



# DynaLiners Trades Review 2024

Adjusting to New Realities

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## COMMERCIAL TERMINAL OPERATORS

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- CSP Iberian Bilbao Terminal
- Deposa
- Frioport
- Servicios Logísticos Portuarios - SLP

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## LIQUID BULKS

- Up to 32 m. depth (spring low tide). Vessels up to 500,000 D.W.T.
- Largest tanker: Hellepont Grand: 421,681 D.W.T. 378 m. length.

## GENERAL CARGO

- Up to 21 m. depth.
- Ro-Ro & Vehicles, Paper, Iron & Steel products, Timber, Coils, Machinery, On & Offshore Wind energy hub, Wagons, Heavy-lift, Project and Special cargoes, Perishables...
- Ro-Ro ramps up to 250 tons.

## SOLID BULKS

- Up to 21 m. depth.
- Coals, Scraps, Cereals and Oleaginous, Cements, Fodders...
- Largest vessel: Kassos: 282 m. length. 17 m. depth.

## CONTAINERS

- Up to 21 m. depth.
- Biggest vessel: Cezanne: 9,971 TEUs, 300 m. length.
- 41,800 m<sup>2</sup> own rail terminal with 5 tracks of 550 m. directly connected to the net.

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## FOREWORD



Dear DynaLiners Readers,

Welcome to this year's DynaLiners Trades Review, which is titled 'Adjusting to New Realities'. Looking back at 2023, this is a natural follow on from 2022's 'Age of Transitions', which suggested that some of the fundamentals of the container sector will, within a relatively short time, be noticeably different.

Some of this transition has been forced by circumstance, such as the Ukraine/Russia conflict and Israel/Hamas/Houthi/Red Sea situation. These have led to temporary workarounds within the container shipping system that have already or are beginning to exhibit degrees of permanence. This implication of this is what were previously 'abnormal' situations are now the 'normal'.

We are also seeing the embedding of other new realities. Hastened by regulations new and impending, plus a push from the shipper's sector, the energy transition - which still has its teething problems - is now a reality.

Gone too - and well and truly - are the hyper profits of 2021 and 2022. Yet, although the profits are well down, they are still in the hundreds of millions as container shipping lines have also invested heavily in planes, trains and automobiles (or the shipping of), alongside the more prosaic vessels and container terminals. Having striven hard for operational efficiencies in the lost decade of 2011-2020, together with the scale of activities the carriers have built up, are these sizeable profits now also part of the new reality, whatever the market weather?

The stories and themes of 2023, plus a little bit of 2022 and even some of 2024, are covered in the following pages. Throughout, they are supported by the usual array of tables and graphs you have come to expect to give you as complete a picture as is possible.

Putting together this Review and the whole DynaLiners portfolio is a team effort. As such, may we point you to the always sterling efforts of Frans Waals (Editor, DynaLiners portfolio), Evan van Kleef (DynaLiners Monthly), Michele Camm, Morgan Douglas and Rocio Sevillano.

Our final word goes to our loyal advertisers. Without them, this document you are reading now (and its predecessors) would not be possible.

We wish you all pleasant reading, and a safe and healthy 2024 and 2025,

On behalf of the DynaLiners Team,

Darron Wadey

Author

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# ADJUSTING TO NEW REALITIES

## INTRODUCTION

The theme of this edition's Review of 2023 is 'Adjusting to new realities' and in that regard can be considered a natural follow-on to last year's Review (of 2022), titled 'An age of Transition'. The new realities that emerged from that transitory period conflicted with each other. On the one hand normality had, or so it seemed, returned to the container shipping market. Yet on the other, the sector had to expect the unexpected.

In terms of normality, demand levels had settled back and rates had adjusted accordingly. The hyperactivity of 2021-22 had definitely gone and, with a veritable tsunami of new container shipping capacity expected, nervous eyes were being cast towards the immediate future.

Geopolitically, the container shipping sector had adjusted fully to the Ukraine/Russia war, which, it was now clear, had evolved ominously into a battle of attrition. Judging by Russia's port throughputs, its maritime supply chains had realigned due to the sanctions placed on the country. As most of the world's shipping lines complied with the sanctions regimes, alternative options, smaller in scale, not necessarily as frequent, with some offering direct deepsea connections, were now the norm.

Container shipping also adjusted to the latest unexpected geopolitical challenge. This came from the Israel/Hamas conflict that started in October 2023. The initial impacts upon the sector were marginal and localised to either Israeli ports or some gestures of support elsewhere that refused entry to Israel connected vessels for example.

This all changed when Houthi rebels in western Yemen, these controlling one side of the southern Red Sea, started a campaign of standoff attacks upon vessels wishing to enter or leave the Red Sea. Initially ships with believed Israel interests were attacked, but this soon expanded to others.

The shipping solution was simple: avoid the Red Sea and sail around the Cape of Good Hope. It was a new reality. It was also asset intensive, but with a ready supply of new tonnage being delivered, disruptions were kept to a relative minimum. An unintended consequence of this situation was a spike in rates well into 2024, perhaps a reflection of shippers and cargo interests fearing a return to the under capacity of 2021.

Elsewhere, and somewhat more prosaic but no less fundamental for it, the energy transition now moved from being nascent

to reality. Vessels able to burn LNG as an alternative to heavy fuel oil or similar were being delivered with regularity and scale. The end of 2023 also saw the arrival of the very first methanol-fuelled containership. It was soon joined by others, including the start of a series of substantial 16,000+ TEU vessels.

## CARGOES

Global volumes in 2023 were estimated by Dynamar to have stagnated within the 175-176 million TEU range. The difference was a marginal gain of around 500,000 TEU. In a historical context, it was still the third highest total as estimated, being beaten by only 2021 and 2019, but over the longer term had brought the five-year compound annual growth rate (CAGR) to zero. For the decade, the CAGR shrank to 1.5%. Both were the lowest period CAGRs noted since at least 2012.

*Development of worldwide full container trade*

Year	TEU	Growth y-o-y	CAGR 5-yr	CAGR 10-yr
2023	175,600,000	0.3%	0.0%	1.5%
2022	175,100,000	-4.5%	0.3%	2.3%
2021	183,300,000	5.9%	2.4%	2.8%
2020	173,100,000	-1.6%	2.2%	2.3%
2019	175,900,000	1.5%	3.2%	3.3%
2018	173,300,000	3.9%	3.2%	4.3%
2017	166,800,000	5.0%	3.9%	2.7%
2016	158,900,000	2.3%	2.7%	2.7%
2015	155,300,000	1.5%	2.3%	3.6%
2014	153,000,000	7.0%	3.9%	4.6%
2013	143,000,000	0.0%	4.9%	5.0%
2010	131,200,000	11.0%	3.8%	8.5%
2005	102,000,000	10.7%	12.8%	-
2000	60,500,000	-	-	-
1995	41,200,000	-	-	-
1990	25,700,000	-	-	-
1985	16,800,000	-	-	-
1980	11,400,000	-	-	-

Estimates and forecasts. CAGR = Compound Annual Growth Rate (average annual growth rate)

## SHIPPING CAPACITY

The contrast between cargoes and container shipping capacity could not have been starker. With the expected capacity explosion well and truly under way, in 2023, global capacity expanded by eight percent to finish on 28.5 million TEU. Whilst the rate of increase was by no means the fastest ever, the addition

of some 2.1 million TEU was. The number of extra ships (+267) was the third highest.

*Development of global containership fleet capacity*

Year	Total TEU	Growth y-o-y	CAGR 5-yr	CAGR 10-yr
2023	28,528,669	8.2%	4.6%	4.9%
2022	26,375,300	4.1%	4.2%	4.6%
2021	25,344,800	4.6%	4.2%	4.8%
2020	24,236,200	2.6%	3.7%	5.0%
2019	23,614,000	3.9%	4.6%	5.6%
2018	22,730,000	5.7%	6.2%	5.7%
2017	21,510,000	4.0%	6.2%	6.3%
2016	20,680,000	2.1%	6.9%	6.9%
2015	20,258,000	7.6%	8.2%	8.3%
2014	18,822,000	12.0%	7.6%	8.7%
2013	17,764,000	5.7%	6.4%	9.0%

As of 31 December of each year. Relates to available capacity with no account taken of any that may have been temporarily withdrawn. Analysis based on data sourced from Alphaliner.

Reinforcing this, in 2023, shipping capacity grew at a rate that was 7.9 percentage points stronger than the rate of cargo growth and came on top of an 8.5 point differential in favour of capacity for 2022. These were the two widest capacity dominant differences since 2009's 14.5 points. On average, the differences have been 3.3 points in favour of capacity growth for the last decade, and 3.7 points since 2005.

It is understandable, then, if cargoes are static whilst shipping supply expands, that rates might be pressurised.

*Capacity growth against volumes growth*

Year	Capacity	Volumes	Difference
2023	8.2%	0.3%	+7.9pts
2022	4.1%	-4.5%	+8.5pts
2021	4.6%	5.9%	-1.3pts
2020	2.6%	-1.6%	+4.2pts
2019	3.9%	1.5%	+2.4pts
2018	5.7%	3.9%	+1.8pts
2017	4.0%	5.0%	-1.0pts
2016	2.1%	2.3%	-0.2pts
2015	7.6%	1.5%	+6.1pts
2014	12.0%	7.0%	+5.0pts
2013	5.7%	0.0%	+5.7pts

Year-on-year growth rates. Analysis based on data sourced from Alphaliner.

**Rates**

After freight rates had declined slowly in the second half 2022, this negative development sped up substantially through most of 2023. As a result, the annual averages for five main rate indices showed, at best, a forty-three percent decline, year-on-year, with the worst performing indices three-quarters down. Whilst such returns suggested a collapse of rates, more accurately they were the adjustment back to something approaching pre-COVID normality. None of the indices escaped this adjustment; thus the new reality was, actually, the old normality.

*Rate Indices developments*

	'23/'22	'22/'21	'21/'20	2023	2022	2021
CTS (Europe export, 7 trades)	-43%	+41%	+56%	90	157	111
CTS (Europe import, 7 trades)	-56%	+99%	+18%	67	153	77
NCFI (Far East exp., 21 trades)	-74%	-19%	-n/a-	708	2,761	3,421
CCFI (Far East export, 9 trades)	-66%	+7%	+185%	940	2,798	2,616
WCI (11 East-West trades)	-16%	+250%	+53%	6,377	7,586	2,170

All are composite annual averages. CTS = Container Trade Statistics; SCFI = Shanghai Containerized Freight Index relates to overall; CCFI = China Containerized Freight Index; WCI = World Container Index.

**COSTS**

Another adjustment that took place in 2023 came from the prices of bunker fuel. Whilst the energy transition is well and truly underway, oil-based fuels are still the dominant fuel type for shipping. With the supply-chain now fully adjusted to the new realities brought about by the Ukraine/Russia conflict, bunker prices had softened as from the third quarter of 2022.

For 2023, the year-on-year annual averages showed strong declines although heavy fuel oil prices in Rotterdam appeared to have held better than in other ports, especially Long Beach where they contracted by more than a quarter. For the Very Low Sulphur option, there was remarkable uniformity with prices down 22-23% across the five supply points.

*Development of annual average bunker prices*

	HFO			VLSFO		
	'23/'22	2023	2022	'23/'22	2023	2022
<b>Average</b>	<b>-17%</b>	<b>483</b>	<b>579</b>	<b>-22%</b>	<b>616</b>	<b>795</b>
Rotterdam	-7%	479	517	-22%	575	736
Singapore	-11%	471	529	-23%	626	808
Houston	-18%	466	572	-22%	592	757
Long Beach	-26%	516	698	-23%	673	878
Hong Kong	-11%	494	556	-23%	636	821

Source: Ship & Bunker

The exceptionally high vessel charter rates of 2022 were clearly unsustainable with 2023 providing the second straight year of strong capacity growth. After entering the year considerably depressed compared with one year earlier, they did manage a modest rally for the April-June period before sinking again and finishing 2023 much weaker than at the start. Overall, the comparatives with 2023 showed substantial contractions and was the first time since 2019 that the composite overview index was down year-on-year. Yet while the difference was substantial, rates were still twice the level of the 2017-20 period.

*Development of annual average charter indices*

	'23/'22	'22/'21	'21/'20	2023	2022	2021
<b>Index</b>	<b>-72%</b>	<b>+30%</b>	<b>+334%</b>	<b>217</b>	<b>770</b>	<b>591</b>
BOXi	-74%	+21%	+371%	126	475	391
Contex	-73%	+30%	+358%	708	2,580	1,991
Harpex	-70%	+33%	+295%	1,063	3,504	2,638
HRCI	-72%	+39%	+315%	1,218	4,296	3,095

Overview index (top row) based upon average of individual index scores with 2017 set as 100

For two generic capacity classes of ships, newbuild prices reflected contrasting fortunes. Over the course of 2023, the newbuild price of a 23,000 TEU containership averaged USD 224 million, which was eight percent better than for 2022. The smaller 2,750 TEU ships continued on from the pattern established at the end of 2022 when prices started to gradually slip back. As a result, for the whole of 2023 they were around one percent down.

**RESULTS**

A selection of carriers who combined to control two thirds of global container shipping capacity at the end of 2023 saw very different results than they had enjoyed for the previous two years.

The container liner revenue generated by this group more than halved to USD 154 billion. Operating result was even worse with an eighty-three percent drop to USD 28 billion, whilst net result

was even worse again, contracting by close to ninety percent to USD 16 billion. In fact, for the full-year, a couple of the surveyed carriers had posted a net loss.

With the carriers making much less money, but shipping marginally more cargo, the financial returns per container were similarly weaker. Revenue per TEU came in at USD 1,173 (-53%), of which just USD 107 was turned into pure profit (-90%).

*Major container carriers, summary performance figures*

Year	'23/'22	2023	2022	2021
Revenue	-52%	153,828	317,183	264,311
Operating profit	-83%	28,498	169,830	132,951
Net Result	-89%	16,051	140,571	108,714
Liftings (TEU x 1,000)	0%	126,506	125,965	131,747
Revenue per TEU	-53%	1,173	2,485	2,006
Op. Profit per TEU	-84%	217	1,335	1,009
Net Result/TEU	-90%	107	1,097	825

Based upon data sourced from: CMA CGM, CoscoSL, Eimskip\*, Evergreen, FES-Co, Hapag-Lloyd, HMM, Log-In Logistica, Maersk, Matson, ONE, RCL, Samudera, SITC, Wan Hai, Yang Ming and ZIM, accounting for an average of 70% of globally operated TEU capacity. Financial figures in USD x million, excepting per TEU which are USD x 1. Revenue and operating results are container liner activities, or as close as possible, net results are consolidated group. ONE is based upon financial year ending March 31 the following year. Liftings and succeeding Per TEU figures include estimates for Eimskip at between 204,000-208,000 TEU.

Backing up the hypothesis that the new reality was also the old normality, the aggregated net result of the selected carriers was in line with that of 2020. In fact, that older year was also very good for the carriers with 2018-2019 seeing an average of barely USD 2.0 billion each. Either there is some more adjusting still to come or maybe the new reality is also one of generally better profitability than before.

*Leading container carriers, aggregate annual results, net*

Year	Growth	Total
2023	<b>-88.6%</b>	16,051
2022	+29.3%	140,571
2021	+674.5%	108,714
2020	+840.6%	14,037
2019	<b>-42.2%</b>	1,492
<b>Total 2019-2023</b>	<b>-</b>	<b>280,865</b>
<b>Average 2019-2023</b>	<b>-</b>	<b>56,173</b>

Based upon data sourced from: CMA CGM, CoscoSL, Eimskip\*, Evergreen, FES-Co, Hapag-Lloyd, HMM, Log-In Logistica, Maersk, Matson, ONE, RCL, Samudera, SITC, Wan Hai, Yang Ming and ZIM. Figures are USD million.

**CONTAINER**

**CONTAINER - LESS**

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**Figure 1**  
BUNKER MARKET PRICE FOR HFO (380 CST) AND VLSFO 2023 (USD/ton)

Date	Heavy Fuel Oil (HFO)					Very Low Sulphur Fuel Oil (VLSFO)					
	Rotterdam	Singapore	Houston	Long Beach	Hong Kong	Rotterdam	Singapore	Houston	Long Beach	Hong Kong	Santos
5-Jan-23	375	379	400	467	437	530	593	561	671	618	612
12-Jan-23	375	380	390	471	426	542	591	585	673	602	604
19-Jan-23	407	411	417	521	447	590	662	630	752	658	683
26-Jan-23	409	434	416	528	470	607	702	630	777	689	706
2-Feb-23	406	413	409	507	464	619	700	635	759	687	687
9-Feb-23	404	407	407	501	475	594	663	631	719	664	658
16-Feb-23	409	427	415	521	488	592	654	628	722	664	654
23-Feb-23	411	430	412	513	463	563	605	619	692	616	610
3-Mar-23	410	448	411	516	476	573	608	625	682	614	622
9-Mar-23	432	459	424	529	479	580	611	634	690	618	627
16-Mar-23	403	436	401	507	463	545	577	584	629	592	585
23-Mar-23	383	410	399	508	436	537	566	563	630	570	571
30-Mar-23	418	441	413	507	445	563	579	583	634	600	587
6-Apr-23	468	487	459	543	496	588	606	608	663	625	609
13-Apr-23	485	502	467	560	508	596	621	614	671	634	629
20-Apr-23	478	492	448	566	505	581	617	601	681	627	620
26-Apr-23	471	484	448	542	499	563	606	571	643	616	610
4-May-23	435	459	410	506	481	528	577	529	603	606	586
11-May-23	445	457	412	510	470	538	571	544	595	587	574
18-May-23	430	444	406	502	464	525	565	529	588	581	569
25-May-23	448	451	419	512	473	540	584	537	611	597	579
1-Jun-23	428	428	402	477	439	520	562	519	598	609	563
8-Jun-23	457	443	422	503	462	547	583	535	598	605	585
15-Jun-23	472	439	426	505	454	542	584	537	607	593	595
22-Jun-23	489	453	448	515	463	553	612	545	641	616	618
29-Jun-23	470	442	441	499	458	529	585	526	611	594	596
6-Jul-23	479	474	459	493	481	547	586	535	614	591	593
13-Jul-23	487	501	469	513	499	533	580	560	618	592	590
20-Jul-23	583	498	488	512	510	552	569	565	614	582	586
27-Jul-23	506	527	494	531	532	574	599	578	644	604	613
3-Aug-23	565	583	532	570	573	606	639	602	678	634	645
10-Aug-23	587	569	549	571	578	618	640	626	685	646	663
17-Aug-23	572	562	545	572	578	610	648	625	696	659	659
24-Aug-23	546	568	537	574	566	593	630	628	701	647	645
31-Aug-23	549	532	545	536	562	603	640	636	689	687	654
7-Sep-23	576	544	559	542	560	609	646	653	705	681	657
14-Sep-23	596	560	566	553	580	628	662	661	722	684	677
21-Sep-23	594	531	566	548	559	631	672	668	715	679	695
28-Sep-23	596	456	567	555	554	628	680	661	723	690	706
6-Oct-23	530	495	520	523	523	608	672	632	709	672	692
12-Oct-23	532	479	513	521	497	602	655	617	692	647	676
19-Oct-23	549	503	520	521	504	620	684	633	695	687	709
26-Oct-23	535	475	505	510	488	609	661	624	697	663	683
2-Nov-23	533	468	490	492	488	606	700	611	692	687	706
9-Nov-23	472	453	462	494	479	575	678	579	724	683	689
16-Nov-23	498	466	495	488	499	590	693	574	727	691	687
23-Nov-23	490	476	483	475	500	593	716	571	725	707	677
30-Nov-23	485	478	482	485	493	577	658	581	709	669	625
7-Dec-23	463	452	487	479	484	556	626	557	696	651	607
14-Dec-23	430	442	485	468	467	518	583	535	679	606	577
21-Dec-23	458	457	509	484	484	554	614	571	648	632	615
28-Dec-23	465	475	500	493	496	560	620	583	650	631	616
<b>Average</b>	<b>479</b>	<b>471</b>	<b>466</b>	<b>516</b>	<b>494</b>	<b>575</b>	<b>626</b>	<b>592</b>	<b>673</b>	<b>636</b>	<b>632</b>

**Figure 2**  
10-YEAR DEVELOPMENT HFO PRICES (USD/ton)

Year	Average	Change	Lowest	Highest
2023	479	-7%	375	596
2022	517	29%	354	743
2021	400	62%	313	491
2020	247	-30%	129	302
2019	351	-12%	241	434
2018	401	32%	326	482
2017	305	44%	266	366
2016	212	-19%	104	302
2015	263	-52%	137	360
2014	534	-10%	323	598

**Notes:**  
 • Rotterdam Prices  
 • HFO - 380 Cst (Centistoke, a viscosity unit)

**Figure 3**  
10-YEAR HFO/CRUDE RATIOS (Cost of HFO per ton/price of crude per barrel)

Year	Average	Increase	Lowest	Highest
2023	5.8	4%	4.3	7.7
2022	5.6	4%	3.8	8.1
2021	5.4	6%	4.6	7.1
2020	5.1	-6%	3.4	7.7
2019	5.4	-5%	4.8	6.9
2018	5.7	2%	5.2	6.3
2017	5.6	14%	5.2	5.9
2016	4.9	14%	2.6	6.0
2015	4.3	8%	3.0	6.0
2014	4.0	-15%	2.5	4.5

**Notes:**  
 • Brent - Light North Sea crude oil, average monthly forward prices/barrel  
 • HFO - 380 Cst (Centistoke, a viscosity unit), Rotterdam prices per ton

## TRADES

### GLOBAL CONTAINER TRADES

#### Geopolitics and geopolitics

##### Red Sea re-routes

Whilst shipping had already adjusted in 2022 to the Ukraine and Russia conflict - more of which later - a new situation arose in the closing quarter of 2023 in the Red Sea. In reality, this was an extension or proxy of the bitter conflict that broke out in October between Hamas and Israel.

The impacts upon container shipping from this event were initially very limited, but from November, Houthi rebels controlling western Yemen and having a perfect view across the southern Red Sea, started launching drone or missile attacks on commercial shipping. (Their actions against commercial shipping actually started with the seizure the car carrier "Galaxy Leader").

The standoff attacks were initially launched against vessels with perceived Israeli connections, however indirect or tenuous, but soon broadened out to incorporate others. The response of the shipping industry at large was to re-route services that usually transited the Red Sea around the Cape of Good Hope.

With the container shipping sector to the fore, these diversions started off slowly but gained pace come the new year. They essentially covered services that connected coastlines east of the Red Sea with North Europe, the Mediterranean and, to a degree, North America's East Coast.

Those nations whose vessels were most at risk deployed a not inconsiderable naval presence to the region, grouped principally under the US-led "Operation Prosperity Garden" and the EU's "Mission Aspides". Their tasks were to intercept any incoming threat, be it air or surface borne, and thereby provide safe passage for vulnerable and targeted ships.

From November 2023 to mid-2024, 122 different attacks against all vessels, commercial and military alike, had been counted. These were not only restricted to the Bab al-Mandab Strait, the gateway to the Red Sea, but also extended further into Red Sea or Indian Ocean.

Despite the success in preventing many missiles and drones from reaching their goals, the coverage of these naval platforms was not all encompassing. With the evolving and continuing nature of the threat, and its occasional successes, the shipping industry at large had, come mid-2024, still not engaged in a mass return to the Red Sea/Suez route.

