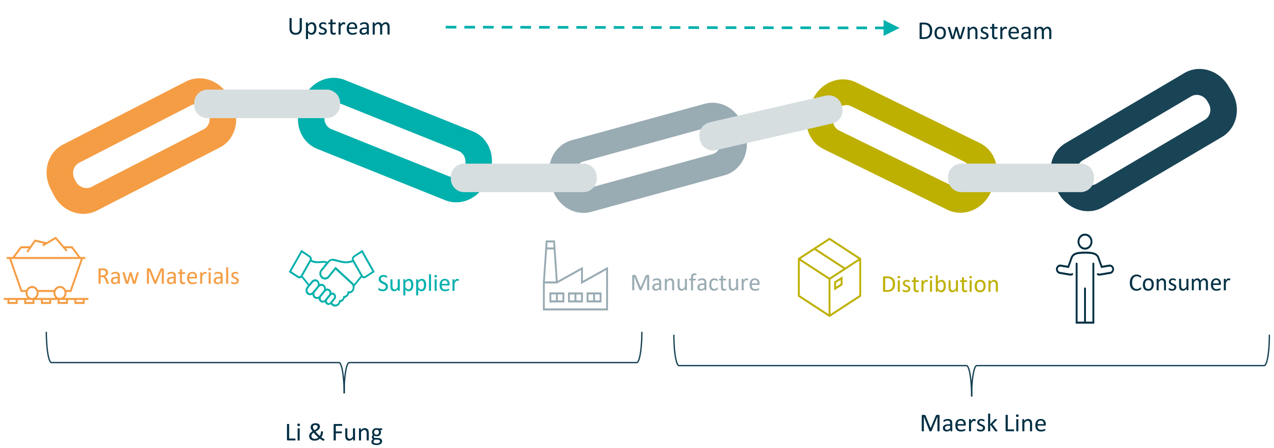
COSCO SHIPPING

- Launched own Supply Chain Logistics Division

Hapag-Lloyd

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

A Strategic Partnership Example



Port Investments

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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 / Baltic

- Jade Wesser 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
  - Swinoujscie privatization
  - Klaipeda South expansion

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

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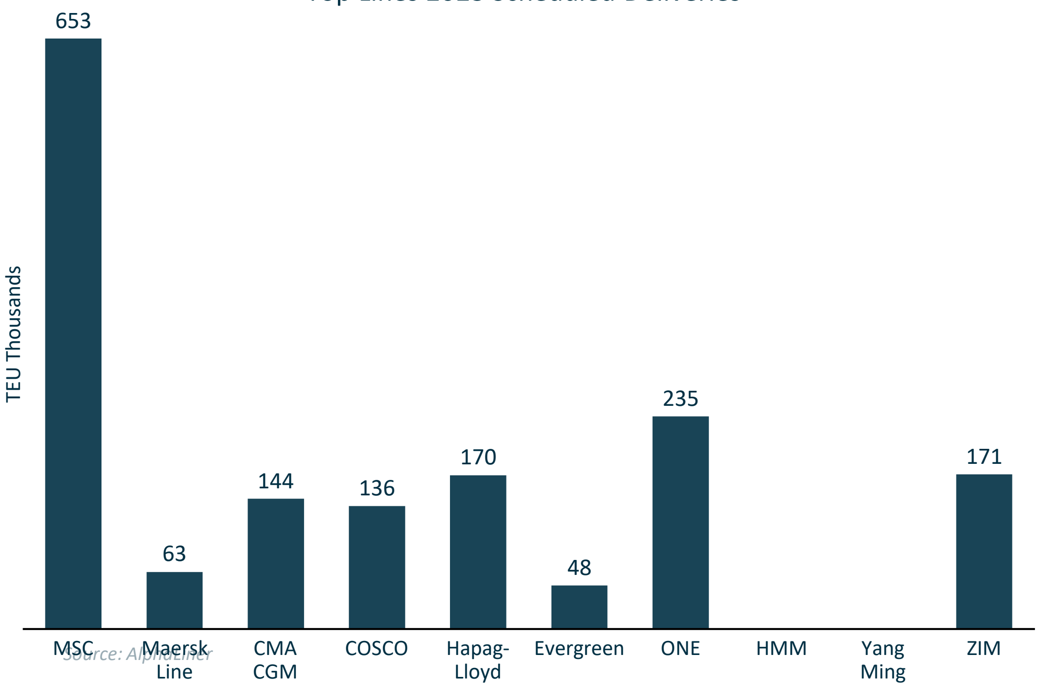
The top lines are investing in increasingly larger capacity ships with their orderbooks comprised of many ULCS orders.