##### ...oh the irony (1)...

It seems that these diversions may well have indirectly boosted the market in some ironic, if not perverse way. Prior to then, the signs of difficult times for container shipping were clear to see. Demand was stumbling and with the vessel orderbook delivering swathes of new capacity, rates and services were adjusting sharply. Indeed, in February 2023, the benchmark Shanghai Containerized Freight Index fell below 1,000 for the first time since June 2020. It was not alone in its struggles as the many tables later in this chapter will attest.

The container shipping industry then entered one of its periodical bouts of hypothermia, removing services to keep the core functioning. Neither the causes nor effects of such behaviour are the signs of a healthy market.

##### East-West service reductions, included

Who/Trade	Service	When
<b>Baltic Sea</b>		
MSC	Swan, rotation shortened, capacity -50%	3Q 23
2M (Maersk, MSC)	AE1/Shogun, suspended	4Q 23
2M (Maersk, MSC)	3x services, 7x sailings cancelled in total	4Q 23
THE Alliance	FE5, suspended	4Q 23
Hapag-Lloyd	China Germany Express, closed	1Q 24
<b>Far East-Mediterranean</b>		
CU Lines	Far East-Med service, closed	3Q 23
MSC	Dragon, 3x sailings cancelled	3Q 23
<b>Transpacific (West Coast)</b>		
CU Lines	Transpacific WC service, closed	2Q 23
Pasha Hawaii	TPC (Costco backed), closed	2Q 23
THE Alliance	PS5, suspended	3Q 23
THE Alliance	PN3, suspended	4Q 23
<b>Transpacific (East Coast)</b>		
Transfar Shipping	Transpacific EC service closed	1Q 23
THE Alliance	EC4, suspended	4Q 23

However, as the diversions around the Cape of Good Hope required two, three or perhaps four extra ships for a Far East-North Europe loop, the extra capacity being delivered from a still substantial orderbook was being soaked up. Despite this, rates began to rise with the main SCFI figure growing by close to eighty percent in December 2023 alone. For the specific Far East-North Europe route, the gain was 248%. Rates kept on rising into 2024.

It is difficult to pin down precisely what went on. Whilst cargo demand grew year-on-year, so did capacity equally so, if not more strongly. Whilst all the diversions led to increased costs, which would naturally feed through to related freight rates, it could also be that purchasers and supply-chain managers, with memories of post-COVID imbalances fresh in their minds, saw that the Red Sea situation was most definitely not of the short-term variety. As a result, they looked to secure their stocks and the necessary shipping capacity as quickly as possible.

##### ...oh the irony (2)...

So, with artificially (or perceived) tight capacity and rates reacting accordingly, those carriers who had entered the market during the post-COVID boom but had left as the market normalised, might have had wry look at the new situation. In fact, they had all but disappeared come late 2023. For sure, one of those, Kalypso Navigazione of Italy, tried its hardest to survive the course, but matters conspired against it and at the end of the year, it filed for bankruptcy. The freight rate rises that were about to launch came too late for it.

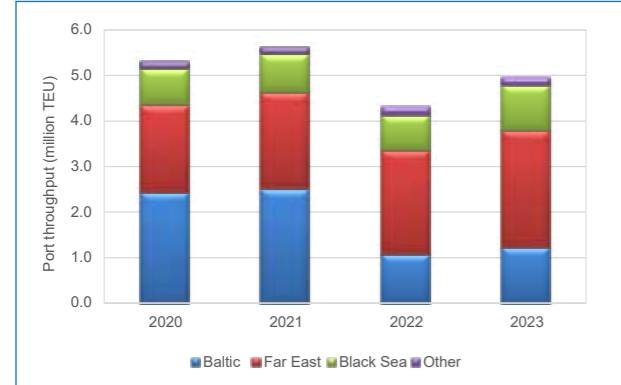
##### ...and still Russia in the background

The war between Russia and Ukraine, ongoing since early 2022, was still the dominant geopolitical story for much of 2023, until developments elsewhere provided an unwelcome distraction and further disruption. In 2023, the redrawing of Russia's previously established trading patterns - a result of the wide ranging sanctions imposed on Russia by many nations - started to crystallise. At the end of 2023, it was possible to see in figures just how much Russia's trade flows had changed. The longer the situation goes on, the harder it might be to return to the situation ante.

For the two years prior to hostilities breaking out, container trade to and from Russia's three main coastlines was clearly above the 5.0 million TEU line. In 2022, it dropped by a quarter to 4.1 million TEU, and although it bounced back in 2023, this only recovered half of what had been lost.

Underlying this evolution, was also a clear shift in Russia's centre of container shipping gravity. Whereas previously the Baltic, and within this St. Petersburg, was the largest coastline with around 46-47% sub-totalled throughput, for 2022-23, that share had dropped to 25-26%. The main beneficiary of this diversion was Russia's Far East whose share jumped from 37-39% to 54-56%. It also saw absolute (TEU) increases, a remarkable development in the context of a weaker overall market. The Black Sea also saw increased shares and handlings, such that in 2023 it broke both the 1.0 million TEU and twenty percent share barriers.

Evolution of Russian port traffic 2020-23



Analysis based upon data sourced from: SeaneWS/Portstat

The impacts were not only restricted to Russia's ports. Hamburg and Bremerhaven in Germany were major transshipment hubs for St. Petersburg (in fact, Russia as a whole was effectively a wholly transshipment market). The combined handlings of these two ports came to 11.9 million TEU in 2023, some thirteen percent down on the same figures of pre-invasion 2021. Transshipment, however, had reduced by twenty-two percent to 4.7 million TEU. There will be various reasons for these developments, but the realignment of Russian trading networks was definitely a major one.

Essentially, the Russia market continued evolving. In 2022, at least three new loops were launched into the Baltic, ten into the Black Sea and seven to Russia's Far East. With the exception of the last coastline, a number of these services were now direct intercontinental connections thereby circumventing the previously dominant transshipment options. These were routed through ports located in sanctions imposing countries. This trend of new services being created continued into 2023 as the accompanying table shows.

A common characteristic of many of these loops was that they were ensured by smaller ships ranging from 1,600-2,500 TEU and operating irregularly - monthly or fortnightly at the best.

For the service providers, regardless of the service quality, the Far East-St. Petersburg trade offered potentially lucrative rewards. In the first quarter of 2023, rates for this route were reported to be USD 4,000 per container when for other destinations in Europe, they were around USD 900.

In closing this particular segment, for all the extra services running directly into Russia, it is worth noting that the military situation in the Black Sea was considered safe and stable enough for direct container shipping connections to be re-established with Ukraine.

In the second quarter of 2024, Iteris Feeders launched a service between Constanta (Romania) and Chornomorsk (Ukraine). Although this employed a (very) small general cargo vessel, it was still more substantial than the workarounds options that had been adopted early in 2023. These saw two carriers de-

velop Constanta-River Danube alternatives. Hapag-Lloyd began offering connections to the Danube River port of Izmail on the Ukraine/Romania border about 110km from the Black Sea, with Maersk offering a similar option to the port of Reni, a further 30-40km upstream.

New Russia connections

Who/Trade	Service	When
<b>Baltic Sea</b>		
FESCO	intra-Baltic (Kaliningrad-St. Petersburg)	Jan-23
Reel Shipping	Egypt-Baltic (St. Petersburg)	Jan-23
Ruscon/Mountain Air (MAS)	Turkey-Baltic (St. Petersburg)	Jan-23
FESCO	China-Baltic (St. Petersburg)	Mar-23
Hainan Yangpu Newnew Shg	China-Baltic (St. Petersburg)	Mar-23
Modul	ECSA-Baltic (St. Petersburg)	Mar-23
OVP Shipping/Transfar/MAS	China-Baltic (St. Petersburg)	Mar-23
Transfar (via Safetrans)	China-Baltic (St. Petersburg)	Mar-23
Transit LLC	China-Baltic (St. Petersburg)	Mar-23
Neco Line	India/Pakistan-Baltic (St. Petersburg)	Aug-23
CStar Line	Mediterranean-Baltic (St. Petersburg)	Aug-23
Aurora line	China-Baltic (St. Petersburg)	Dec-23
E-Line Shipping/Neco Line	China-Baltic (St. Petersburg)	Dec-23
<b>Black Sea</b>		
FESCO	India-Black Sea (Novorossiysk)	Feb-23
Vistar Shipping	India-Black Sea (Novorossiysk)	Mar-23
Medkon	Turkey/Egypt-Black Sea (Novorossiysk)	Jul-23
CStar Line	Turkey-Black Sea (Novorossiysk)	Jul-23
Armenian Shipping Company	Georgia-Black Sea (Novorossiysk)	Aug-23
RC Line	India-Black Sea (Novorossiysk)	Aug-23
FESCO	Egypt-Black Sea (Novorossiysk)	Dec-23

<b>Russia Far East</b>		
e-Shipping	China/S.Korea-Russia (Vladivostok)	Mar-23
Sinokor/Heung-A	NEA/Vietnam-Russia (Vladivostok)*	May-23
Sinotrans	China/S.Korea-Russia (Vladivostok)	May-23
CStar Line	China/S.Korea-Russia (Vostochny)	Jul-23
Swift	China-Russia (Vostochny)	Jul-23
MSC	Busan-Russia (Petropavlovsk-K.)	Aug-23
Transit LLC	China-Russia (Vladivostok)	Nov-23

Above as noted by Dynamar and therefore to be considered 'at least'. \*Service extension to Russia

Global container trades carryings overview

According to Container Trade Statistics (CTS), who receives data from most of the players in the liner industry, containerised trade struggled to make progress in 2023. At just above 173 million TEU, it was barely half of one percent larger than 2022. That progress was booked was down entirely to intercontinental cargoes as these managed to add a couple of percentage points. Intra-regional movements reduced by three percent.

Global Container Volumes, TEU

Trade	'23/'22	2023	2022	2021
Intercontinental	2%	113,917,300	111,286,200	117,550,000
Intra-regional	-3%	59,304,700	61,143,200	62,242,100
<b>Total</b>	<b>0%</b>	<b>173,222,000</b>	<b>172,429,300</b>	<b>179,792,000</b>
Share intercont	-	66%	65%	65%
Share intra-reg	-	34%	35%	35%

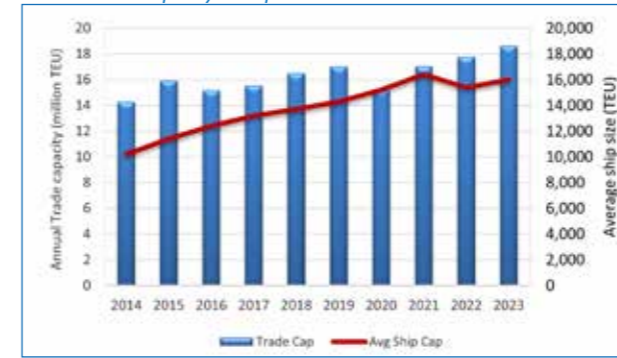
Source: Container Trades Statistics

EAST-WEST TRADES

Europe-Far East

Over the twelve months to mid-2023, the number of North Europe/Mediterranean-Far East services increased by two to thirty-five. The number of ships rose by twenty-seven units to 378. This came out at an average of approaching eleven per service and was slightly closer to the standard of twelve or thirteen ships (pre-Red Sea diversions). These figures suggested a slight easing of the capacity situation, something that was also improved by the average ship deployed growing by 600 TEU. Overall, Annual Trade Capacity rose by five percent to 18.6 million TEU and in doing so, set yet another all-time record.

Annual trade capacity: Europe-Far East



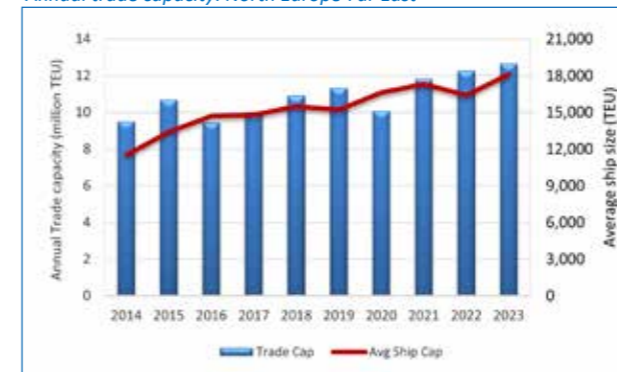
Survey conducted in July of each year

North Europe

The specific North Europe route held station at twenty-one services with the number of vessels deployed growing marginally. However, the average capacity of these ships jumped up by a strong 1,700 TEU (+10%). Despite this, Annual Trade Capacity posted a modest three to four percent growth to 12.6 million TEU, which was actually the largest figure ever recorded.

There were underlying carrier and service changes. Three non-Alliance loops provided by CU Lines/T.S. Lines, Allseas Shipping and Hapag-Lloyd had stopped for a variety of reasons, not the least Allseas' bankruptcy. Coming in were a standalone service operated by Tailwind, created principally to provide capacity for its affiliate Lidl's cargoes, and two direct Far East-St. Petersburg loops (OVP/Safetrans and FESCO) ensured by variable and much smaller tonnage on irregular frequencies.

Annual trade capacity: North Europe-Far East



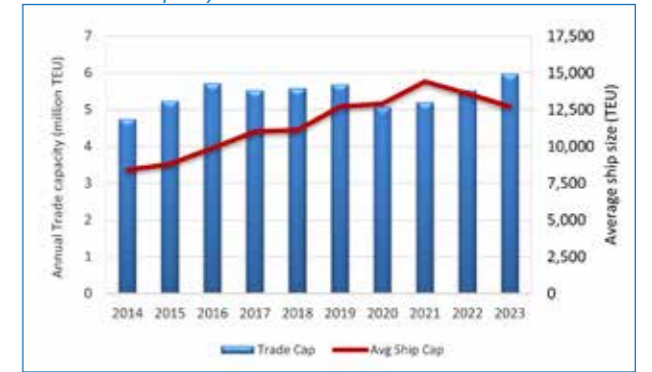
Survey conducted in July of each year

Mediterranean

Along the Mediterranean-Far East trade, service and vessel numbers were up by two and twenty-five units, respectively. However, much like for 2022, average vessel capacity was again down, this time by seven percent and 900 TEU. Counter-intuitively, Annual Trade Capacity (ATC) managed to expand by over eight percent to very nearly 6.0 million TEU, this being a new record.

In June 2023, CMA CGM launched a new Mediterranean-Far East loop, the "TLX". This offered a unique connection because it made a direct call to Misurata in Libya, a country - let alone port - that was hitherto served by transshipment. However, it was closed down only a few months later. CU Lines closed its service down in August, this completing its withdrawal from the East-West trades altogether, and Kalypso Navigazione, another of those entering during the rush to secure any capacity whatsoever, was all but gone by the end of the year.

Annual trade capacity: Mediterranean-Far East



Survey conducted in July of each year

Volumes and Rates

Europe-Far East volumes grew by four percent in 2023 to creep past 23.0 million TEU. This was the second lowest figure seen since 2016's 22.6 million TEU (2022 was lower). There were contrasting fortunes for the two directions with European exports down by four percent whilst imports were up eight percent. This resulted in the imbalance growing by a substantial seventeen percent to 10.1 million TEU, the highest that figure has ever been.

Looking at the monthly distribution of carryings, only January and February disappointed. All other months managed year-on-year growth, helped largely by a weak 2022. In general, the later months performed better than the early ones.

Europe/Mediterranean-Far East container trade, TEU

Month	'23/'22	2023	2022	2021
January	-13%	1,839,200	2,112,800	2,105,400
February	-8%	1,530,400	1,669,700	1,802,800
March	1%	2,000,800	1,974,500	2,139,400
April	6%	1,991,900	1,874,200	2,100,100
May	3%	1,998,800	1,935,600	2,150,900
June	8%	2,011,500	1,859,200	2,128,300
July	4%	2,035,900	1,959,900	2,108,000
August	3%	1,932,300	1,880,500	2,047,100
September	19%	1,957,100	1,638,100	2,004,100
October	10%	1,853,900	1,680,600	2,127,600
November	7%	1,824,800	1,708,600	2,035,000
December	14%	2,070,300	1,819,300	2,090,900
<b>Total</b>	<b>4%</b>	<b>23,046,800</b>	<b>22,113,100</b>	<b>24,839,600</b>
- of which EB	-4%	6,466,200	6,731,400	7,765,200
- of which WB	8%	16,580,600	15,381,700	17,074,300
Europe deficit	17%	10,114,400	8,650,300	9,309,100

Source: Container Trades Statistics

After a year where, in general, Europe-Far East rates went supernova, they were consistently down all through 2023 (in fact, they had been softening from mid-2022). The differences along the specific North Europe trade were dramatic. For the first ten months of 2023, they were, on average, down eighty-six percent year-on-year. It is only when the Israel/Hamas conflict started in October did that start improving, and come December, when diversions away from the Red Sea were starting, there was a seventy-two percentage point turnaround to reflect a strong positive change.

For the parallel trade to the (West) Mediterranean, the patterns were similar. Rates were seventy-seven percent down for the first ten months, on average, with the situation improving dramatically so that come December they were only nine percent down.

NCFI - 40' westbound freight rates Ningbo to Europe

Month	North Europe			W.Mediterranean		
	'23/'22	2023	2022	'23/'22	2023	2022
January	-89%	662	5,846	-79%	1,223	5,789
February	-89%	593	5,588	-80%	1,103	5,610
March	-89%	549	4,943	-81%	1,009	5,254
April	-87%	554	4,379	-80%	998	5,045
May	-87%	541	4,272	-80%	1,007	4,968
June	-88%	499	4,210	-81%	951	4,887
July	-87%	527	3,959	-81%	867	4,570
August	-83%	588	3,502	-77%	896	3,879
September	-83%	413	2,454	-70%	726	2,453
October	-76%	389	1,627	-63%	668	1,812
November	-46%	473	873	-49%	702	1,387
December	26%	894	712	-9%	1,206	1,325
Average	-84%	557	3,530	-76%	946	3,915
High	-85%	894	5,846	-79%	1,223	5,789
Low	-45%	389	712	-50%	668	1,325
Volatility	-72%	2.3	8.2	-58%	1.8	4.4

Monthly averages based upon data sourced from Ningbo Containerised Freight Index. Rates are USD per 40', based upon export CIF, CY to CY and include surcharges

The World Container Index exhibited similar patterns as the NCFI. To North Europe, the average monthly contraction for the first ten months was eighty-four percent, softening thereafter to be only minus thirteen percent come December. Along the parallel Mediterranean trade, the first ten months were seventy-nine percent down, before finishing the year with a reduction of thirty-eight percent.

WCI - 40' westbound spot rates Shanghai to Rotterdam/Genoa

Month	Rotterdam (N.Europe)			Genoa (Med)		
	'23/'22	2023	2022	'23/'22	2023	2022
January	-87%	1,828	13,857	-78%	2,826	12,791
February	-88%	1,670	13,647	-79%	2,626	12,741
March	-87%	1,529	12,033	-82%	2,273	12,396
April	-85%	1,582	10,496	-81%	2,236	12,077
May	-84%	1,581	9,835	-81%	2,201	11,750
June	-86%	1,395	9,631	-81%	2,110	11,324
July	-86%	1,305	9,177	-82%	1,930	10,477
August	-80%	1,673	8,553	-77%	2,065	8,875
September	-81%	1,243	6,640	-76%	1,651	6,969
October	-76%	1,016	4,201	-69%	1,400	4,587
November	-60%	1,173	2,920	-60%	1,410	3,552
December	-13%	1,530	1,750	-38%	1,804	2,932
Average	-83%	1,460	8,562	-78%	2,044	9,206
High	-87%	1,828	13,857	-78%	2,826	12,791
Low	-42%	1,016	1,750	-52%	1,400	2,932
Volatility	-77%	1.8	7.9	-54%	2.0	4.4

Monthly averages based upon data sourced from World Container Index for tariff rates with validity of 7-30 days.

The Container Trade Statistics' freight index (based upon manifest freight, expressed as an index with 100 set at 2008) does not usually exhibit the same extremes as the other indices. Even so, the patterns were again repeated, especially on the westbound trade to North Europe/Mediterranean where the first ten months were still seventy-two percent down, on average.

The return and weaker eastbound trade also followed a similar path.

CTS - Europe/Mediterranean-Far East rate indices

Month	Westbound			Eastbound		
	'23/'22	2023	2022	'23/'22	2023	2022
January	-67%	96	294	-29%	82	116
February	-70%	90	299	-34%	75	113
March	-71%	80	278	-34%	73	110
April	-73%	75	277	-38%	68	109
May	-74%	73	276	-40%	65	109
June	-75%	69	279	-42%	62	107
July	-76%	65	273	-47%	57	107
August	-74%	67	258	-46%	56	104
September	-72%	62	223	-45%	54	99
October	-67%	57	174	-45%	51	93
November	-57%	59	137	-44%	50	90
December	-42%	65	113	-39%	55	90
Average	-70%	72	240	-40%	62	104
High	-68%	96	299	-29%	82	116
Low	-50%	57	113	-44%	50	90
Volatility	-36%	1.7	2.6	27%	1.6	1.3

Source: Container Trades Statistics

Transatlantic

North Europe-North America

After two consecutive twenty percent spikes in Annual Trade Capacity, the Transatlantic (North Europe) trade adjusted in 2023 to fall below 3.5 million TEU. This was still the second highest figure ever recorded though. The contraction came from one fewer service with the underlying changes affecting three loops. Out went the fortnightly "Boston Express" of MSC and the "AT3" of Hapag-Lloyd to Montreal, whilst in came a new low capacity loop offered by Ellerman.

Notwithstanding the net loss of one service, there was still an increase in vessel numbers such that the average number of ships per loop grew from 5.8 to 6.3. This suggested an easing of the capacity situation and should have helped with schedule reliability. Average vessel capacity remained unchanged.

The Ellerman City Lines service was created using tonnage redeployed from its closed down Far East-Europe loop. The vessels deployed were still small though, ranging from 2,500 TEU up to 5,100 TEU.

Annual trade capacity: North Europe-North America



Surveys conducted in December of each year



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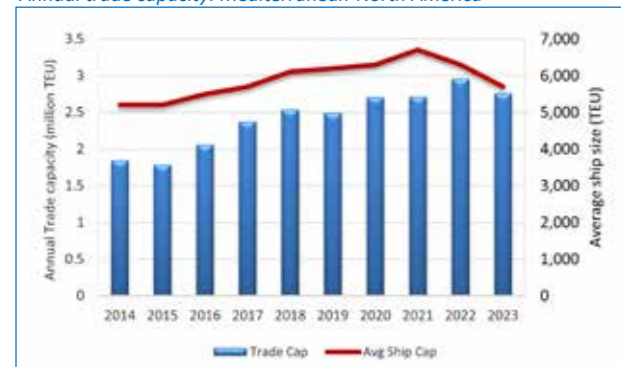
\*South East Asia to East Med Volumes & Price Index 2019



**Mediterranean-North America**

The Transatlantic (Mediterranean) showed Annual Trade Capacity contracting at a sharper rate of approaching seven percent. The resulting 8 million TEU was, alike its North Europe neighbour, still the second highest ever. Services reduced considerably though, from twenty to sixteen, as did vessel numbers (-23) and average vessel capacity (-600 TEU).