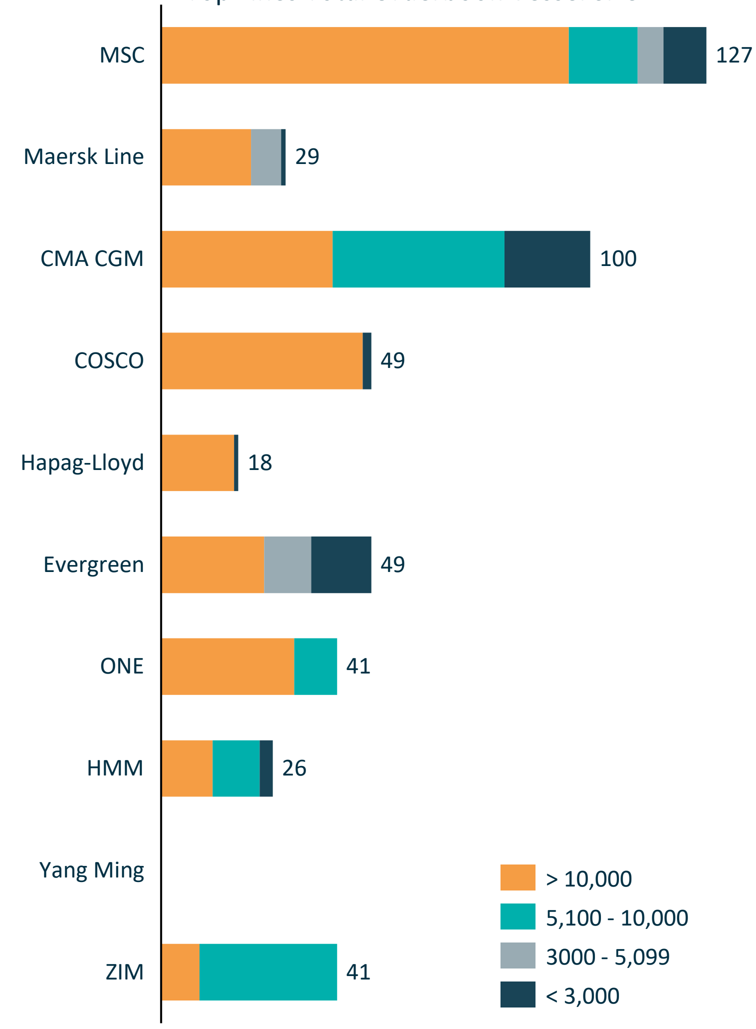
- An estimated 7.8 million in new tonnage is currently on order.
- Close to 6 million of that new tonnage is for the top 10 lines. Approximately 1.62 million TEU is scheduled for delivery in 2023.
- There is a focus on larger ships, with 296 ULCSs on order among the top ten lines.
- In 2022, MSC received 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.

Top Lines 2023 Scheduled Deliveries



Source: Alphaliner

Top Lines Total Orderbook Vessel Size

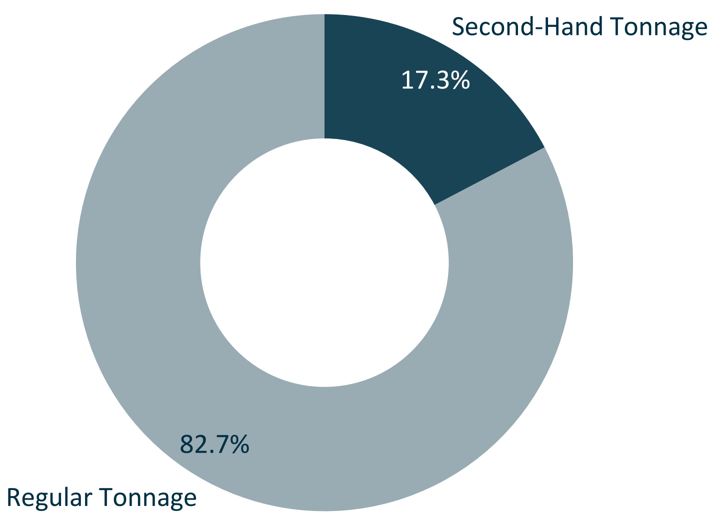


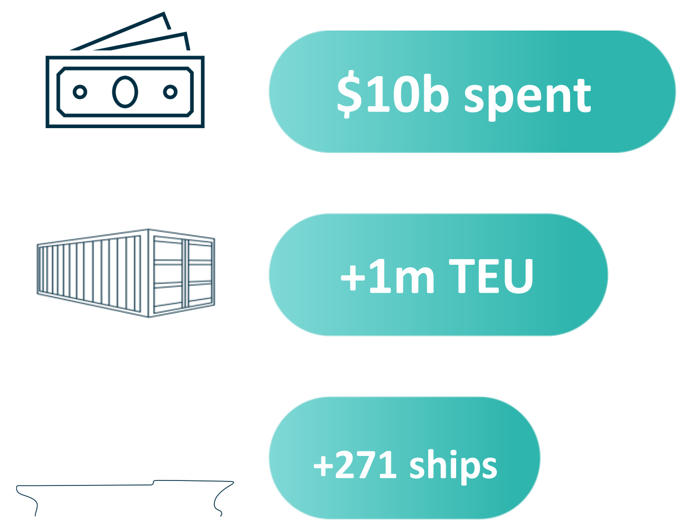
MSC Fleet Expansion: Second-Hand Vessels

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 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)