**Annual trade capacity: Mediterranean-North America**



Surveys conducted in December of each year

The service provision saw significant development. Three dedicated loops, these provided by Kalypso Navigazione, Melfi Marine and CoscoSL/OOCL, closed down. Alongside, two services previously offering wayport calls both out and back were no longer counted. Their absences would have been primarily responsible for the somewhat acute reductions of vessel numbers and average capacities. Coming in was a fortnightly operation provided by Grimaldi, this being ensured by container-Ro/Ro tonnage.

**Volumes and Rates**

Influencing the capacity developments, North Europe/Mediterranean-North America volumes contracted in 2023 by eight percent. This translated into a difference of 535,000 TEU as the total dipped under 7.5 million TEU. Of that, 4.9 million TEU was sent along the headhaul westbound direction to North America, this being eleven percent down on 2022. The losses were much less in the opposite direction and as a result, the imbalance between the headhaul and return legs shrank to 2.4 million TEU.

**Europe-North America container trade, in TEU**

Trade	'23/'22	2023	2022	2021
N.Eur+Med	-8%	7,464,400	8,122,700	8,359,400
- of which WB	-2%	2,533,900	2,595,600	2,710,600
- of which EB	-11%	4,930,500	5,527,100	5,648,800
Europe surplus	-18%	-2,396,600	-2,931,500	-2,938,300

Source: Container Trades Statistics

Given these developments, and in fact reflective of many trades, freight rates dropped dramatically. For the headhaul route to the US East Coast, according to World Container Index figures, they dropped by seventy-six percent from a start point of nearly USD 6,400 per 40' to less than USD 1,500 TEU. The year-on-year losses increased by each passing month until August where they stabilised at a frightening drop of 77-80%. The situation was mirrored, albeit not at such extreme levels, by the return trade from the US East coast.

**WCI - 40' westbound spot rates Rotterdam-New York**

Month	Westbound (to NYC)			Eastbound (to RTM)		
	'23/'22	2023	2022	'23/'22	2023	2022
January	2%	6,393	6,280	-1%	1,227	1,244
February	-9%	5,897	6,485	-4%	1,187	1,231
March	-21%	5,224	6,587	-2%	1,141	1,168
April	-29%	4,886	6,927	-16%	998	1,182
May	-38%	4,429	7,197	-26%	874	1,182
June	-54%	3,236	7,002	-34%	794	1,196
July	-75%	1,751	6,894	-42%	736	1,267
August	-77%	1,581	6,936	-40%	773	1,290
September	-77%	1,556	6,782	-41%	744	1,270
October	-79%	1,547	7,309	-46%	707	1,317
November	-80%	1,494	7,337	-53%	614	1,320
December	-79%	1,493	7,084	-54%	591	1,288
Average	-52%	3,290	6,902	-31%	866	1,246
High	-13%	6,393	7,337	-7%	1,227	1,320
Low	-76%	1,493	6,280	-49%	591	1,168
Volatility	267%	4.3	1.2	84%	2.1	1.1

Monthly averages based upon data sourced from World Container Index for tariff rates with validity of 7-30 days.

The rates indices from Container Trades Statistics showed only slightly milder developments year-on-year. Whilst the January comparatives for the westbound direction started with a five percent improvement, they got steadily worse thereafter with February already negative (seven percent) and as from August stayed resolutely within the negative 65-68% range. At least for shipments out of North America there was relative growth for the first four months whilst August-December saw changes of minus 23-28%.

**CTS - Europe-North America rate indices**

Month	Westbound			Eastbound		
	'23/'22	2023	2022	'23/'22	2023	2022
January	5%	235	223	17%	88	75
February	-7%	217	233	14%	88	77
March	-20%	195	244	10%	86	78
April	-38%	167	270	1%	82	81
May	-50%	143	287	-8%	79	86
June	-56%	127	290	-10%	78	87
July	-62%	111	292	-21%	75	95
August	-65%	103	293	-25%	73	97
September	-66%	99	291	-23%	72	94
October	-68%	92	284	-24%	72	95
November	-67%	90	274	-26%	70	95
December	-66%	90	261	-28%	68	94
Average	-49%	139	270	-12%	78	88
High	-20%	235	293	-9%	88	97
Low	-60%	90	223	-9%	68	75
Volatility	99%	2.6	1.3	0%	1.3	1.3

Source: Container Trades Statistics

**Transpacific**

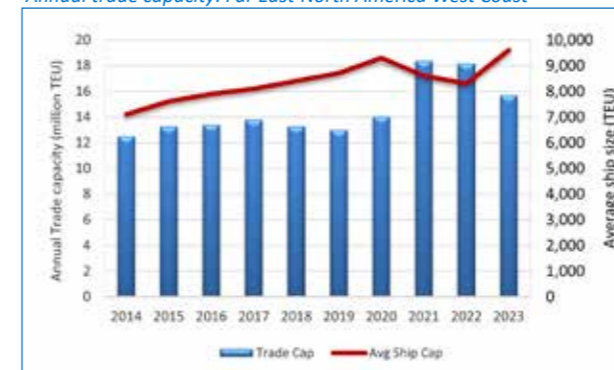
**Far East-North America West Coast**

As of September 2023, in comparison with around a year earlier, the Transpacific (West Coast) trade saw Annual Trade Capacity contract by approaching fourteen percent to 15.7 million TEU. This came from service numbers reducing by sixteen to fifty-eight. However, those departing loops were principally ensured by much smaller vessels, so the total shipboard capacity barely moved. As a result, average vessel capacity shot up to a record 9,600 TEU.

Another mitigating factor was that these smaller and now absent loops generally ran slower than once per week. Each ser-

vice in 2022 operated at an average of one sailing every 8.2 days. In 2023, it was back to a much more reasonable 7.3 days.

**Annual trade capacity: Far East-North America West Coast**



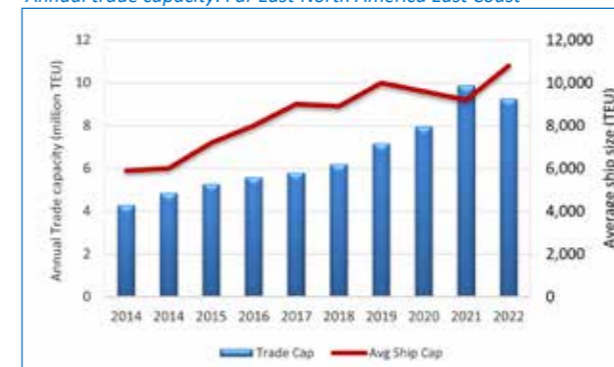
Survey conducted in August/September of each year

Amongst those carriers or combinations who closed down their Transpacific (West Coast) activities were China United (two loops), SeaLead (1), SeaLead/T.S. Lines (1), T.S. Lines (1), Transfar Shipping (1) and ZIM (2). Alongside, a number of established carriers rationalised their service provision by closing or merging loops. With the removal of so many irregular loops, there was also a relative increase in vessel provision per service. In 2023, there were over eight ships per service whereas in 2022, the average was just over seven.

**Far East-North America East Coast**

There was a similar although not as extreme pattern along the Transpacific (East Coast) trade. Service numbers reduced by six to twenty-four with average ship capacity spiking to a record 10,800 TEU. This latter managed to limit the losses to just six percent and leave a new Annual Trade Capacity of 9.2 million TEU.

**Annual trade capacity: Far East-North America East Coast**



Survey conducted in August/September of each year

Those six services that departed came from the 2M/ZIM combination, Maersk, MSC, Wan Hai, SeaLead/T.S. Lines and Transfar. Most of these had only been launched in 2022.

**Volumes and Rates**

There were contrasting fortunes along the broad Transpacific trade as imports into North America shrank by four percent whilst exports grew by four percent. However, with imports being so dominant, there was an overall reduction of three percent to 27.3 million TEU.

When looking at the headhaul trade volume (21.0 million TEU) against the return North America exports (6.2 million TEU), the imbalance was still a hefty 14.8 million TEU. This was, though, seven percent and 1.2 million TEU down on the previous year.

**Far East-North America container trade, in TEU**

Trade	'23/'22	2023	2022	2021
Total	-3%	27,262,500	28,019,000	30,251,400
- of which N.Am exp	4%	6,218,500	6,003,700	6,421,700
- of which N.Am imp	-4%	21,044,000	22,015,300	23,829,700
N.Am deficit	-7%	14,825,500	16,011,500	17,408,100

Source: Container Trades Statistics

However, the Transpacific trade was in a different place in terms of its freight rates cycle than the other two East-West trades. As such, both West and East Coast routes were experiencing their maximum pain in the opening months of 2023 rather than later in the year. Yet alike all the other routes, year-on-year comparatives started softening from mid-2023 and even showed improvement in November and/or December.

**NCFI - 40' westbound freight rates Ningbo to North America**

Month	US West Coast			US East Coast		
	'23/'22	2023	2022	'23/'22	2023	2022
January	-84%	778	4,752	-74%	907	3,478
February	-85%	722	4,941	-77%	817	3,569
March	-87%	662	5,053	-81%	694	3,640
April	-83%	860	4,983	-79%	794	3,696
May	-84%	776	4,940	-78%	793	3,544
June	-83%	782	4,533	-77%	772	3,426
July	-75%	996	3,987	-72%	919	3,255
August	-62%	1,223	3,178	-65%	1,079	3,096
September	-34%	1,131	1,705	-63%	887	2,376
October	-3%	1,030	1,066	-59%	763	1,844
November	21%	1,054	870	-37%	816	1,304
December	39%	1,122	808	5%	1,040	994
Average	-73%	928	3,401	-70%	857	2,852
High	-76%	1,223	5,053	-71%	1,079	3,696
Low	-18%	662	808	-30%	694	994
Variance	-70%	1.8	6.3	-58%	1.6	3.7

Monthly averages based upon data sourced from Ningbo Containerised Freight Index. Rates are USD per 40', based upon export CIF, CY to CY and include surcharges

Showing that different rate indices can behave independently, the World Container Index showed contrasting patterns. For the Transpacific (West Coast) trade it was similar to that of the NCFI, with very sharp contractions of 75-82% for the first seven months before improving to see a gradual increase come year's end. Rates along the East Coast also followed a similar pattern starting the year at USD 3,518 and falling almost every month to November before a rebound brought the finishing figure back to USD 2,937. However, the average change for the year, despite that bounce, was still seventy percent.

**WCI - 40' westbound rates Shanghai to Los Angeles**

Month	Los Angeles (USWC)			New York (USEC)		
	'23/'22	2023	2022	'23/'22	2023	2022
January	-81%	2,045	10,757	-74%	3,518	13,624
February	-81%	2,022	10,680	-77%	3,058	13,197
March	-82%	1,883	10,229	-79%	2,634	12,403
April	-80%	1,772	8,738	-76%	2,670	11,274
May	-79%	1,818	8,659	-74%	2,811	10,997
June	-79%	1,729	8,260	-74%	2,718	10,569
July	-75%	1,870	7,381	-72%	2,815	10,002
August	-65%	2,300	6,617	-65%	3,420	9,701
September	-51%	2,134	4,332	-64%	3,004	8,343
October	-24%	1,984	2,619	-58%	2,624	6,279
November	-4%	2,128	2,206	-50%	2,607	5,234
December	1%	2,031	2,004	-27%	2,937	4,026
Average	-71%	1,976	6,873	-70%	2,901	9,637
High	-79%	2,300	10,757	-74%	3,518	13,624
Low	-14%	1,729	2,004	-35%	2,607	4,026
Variance	-75%	1.3	5.4	-60%	1.3	3.4

Monthly averages based upon data sourced from World Container Index for tariff rates with validity of 7-30 days.

Rates on the return Los Angeles to Shanghai leg showed gradually increasing struggles. They started at USD 1,137 per 40', but by year's end had dropped by one third and USD 369 to USD 768. The average change for each month was a reduction of twenty-five percent.

WCI - 40' Westbound rates Los Angeles to Shanghai

Month	Los Angeles (USWC)		
	'23/'22	2023	2022
January	-11%	1,137	1,274
February	-10%	1,129	1,250
March	-15%	1,076	1,263
April	-19%	1,035	1,275
May	-20%	1,022	1,272
June	-18%	1,022	1,248
July	-33%	852	1,273
August	-33%	842	1,257
September	-34%	834	1,269
October	-31%	818	1,185
November	-47%	629	1,180
December	-35%	768	1,175
Average	-25%	930	1,243
High	-11%	1,137	1,275
Low	-46%	629	1,175
Volatility	66%	1.8	1.1

Monthly averages based upon data sourced from World Container Index for tariff rates with validity of 7-30 days

**NORTH/SOUTH TRADES**

**Overview**

The intercontinental container shipping trades are broadly split between East-West and North/South routes. The former comprises three distinct trade lanes: the Transpacific (Far East-North America); Transatlantic (Europe-North America); Far East-Europe. All other intercontinental trades are considered North/South, even if the actual sailings occur in an east-west direction. These routes connect with Latin America, sub-Saharan Africa, the Middle East/Indian Subcontinent and Australasia.

In 2023, thirty-two percent of intercontinental imports were intended for one of those North/South coastlines. They also accounted for twenty-one percent of intercontinental exports. Both were single percentage point improvements on what had been stable shares since at least 2020. The Middle East/Indian Subcontinent trades are the busiest, followed in order by Latin America, sub-Saharan Africa and then Australasia.

North/South volumes grew by five percent in 2023, which was much better than for the deepsea East-West (-1% overall) and intra-regional trades (-3%).

For exports, all coastlines posted growth although Latin America's one percent gain was somewhat slower than the three others. Coming back, the spread was much wider with Australasia imports actually shrinking by three percent. Latin America still had a marginal growth whilst sub-Saharan Africa and Middle East/Indian Subcontinent cargoes enjoyed double-digit growth rates.

*North-South container trades, in TEU*

North/South	'23/'22	Export	'23/'22	Import
Australasia	5%	2,456,200	-3%	3,752,000
Sub-Saharan Africa	8%	3,285,200	11%	8,074,000
Mid East & ISC	7%	10,247,900	13%	15,503,100
Latin America	1%	7,544,800	1%	9,522,000
<b>Total North-South</b>	<b>5%</b>	<b>23,534,100</b>	<b>8%</b>	<b>36,851,200</b>
All Inter-continental	2%	113,917,300	2%	113,917,300
North/South share		21%		32%

Excludes intra-regional volumes. Source: Container Trades Statistics

With imports remaining the dominant direction and continuing to grow at an overall stronger rate, the North/South export deficit decreased by 1.4 million TEU to 13.3 million TEU. This meant that around 64 TEU of cargo was exported by the North/South trades for every 100 TEU they imported.

When looking at specific partner trades, the Far East was responsible for just over half of North/South imports at 19.3 million TEU. However, it received only thirty-five percent of exports

at 8.2 million TEU. Compared with 2022, these figures represented differences of +8% for North/South exports and +15% for imports.

Europe was the second largest trading partner responsible for over one fifth of North/South imports and twenty-seven percent of exports. North America collected fourteen percent of North/South exports and sends twenty percent of imports. 'Others' relate to containerised trade between the North/South coastlines. These accounted for eighteen percent of North/South exports and twelve percent of imports, both being two percentage points up on 2022.

*North-South container trades, by partner, in TEU*

Trade Partner	'23/'22	N/S Export	'23/'22	N/S Import
Europe	1%	6,342,400	-5%	8,283,400
Far East	8%	8,181,300	15%	19,331,400
North America	-3%	4,768,700	-3%	4,994,700
Others	17%	4,241,700	17%	4,241,700
<b>Total North-South</b>	<b>5%</b>	<b>23,534,100</b>	<b>8%</b>	<b>36,851,200</b>
All Inter-continental	2%	113,917,300	2%	113,917,300
North/South share		21%		32%

Excludes intra-regional volumes. Source: Container Trades Statistics

**Europe trades**

*Overview Europe-North/South carryings*

In 2023, containerised traffic between Europe/Mediterranean and the various North/South coastlines dropped by two percent to 14.6 million TEU. This was one of the weaker performances of the past decade.

The reason behind the drop was the five percent contraction of the dominant southbound exports to 8.3 million TEU. Return imports to Europe grew by one percent to finish on 6.3 million TEU. These contrasting trends reduced the North/South imbalance by four percent (487,000 TEU) to 1.9 million TEU. This meant that the North/South trade lane partners returned 77 TEU for every 100 TEU they received, an improvement of 4 TEU.

*Main Europe-North/South container trades, in TEU*

Trade	'23/'22	2023	2022	2021
From Europe	-5%	8,283,400	8,682,100	8,788,200
To Europe	1%	6,342,400	6,253,700	6,514,700
<b>Total trade</b>	<b>-2%</b>	<b>14,625,800</b>	<b>14,935,700</b>	<b>15,302,900</b>
Imbalance	-20%	1,940,900	2,428,400	2,273,400

Sources: Container Trades Statistics. Europe includes Mediterranean.

**Middle East/Indian Subcontinent**

**Middle East (Red Sea)**

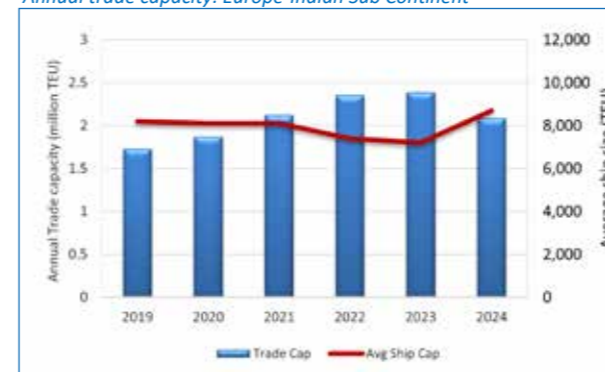
Attention has been paid elsewhere in this review to the diversion of vessels and services that would usually transit the Red Sea. Whilst the impacts are principally felt by Far East or Indian Subcontinent-Europe services, there are others that call the Red Sea, from the Far East or east Mediterranean say, that have also been affected.

To keep connections with the Red Sea and East Mediterranean many new links were launched. In reality, these were relay loops taking on cargoes that had been discharged in the west Mediterranean hubs of Algeciras, Tangier Med and Valencia, for example. Some of those services, but not all, continued past the east Mediterranean through the Suez Canal and into the Red Sea. Other services launched linked just the east Mediterranean and Red Sea.

**Indian Subcontinent**

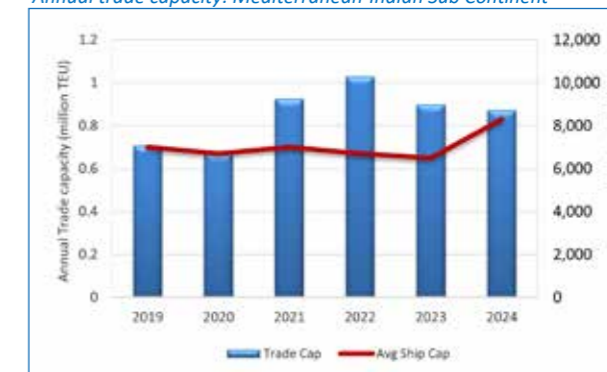
Between Europe/Mediterranean and the Indian Subcontinent, Annual Trade Capacity dropped by an acute 12.5% to fewer than 2.1 million TEU, this being as of the first quarter of 2024. The change was the result of two fewer services and came despite average vessel capacity jumping 1,500 TEU.

*Annual trade capacity: Europe-Indian Sub Continent*



Survey conducted in February/March of each year

*Annual trade capacity: Mediterranean-Indian Sub Continent*



Survey conducted in February-March of each year

**Container carryings**

In 2023, containerised traffic between Europe and the combined Middle East/Indian Subcontinent (ME/ISC) coastlines grew to 7.1 million TEU, the highest figure noted since at least 2017. Although the larger exports from Europe increased by one percent, it was the return imports that gave a real boost as they added five percent.

As a result of these developments, the difference between the two directions reduced by fourteen percent and 109,000 TEU to 658,000 TEU. The Middle East/Indian Subcontinent now sent back a relatively healthy 83 TEU for every hundred received, the second strongest performance since at least 2017.

*Europe-Middle East/ISC container trade, in TEU*

Trade	'23/'22	2023	2022	2021
Europe-ME/ISC	1%	3,877,500	3,844,500	3,709,300
ME/ISC-Europe	5%	3,219,100	3,077,000	3,254,000
<b>Total trade</b>	<b>3%</b>	<b>7,096,700</b>	<b>6,921,500</b>	<b>6,963,300</b>
Imbalance	-14%	658,400	767,500	455,300

Source: Container Trades Statistics

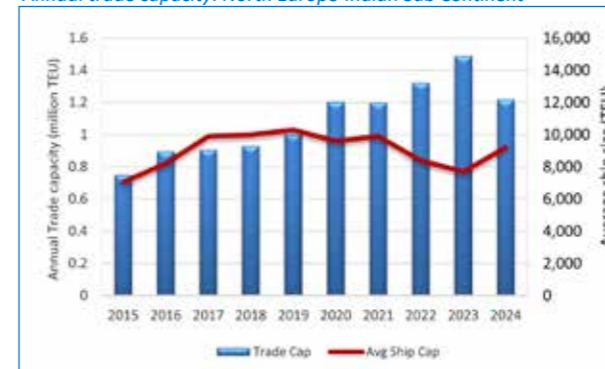
**Africa**

**West Africa**

Gateway Annual Trade Capacity along the overall Europe/Mediterranean-West Africa route has been showing considerable volatility of late. The eleven percent decline in 2024 followed a growth of sixteen percent booked in 2023, which in turn came after an eleven percent improvement in 2022. The 2024 fall came because service numbers contracted by two to fifteen, although any losses were mitigated by an average vessel capacity growth of 200 TEU.

In addition to all this gateway capacity, there is much more provided by the many relay services that call only the Mediterranean hub ports of Algeciras and/or Tangier Med. This is one of the most popular ways of serving West Africa, not only for the specific Mediterranean or general European trades, but also for a range of others, including the Far East. However, such relay services are not included in this overview.

*Annual trade capacity: North Europe-Indian Sub Continent*

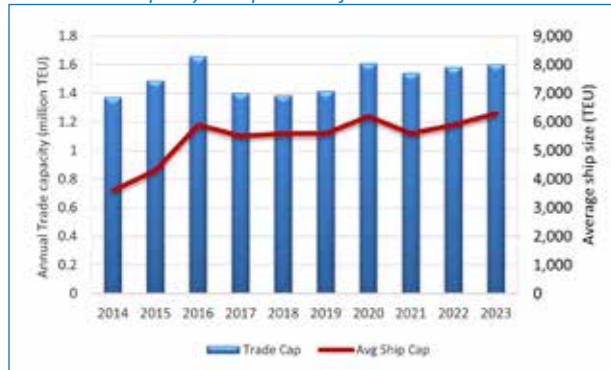


Survey conducted in February-March of each year

Along the parallel route that connects with the Mediterranean, Annual Trade Capacity reduced by a relatively minor three percent despite there being a net gain of one service.

Overall, there were five new services. MSC's rerouted "Himalaya Express", replacing two other connections, is the most relevant one. The four other loops were provided by SeaLead Shipping, Tehama Shipping, Vistar Shipping and FESCO. Except for SeaLead, they focussed on Russia's Black Sea port of Novorossiysk, were generally smaller in capacity and slower in frequency. Besides the dissolution of existing MSC connections, one Messina Line service no longer covered India, whilst another Russia related service provided by RC Line had ceased.