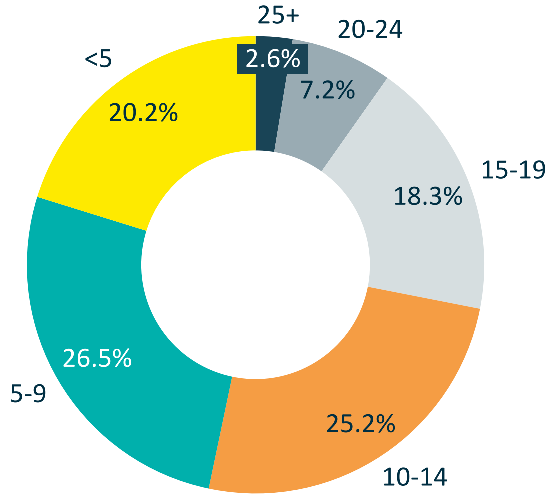


Fleet Assessment

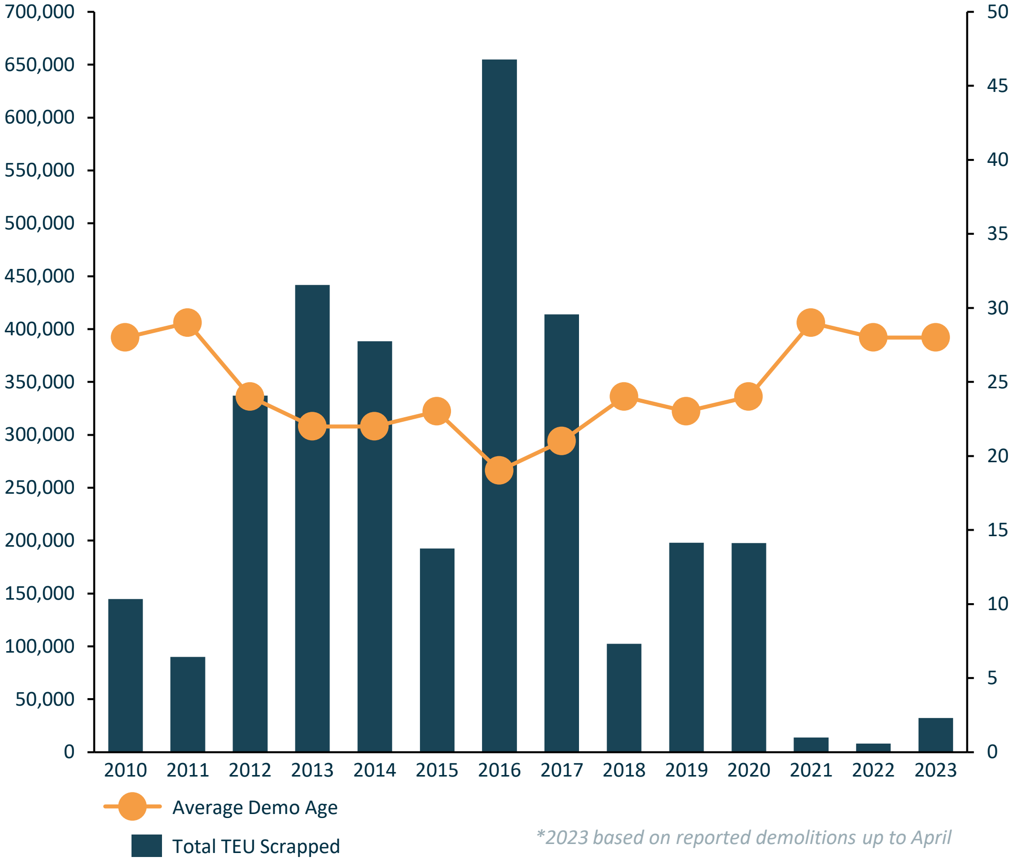
Only 2.6% of TEU tonnage of the current total cellular fleet is overage (25+ years). With a large orderbook tonnage expected, oversupply poses a plausible risk.