Annual trade capacity: Europe-West Africa



Survey conducted in February/March of each year

The specific North Europe trade lane drives the overall Europe connection. On this occasion, it lost close to fourteen percent to return 702,000 TEU, the lowest figure since 2011. The principal reason was the reduction in service numbers by one to nine. Average vessel capacity was unchanged.

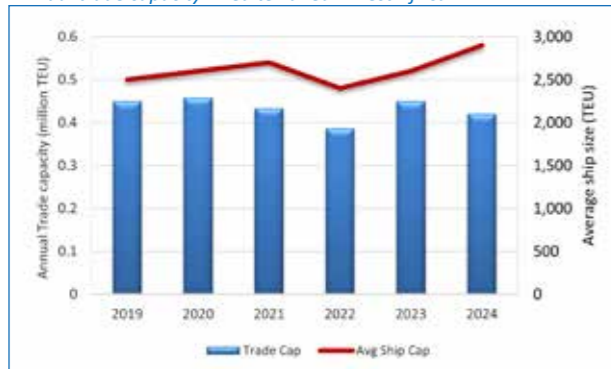
Annual trade capacity: North Europe-West Africa



Survey conducted in February/March of each year

Along the parallel Mediterranean trade, the number of services also dropped by one with CMA CGM's "Medwax" no longer qualifying as it now turned at the Gibraltar hubs rather than enter the Mediterranean fully. Average vessel capacity did grow by 300 TEU and this limited the damage to Annual Trade Capacity to a six/seven percent drop. However, the resulting 420,000 TEU was the lowest noted since this trade was first surveyed in 2019.

Annual trade capacity: Mediterranean-West Africa



Survey conducted in February/March of each year

Container carryings

Providing the context for the Annual Trade Capacity drops, containerised trade between Europe and West Africa contracted by eight percent in 2022 to 1.32 million TEU. This was its lowest level since the 1.37 million TEU noted in 2017. The downturn was across the board although European exports struggled more than imports, losing six percent to 979,000 TEU. West Africa return consignments shrank by a slower four percent with

the differing dynamics seeing the imbalance between the two directions reduce by eight percent to 634,000 TEU. This meant that West Africa returned 35 TEU for every 100 TEU imported, a slight improvement over the situation of 2022.

Europe-West Africa container trade, in TEU

Trade	'23/'22	2023	2022	2021
Europe-West Africa	-6%	978,800	1,046,300	1,176,600
West Africa-Europe	-4%	345,100	360,500	345,300
<b>Total trade</b>	<b>-6%</b>	<b>1,323,900</b>	<b>1,406,700</b>	<b>1,521,900</b>
Imbalance	-8%	633,700	685,800	831,300

Source: Seabury "World Ocean Yearly" Database. West Africa = Mauritania-DR Congo range and landlocked countries.

Between Europe and Southern Africa, container trade followed a similar pattern. Overall volumes contracted by eight percent to 744,000 TEU. The fall was led by southbound shipments from Europe declining by twelve percent to 432,000 TEU. The return trade from Southern Africa reduced by only two percent so that Europe's export surplus contracted by remarkable thirty percent to 120,000 TEU. This was the smallest noted since at least 2017. For 2023, Southern Africa now sent back 72 TEU for every 100 TEU it received. In 2022, it sent back 65 TEU.

Europe-Southern Africa container trade, in TEU

Trade	'23/'22	2023	2022	2021
Europe-S. Africa	-12%	432,000	491,500	514,600
S. Africa-Europe	-2%	311,700	319,700	304,600
<b>Total trade</b>	<b>-8%</b>	<b>743,700</b>	<b>811,200</b>	<b>819,200</b>
Imbalance	-30%	120,300	171,800	210,000

Source: Seabury "World Ocean Yearly" Database. Europe is North Europe + Mediterranean, including Black Sea and North Africa. Southern Africa = Angola-Mozambique range + landlocked countries (excluding Zimbabwe)

Containerised trade between Europe/Mediterranean and East Africa also followed the same patterns as the other two sub-Saharan coastlines. Overall trade dropped by eleven percent to 398,000 TEU, the lowest level since at least 2017. The dominant southbound exports contracted sharply, again, by twelve percent. Europe's imports from East Africa were also down but by a slightly milder seven percent. This meant that Europe's export surplus reduced by twenty percent to finish on 95,000 TEU, the smallest noted for many years. East Africa sent back 61 TEU in 2023 for every 100 TEU received. This compared with 58 TEU in 2021.

Europe-East Africa container trade, in TEU

Trade	'23/'22	2023	2022	2021
Europe-East Africa	-12%	246,500	281,700	309,000
East Africa-Europe	-7%	151,600	163,200	153,000
<b>Total trade</b>	<b>-11%</b>	<b>398,100</b>	<b>444,900</b>	<b>462,000</b>
Imbalance	-20%	94,900	118,500	156,000

Source: Seabury "World Ocean Yearly" Database. Europe is North Europe + Mediterranean, including Black Sea and North Africa. East Africa = Eritrea-Tanzania range + landlocked countries (including Zimbabwe) + Indian Ocean Islands

Latin America

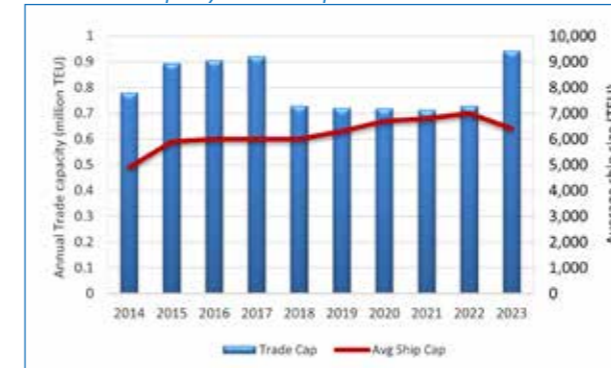
East Coast South America

Annual Trade Capacity between North Europe and the East Coast of South America jumped enormously in 2023 to 943,000 TEU. This came from two new services. One was provided by CoscoSL, OOCL and ONE (the "LUX/EEX") with the other coming from Russian operator Modul. Both loops were relatively small with the first ensured by vessels averaging 4,300 TEU. The second had ships barely half the size and with only a couple of those, the frequency was also very low. Whilst these services definitely added to the capacity, they were not solely responsible. The 1,400 TEU increase per ship to 10,500 TEU on the joint MSC and Hapag-Lloyd loop would also have been very influential.

The joint Hapag-Lloyd/MSK service, plus a standalone loop operated by Maersk (with vessels of 10,600 TEU) continue to dominate the trade. The remaining options only offered small

amounts of Annual Trade Capacity. Grimaldi ran a Ro/Ro loop whilst the joint CMA CGM/Marret service also called a substantial contingent of ports in the Caribbean, thereby diluting the Annual Trade Capacity that could be allocated to South America.

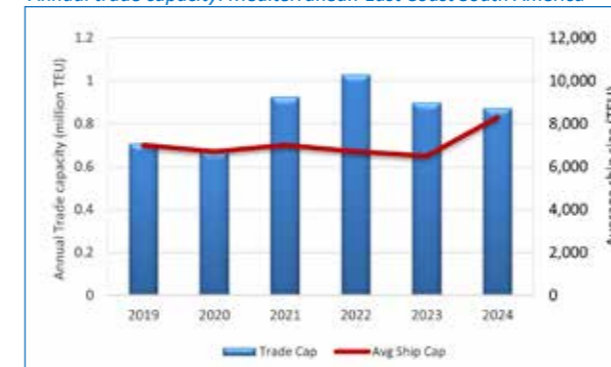
Annual trade capacity: North Europe-East Coast South America



Survey conducted in April/November of each year

Along the Mediterranean route, the two full container services were joined by a third one provided by Sealead shipping. This was a monthly operation only, ensured by a 1,700 TEU vessel that turned at Casablanca. Overall, Annual Trade Capacity grew by nearly four percent to 683,000 TEU.

Annual trade capacity: Mediterranean-East Coast South America



Survey conducted in April/November of each year

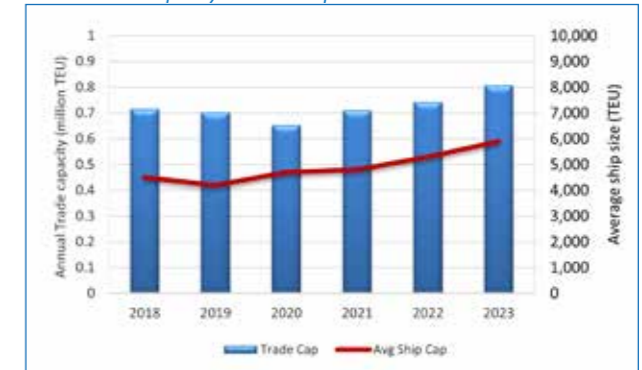
West Coast South America

At the midpoint of 2023, Annual Trade Capacity between North Europe and the West Coast of South America grew by nearly nine percent to 807,000 TEU. This was the third year of sound growth and set a new absolute record since this trade was first surveyed in 2018.

The increase in Annual Trade Capacity was made possible because the average shipboard capacity grew by 600 TEU to 5,900 TEU. The numbers of services (6) and vessels (48) were both unchanged. Of the six loops, two were provided by low capacity reefer operations, one of which, operated by Cool Carriers, continued to sail into Russia.

There was also a relatively small 212,000 TEU of Annual Trade Capacity offering direct Mediterranean-WCSA connections. This came from the established "Ecumed" loop of Maersk and the 2022 launched "MSW" of Hapag-Lloyd. Annual Trade Capacity grew by thirteen percent despite average vessel capacity being unchanged. This was because fewer ports outside of the Mediterranean or West Coast South America now featured on the services.

Annual trade capacity: North Europe-West Coast South America



Survey conducted in June of each year

Caribbean

As of the third quarter of 2023, North Europe-Caribbean Annual Trade Capacity (ATC) reversed three years of contraction to push back past the 1.0 million TEU barrier. Even so, only 2022 and 2014 showed lower levels of activity over the previous decade.

Even though service numbers stayed the same and average vessel capacity dropped slightly, the improvement came because the share of ports located in North Europe or the Caribbean grew by seven percent (to 64%). Other ports called were located in South America and siphoned off capacity that would otherwise be allocated to the North Europe-Caribbean trade.

Annual trade capacity: North Europe-Caribbean

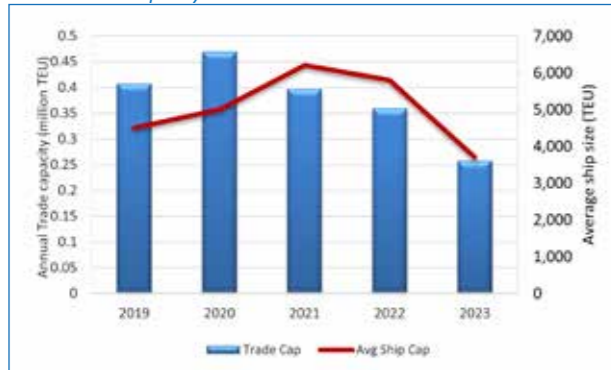


Survey conducted in August/September of each year

The parallel Mediterranean-Caribbean route saw five services, this being one down from 2022. The absentee was MSC's "California Express" to the West Coast of North America which no longer offered Caribbean wayport calls in both directions. Average vessel capacity dropped by an acute 2,200 TEU (-36%) as a result of this service no longer being included. These developments all led to a twenty-eight percent contraction of Annual Trade Capacity to 257,000 TEU. This was the third reduction in a row and the lowest figure noted since this specific route was first surveyed in 2019.

From the five services, only two were dedicated to the Mediterranean-Caribbean trade, with one of those provided by reefer ships. The other three extended to the West Coast of South America, which would have been their specific focus and therefore attracted more of the Annual Trade Capacity.

Annual trade capacity: Mediterranean-Caribbean



Survey conducted in September of each year

**Container carryings**

The overall Europe-Latin America trade shrank by eight percent in 2023 to register 3.7 million TEU. Whilst both directions saw traffic reduce, it was the weaker Latin America import leg which lost most of all with a thirteen percent fall to 1.7 million TEU. The dominant Latin America exports lost two percent only. As a result, Europe's export deficit grew by 209,000 TEU. This was previously a relatively balanced trade but now saw a shift as Europe returned 83 TEU for every 100 TEU. The previous year, the figure was 94 TEU.

Europe-Latin America container trade, in TEU

Trade	'23/'22	2023	2022	2021
Europe-L. America	-13%	1,668,900	1,925,100	2,108,100
L. America-Europe	-2%	2,009,200	2,056,300	2,192,800
<b>Total trade</b>	<b>-8%</b>	<b>3,678,100</b>	<b>3,981,400</b>	<b>4,300,900</b>
Imbalance	159%	-340,300	-131,200	-84,700

Source: Container Trades Statistics

**Australasia**

Following service changes that occurred in 2019, there have only been two operations that offer direct connections between Europe and Australasia. One is routed via the Mediterranean, Suez Canal and Indian Ocean. Named the "NEWMO/Australia-Europe Express", it is provided by CMA CGM and MSC. The other service is also a joint operation involving CMA CGM, although on this occasion its partner is compatriot Marfret. This service is routed via the Atlantic Ocean, Panama Canal and Pacific Ocean.

In mid-2023, Grimaldi made a test run for what it hoped would be a monthly multipurpose-Ro/Ro service between North Europe and Australia/New Zealand. A 31,300 dwt/1,800 TEU/5,770 lane metre vessel was used, it carrying containers, cars, trucks, wheeled machinery and other breakbulk cargoes. The service was still in operation into 2024.

Trade volumes have generally struggled over the years with the 787,000 TEU of 2023 the lowest for a long time. As with many other European routes, it was European exports that were responsible for most of the reduction. Here they shrank by thirteen percent to 618,000 TEU. The return trade was also down acutely, by eight percent. These developments reduced Europe's export surplus by 76,000 TEU to leave it on a still very sizeable 450,000 TEU. Australasia now returned 27 TEU for every 100 TEU it received, an improvement of 1 TEU.

Europe-Australasia container trade, in TEU

Trade	'23/'22	2023	2022	2021
Europe-Australasia	-13%	618,400	709,800	754,200
Australasia-Europe	-8%	168,800	184,300	188,200
<b>Total trade</b>	<b>-12%</b>	<b>787,100</b>	<b>894,100</b>	<b>942,400</b>
Imbalance	-14%	449,600	525,500	566,000

Sources: Container Trades Statistics

**North America trades**

**Overview**

The North/South routes to and from North America shrank by three percent in 2023 to finish below 10.0 million TEU and bring it in line with 2019's return of 9.74 million TEU. As both the North America directions contracted by three percent, exports maintained their marginally dominant position even though the gap with imports shrank by 30,000 TEU to 226,000 TEU.

Main North America-North/South container trades, in TEU

Trade	'23/'22	2023	2022	2021
From N. America	-3%	4,994,700	5,172,200	5,137,200
To N. America	-3%	4,768,700	4,915,700	5,053,400
<b>Total trade</b>	<b>-3%</b>	<b>9,763,400</b>	<b>10,087,900</b>	<b>10,190,600</b>
Imbalance	-12%	226,000	256,500	83,700

Sources: Container Trades Statistics

**Middle East/Indian Subcontinent**

For the North America-Middle East/Indian Subcontinent trade (ME/ISC), in 2023, volumes grew by two percent to 3.4 million TEU. This came from much stronger North American exports as they added seven percent whilst imports to North America fell by two percent.

This softened the North American export deficit by a significant forty one percent to 193,000 TEU. It also meant that North America sent back 89 TEU with cargo for every 100 TEU it received. One year earlier, the return ratio was 82 TEU. Prior to 2020, North America had enjoyed an export surplus and, if the subsequent trends continue, it may well start enjoying one again.

North America-Middle East/ISC container trade, in TEU

Trade	'23/'22	2023	2022	2021
N. America-ME/ISC	7%	1,617,000	1,513,000	1,422,300
ME/ISC-N. America	-2%	1,810,100	1,841,700	1,942,400
<b>Total trade</b>	<b>2%</b>	<b>3,427,100</b>	<b>3,354,700</b>	<b>3,364,700</b>
Imbalance	-41%	193,100	328,700	520,100

Source: Container Trades Statistics

**Africa**

The North American trade with sub-Saharan Africa was static in 2023 at 478,000 TEU. Movement in either direction was marginal with imports to North America managing a slight increase. As a result, the North America export surplus shrank by 2,500 TEU to 142,000 TEU, with the sub-Saharan Africa return ratio also strengthening to 54 TEU for every 100 TEU of southbound cargo received.

North America-sub-Saharan Africa container trade, in TEU

Trade	'23/'22	2023	2022	2021
N. America-Africa	0%	309,800	310,600	360,500
Africa-N. America	1%	167,800	166,100	161,400
<b>Total trade</b>	<b>0%</b>	<b>477,600</b>	<b>476,700</b>	<b>521,900</b>
Imbalance	-2%	141,900	144,400	199,100

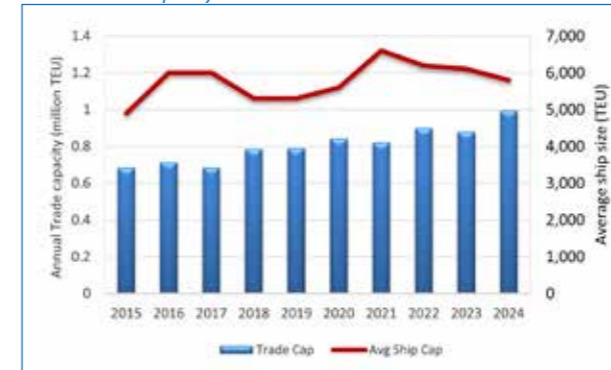
Source: Container Trades Statistics

**Latin America**

**East Coast South America**

As of April 2024, Annual Trade Capacity between North America (US East/Gulf Coast) and the East Coast of South America had grown by thirteen percent over the year to 993,000 TEU. This represented a new record beating the previous best of 898,000 TEU recorded in 2022. This latest jump came from the addition of ZIM's "Gulf Toucan" service, although its low average vessel capacity of 2,700 TEU dragged down the overall average for the trade by 300 TEU.

Annual trade capacity: USEC-ECSA



Survey conducted in April of each year

**West Coast South America**

For a long while, the niche US East/Gulf Coast-West Coast South America trade was limited to a small service operated by Seaboard Marine. However, in 2023, two new loops were launched, which in the context of the previous provision was a substantial expansion. These additions came from ONE, whose new "FLX" was the US Gulf dedicated, whilst ZIM's "ACX" extended up to Philadelphia.

**Container carryings**

The overall North America-Latin America trade shrank by a sharp six percent in 2023 to 5.4 million TEU. On this occasion, it was the dominant North American exports that struggled more as they contracted by seven percent, three points worse off than for the reverse direction. This led to the North American surplus contracting by thirty percent to 233,000 TEU. It also resulted in Latin America seeing its return ratio improve from the already relatively healthy 89 TEU to 92 TEU for every 100 TEU it received.

North America-Latin America container trade, in TEU

Trade	'23/'22	2023	2022	2021
North A.-Latin A.	-7%	2,806,100	3,021,200	3,027,400
Latin A. -North A.	-4%	2,573,000	2,684,400	2,727,100
<b>Total trade</b>	<b>-6%</b>	<b>5,379,100</b>	<b>5,705,600</b>	<b>5,754,500</b>
Imbalance	-31%	233,100	336,800	300,300

Source: Container Trades Statistics

**Australasia**

The North America-Australasia route contracted by a very sharp thirteen percent in 2023 such that it was well below 500,000 TEU. The principal driver of this was North American exports dropping by one fifth. As imports from Australia shrank marginally, North America's export surplus was severely dented by close to sixty percent with it registering just 44,000 TEU. As a result, Australasia now sent back 83 TEU per 100 TEU received whereas previously it was 68 TEU.

North America - Australasia container trade, in TEU

Trade	'23/'22	2023	2022	2021
N. Am.-Australasia	-20%	261,900	327,400	326,900
Australasia-N. Am.	-3%	217,800	223,400	222,600
<b>Total trade</b>	<b>-13%</b>	<b>479,600</b>	<b>550,900</b>	<b>549,500</b>
Imbalance	-58%	44,100	104,000	104,400

Source: Container Trades Statistics

One significant service development along this niche trade occurred in 2023 with the disbandment of the long-standing joint "Polynesia Service" of Maersk's Hamburg Süd (prior to its retirement as a brand) and Swire Shipping. This connected the United States West Coast with Pacific Islands. Hamburg Süd continued on a standalone basis deploying two vessels offering a seventeen day frequency.

**Far East Trades**

**Overview**

In 2023, 27.5 million TEU of containerised cargo passed along the Far East's North/South trade lanes. This represented a substantial growth of thirteen percent and smashed all previous records.

The change was driven by the dominant Far East exports increasing by fifteen percent to 19.3 million TEU. Return shipments to the Far East also grew strongly at eight percent to 8.2 million TEU. With the headhaul lane growing at a faster rate, the Far East export surplus added nearly 2 million TEU to end on 11.1 million TEU. This meant that the various North/South coastlines now sent back 42 TEU for every 100 TEU received from the Far East, a reduction of 3 TEU compared with 2022.

Main Far East-North/South Container Trades, in TEU

Trade	'23/'22	2023	2022	2021
From Far East	15%	19,331,400	16,781,000	17,116,400
To Far East	8%	8,181,300	7,586,500	7,659,100
<b>Total trade</b>	<b>13%</b>	<b>27,512,700</b>	<b>24,367,400</b>	<b>24,775,500</b>
Imbalance	21%	11,150,100	9,194,500	9,457,400

Source: Container Trades Statistics

**Middle East/Indian Subcontinent**

**Middle East (Gulf)**

In mid-2023, there were eleven services offering direct shipping connections between the Far East and Middle East (Gulf). These were provided by eighty vessels averaging 9,800 TEU which reflects the fact that THE and the Ocean Alliances both incorporate the Middle East within their networks. They provide a combined forty-four vessels that average 11,900 TEU. Alongside, MSC operates a nine ship service ensured by 13,300 TEU units. Annual Trade Capacity came in at 3.4 million TEU.

Outside of those named operators were another six arrangements, with Safeen Feeders and SeaLead being the only standalone carriers. The others involved three or four companies, with Emirates, KMTC and RCL appearing on two each (and not necessarily the same two).

**Middle East (Red Sea)**

Along the Far East-Red Sea trade, there were three dedicated services. Two were provided by the Ocean Alliance, one being a cooperation with non-alliance member PIL. THE Alliance accounted for the third loop and which included a single vessel provided by non-alliance member Wan Hai. These services were ensured by twenty-six vessels all told, averaging 10,200 TEU, that generated an Annual Trade Capacity of 1.1 million TEU.

**Container carryings**

In 2023, container traffic between the Far East and Middle East/Indian Subcontinent jumped by a strong sixteen percent to 11.5 million TEU. The already dominant export trade from the Far East was responsible for most of this. It grew by one fifth and 1.4 million TEU.

Imports to the Far East also went up but by a smaller seven percent. In doing so, these cargoes now exceeded 3.0 million TEU.

Following the various developments, the Far East's export surplus expanded by 1.2 million TEU to 5.4 million TEU. This meant that the Middle East/Indian Subcontinent return ratio weakened from 40 TEU to 36 TEU being sent back for every 100 TEU received.

Far East-Middle East/ISC container trade, in TEU

Trade	'23/'22	2023	2022	2021
Far East-ME /ISC	20%	8,464,700	7,040,500	7,061,900
ME/ISC-Far East	7%	3,035,400	2,849,500	2,898,700
<b>Total trade</b>	<b>16%</b>	<b>11,500,200</b>	<b>9,890,000</b>	<b>9,960,500</b>
Imbalance	30%	5,429,300	4,191,000	4,163,200

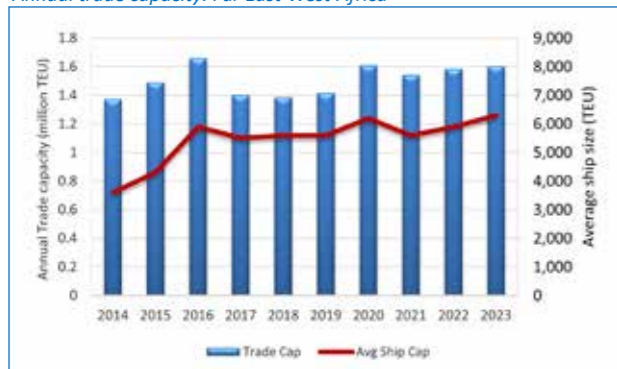
Source: Container Trades Statistics

Africa

West Africa

There were eight direct container shipping services between the Far East and West Africa in mid-2023. This number has been unchanged since 2017. The 2023 services were ensured by ninety-four ships which is a reduction of two compared with one year previously. Helped by average vessel capacity increasing by seven percent to 6,300 TEU though, Annual Trade Capacity grew slightly to push past 1.6 million TEU.

Annual trade capacity: Far East-West-Africa



Survey conducted in June/July of each year

Container carryings

Whilst Annual Trade Capacity exhibited modest growth, cargoes expanded by nine percent to 2.0 million TEU. Exports from the Far East strengthened their lead over imports, adding eleven percent to very nearly 1.6 million TEU. Imports to the Far East expanded by only two percent to 449,000 TEU. As a result, the

trade imbalance grew by fifteen percent to well over 1.1 million TEU. At a ratio level, West Africa now returned 28 TEU for every 100 received, a decrease of 3 TEU.

Far East-West Africa container trade, in TEU

Trade	'23/'22	2023	2022	2021
Far East-West Africa	11%	1,594,400	1,436,600	1,538,300
West Africa-Far East	2%	448,900	439,500	468,800
<b>Total trade</b>	<b>9%</b>	<b>2,043,300</b>	<b>1,876,200</b>	<b>2,007,200</b>
Imbalance	15%	1,145,400	997,100	1,069,500

Source: Seabury "World Ocean Yearly" Database. West Africa = Mauritania-DR Congo range including landlocked countries.

Southern Africa

Containerised trade between Southern Africa and the Far East also grew in 2023, the difference being six percent. This was due entirely to Far East exports, which were eight percent up. In contrast, imports to the Far East contracted marginally. As a result of their relative performances, the imbalance grew by 65,000 TEU to 707,000 TEU and also resulted in Southern Africa shipping just 20 TEU for every 100 TEU it received, a drop of 2 TEU.

Far East-Southern Africa container trade, in TEU

Trade	'23/'22	2023	2022	2021
Far East-S. Africa	8%	890,000	826,800	850,000
S. Africa-Far East	-1%	182,700	184,100	213,000
<b>Total trade</b>	<b>6%</b>	<b>1,072,600</b>	<b>1,010,900</b>	<b>1,062,900</b>
Imbalance	10%	707,300	642,700	637,000

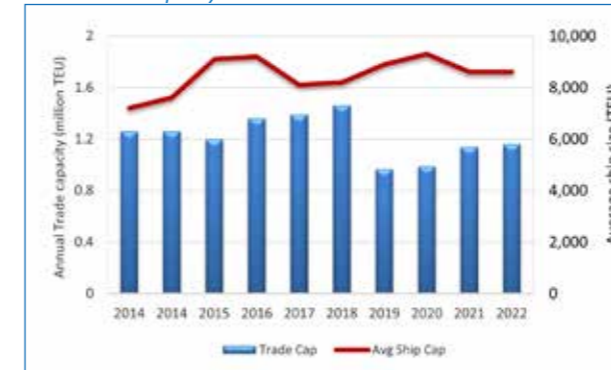
Source: Seabury "World Ocean Yearly" Database. Southern Africa = Angola-South Africa-Mozambique range, including landlocked countries (not Zimbabwe).

Latin America

East Coast South America

Annual Trade Capacity between the Far East and East Coast South America grew by a more sedate six percent after the remarkable nineteen percent jump in 2022. Annual Trade Capacity for 2023, therefore, exceeded 1.5 million TEU. Service numbers stabilised at five, with vessel capacity growing by 400 TEU and therefore providing the Annual Trade Capacity growth.

Annual trade capacity: Far East-East Coast South America

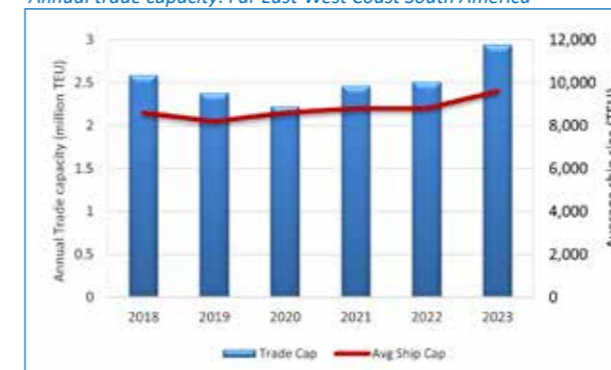


Survey conducted in June of each year

West Coast South America

To and from the West Coast of South America, Annual Trade Capacity continued its recent expansion by increasing a further ten percent to approach 3.0 million TEU. This was yet again a new record and came despite there being one fewer service. This was the "ASCA5" of CMA CGM/CoscoSL, which had only been launched in between the 2021-22 surveys. The reason for the trade capacity increase came from average shipboard capacity growing by a remarkable 1,400 TEU and seventeen percent to 9,600 TEU.

Annual trade capacity: Far East-West Coast South America



Survey conducted in June of each year

Container carryings

Container volumes between the Far East and all of Latin America (including Central America and the Caribbean) grew by ten percent to 6.6 million TEU. Both directions improved although in common with all other trades in this section, it was the dominant exports out of the Far East that were responsible for most of that growth. These expanded by twelve percent in 2023 to approach 4.6 million TEU.

The return imports from Latin America still managed a sound seven percent growth. Due to the difference in both growth rates and absolute sizes of the respective directions, the trade imbalance was now up by 344,000 TEU to 2.5 million TEU. The return ratio contracted slightly as Latin America sent back 45 TEU for every 100 TEU it received, a reduction of 2 TEU.

Far East-Latin America container trade, in TEU

Trade	'23/'22	2023	2022	2021
FE-L. America	12%	4,587,700	4,102,900	4,180,900
L. America-FE	7%	2,054,400	1,913,100	1,939,500
<b>Total trade</b>	<b>10%</b>	<b>6,642,000</b>	<b>6,016,000</b>	<b>6,120,400</b>
Imbalance	16%	2,533,300	2,189,800	2,241,500

Source: Container Trades Statistics

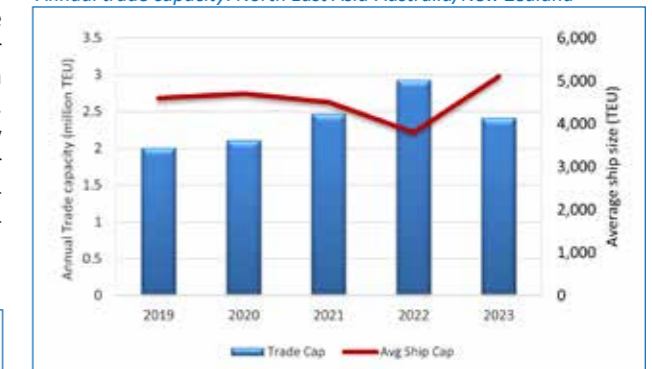
Australasia

Australia/New Zealand

Between Northeast Asia and Australia/New Zealand, late in 2023, there were fourteen services, which was a reduction of one third. This also led to a much reduced vessel complement of seventy-four. Although average vessel capacity increased by over thirty percent, Annual Trade Capacity reduced by eighteen percent to 2.4 million TEU. This ended three straight years of growth and even put it below the situation of 2021.

The services that departed were the "AC3" of ANL/CoscoSL/OOCL, the "CNX" of CoscoSL/OOCL, Matson's "CAX", T.S. Lines' "CA3" and three loops provided by ZIM. Of those services that remained, three concentrated upon New Zealand with the rest connecting to Australia.

Annual trade capacity: North East Asia-Australia/New Zealand

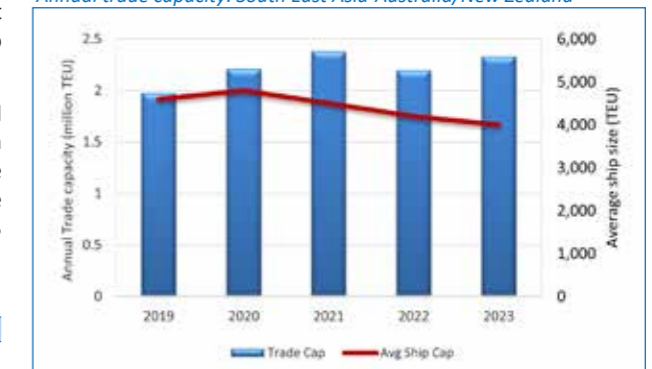


Survey conducted in November of each year

For the parallel route with Southeast Asia, eighteen services were noted, an increase of one. The number of vessels increased by eight although their average capacity dropped 200 TEU to 4,000 TEU. The Annual Trade Capacity grew by six percent to register 2.3 million TEU.

The underlying services changes reflected more than just the net addition of a single loop. Three operations were cancelled, namely ZIM's "C2A", which served the trade en route from Northeast Asia; ONE's "Fremantle Express", the carrier switching to a joint operation with Maersk; and Swire Shipping's "ESEA", which was compensated for by adding a stop in Southeast Asia to the "NAT" service. Other new connections were the "AAX-W" of ANL (CMA CGM group) and the "ETS/SDD" of Swire Shipping and MELL.

Annual trade capacity: South East Asia-Australia/New Zealand



Survey conducted in November of each year

Container carryings

Far East-Australasia volumes only managed to grow by three percent to finish on 4.4 million TEU. However, uniquely for all the Far East related trades summarised here, it was the weaker return leg from Australasia to the Far East that posted the fastest growth. It increased by six percent, four points better than



the dominant southbound direction. This reduced the imbalance again, continuing a trend that had gone on since 2020, so that it reflected 897,000 TEU. The Australasian return ratio also strengthened as a result to 66 TEU sent north for every 100 TEU sent south (+2 TEU).

#### Far East-Australasia container trade, in TEU

Trade	'23/'22	2023	2022	2021
Far East-Australasia	2%	2,654,400	2,607,800	2,799,800
Australasia-Far East	6%	1,756,900	1,654,700	1,615,800
<b>Total trade</b>	<b>3%</b>	<b>4,411,300</b>	<b>4,262,500</b>	<b>4,415,600</b>
Imbalance	-6%	897,400	953,100	1,184,000

Source: Container Trades Statistics

## REGIONAL TRADES

### Intra-Regional trades

'Intra-regional' cargoes, such as intra-Europe, intra-Far East, intra-North America and so on, consistently account for 34-35% of the global total. In 2023, this share resulted in 59.3 million TEU being moved within the various regional coastlines. This was 1.8 million TEU and three percent down on the previous year's figures. In contrast, the intercontinental routes (East-West and North/South) posted a two percent gain.

The intra-Far East trade continues to be not only the largest 'intra' trade but also be the largest defined trade in the world. On its own, it accounts for over three-quarters of all 'intra' volumes and more than a quarter of the global figure.

Most of the individual intra-trades contracted in 2023. The outliers were the Middle East/Indian Subcontinent, which followed up 2022's positivity with a ten percent growth, with Latin America seeing a marginally positive development.

The intra-Far East had the softest of all relative contractions (-3%), but this actually translated into the harshest of absolute losses at 1.5 million TEU. Almost all the remaining losses came from the intra-Europe trade whose drop of eight percent translated into 653,000 fewer TEU. The intra-Australasia and intra-sub-Saharan Africa trades lost the most relatively at minus eleven or nine percent, although being among the smallest internal trades, their combined loss only came to 67,000 TEU.

#### Intra-Regional Container Trades, in TEU

Trade	'23/'22	2023	2022	2021
Far East	-3%	45,096,300	46,600,200	47,146,700
Europe	-8%	7,527,000	8,180,500	8,931,100
Mid East & ISC	10%	4,288,500	3,897,100	3,542,800
Latin America	1%	1,491,500	1,479,300	1,585,700
Australasia	-11%	338,200	381,100	400,200
North America	-5%	324,300	341,700	331,800
Sub Saharan Africa	-9%	239,000	263,200	303,800
<b>Grand Total</b>	<b>-3%</b>	<b>59,304,700</b>	<b>61,143,200</b>	<b>62,242,100</b>
<b>intra-trades</b>				
All global trades	0%	173,222,000	172,429,300	179,792,000
Intra-Regional share	-	34%	35%	35%

Source: Container Trades Statistics; excludes feederling.

### Intra-Americas

There were a couple of significant developments within this trade. Late in 2023, Hapag-Lloyd established a 50/50 joint venture with Brazilian shipping and waterway logistics company Norsul. Named Norcoast, the following April it launched a Brazil cabotage operation with four ships of 3,500 TEU and thereby filled a capability gap Hapag-Lloyd had when compared with its peers. The Brazil cabotage trade is restricted, so having (access) to locally-flagged tonnage also gives access to this market. Existing majors MSC, Maersk and CMA CGM all have their own Brazilian affiliates through Log-In Logistica, Aliança and Mercosul respectively.

Further north, Unifeeder (AD Ports group) entered the intra-Caribbean trade early in 2023 with the launch of a single 800 TEU vessel loop between the Dominican Republic, neighbouring Haiti and Puerto Rico. It built upon this around a year later with a new Panama-Colombia service and then again shortly afterwards with a Colombia, Curacao, Aruba loop.

Coinciding with Unifeeder's entrance, two other carriers stepped in to offer niche connections. CTM Shipping of Panama opened an ambitious single vessel loop between Panama, Cuba, Colombia and Uruguay. Somewhat more grounded was the entrance of Oceanus Line. It initiated a fortnightly US/Mexico Gulf-Colombia service to take advantage of opportunities arising from near shoring to Mexico and Colombia.

### Russia shortsea

The conflict between Ukraine and Russia has also seen a number of new shortsea services opened as trade lanes realigned following the sanctions imposed upon Russia.

Traditionally, Russia's ports have found themselves at the end of a spoke connecting to a non-Russian regional hub. However, the realignment has seen the introduction of a number of low frequency and/or low capacity intercontinental connections. Further workarounds have also been provided at the relay and feeder level. Many of these have been found in the Russian Far East trade which still relies upon transshipment-based connections. In 2023, at least seven such new services were identified, these coming from companies as diverse as MSC, Sinokor/Heung-A (jointly), Sinotrans and CStar Line, to newer players as e-Shipping, Swift and Transit LLC.

For the Black Sea, new local services connecting with Turkey and/or Egypt were opened by at least Medkon, CStar Line and FESCO. Alongside was a rare intra-Black Sea loop anchored on Batumi in Georgia and connecting with Novorossiysk, this being offered by Armenian Shipping Company.

Finally, the previously dominant Russian gateway of St. Petersburg also received a number of new links. A couple of these were novel Egypt or Turkey to St. Petersburg connections, these offered by CStar Line, Reel Shipping and Ruscon/Mountain Air. There was even a rare Kaliningrad-St. Petersburg loop opened by FESCO at the start of 2023; Kaliningrad itself is only served out of St. Petersburg, so for international cargoes has usually been at the end of a double feeder operation.

Figure 4

### NEW CONTAINER SERVICES LAUNCHED IN 2023

#### East/West Trades

Carriers/Consortium	Trade name	Trade	Month started	Frequency	Number of ships	Average TEU per ship	Annual TEU capacity
Bahri Line	Far East	Eur-FE	Jan	30	2	364	4,400
Grimaldi	Loop 1 (Mediterranean return)	Med-USEC	Jan	20	3	1,300	23,700
MSC	Dragon	FE-Eur	Feb	7	3	10,000	521,400
Safetrans/Transit	China-Europe	FE-Eur	Feb	21	4	2,500	43,500
Newnew Shipping	-	FE-Eur	Mar	14	5	2,500	65,200
FESCO	FBOL	FE-Eur	Mar	30	5	2,500	30,400
Transit LLC	China-St. Petersburg	FE-Eur	Mar	70	1	2,500	13,000
HMM	PSX	FE-USEC	Apr	7	7	10,000	521,400
MSC	Swan	FE-Eur	Jun	7	12	15,000	782,100
HMM	FIM	FE-Med	Jul	14	6	6,800	177,300
Neco Line	China-St. Petersburg	FE-Eur	Dec	14	6	1,600	41,700
<b>Total new East/West services</b>				<b>11</b>	<b>54</b>	<b>6,900</b>	<b>2,224,200</b>

#### North/South Trades

Carriers/Consortium	Trade name	Trade	Month started	Frequency	Number of ships	Average TEU per ship	Annual TEU capacity
MSC	India to East Med	ISC-Med	Jan	7	4	4,500	234,600
ANL, Hapag-Lloyd, maersk, ONE	AAX3	SEA-Aus	Jan	7	3	2,800	146,000
Grimaldi	Loop 2 (ECSA return)	NA-Waf	Jan	7	4	1,300	67,800
ZIM	ZCX	US-WCSA	Feb	7	6	1,700	88,600
MSC	India South Africa Service	ME-Saf	Feb	8	8	6,000	273,800
HR Lines	BSC	SEA-ISC	Feb	14	1	1,100	28,700
WEC Lines	-	Eur-Waf	Feb	7	3	800	41,700
Tailwind Shipping	TEX	ISC-Eur	Feb	14	3	900	23,500
Modul	MAREX	Eur-ECSA	Feb	30	2	2,000	24,300
Vistar Shipping	India-Novorossiysk	ISC-Med	Mar	40	1	1,700	15,500
Hapag-Lloyd	WA1	Med-Waf	Mar	14	2	1,700	44,300
MTT Shipping, VIMC	Port Kelang-Kolkata	SEA-ISC	Apr	7	2	600	31,300
Neco Line	ISC-St. Petersburg	ISC-Eur	May	50	1	1,700	12,400
Krish Line	MIB Express	SEA-ISC	May	14	1	700	18,300
FESCO	FIL	ISC-Med	Jun	38	1	1,100	10,600
CU Lines, Evergreen, PIL, RCL	CIX4/RWA/CIS/CSE	NEA-ISC	Jun	7	6	4,000	208,600
ONE, OOCL/CoscoSL	LUX/EEX	Eur-ECSA	Jul	7	8	4,000	208,600
Maersk, Xpress Feeders	Safina/CJX	Eur-ME	Aug	7	6	4,500	234,600
ZIM	ZAT	NEA-WCSA	Oct	7	11	4,300	224,200
Emirates, GFS, Interasia, KMTC, RCL and T.S. Lines	EAX/FASFAX, REA	NEA-Eaf	Oct	8	8	2,800	127,800
ONE, Samudera	SIG	SEA-ISC/ME	Oct	7	4	2,500	130,400
CMA CGM, CoscoSL	AS2	NEA-ISC	Dec	7	5	5,000	260,700
SeaLead	Medsa	Med-ECSA	Dec	31	1	1,700	20,000
<b>Total new North/South services</b>				<b>23</b>	<b>91</b>	<b>3,300</b>	<b>2,476,200</b>

#### Regional Trades

Carriers/Consortium	Number of services	Number of ships	Average TEU per ship	Annual TEU capacity
Intra-Africa	6	9	2,200	494,000
Intra-Americas	10	17	1,700	632,000
Intra-Australasia	2	3	1,500	56,000
Intra-Europe	24	31	1,000	1,012,000
Intra-Far East	49	105	1,500	2,830,000
Intra-Mediterranean	30	50	1,100	1,096,000
Intra-Middle East/Indian Sub Continent	14	29	2,000	902,000
<b>Total new regional services</b>	<b>135</b>	<b>244</b>	<b>1,500</b>	<b>7,022,000</b>

**Figure 5**  
**EAST-WEST ALLIANCES**

Alliance name	Partners
2M (to be dissolved in February 2025)	Maersk, MSC
Gemini Cooperation (effective February 2025)	Hapag Lloyd, Maersk
Ocean Alliance	CMA CGM, CoscoSL/OOCL, Evergreen
THE Alliance	Hapag-Lloyd (to leave in February 2025), HMM, ONE, Yang Ming

**Figure 6**  
**ALLIANCES FLEET AND CAPACITY SUMMARY BY CARRIER**

2M					
Operator	Ships	TEU	Average	Share ships	Share TEU
Maersk Line	135	1,599,900	11,900	62%	57%
MSC	84	1,230,000	14,600	38%	43%
<b>Total</b>	<b>219</b>	<b>2,830,000</b>	<b>12,900</b>	<b>100%</b>	<b>100%</b>
Ocean Alliance					
Operator	Ships	TEU	Average	Share ships	Share TEU
CMA CGM	119	1,549,700	13,000	39%	36%
CoscoSL/OOCL	111	1,660,200	15,000	36%	38%
Evergreen	76	1,106,800	14,600	25%	26%
<b>Total</b>	<b>306</b>	<b>4,316,700</b>	<b>14,100</b>	<b>100%</b>	<b>100%</b>
THE Alliance					
Operator	Ships	TEU	Average	Share ships	Share TEU
Hapag-Lloyd	65	859,500	13,200	25%	26%
HMM	30	549,000	18,300	12%	17%
ONE	112	1,279,000	11,400	43%	39%
Yang Ming	51	563,100	11,000	20%	17%
<b>Total</b>	<b>258</b>	<b>3,251,000</b>	<b>12,600</b>	<b>100%</b>	<b>100%</b>