- 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 13.3 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

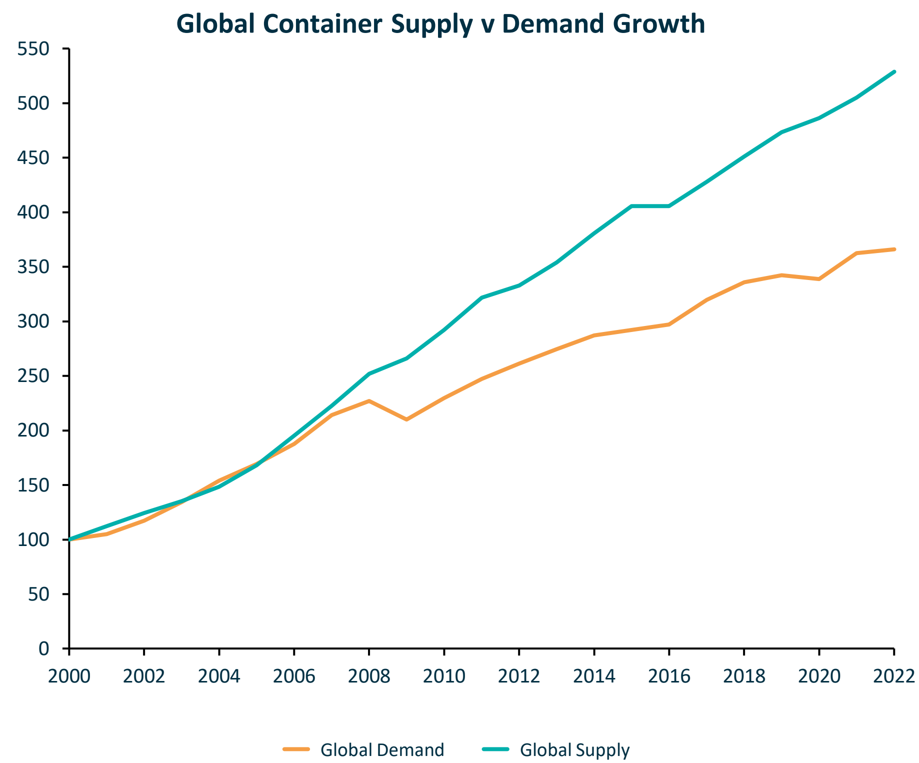


**2023 based on reported demolitions up to April*

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

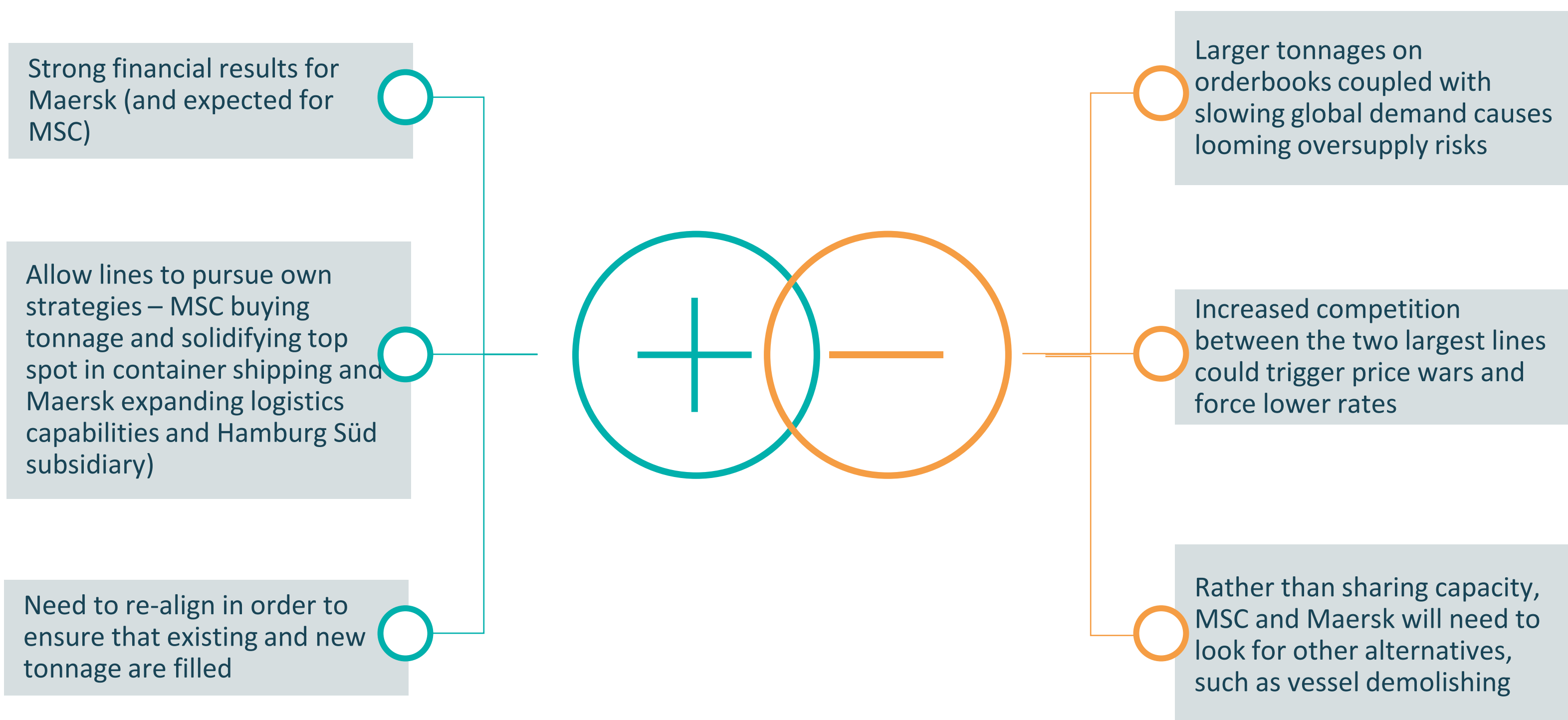
- Continuation of large orders of vessels as a result of huge profits for the major shipping lines.
- As supply increases with the order of new ULCSs, global demand has stagnated creating a wide gap between supply and demand globally.
- With increased tonnage available, lines will have to look at different 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
  - 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 revaluate their own VSAs.
- Continued speculation about future positions of Hapag-Lloyd and CMA-CGM in particular.