Notes:  
• As per mid-2024

**Figure 7**  
**ALLIANCES FLEET AND CAPACITY COMPARED TO CARRIER'S FLEETS**

2M						
Operator	Total fleet		Alliance fleet		Alliance deployed share	
	Ships	TEU	Ships	TEU	Ships	TEU
Maersk Line	713	4,373,000	135	1,599,900	19%	37%
MSC	849	6,041,000	84	1,230,000	10%	20%
<b>Total</b>	<b>1,562</b>	<b>10,414,000</b>	<b>219</b>	<b>2,830,000</b>	<b>14%</b>	<b>27%</b>
Ocean Alliance						
Operator	Total fleet		Alliance fleet		Alliance deployed share	
	Ships	TEU	Ships	TEU	Ships	TEU
CMA CGM	649	3,815,000	119	1,549,700	18%	41%
CoscoSL (incl. OOCL)	505	3,255,000	111	1,660,200	22%	51%
Evergreen	220	1,695,000	76	1,106,800	35%	65%
<b>Total</b>	<b>1,374</b>	<b>8,765,000</b>	<b>306</b>	<b>4,316,700</b>	<b>22%</b>	<b>49%</b>
THE Alliance						
Operator	Total fleet		Alliance fleet		Alliance deployed share	
	Ships	TEU	Ships	TEU	Ships	TEU
Hapag-Lloyd	287	2,176,000	65	859,500	23%	40%
HMM	78	857,000	30	549,000	38%	64%
ONE	243	1,925,000	112	1,279,000	46%	66%
Yang Ming	93	695,000	51	563,100	55%	81%
<b>Total</b>	<b>701</b>	<b>5,653,000</b>	<b>258</b>	<b>3,251,000</b>	<b>37%</b>	<b>58%</b>

Notes:  
• As per mid-2024

**Figure 8**  
**ALLIANCES FLEET AND CAPACITY SUMMARY BY TRADE**

Alliances fleet and capacity summary										
Trade lanes	Totals		2M		Ocean Alliance		THE Alliance		Other	
	Ships	Capacity	Ships	Capacity	Ships	Capacity	Ships	Capacity	Ships	Capacity
Transatlantic (North Europe)	83	434,000	19	96,000	9	67,000	27	161,000	28	110,000
Transatlantic (Mediterranean)	87	543,000	16	127,000	3	25,000	3	26,000	65	365,000
Far East-North Europe	240	4,316,000	78	1,487,000	76	1,558,000	55	1,034,000	31	237,000
Far East-Mediterranean	172	2,394,000	14	271,000	46	983,000	38	550,000	74	590,000
Transpacific (West Coast)	294	2,582,000	31	331,000	72	777,000	72	708,000	119	766,000
Transpacific (East Coast)	232	2,548,000	61	516,000	81	960,000	49	597,000	41	475,000
Middle East (Gulf)	114	954,000	0	0	19	237,000	15	175,000	80	542,000
Middle East (Red Sea)	24	98,000	0	0	0	0	0	0	24	98,000
<b>Totals</b>	<b>1,246</b>	<b>13,869,000</b>	<b>219</b>	<b>2,828,000</b>	<b>306</b>	<b>4,607,000</b>	<b>259</b>	<b>3,251,000</b>	<b>462</b>	<b>3,183,000</b>

Alliance shares per Trade Lane

Trade lanes	Totals		2M		Ocean Alliance		THE Alliance		Other	
	Ships	Capacity	Ships	Capacity	Ships	Capacity	Ships	Capacity	Ships	Capacity
Transatlantic (North Europe)	100%	100%	23%	22%	11%	15%	33%	37%	34%	25%
Transatlantic (Mediterranean)	100%	100%	18%	23%	3%	5%	3%	5%	75%	67%
Far East-North Europe	100%	100%	33%	34%	32%	36%	23%	24%	13%	5%
Far East-Mediterranean	100%	100%	8%	11%	27%	41%	22%	23%	43%	25%
Transpacific (West Coast)	100%	100%	11%	13%	24%	30%	24%	27%	40%	30%
Transpacific (East Coast)	100%	100%	26%	20%	35%	38%	21%	23%	18%	19%
Middle East (Gulf)	100%	100%	0%	0%	17%	25%	13%	18%	70%	57%
Middle East (Red Sea)	100%	100%	0%	0%	0%	0%	0%	0%	100%	100%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>18%</b>	<b>20%</b>	<b>25%</b>	<b>33%</b>	<b>21%</b>	<b>23%</b>	<b>37%</b>	<b>23%</b>

Trade Lane shares per Alliance

Trade lanes	Totals		2M		Ocean Alliance		THE Alliance		Other	
	Ships	Capacity	Ships	Capacity	Ships	Capacity	Ships	Capacity	Ships	Capacity
Transatlantic (North Europe)	7%	3%	9%	3%	3%	1%	10%	5%	6%	3%
Transatlantic (Mediterranean)	7%	4%	7%	4%	1%	1%	1%	1%	14%	11%
Far East-North Europe	19%	31%	36%	53%	25%	34%	21%	32%	7%	7%
Far East-Mediterranean	14%	17%	6%	10%	15%	21%	15%	17%	16%	19%
Transpacific (West Coast)	24%	19%	14%	12%	24%	17%	28%	22%	26%	24%
Transpacific (East Coast)	19%	18%	28%	18%	26%	21%	19%	18%	9%	15%
Middle East (Gulf)	9%	7%	0%	0%	6%	5%	6%	5%	17%	17%
Middle East (Red Sea)	2%	1%	0%	0%	0%	0%	0%	0%	5%	3%
<b>Totals</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Notes:  
• As per mid-2024  
• Capacity is total shipboard capacity deployed along the route



**Figure 9**  
**ANNUAL TRADE CAPACITY: EAST-WEST TRADES**

North Europe-Far East							Mediterranean-Far East						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Aug-23	21	233	18,100	4,211,000	12,656,300	3.4%	Jul-23	14	145	12,700	1,841,800	5,977,100	8.2%
Jul-22	21	231	16,400	3,788,800	12,245,100	3.6%	Jul-22	12	120	13,600	1,633,000	5,523,900	6.1%
Jul-21	18	218	17,300	3,778,800	11,820,000	26.9%	Jul-21	10	108	14,400	1,558,700	5,204,400	2.5%
Jul-20	16	210	16,600	3,480,000	9,314,000	-17.8%	Jul-20	11	120	12,900	1,547,000	5,075,000	-10.8%
Jul-19	19	233	15,200	3,546,000	11,327,900	3.9%	Aug-19	12	125	12,600	1,578,900	5,687,600	1.9%
Ave '20-16	18	208	15,400	3,203,940	10,196,720	3.8%	Ave '20-16	13	141	11,400	1,603,900	5,516,700	9.0%
Ave '15-'11	24	259	10,700	2,768,100	9,819,300	-	Ave '15-'11	18	187	7,800	1,450,800	5,060,100	-

Above refers to annual trade capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports

North Europe-North America							Mediterranean-North America						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Dec-23	17	107	5,300	570,100	3,489,200	-5.1%	Dec-23	16	113	5,700	644,800	2,760,900	-6.7%
Dec-22	18	104	5,300	554,300	3,678,400	20.8%	Dec-22	20	136	6,300	851,400	2,958,200	9.0%
Dec-21	16	85	5,400	462,200	3,045,200	20.4%	Dec-21	18	135	6,700	903,700	2,714,200	0.2%
Dec-20	13	78	5,200	403,400	2,528,700	-2.5%	Dec-20	17	131	6,300	820,400	2,709,900	8.8%
Dec-19	14	83	5,000	414,700	2,594,200	-3.9%	Dec-19	16	122	6,200	753,200	2,491,800	-1.7%
Ave '20-16	14	82	4,900	404,580	2,545,520	16.9%	Ave '20-16	16	118	6,000	703,600	2,433,680	33.2%
Ave '15-'11	15	100	4,000	400,800	2,178,200	13.7%	Ave '15-'11	17	126	4,700	593,880	1,826,980	-

Above refers to annual trade capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports. North America here = Canada + United States, all coastlines

Far East-North America West Coast							Far East-North America East Coast						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Sep-23	52	419	9,600	4,012,700	15,684,700	-13.6%	Sep-23	24	271	10,800	2,916,600	9,245,500	-6.3%
Sep-22	68	485	8,300	4,014,800	18,154,700	-1.2%	Sep-22	30	309	9,200	2,843,000	9,871,600	24.3%
Aug-21	62	470	8,600	4,057,000	18,375,100	31.0%	Aug-21	23	249	9,600	2,396,400	7,943,000	11.0%
Aug-20	46	387	9,300	3,589,300	14,029,500	8.0%	Sep-20	19	211	10,000	2,105,000	7,158,400	15.7%
Sep-19	45	366	8,700	3,199,600	12,989,800	-1.8%	Sep-19	19	209	9,900	1,868,200	6,185,100	6.6%
Ave '20-16	46	372	8,500	3,164,220	13,480,500	8.8%	Ave '20-16	19	210	8,600	1,809,360	6,001,920	41.0%
Ave '15-'11	48	354	6,800	2,388,300	12,386,100	12.8%	Ave '15-'11	22	233	5,600	1,301,500	4,255,860	28.5%

Above refers to annual trade capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports. Services refers to weekly sailings and count all vessels allocated to multi-trade pendulums



**Figure 10**  
**ANNUAL TRADE CAPACITY: EUROPE TRADES**

North Europe-Indian Subcontinent							Mediterranean-Indian Subcontinent						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Mar-24	6	44	9,200	405,700	1,217,300	-18.2%	Feb-24	9	51	8,300	421,000	871,900	-3.0%
Feb-23	9	66	7,700	511,400	1,488,400	12.6%	Feb-23	8	52	6,500	336,500	898,500	-12.6%
Mar-22	6	52	8,400	438,700	1,322,400	10.3%	Mar-22	10	70	6,700	467,600	1,028,500	11.3%
Mar-21	5	40	9,900	395,000	1,198,400	-0.5%	Mar-21	8	63	7,000	441,100	924,200	38.9%
Feb-20	5	42	9,600	402,700	1,203,900	18.0%	Feb-20	6	47	6,700	315,600	665,400	-5.8%
Ave '20-16	4	35	9,500	337,840	991,140	36.1%	-	-	-	-	-	-	-
Ave '15-'11	6	42	6,000	248,400	728,000	29.1%	-	-	-	-	-	-	-

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports

North Europe-West Africa							Mediterranean-West Africa						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Mar-24	9	44	3,000	133,300	702,000	-13.7%	Mar-24	6	28	2,900	80,100	420,400	-6.6%
Mar-23	10	50	3,000	149,600	813,600	15.6%	Mar-23	7	30	2,600	78,300	450,000	16.4%
Mar-22	10	52	2,400	127,300	703,700	-13.2%	Mar-22	7	30	2,400	73,400	386,500	-10.7%
Mar-21	11	53	2,700	140,900	810,800	5.7%	Mar-21	6	28	2,700	74,400	433,000	-5.3%
Mar-20	12	55	2,500	137,200	767,200	-12.2%	Mar-20	7	33	2,600	86,400	457,100	1.6%
Ave '20-16	12	66	2,300	152,680	749,360	4.8%	Ave '20-16	46	372	8,500	3,164,220	13,480,460	8.8
Ave '15-'11	18	84	1,700	147,000	715,200	29.5%	Ave '15-'11	48	354	6,800	2,388,300	12,386,120	12.8

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 70% of nominal (vessel) space and as adjusted for multipurpose ships and non-core ports

North Europe-East Coast South America							Annual Trade Capacity: Mediterranean-East Coast South America						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Dec-23	6	40	6,400	257,700	943,300	29.4%	Dec-23	3	16	8,700	139,400	682,600	3.7%
Nov-22	4	28	7,000	195,300	728,700	2.3%	Nov-22	2	14	9,000	126,400	658,500	0.0%
Nov-21	4	27	6,800	182,400	712,400	-1.6%	Nov-21	2	14	9,000	126,400	658,500	0.5%
Apr-20	4	27	6,700	182,200	724,000	0.5%	Apr-20	2	14	9,000	125,600	655,000	-1.5%
Apr-19	4	29	6,300	182,500	720,400	-1.2%	Apr-19	2	16	9,100	146,200	665,100	-
Ave '20-16	4	31	6,200	194,220	799,900	-14.0%	-	-	-	-	-	-	-
Ave '15-'11	6	43	4,500	195,800	930,200	3.2%	-	-	-	-	-	-	-

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 70% of nominal (vessel) space and as adjusted to exclude non-core ports

North Europe-West Coast South America							Mediterranean-Caribbean						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Jun-22	6	48	5,300	254,000	742,100	4.5	Oct-23	5	32	3,700	117,700	257,200	-28.4%
Jun-21	7	58	4,800	280,600	709,900	8.8	Sep-22	6	43	5,800	251,300	359,300	-9.5%
Jun-20	7	56	4,700	262,300	652,600	-6.9	Sep-21	6	48	6,200	296,400	397,100	-15.4%
Jun-19	8	62	4,200	261,700	701,100	-1.8	Sep-20	7	56	5,000	280,100	469,300	15.4%
Jun-18	7	56	4,500	251,500	714,300	-	Sep-19	7	55	4,500	246,300	406,700	-
Ave '20-16	19	210	8,600	1,809,360	6,001,920	41.0	-	-	-	-	-	-	-
Ave '15-'11	22	233	5,600	1,301,500	4,255,860	28.5	-	-	-	-	-	-	-

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 70% of nominal (vessel) space and as adjusted to exclude non-core ports

North Europe-Caribbean							Mediterranean-Caribbean						
Year	Number		Capacity (TEU)		Growth %		Year	Number		Capacity (TEU)		Growth %	
	Services	Ships	Average	Shipboard				Trade	Services	Ships	Average		
Oct-23	14	92	3,500	323,800	1,015,900	5.3%	Oct-23	5	32	3,700	117,700	257,200	-28.4%
Sep-22	14	88	3,600	317,300	964,700	-7.3%	Sep-22	6	43	5,800	251,300	359,300	-9.5%
Sep-21	14	88	3,800	334,300	1,040,300	-0.9%	Sep-21	6	48	6,200	296,400	397,100	-15.4%
Sep-20	16	97	3,700	361,400	1,050,100	-8.3%	Sep-20	7	56	5,000	280,100	469,300	15.4%
Sep-19	16	97	3,900	378,300	1,144,600	10.0%	Sep-19	7	55	4,500	246,300	406,700	-
Ave '20-16	17	98	3,300	324,320	1,118,420	23.9%	-	-	-	-	-	-	-
Ave '15-'11	18	105	2,000	210,800	902,840	38.4%	-	-	-	-	-	-	-

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports. Services offering Caribbean connections en route South America and back also included

Services relates to average sailings per week and include wayport connections en route South America

**Figure 11**  
**ANNUAL TRADE CAPACITY: NORTH AMERICA TRADES**

Year	Number		Capacity (TEU)			Growth %
	Services	Ships	Average	Shipboard	Trade	
Apr-24	6	50	5,800	288,600	993,500	13.0%
Apr-23	5	41	6,100	248,700	878,900	-2.1%
Apr-22	5	40	6,200	247,400	897,900	9.4%
Apr-21	5	31	6,600	205,200	820,900	1.9%
Apr-20	4	30	6,500	194,100	805,700	7.1%
Ave '20-16	4	30	6,100	183,200	730,540	-0.7%
Ave '15-'11	6	40	4,500	181,500	735,500	20.7%

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports

**Figure 12**  
**ANNUAL TRADE CAPACITY: FAR EAST TRADES**

Year	Number		Capacity (TEU)			Growth %
	Services	Ships	Average	Shipboard	Trade	
Jun-23	5	62	8,600	536,100	1,556,700	5.7%
Jun-22	5	58	8,200	501,500	1,472,600	19.0%
Jun-21	4	46	9,300	429,200	1,237,800	4.5%
Jun-20	4	47	8,900	419,300	1,184,100	2.2%
Jun-19	4	49	8,200	402,000	1,158,700	2.1%

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 70% of nominal (vessel) space and as adjusted to exclude non-core ports

Year	Number		Capacity (TEU)			Growth %
	Services	Ships	Average	Shipboard	Trade	
Nov-23	14	74	5,100	377,900	2,411,700	-17.7%
Nov-22	21	113	3,900	439,600	2,929,600	18.6%
Nov-21	16	82	4,500	373,000	2,470,500	17.0%
Nov-20	13	68	4,700	321,600	2,111,100	8.8%
Nov-19	12	61	4,600	278,800	1,940,000	-

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports

Year	Number		Capacity (TEU)			Growth %
	Services	Ships	Average	Shipboard	Trade	
Jul-23	8	94	6,300	595,500	1,604,200	1.3%
Jul-22	8	96	5,900	564,700	1,583,800	2.7%
Jul-21	8	102	5,600	571,300	1,541,500	-4.2%
Jul-20	8	105	6,200	650,600	1,609,000	13.8%
Jun-19	8	96	5,600	539,100	1,413,900	2.1%

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 70% of nominal (vessel) space and as adjusted to exclude non-core ports

Year	Number		Capacity (TEU)			Growth %
	Services	Ships	Average	Shipboard	Trade	
Jul-23	11	114	9,600	1,098,000	2,941,800	10.7%
Jun-22	12	122	8,200	999,600	2,657,900	4.3%
Jun-21	10	107	8,800	942,000	2,549,300	14.7%
Jun-20	9	97	8,600	836,800	2,222,600	-6.5%
Jun-19	10	107	8,200	882,000	2,377,500	-8.0%

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 70% of nominal (vessel) space and as adjusted to exclude non-core ports

Year	Number		Capacity (TEU)			Growth %
	Services	Ships	Average	Shipboard	Trade	
Nov-23	18	81	4,000	326,600	2,327,600	6.2%
Nov-22	17	73	4,200	301,800	2,202,300	-7.8%
Nov-21	17	70	4,500	313,900	2,377,700	7.7%
Nov-20	14	62	4,800	299,600	2,208,400	10.0%
Nov-19	13	61	4,600	281,000	2,007,400	-

Above refers to Annual Trade Capacity based upon homogenous vessel capacity at 80% of nominal (vessel) space and as adjusted to exclude non-core ports



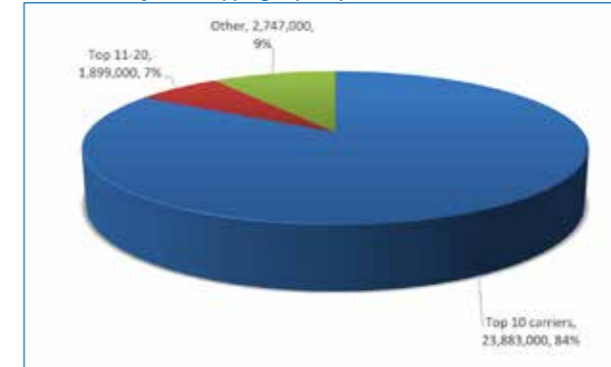
## COMPANIES

### CARRIERS

#### Market concentration

At the end of 2023, the ten largest carriers by capacity controlled a fleet able to lift 23.9 million TEU. This was an increase of 1.8 million TEU compared with the previous year. The global share of the ten largest carriers remained steady at eighty-four percent.

Distribution of liner shipping capacity end-2023



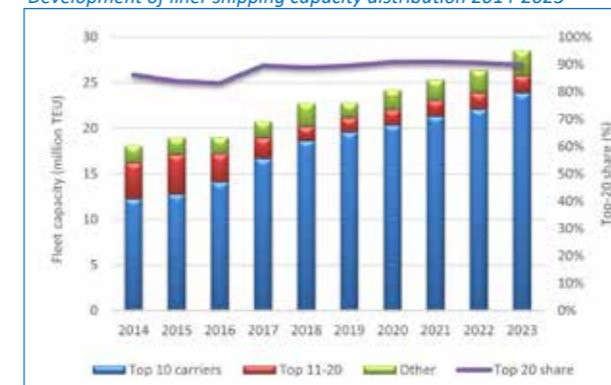
Figures based upon data sourced from Alphaliner

Those ranked 11th to 20th had a seven percent share arising from the 1.9 million TEU they controlled. All told, the top twenty carriers operated 25.8 million TEU, good for a share of ninety percent.

Over the past number of years, whilst the absolute capacities provided by the twenty largest carriers have continued to increase, their share has plateaued somewhat. This is because there has been no major consolidation event since 2016.

The Top-20 or Top-10 share might even start to come under pressure without an acquisition event. The very largest carriers exclusively deploy the very largest ships. However, these appear to have reached their technical limits for now - no new 'largest ever' containerships have been ordered - yet all the while, the mid, small and even niche carriers will continue to gradually upscale.

Development of liner shipping capacity distribution 2014-2023



Major developments involving carriers and groupings of all sizes, not just the twenty largest, are summarised below. Fleet, capacity and rankings in brackets relate to year-end 2023. The carriers are discussed in capacity rank order.

#### MSC - Number one and running on rails

(Rank - 1; Ships - 800; Capacity - 5,614,000 TEU)

Having assumed the mantle of the world's largest container shipping company at the start of 2022, MSC continued to add so much capacity throughout 2023 that it accounted for approaching half of all growth for the year. Helped by the receipt of fourteen 24,000+ TEU ships as well as twenty-six of 15,000-16,000 TEU, MSC increased its capacity lead over Maersk by 1.12 million TEU.

The impression of distancing itself from operational partner Maersk was already given at the start of 2023 when MSC and Maersk announced the end of their 2M vessel-sharing arrangement as per January 2025. While MSC had been rapidly expanding its fleet, Maersk stayed resolutely with its integrator strategy. The considered opinion at the time of the 2M announcement was that the dissolution suited MSC better. Certainly, with its fleet expansion, it is equipped to continue standalone, something which it has historically preferred anyway.

MSC does not disclose financial figures, but in acquiring a share of Italian passenger rail operator Italo (see further down), it had to submit financial details that local media sources subsequently published. These showed that, in 2022, the MSC group generated some USD 92 billion in consolidated revenues and a net result of USD 39 billion. As a consolidated figure, these include cruise, ferry, logistics and terminal activities, amongst others. To contextualise this, Maersk generated a 2022 consolidated net result of USD 29 billion and CMA CGM almost USD 25 billion.

With such a net result, it is no surprise MSC was able to go on a spending spree. In fact, it had already started: during 2022, it acquired Bolloré Africa Logistics (BAL). The twenty terminals that this brought across, amongst other activities, were not absorbed into MSC's own Terminal Investments Limited but retained as a distinct entity. This was stressed when, early in 2023, BAL was renamed Africa Global Logistics.

Other corporate developments saw MSC's increasingly prominent acquisition subsidiary, SAS Shipping Agencies, buy tugs and towage operator, Rimorchiatori Mediterranei. Having started in Genoa, its operations had grown to encompass more Italian ports and others in Malta, Norway, Greece and Colombia. Additionally, at the start of 2023, and predating the Rimorchiatori Mediterranei acquisition, SAS Shipping Agencies took a 15.6 percent stake in Boluda Towage - active in Europe, the Mediterranean, Africa and Latin America. This acquisition was in return for the transfer of the activities and assets of MSC's young and still small MedTug unit.

Outside of shipping, 2022 saw the launch of MSC Air Cargo. Four Boeing 777-200F aircraft were ordered, two being delivered both in 2022 and 2023. MSC backed up this nascent activity in August 2023 via a majority stake in AlisCargo Airlines, a Milan-based yet operationally dormant air freight carrier. The parties confirmed that the transaction was a first step towards the acquisition of 100 percent. Related to this deal, a fifth Boeing 777-200F was ordered that will be deployed by AlisCargo.

Finally, MSC also agreed in 2023 to acquire an approximately fifty percent stake in Italian high-speed passenger rail operator Italo. The remainder stayed with the former sole owner Global Infrastructure Partners (GIP), who, coincidentally, is one of the minority partners in MSC's Terminal Investments Limited. The acquisition was completed in mid-2024.