Introduction to Polish Container Port Sector

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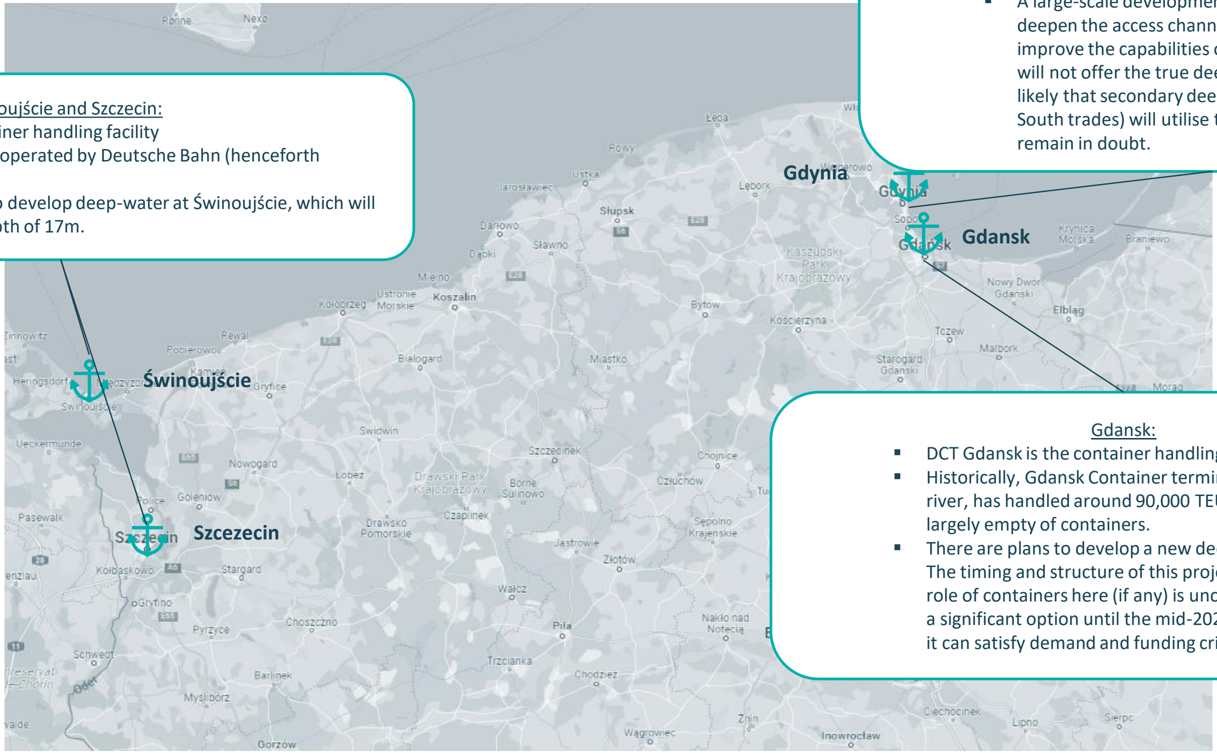
Three main port gateways are available in Poland – Gdansk, Gdynia, and Szczecin

- Within Poland, there are over thirty seaports, of which roughly 18 are large enough to serve international maritime traffic. Most of these are focused on handling bulk cargo, ro-ro and passenger traffic. The following three ports handle container traffic and are therefore relevant and considered further as part of this study.
- At present, there are only limited port options within Polish ports, with Asian deep-sea traffic routed via DCT or overland or feedered from North Continent ports.
- However, there are some developments that may impact this position:

Gdynia:

- Includes two terminals that handle containers. One operated by ICTSI and one by HPH:
- GCT: Gdynia Container Terminal SA, operated by international operator Hutchison).
- BCT: Baltic Container Terminal, operated by international operator ICTSI (henceforth ICTSI).
- A large-scale development plan in under discussion in Gdynia to deepen the access channel and container terminals. This will improve the capabilities of the two terminals in the port but will not offer the true deepwater capacity available at DCT. It is likely that secondary deepsea traffic (Transatlantic and North-South trades) will utilise this capability, although the plans remain in doubt.

Location of Polish Ports



Świnoujście and Szczecin:

- Within one container handling facility
- DB Port Szczecin: operated by Deutsche Bahn (henceforth Szczecin).
- There are plans to develop deep-water at Świnoujście, which will include water depth of 17m.

Gdansk:

- DCT Gdansk is the container handling facility.
- Historically, Gdansk Container terminal, a small facility on the river, has handled around 90,000 TEU per year but is now largely empty of containers.
- There are plans to develop a new deepwater port at Gdansk. The timing and structure of this project remains unclear, and the role of containers here (if any) is uncertain. This will not become a significant option until the mid-2020s, at the very earlies and if it can satisfy demand and funding criteria.