### Maersk - Big Blue still number two

(Rank - 2; Ships - 675; Capacity - 4,117,000 TEU)

Having relinquished its long-held title as the world's largest container carrier in 2022, Maersk has remained in the number two spot but with the gap to the new number one, MSC, continuing to grow substantially so. This was not a surprise given their different strategical approaches with Maersk concentrating upon its container logistics integrator approach and MSC investing heavily through acquiring interests in vessels, logistics and air-freight operations, amongst others.

The capacity gap looks set to continue expanding - it did so by 1.12 million TEU in 2023 - considering their relative order books at the end of 2023. For Maersk, it numbered thirty-six ships and 453,000 TEU, whilst for MSC it was 122 ships and 1.47 million TEU.

In January 2023, Vincent Clerc replaced Soren Skou as Maersk's CEO. Mr Skou had been in post since June 2016. Soon after this change in leadership, it was announced that the group would be transitioning to the single 'Maersk' brand. For the container shipping side of the business, this entailed the integration of the Hamburg Süd and SeaLand brands.

Maersk had acquired the first of those back in 2017. Its connection with SeaLand (the name, anyway) goes back much further to Sea-Land Service, which was started by containerisation pioneer Malcom McLean in 1960 and acquired by Maersk in 1999. Maersk retired the brand in 2006 only to revive it (albeit with a different spelling) in 2015 as the provider of intra-regional services within the Americas. Three years later, Maersk combined its then three regional carrier brands, the others being MCC Transport (Far East) and Seago Line (Europe), under the 'SeaLand' name.

Excluded from the single 'Maersk' brand approach were APM Terminals, tugs and towage operator Svitzer, Brazil flag operator Alianca, Maersk Container Industry, Maersk Training, Maersk Supply Service, Maersk H2S Safety Services, and Maersk Line Limited. One of those, Maersk Supply Service, moved out of the group after it was purchased by A.P. Moller Holding, the controlling shareholder of Maersk.

The transfer of Maersk Supply Service out of the group was just another example of the increasing concentration on container logistics (Maersk Supply Service provides support for the off-shore sector). Another example came in November 2023 when Maersk sold its remaining 10.5 percent stake in Hoegh Autoliners, the major Ro/Ro-car carrying operator. It had started the year with a 26.4 percent share and sold this off in three tranches.

At the start of 2023, Maersk and MSC announced plans to end their 2M vessel-sharing alliance, this taking effect from January 2025. The background to this was said to be a significant decrease in synergies from the pooling arrangement and the divergent strategic goals of the two partners.

It was thought unlikely Maersk would be able to continue to provide a similar coverage that it had through the 2M on a standalone basis. It was therefore no surprise when, at the start of 2024, Maersk and Hapag-Lloyd signed an agreement for a new long-term operational alliance, the Gemini Cooperation. As of February 2025, it will cover fifty-eight services on the usual alliance routes, deploying a pool of 290 ships with a combined capacity of 3.4 million TEU. Sixty percent of that will be contributed by Maersk.

Although CMA CGM and MSC have made recent moves into air-freight operations, Maersk's activities in this sector are much

more established as they date back to 1987. This business segment was known Star Air for many years but is now promoted as Maersk Air Cargo. In mid-2023, Maersk Air Cargo added a Boeing 767 freighter to its existing fleet of seventeen B767s of various types. There are also two new 777 freighters due in the second half of 2024.

### CMA CGM - Spend, spend, spend

(Rank - 3; Ships - 624; Capacity - 3,578,000 TEU)

The CMA CGM group continued its recent financial success through 2023, albeit with a much-reduced bottom line of USD 3.64 billion (compared with USD 24.88 billion in 2022). This did not prevent the group from continuing to invest in shipping and even non-shipping-related sectors.

In 2023, CMA CGM ordered forty-two vessels ranging from 9,200 TEU through to 16,000 TEU for a total of 662,000 TEU. Many of these were LNG/dual-fuel vessels, further cementing its position as one of the pioneers in adopting this particular technology.

On the corporate front, CMA CGM retired the Containerships brand that had its independent origins in the mid-1960s. Acquired by CMA CGM in 2018, it became the lead brand for CMA CGM's intra-Europe activities, replacing such names as MacAndrews of the United Kingdom and OPDR of Germany.

To be considered a truly major container shipping company, carriers also need a generous portfolio of affiliated terminals. CMA CGM has its own through CMA Terminals and Terminal Link. In September 2023, it expanded its already extensive portfolio with the completed purchase of GCT Bayonne and New York Container Terminals in the United States. CMA CGM already had US terminal interests located in Baltimore, Charleston, Port Everglades, Charleston and Florida.

Another aspect of being a major shipping company is logistics-related activities. In mid-2023, the process was initiated to acquire the assets and activities of Bolloré Logistics (not to be confused with the Bolloré Africa Logistics acquired by MSC in 2022), a company that moved more than 700,000 TEU of ocean freight, 390,000 tons of airfreight and had 900,000 square metres of warehouse space.

The acquisition of Bolloré Logistics was completed in February 2024 at a cost of USD 5.35 billion. It added to deals made in 2022 when CMA CGM purchased Colis Privé, a last-mile parcel collection and delivery company in France, and GEFCO, an automotive logistics provider that was integrated into CEVA Logistics (acquired by CMA CGM in 2019) as a dedicated finished vehicle logistics division.

The move into vehicle logistics was enhanced in December 2023 with the receipt of the "CMA CGM Indianapolis", the first of what will be four vehicle carriers of 7,000 CEU. These are all newbuilds chartered-in from owner Eastern Pacific Shipping and to be operated by CEVA. A second ship, the "CMA CGM Monaco" was received in January 2024.

It has not been all plain sailing for CMA CGM. In January 2024, CEVA Logistics had an offer of USD 718 million accepted by the board of a significant UK logistics company, Wincanton. However, this was later superseded by a USD 960 million counter-offer from GXO, a US-based logistics provider.

Other investments in 2023 saw CMA CGM acquire a twelve percent stake in Brittany Ferries by converting USD 26 million in financial support provided in 2021 into shares. It also purchased La Méridionale, a mixed-use freight and passenger shipping company established in Marseille back in 1931 and now operating scheduled services to Corsica and Morocco.

"CMA CGM Monaco" a 7,000 CEU vehicles carrier



La Méridionale is now part of the new CMA CGM division dedicated to specialised shipping operations. This division encompasses the new car carrier business, the stake in Brittany Ferries, as well as an investment in NEOLINE, a Nantes-based company developing a sail-powered Ro-Ro vessel.

Outside of shipping, CMA CGM continued to evolve its air-cargo activities via cooperation with Air France-KLM. However, the tight regulatory conditions in important markets prevented this from working as ideally as the parties wished, and in early 2024 they decided to withdraw from their existing agreements.

It is not just the movement of cargo or people that has attracted CMA CGM investment. It has now established WhyNot Medias. Formerly named CMA CGM Medias, this started in 2022 with the purchases of Marseilles-based regional newspaper La Provence, another paper Corse Matin and ten percent of M6, the second-largest commercial broadcaster in France. CMA CGM added to the portfolio in 2023 with the online youth media platform Brut and a few months later it purchased La Tribune, a daily business paper and online resource present in France and around Africa.

Finally, in what could be considered not only a passion project but a further reinforcement of ties with its Marseille home, CMA CGM became the shirt sponsor for football club Olympique de Marseille, winners as recently as 2021-22 of the French top tier Ligue 1, amongst many other domestic and European honours.

Olympique de Marseille launching its 2023-24 playing kit



### Hapag-Lloyd - Terminals here we come

(Rank - 5; Ships - 266; Capacity - 1,964,000 TEU)

In 2023, Hapag-Lloyd moved to plug a direct presence gap it had by entering into a 50/50 joint venture with Brazilian shipping and waterway logistics company Norsul. The venture was named Norcoast, which, early in 2024 launched a Brazil cabotage/coastal service. As such, Norcoast carried out the same functions as Aliança (for Maersk), Log-In Logistica (for MSC) and Mercosul (for CMA CGM).

A clear indication of Hapag-Lloyd's ambition to close the capacity rankings gap with those above it came when, somewhat surprisingly, it emerged as one of four companies bidding for a forty percent stake in HMM, South Korea's largest shipping line. This stake was being offered by the combination of the Korea Development Bank and Korea Ocean Business Corp, both ultimately state-controlled entities. Competing against three local companies, LX International, Dongwon Industries and Harim, Hapag-Lloyd did not make the second round. However, compli-

cations involving the actual winner, Harim, meant that ultimately the whole process was abandoned.

Whilst this could have been considered a 'shot-to-nothing' for Hapag-Lloyd, the carrier has been built upon acquisitions and mergers. It is essentially an amalgam of the core Hapag-Lloyd plus CP Ships, UASC, CSAV and, more recently, Africa specialists NileDutch (2021) and Deutsche Afrika Linien (2022).

As well as expanding its liner footprint, Hapag-Lloyd has also been establishing its presence into the terminal business, this being another catchup activity. These were centralised in late 2023 under a new company, Hapag-Lloyd Terminal Holding, with its head also taking a seat on Hapag-Lloyd's Executive Board. In mid-2024, the rather prosaic Hapag-Lloyd Terminal Holding was rebranded to the more resonant Hanseatic Global Terminals.

Unlike the top four carriers, Hapag-Lloyd's terminal interests had been modest and were centred on a minority stake in Container Terminal Altenwerder (Hamburg) and a ten percent share of Tangier Alliance Terminal. They were joined at the start of 2023 with the completed purchase of a forty-nine percent share in the Spinelli Group of Italy with, amongst other things, terminals in Salerno and Genoa. At around the same time, Hapag-Lloyd also completed the agreed acquisition of a forty percent shareholding in J M Baxi Ports & Logistics Limited of India, which has terminals in Kandla, Haldia, Visakhapatnam, Tuticorin and Nhava Sheva.

Later, in 2023, another 2022-agreed deal was finalised, this being SAAM Ports of Chile, whose terminal activities were spread across ten terminals in North, Central and Southern America. (The majority shareholder in the wider SAAM group, Quinenco, also holds the same status in CSAV, who in turn is the joint largest shareholder, with thirty percent, in Hapag-Lloyd). Following the above deals, Hapag-Lloyd had rapidly built up interests in around twenty terminals.

### HMM - Seeking new owners

(Rank - 5; Ships - 70; Capacity - 784,000 TEU)

HMM is majority-owned by the state-controlled Korean Development Bank (KDB) and Korea Ocean Business Corporation (KOBC). During 2023, they ran a competition to sell around forty percent of the carrier, which is South Korea's largest. Four companies were publicly declared as candidates, including Hapag-Lloyd, which was something of a surprise.

At the end of the year, with Hapag-Lloyd already falling by the wayside (and competing against three South Korean companies) the Harim Group-JKL consortium was chosen as the preferred bidder. Harim is the owner of Pan Ocean, a major dry bulk carrier that also operates a fleet of around ten small containerships in the intra-Asia trades. Unfortunately, talks between the various parties proved to be more difficult than hoped and eventually broke down early in 2024, leading to the halting of the sale process.

### AD Ports - Still building its shipping activities

(Rank - 2; Ships - 23; Capacity - 84,000 TEU)

After an interesting corporate 2022, which saw it listed on the Abu Dhabi stock exchange and make its first overseas acquisition (of Egypt-based carrier Transmar and its affiliated stevedore, Transcargo International), AD Ports agreed to acquire a fifty one percent stake in Global Feeder Shipping (GFS). The transaction was completed at the start of 2024 and brought a significant operator into the AD Ports group. Although GFS was established only in 2017, its antecedents were found in the significant Middle East (Gulf) centred feeder carrier Simatech.

Alongside these purchased parties, AD Ports also has its own organic carrier, Safeen Feeders, which was established in 2020. It had built up a fleet of around ten ships running along the Middle East (Gulf)-Indian Subcontinent-Far East axis. Global Feeder now forms the largest shipping brand within AD Ports, employing between twenty-five to thirty ships connecting the Middle East (Gulf) with the Red Sea, Indian Subcontinent, East Africa and Far East, plus the intra-Mediterranean trade.

AD Ports is also said to be looking at an acquisition of Indonesian family-owned carrier Meratus in a deal reportedly valued at USD 2 billion. This operator deploys a fleet of fifty-four ships, totalling 36,100 TEU that concentrate upon domestic Indonesia routes but also extend to the Strait of Malacca and Papua New Guinea.

### FESCO - No longer independent

(Rank - 2; Ships - 33; Capacity - 44,900 TEU)

Late in 2023, Russia's largest liner company FESCO was nationalised and then transferred to state nuclear power entity Rosatom with a view perhaps to helping Russia develop shipping along the Northern Sea Route. The background to these developments was the conviction, in 2022, of FESCO's largest shareholder (32.5 percent), Ziyavudin Magomedov, on charges of criminal conduct and embezzlement. He was sentenced to nineteen years in prison and his shareholding was seized by the state. With shares held by three other individuals also seized, the state ended up with 92.4 percent in total.

Elsewhere, FESCO has benefitted from the sanctions imposed upon its home country following the invasion of Ukraine. With many carriers effectively barred or excluding themselves from carrying all but the most humanitarian of cargoes to and from Russia, FESCO's liner volumes grew by sixteen percent in 2022 to 426,000 TEU and then by a further twenty-three percent in 2023 to 524,000 TEU. These are in the contexts of overall Russian-related markets that are still much smaller than they were prior to 2022.

### Other Operators

In contrast to its free-spending and expansive peer companies, Chinese state-controlled **Cosco Shipping Holdings** (parent of CoscoSL and OOCL; Rank - 4; Ships - 490; Capacity - 3.0 million TEU) has been more introverted, looking at internal-based and organic growth. Corporate development in 2023 was restricted to the purchase of an almost six percent stake in Cofco Fortune, the logistics and food processing arm of the also Chinese government-owned agribusiness group, Cofco.

The DP World platform, **Unifeeder** (Rank 16; Ships - 82; Capacity - 138,000 TEU), advised late in 2023 that its Unimed Feeder Services subsidiary would increase its cooperation with MCL Feeder Services (end 2023: not ranked) from the start of 2024. Whilst not explicitly confirmed, there was a suggestion of an effective (operational) takeover on the part of Unifeeder/Unimed. Limassol-based MCL Feeders was a primarily slot-based intra-Mediterranean carrier, albeit with a history of vessel operations and believed to still operate two vessels in the Egypt/East Mediterranean trade at the time of the announcement.

In December 2023, **Shanghai Jing Jian Shipping** (Rank 34; Ships - 46; Capacity - 43,700 TEU), the intra-Far East liner subsidiary of the Shanghai International Port Group (SIPG), was listed on

the Shanghai Stock Exchange after an IPO that raised some USD 308 million. As a result, SIPG's shareholding reduced from ninety-eight to eighty-five percent.

**Messina Line** (Rank 39; Ships - 12; Capacity - 36,500 TEU) continued its transition from a container-Ro/Ro operator to a dedicated container carrier. In 2023 it sold two of its nine/ten-year-old 46,700 dwt/2,900 TEU ConRo vessels and acquired two 4,600 TEU containerships as replacements. According to the company, the sale of one of the ConRos, the "Jolly Cristallo", fetched more than its newbuilding price.

One company that tried to take advantage of the tight capacity situation post-COVID was **CStar Line** (Rank - 47; Ships - 16; Capacity 28,700 TEU) which opened an East-West presence. The deteriorating market conditions led to it withdrawing completely when it closed its Mediterranean-Far East service in mid-2023. With the markets cramping its hoped-for expansion, a planned IPO never materialised. The general air of instability was not helped when its CEO mysteriously disappeared for a month.

**Kalypto Compagnia Di Navigazione SpA** (Rank - 93; Ships - 3; Capacity - 7,600 TEU), which was founded in 2021 during the post-COVID shipping boom, filed for liquidation in December 2023. The company had been struggling through 2023 and, as rates had collapsed, it went through a number of network revisions. The final setback was when chartered-in ships deployed to its Europe-Far East service were no longer allowed by their owner to enter Israeli ports, which effectively halted one of its main cargo flows. In mid-2023, the company had already withdrawn from transatlantic trade due to a severe drop in rates.

### DynaLiners Shares Index

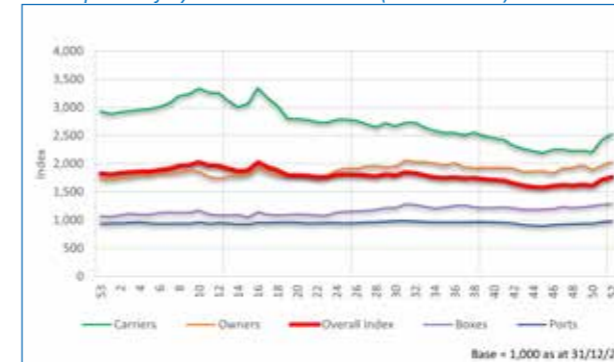
In 2023, the DynaLiners Shares Index struggled somewhat as the market was still adjusting to what had been supercharged periods of 2021-22. It was only because of an end-of-year rally that it managed to limit the damage to an overall loss of 65 points to finish on 1,767. The year's low point was an index score of 1,580 (week 45, November) with the high point being 2,028 (week 10, March).

Development of DynaLiners Shares Index 2023



When looking at all indices for just 2023, only DLSI Carriers fell after losing 408 points (-14 percent) to settle on 2,520. However, as the leading sector index, it exercises the most influence over the main figure. DLSI Owners added the most points at 302 (+17 percent) to finish on 2,033 whilst DLSI Boxes added the most relatively at +20 percent (+219 points). It ended the year on 1,285. DLSI Ports' development was gradual in comparison to the other two with a growth of 42 points (+4 percent) to 978.

Development of DynaLiners Shares Index (sector indices) 2023



DynaLiners Shares Index

Launched in 2019, the DynaLiners Shares Index tracks the share prices of around 130 companies involved in container shipping. The evolution of their share prices is placed into an index to gauge if not the health, then the (investor) perception and confidence in the container sector. The companies are weighted by a panel of Dynamar's editors, authors, consultants and analysts.

The qualification for participation in the index is that the listed company must be involved in at least one of the four container shipping segments of carriers, container boxes, ports/terminals and shipowners. If this is through a subsidiary, then the shareholding needs to be controlling. Thus, none of the "K" Line, MOL or NYK trio appear as they hold non-controlling minority stakes in ONE.

Each qualifying company is a member of the main and at least one of the sector indices. The start point for all indices is set at 1,000 and based upon closing prices for qualifying stocks as per end-2017. The index membership is reset every quarter to take into account IPOs, de-listings and shipping market changes that may require an amendment to a company's weighting.

## ALLIANCES

### Ocean Alliance (CMA CGM, CoscoSL/OOCL, Evergreen)

Inaugurated in 2017, the Ocean Alliance originally had a duration of five years ending March 2022. In 2019 it extended this for another five years and then again in 2024 through to March 2032. This later extension came shortly after the announcement that Hapag-Lloyd and Maersk would create the Gemini Cooperation. Notice period to leave the Ocean Alliance is one year and with the new extension, cannot be given until March 2031.

The Ocean Alliance's service network covers the Transpacific, Far East-Europe, Transatlantic and the Far East-Middle East.

### THE Alliance (Hapag-Lloyd, HMM, Ocean Network Express, Yang Ming)

Since its creation, THE Alliance has twice changed composition with another amendment in the works. Having brought Japan's three major carriers of "K" Line, MOL and NYK together into the same alliance for the first time, when they went on to form the Ocean Network Express joint venture (ONE, which became operational in April 2018), this new company replaced their previously individual participations in THE Alliance.

In April 2020, HMM joined THE Alliance. Financial struggles around the time THE Alliance was being set up meant that HMM missed out. When it joined, it also had to contribute USD 25 million to the grouping's contingency fund, established to meet container logistics costs should any member suddenly collapse. As a result of HMM's injection, the fund rose to USD 75 million.

Another change is pending. In January 2024, Hapag-Lloyd tendered its one year notice to leave whereupon it will team up with Maersk in a new arrangement called Gemini Cooperation. Although Hapag-Lloyd is the largest of THE Alliance members on a global scale, in terms of vessel contribution to the arrangement, ONE is traditionally the largest party.

For Hapag-Lloyd's to-be former partners HMM, ONE and Yang Ming, the upcoming situation may pose challenges. After the departure of the German carrier, THE Alliance might end up being only half the size of the Ocean Alliance and also much smaller than the Gemini Cooperation or MSC. This could put the viability of the arrangement in danger such that there would be clear comfort in trying to attract a new member. The question to be answered in such a situation is: who could possibly jump in?

Of all the potential candidates to join THE Alliance, Wan Hai might be the best option. It is an intercontinental operator, with East-West trades experience. Even then, in comparison to Hapag-Lloyd, as at the start of 2024 its fleet capacity was not even one quarter and its network was much smaller, with a focus on the Far East-Middle East-Australia/New Zealand range.

THE Alliance, formally a vessel sharing agreement, had an initial duration of five years to April 2022. It has been extended from 2022 to 2030 although any party can give twelve months' notice to leave after 1 April 2023, as happened in the case of Hapag-Lloyd. THE Alliance's service network covers the Transpacific, Far East-Europe, Transatlantic and the Far East-Middle East trades.

### 2M (Maersk Line, MSC)

The January 2015 launched 2M came together after Chinese regulatory authorities had blocked the formation of the even larger P3 Network. This would also have included CMA CGM, thereby bringing the then three largest carriers under one co-operative umbrella.

The 2M has a duration of ten years with a notice period of two years should one party wish to leave, although this can only take effect at the year-eight point even if issued before then. With these clauses to the agreement in mind, it was announced at the start of 2023 that the partnership would not be renewed beyond 2025.

Formally a vessel sharing agreement, the 2M's service network covers the Transpacific, Far East-Europe and Transatlantic. It has, at points, also included significant bilateral cooperation with carriers HMM and ZIM. For HMM, it helped bridge the period when it was sans alliance before it joined THE Alliance. The ZIM arrangement was initiated in 2018 and at its peak covered the Transpacific and Far East-Mediterranean trades.

When considering why the 2M will come to a close after a single ten-year term, over the course of its existence, MSC overtook Maersk to become the largest carrier in the world. Since then, the gap has only grown, significantly so. The joint statement announcing the end of 2M also pointed to their "...individual strategies...", which are different at both operational and corporate levels.

Operationally, Maersk has never really avoided joint operations. For MSC, an independent streak was always part of its culture. Any joint operations it was involved were borne out of pragmatism. The 2015 formation of the 2M was the prime example of this.

Corporate strategies have also differed over the past decade. Maersk has removed its own vessels from the extremities of its network and has divested as many non-container activities and interests as possible. This is all part of its focus on being an integrated container supply chain provider, with divestments partially replaced by a number of logistics acquisitions.

In contrast, MSC has been both filling gaps in its service network and broadening its activities. It has achieved this latter by building up its extensive logistics operation (MedLog), enhancing its terminal portfolio (see in particular the acquisition of Boloré Africa Logistics), establishing European railfreight activities (Medway), harbour tugs and towage (MedTug and then Boluda) and airfreight operations (MSC Air Cargo). Amongst all of this, Maersk's former COO, Soren Toft became MSC's CEO.

Considering MSC's fleet size and its orderbook, it clearly felt strong enough to go alone. Maersk, it was suggested, could have been left in an awkward form of limbo by the breakup; too small to be truly independent but way too large to enter into an existing alliance for fear of upsetting established and undoubtedly delicate balances. The solution to that conundrum came in January 2024 with the announcement of the Gemini Cooperation.