Container Volumes in Poland Dominated by DCT Gdansk and Gdynia - Role for Szczecin Exists

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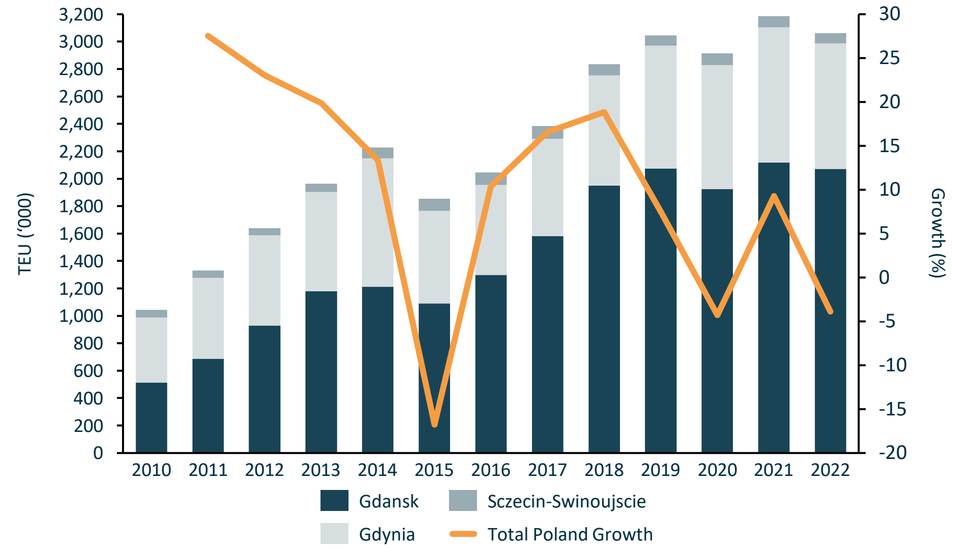
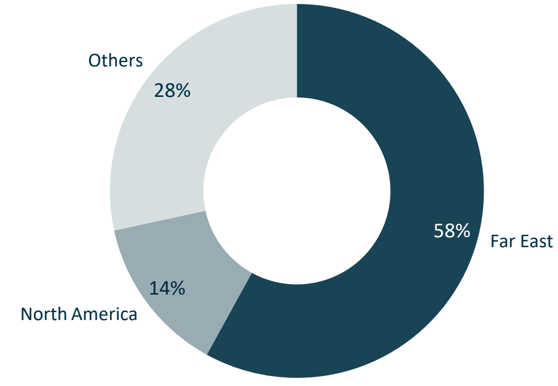
Poland's container volume flows is dominated by shipments at DCT Gdansk (68%), with Gdynia handling 30%, and Szczecin-Swinoujscie volumes currently just 2% of the total, but this remains an established port gateway. The dominant trading region is the Far East (58% in 2019).

- Polish container demand has grown strongly between 2010 and 2019, growing at CAGR of 13%.
- In the case of the Port of Gdansk - the recent decrease in container handling was due to limited transhipment from/to the Russian market as a result of the Ukraine conflict and Russian sanctions.
- Gdansk (principally DCT) has dominated deepsea flows with a market share of 68% in 2022, with other Polish ports focused on shortsea traffic - both feeder and intra-Europe. Gdynia and Szczecin-Swinoujscie's market share in 2022 was 30% and 2%, respectively.
- By far the most significant trend for containerised cargoes to/from the Polish markets has been the increased share of Far Eastern (primarily to/from China) trades. This is part of the broader trend noted with regard to overall European container trades. In 2019, 58% of the total Poland container volumes were attributed to the Far East trading region, with 14% in North America, and 29% in other regions.

Poland Container Volumes at Major Ports 2008-2022



Poland Container Volumes by Trading Region (2019)



Conclusions

Unprecedented global demand

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

Increasing Ship Sizes

Lines’ newbuilds and orderbooks suggest continuing increase in vessel size

M&A and Port Investments

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

Record-breaking revenues

Lesser demand and lower freight rates will expectedly reduce revenues.

Geopolitical tensions disrupt the supply chain

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 Baltic

1. Services from the Far East may stop at additional ports in Baltic Sea in the short-term to ensure that vessel capacity is fully utilised and "spare" tonnage used

2. Bigger ships offer opportunities for more transshipment in the long term and the Baltic is advantageously placed to handle transshipment services at its major t/s hubs or for "convenience" transshipment

3. Baltic Sea ports must be prepared to handle bigger vessels, or lines will not call with mainline vessels. Given surplus tonnage, 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

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