### Gemini Cooperation (Hapag-Lloyd, Maersk)

As from February 2025, this new alliance will bring together Maersk from out of the dissolving 2M and Hapag-Lloyd, which will take its leave of the still continuing THE Alliance.

The provisional network of this new consortium will cover seven global trades offering some fifty-eight services, split between twenty-six mainline operations and, what it calls, thirty-two dedicated regional shuttles. These will all be provided by a joint fleet of around 290 vessels with capacity for 3.4 million TEU.

Maersk will contribute sixty percent of the capacity and Hapag-Lloyd the remainder. The mainline services will cover the following corridors:

- Europe-Far East (7 loops, 4x North Europe and 3x Med)
- Transpacific (9 loops, 4x USWC and 5x USEC)
- Transatlantic (5 loops, 4x North Europe and 1x Med)
- Europe-Middle East/Indian Subcontinent (4 loops, 2x North Europe and 2x Med)
- Far East-Middle East/Indian Subcontinent (1 loop)

The affiliated network of relay and feeder services is unique amongst the alliances. This will provide regional connecting services within Europe, the Middle East, Far East and Gulf of Mexico. These services will be centred on twelve key hub ports, each of which hosts terminals affiliated with one of the partners.

## REGULATIONS (AND REGULATORS)

### Consortia Block Exemption

In October 2023, after a fourteen month review process, the European Commission confirmed that it would not be extending the Consortia Block Exemption Regulation (CEBR). This was originally granted in 2009 a year after the now disappeared

freight conferences were banned in Europe. It had been extended twice up to 25 April 2024.

A couple of months after the EU announcement, the Competition and Markets Authority (CMA) of the United Kingdom issued a preliminary recommendation that the CEBR (it had inherited from the EU) should be allowed to end. This preliminary decision was confirmed by a final one issued early in 2024 and also took effect on 25 April 2024.

### Emissions Trading System

In a process that has been on-going since 2020, an announcement was made in October 2023 that the European Union's Emissions Trading System (ETS) would come into effect for most shipping sectors as of 1 January 2024. The basis of the ETS is the cap that sets the total amount of greenhouse gases (GHGs) that can be emitted by those countries and entities falling under the scheme. Each company will have to account for all their GHG emissions with allowances. Whilst some allowances will be issued to operators free, most will have to be obtained through the EU carbon market or by trading between each other, all these having a financial value.

The situation is complicated by the international nature of the shipping sector. For example, the ETS for shipping will cover all greenhouse gas emissions for intra-Europe Economic Area voyages (i.e. EU plus Norway and Iceland), and 50% of those voyages that start or finish outside the EEA.

There will also be a staggered introduction of the system. Essentially, as from 2025, forty percent of carbon dioxide emissions from intra-EU voyages and port stays recorded in 2024 will fall under the ETS. The thresholds will rise to seventy percent in 2026 (for 2025 emissions) and one hundred percent in 2027 (for 2026). Those liable for the charges under the ETS are vessel owners or operators who have responsibility for operational decisions that affect the vessel's (greenhouse gas) emissions.

Part of the revenues raised from ETS levies will actually be returned to shipping for investment into decarbonisation and energy efficiency research. This funding might also be available for non-EU companies, such as those located in the Far East.

There is a concern, though, that transshipment cargo could move away from the European Union should operators seek to reduce their exposure to ETS related charges. Consider the difference in financial liability arising if Tangier were the last port of call before Spain, rather than Singapore say. Further, think of the difference in feeder cargoes anchored on Tangier, which would attract a fifty percent tariff up to the first EEA port of call, rather than Algeciras, for which all emissions would need to be accounted.

As a result, the European Commission has put in some safeguards to prevent such an extreme case, although only Tangier and Port Said are classified under these. This classification means that voyages to/from these ports will be included fully within the ETS. Understandably, many in the EU ports sector feel the measures should go further and incorporate other neighbouring ports.

Figure 13

### LINER OPERATORS AND THEIR SUBSIDIARIES

Liner shipping groups and their main operating subsidiaries, sister companies or brands, effective May 2024

By parent			
<b>AD Ports Group</b>		<b>Grimaldi Compagnia di Navigazione, Naples, Italy</b>	
Global Feeder Shipping, Dubai, UAE		Atlantic Container Line, Westfield, New Jersey, USA	
Safeen Feeders, Abu Dhabi, UAE		Finnlines, Helsinki, Finland	
Transmar International Shipping, Cairo Egypt		Grimaldi Euromed, Naples Italy	
<b>Arkas Line, Izmir, Turkey</b>		Malta Motorways of the Seas, Valetta, Malta	
Emes Feederling, Milan, Italy		<b>IRISL, Teheran, Iran</b>	
<b>Boluda Corporacion Maritima S.L., Madrid, Spain</b>		HDS Lines, Tehran, Iran	
Boluda Lines, Valencia, Spain		Khazar Shipping, Bandar Anzali, Iran	
Naviera del Mercosur, Asuncion, Paraguay		Valfajre Shipping, Tehran, Iran	
<b>CMA CGM, Marseilles, France</b>		<b>Maersk, Copenhagen, Denmark</b>	
ANL Container Line, Melbourne, Australia		Aliança Navegação e Logística, Sao Paulo, Brazil	
APL, Singapore		Hamburg Süd, Hamburg, Germany	
Cheng Lie Navigation, Singapore		<b>Mediterranean Shipping Company, Geneva, Switzerland</b>	
Comanav, Casablanca, Morocco		Log-In Logística Intermodal, Rio De Janeiro, Brazil	
Mercosul Line Navegação e Logística, Sao Paulo, Brazil		WEC Lines, Rotterdam, The Netherlands	
Sofrana ANL, Auckland, New Zealand		<b>Pacific International Lines, Singapore</b>	
<b>Cosco Shipping Holdings, Shanghai, China</b>		Mariana Express Lines, Singapore	
CoHeung Marine Shipping Co, Seoul, South Korea		<b>Samskip Holding, Rotterdam</b>	
Cosco Shipping Lines, Shanghai, China		Samskip hf, Reykjavik, Iceland	
Diamond Line, Hamburg, Germany		Samskip Multimodal, Rotterdam, Netherlands	
New Golden Sea Shipping, Singapore		Sea Connect, Klaipeda, Lithuania	
Shanghai Panasia Shipping Co, Shanghai, China		Nor Lines, Tananger, Norway	
OOCL, Hong Kong		<b>Shanghai Jin Jiang Shipping, Shanghai, China</b>	
<b>DP World, Dubai, UAE</b>		Shanghai Hai Hua, Shanghai, China	
P&O Ferries, Dover, United Kingdom		<b>Sinokor Merchant Marine, Seoul, South Korea</b>	
P&O Maritime Logistics, Dubai, UAE		Heung A Line, Seoul, South Korea	
Shreyas Shipping, Mumbai, India		<b>Swire Shipping, Singapore</b>	
Unifeeder, Aarhus, Denmark		Pacifica Shipping, Lyttelton, New Zealand	
Unifeeder FZCO, Dubai		Polynesia Line, San Francisco, USA	
Unimed Feeder Services, Limassol, Cyprus		<b>Vietnam Maritime Corporation, Ha Noi, Vietnam</b>	
<b>Eimskipafelag Islands hf., Reykjavik, Iceland</b>		Bien Dong Shipping, Ha Noi, Vietnam	
Eimskip Island, Reykjavik, Iceland		<b>Wan Hai Lines, Taipei, Taiwan</b>	
Eimskip Norway, Tromsø, Norway		Interasia Lines, Taipei, Taiwan	
Faroe Ship, Tórshavn, Faroe Islands		<b>ZIM Integrated Shipping Services, Haifa, Israel</b>	
<b>Evergreen Group</b>		Gold Star Line, Hong Kong	
Evergreen Marine			
Italia Marittima			
By subsidiary			
Aliança Navegação e Logística	Maersk	Log-In Logística	MSC
ANL container Line	CMA CGM	Malta Motorways of the Seas	Grimaldi Compagnia di Navigazione
APL	CMA CGM	Mariana Express Lines	Pacific International Lines
Atlantic Container Line	Grimaldi Compagnia di Navigazione	Mercosul Line	CMA CGM
Bien Dong Shipping	Vietnam National Shipping Lines	Naviera del Mercosur	Boluda Corporacion Maritima
Boluda Lines	Boluda Corporacion Maritima	New Golden Sea Shipping	Cosco Shipping Holdings
Cheng Lie Navigation	CMA CGM	Nor Lines	Samskip Holding
CoHeung Marine Shipping	Cosco Shipping Holdings	OOCL	Cosco Shipping Holdings
Comanav, Casablanca, Morocco	CMA CGM	P&O Ferries	DP World
Cosco Shipping Lines	Cosco Shipping Holdings	P&O Maritime Logistics	DP World
Diamond Line	Cosco Shipping Holdings	Pacifica Shipping	Swire Shipping
Eimskip Island	Eimskipafelag Islands	Polynesia Line	Swire Shipping
Eimskip Norway	Eimskipafelag Islands	Safeen Feeders	AD Ports Group
Evergreen Marine	Evergreen Group	Samskip hf	Samskip Holding
Emes Feederling	Arkas Line	Samskip Multimodal	Samskip Holding
Faroe Ship	Eimskipafelag Islands	Sea Connect	Samskip Holding
Finnlines	Grimaldi Compagnia di Navigazione	Shanghai Hai, Hua	Shanghai Jing Jiang Shipping
Global Feeder Shipping	AD Ports Group	Shanghai Panasia Shipping	Cosco Shipping Holdings
Gold Star Line	ZIM Integrated Shipping Services	Shreyas Shipping	Unifeeder
Grimaldi Euromed	Grimaldi Compagnia di Navigazione	Sofrana ANL	CMA CGM
Hamburg Süd	Maersk	Transmar International Shipping	AD Ports Group
HDS Lines	IRISL	Unifeeder	DP World
Heung A Line	Sinokor	Unifeeder FZCO	DP World
Interasia Lines	Wan Hai Lines	Unimed Feeder Services	DP World
Italia Marittima	Evergreen Group	Valfajre Shipping	IRISL
Khazar Shipping	IRISL		

**Figure 14**  
**MERGERS AND TAKEOVERS IN 2023**

Target	Buyer	From
Global Feeder Shipping (51%)	AD Ports Group	Delanord Investments
FESCO (92.4%)	Rosatam	Russian State

**Notes:**

- In the case of mergers, surviving entity is reflected under "Buyer"

**Figure 15**  
**OTHER CARRIER CHANGES IN 2023**

Company	Change	Result
SeaLand (Maersk)	Retired	Maersk' to become single brand
Containerships (CMA CGM)	Retired	Absorbed into CMA CGM
Shanghai Jin Jiang	IPO	Parent SIPG retaining 85%

**Figure 16**  
**CARRIERS ENTERING THE LINER SHIPPING SCENE IN 2023**

Company	Month	Trade(s)
Safetrans	January	China-St. Petersburg
Mountain Air Shipping	January	China-St. Petersburg
Hornafic Sea Shipping	April	Oman-Somaliland
CStar Line	August	Europe-Med + various Russia
Lotus Link	August	Vietnam-Malaysia-India
Oceanus Line	August	Florida-Costa Rica
Aurora Line	December	China-St. Petersburg

**Figure 17**  
**CARRIERS LEAVING THE LINER SHIPPING SCENE IN 2023**

Company	Month	Trade(s)
Focus Container Line	January	Australia-New Zealand
BAL Container Line	January	Transpacific (Mexico)
Kalypso Navigazione	December	Europe-Far East

**Figure 18**  
**SENIOR MANAGEMENT CHANGES in 2023**

Position	Carrier	In	Replacing
CEO	Maersk	Mr. Vincent Clerc	Mr. Soren Skou

**Figure 19**  
**INTERNATIONAL SHIPPING ORGANISATIONS**

Name and members
<b>Digital Container Shipping Association</b> CMA CGM, Evergreen, Hapag-Lloyd, HMM, Maersk, MSC, ONE, Yang Ming, ZIM
<b>Global Shippers' Alliance</b> Asian Shippers' Alliance, European Shippers' Council, American Association of Exporters and Importers
<b>Global Shippers Forum (GSF)</b> Australian Peak Shippers' Association, Freight Management Association of Canada, Korea Shipper's Council, Logistics UK, National Industrial Transportation League, New Zealand Shippers' Councils, Sri Lanka Shipper's Council, Swiss Shippers' Council, Union of African Shippers' Councils
<b>International Chamber of Shipping</b> Maritime Industry Australia Limited, Bahamas Shipowners' Association, Royal Belgian Shipowners' Association, Canadian Chamber of Marine Commerce, China Shipowner's Association, Cyprus Shipping Chamber, Danish Shipping, Shipowners of the Faroe Islands, Finnish Shipowners' Association, French Shipowners' Association, German Shipowners' Association, Union of Greek Shipowners, Hong Kong Shipowners Association, Irish Chamber of Shipping, Italian Shipowners' Association, Japanese Shipowners' Association, Korea Shipowners' Association, Kuwait Oil Tanker Co., Liberian Shipowners' Council, Malaysian Shipowners' Association, Grupo TMM S.A., Royal Association of Netherlands Shipowners, Nigerian Chamber of Shipping, Norwegian Shipowners' Association, Filipino Shipowners' Association, Portuguese Shipowners' Association, Russian Chamber of Shipping, Singapore Shipping Association, Spanish Shipowners' Association, Swedish Shipowners' Association, Swiss Shipowners' Association, Turkish Chamber of Shipping, UAE Shipping Association, UK Chamber of Shipping, Chamber of Shipping of America

**Ocean Carrier Equipment Management Association (OCEMA)**  
APL, CMA CGM, CoscoSL, Evergreen, Hamburg Süd, Hapag-Lloyd, HMM, Maersk, MSC, ONE, Wan Hai, ZIM

**World Liner Data Agreement**  
CMA CGM/APL/ANL, CoscoSL/OOCL, Evergreen, Hamburg Süd, Hapag-Lloyd, HMM, Independent Container Line, Maersk, MSC, ZIM

**World Shipping Council**  
CoscoSL/OOCL, CMA CGM/APL/ANL, Crowley, Evergreen, Hapag-Lloyd, HMM, Independent Container Line, "K" Line, Matson, Maersk/Hamburg Süd, MSC, MOL, NYK, ONE, Swire Shipping, Wallenius Wilhelmsen Ocean, Wan Hai, Yang Ming, ZIM

**Figure 20**  
**COMMON CARRIER E-PLATFORMS**

Name and members
<b>Cargosmart (carriers only)</b> ANL, Cheng Lie, CMA CGM, CoscoSL, Evergreen, Hapag-Lloyd, Independent Container Line, Maersk, Matson, MSC, ONE, OOCL, SM Line, Yang Ming
<b>INTRTRA (carriers only)</b> ACL, Aliança, ANL, Antillean Marine, APL, Arkas Line, Cheng Lie, CMA CGM, CoscoSL, Crowley, Dole, Evergreen, FESCO, Gold Star Line, Grimaldi, Hamburg Süd, Hapag-Lloyd, HMM, ICL, Intermarine, Maersk, Marfret, MSC, North Sea Container Line, ONE, Pan Asia Line, PIL, Salam Pacific Indonesia Lines, Samskip, SM Line, Sinotrans, Swire Shipping, Unifeeder, Wan Hai, WEC, Yang Ming, ZIM

**Figure 21**  
**TOP-12 OPERATORS BY FULL CONTAINER CARRIINGS**

Rank 2023	Main/parent company	Growth 2023	2023 TEU	2022 TEU	2021 TEU	
4	CMA CGM	0.5%	21,850,000	21,740,000	22,040,000	
3	CoscoSH	-3.5%	23,555,000	24,412,000	26,344,000	
7	Evergreen	-0.2%	7,718,000	7,730,000	7,430,000	
6	Hapag-Lloyd	0.5%	11,906,000	11,843,000	11,872,000	
11	HMM	2.8%	3,784,000	3,682,000	3,817,000	
2	Maersk	-0.2%	23,808,000	23,848,000	26,178,000	
1	MSC	6.5%	24,500,000	23,000,000	23,000,000	
5	ONE	8.5%	12,019,000	11,081,000	12,061,000	
10	PIL	0.0%	4,000,000	4,000,000	4,100,000	
9	Wan Hai	4.4%	4,490,000	4,300,000	4,800,000	
8	Yang Ming	2.2%	4,710,000	4,610,000	4,410,000	
12	ZIM	-2.9%	3,281,000	3,380,000	3,481,000	
<b>Total top 12</b>			<b>1.4%</b>	<b>145,621,000</b>	<b>143,626,000</b>	<b>149,533,000</b>
Estimated world total			0.3%	175,600,000	175,100,000	183,300,000
share top 12				83%	82%	82%

**Notes:**

- Selection based upon year-end 2023 Top 12 by fleet capacity
- Ranking by 2023 carryings
- Data originate from carriers and Dynamar estimates (italics)

**Figure 22**  
**MAJOR OPERATORS BY OPERATING PROFIT AND TURNOVER**

Main/parent company	2023		2022		2021	
	profit USD	revenue USD	profit USD	revenue USD	profit USD	revenue USD
CMA CGM	7,400	31,390	31,640	58,950	22,069	45,290
CoscoSH	3,476	23,714	23,625	55,662	20,167	51,527
Evergreen	1,128	8,982	12,204	20,424	10,269	17,643
Hapag-Lloyd	4,872	19,603	20,786	36,956	12,309	25,263
HMM	306	5,375	7,811	13,707	6,142	10,877
Maersk	6,490	28,421	33,770	64,499	21,432	42,734
ONE	2,044	14,536	29,282	16,320	18,279	30,098
Wan Hai	-205	3,253	3,840	8,432	4,603	8,220
Yang Ming	-54	4,565	7,186	12,239	7,332	12,029
ZIM	-1,039	5,162	7,532	12,562	6,596	10,729
<b>Sub-total</b>	<b>24,418</b>	<b>145,001</b>	<b>177,676</b>	<b>299,751</b>	<b>129,198</b>	<b>254,411</b>

**Notes:**

- Profit: Operating profit in million USD
- Turnover: turnover in million USD

**Figure 23**  
**TOP-12 OPERATORS BY OPERATED VESSEL FLEET CAPACITY**

Rank 2023	Main/parent company	Growth 2023	2023 TEU	2022 TEU	2021 TEU	
3	CMA CGM	5.5%	3,578,400	3,393,190	3,169,700	
4	CoscoSH	6.4%	3,054,300	2,871,859	2,934,400	
7	Evergreen	0.4%	1,644,900	1,637,861	1,477,600	
5	Hapag-Lloyd	10.2%	1,963,900	1,782,689	1,746,800	
8	HMM	-4.0%	783,700	816,365	819,800	
2	Maersk	-2.4%	4,117,100	4,219,395	4,279,300	
1	MSC	22.1%	5,613,700	4,598,373	4,266,800	
6	ONE	17.7%	1,799,800	1,528,921	1,542,300	
12	PIL	-0.8%	294,800	297,163	266,700	
11	Wan Hai	10.5%	482,800	436,844	421,200	
9	Yang Ming	0.0%	707,400	707,354	662,000	
10	ZIM	16.0%	619,300	533,823	413,900	
<b>Total Top 12</b>			<b>22.4%</b>	<b>24,660,100</b>	<b>20,150,100</b>	<b>19,228,700</b>
World total			8.2%	28,528,700	26,375,308	25,344,834
Share Top 12				86.4%	76.4%	75.9%

**Notes:**

- Selection based upon year-end 2023 fleet capacity
- Ranking by 2023 operated capacity
- Based upon data sourced from Alphaliner

**Figure 24**  
**MAJOR OPERATORS OPERATING PROFIT PER TEU**

Main/parent company	2023		2022		2021	
	profit USD	liftings TEU	profit USD	liftings TEU	profit USD	liftings TEU
CMA CGM	339	21,850	1,455	21,740	1,001	22,040
CoscoSH	148	23,555	968	24,412	766	26,344
Evergreen	146	7,718	1,579	7,730	1,382	7,430
Hapag-Lloyd	409	11,906	1,755	11,843	1,037	11,872
HMM	81	3,784	2,122	3,682	1,609	3,817
Maersk	273	23,808	1,416	23,848	819	26,178
ONE	170	12,019	2,643	11,081	1,516	12,061
Wan Hai	-46	4,490	893	4,300	959	4,800
Yang Ming	-11	4,710	1,559	4,610	1,663	4,410
ZIM	-317	3,281	2,228	3,380	1,895	3,481
<b>Sub-total</b>	<b>208</b>	<b>117,121</b>	<b>1,523</b>	<b>116,626</b>	<b>1,055</b>	<b>122,433</b>

**Notes:**

- Profit: Operating profit USD per TEU
- Liftings: 1,000 TEU



## PORTS, TERMINALS AND ARTERIES

### PORTS AND TERMINALS

#### Catching up and rounding off

##### Iskenderun - disaster and recovery

Early in 2023, a series of severe quakes and aftershocks damaged or destroyed at least 160,000 buildings and 500,000 housing units in southeastern Turkey. The death toll, including in Syria, was estimated at more than 50,000 people. Rescue efforts, let alone normal day-to-day business, were hampered by damage and disruption to both Iskenderun port itself and connecting hinterland infrastructure.

The 1.0 million TEU LimakPort container facility in Iskenderun experienced a substantial fire in its yard area that destroyed or damaged around a third of the 5,000 or so containers that were there. Understandably, the port was closed to cargo traffic, with container carriers diverting to Mersin, around 140 kilometres to the west. Such was the damage to LimakPort that commercial operations only resumed in April 2023 and even after then, vessel calls were still down by nearly a fifth until the end of the year.

However, plans are in place to not only recover but expand at Iskenderun. The port's other container terminal, located a few kilometres to the north, is the 250,000 TEU Assan Port (visited exclusively by MSC). It was mercifully spared serious damage and is looking at adding 150,000 TEU in capacity by developing two separate 5.0-hectare container stacking or yard areas.

Despite all the challenges, the port proved its resilience and powers of recovery as Iskenderun's total handlings for 2023 came to 649,500 TEU. This was only 10,000 TEU down on 2022. In fact, Mersin, the main alternative gateway after the earthquake, saw its throughput decline by 47,500 TEU in the context of 1.9 million TEU.

##### The privatisation of Santos (and others)

Privatising the port authority of Santos, the largest port in South America, was approved by Brazil's National Waterway Transport Agency (Antaq) as the final quarter of 2022 approached. However, a few months later, a new federal government with a very different political philosophy took office.

Even so, the privatisation of Santos was not immediately halted with dialogue held between the new government and the governor of the Sao Paulo (State) in which Santos is located. The latter was a proponent of privatisation and an infrastructure minister in the previous federal government.

Whether this was just polite political posturing or not, early in 2023, the relevant minister declared that privatisation of the port authority was, after all, a bad idea. Late in the year, the whole programme, not only the one covering Santos but also other Brazilian ports, was officially cancelled.

##### The story of 2023 - worldwide port struggles

Aside from the wide variety of day-to-day challenges ports face, these coming from market developments, extreme weather or natural disasters, there are also challenges from more human if not corporate elements. This is the common theme of 2023, with notable examples summarised below.

##### Brazil - Itajaí

At the end of 2022, the operating concession held by APM Terminals (APMT) for Itajaí's container facility expired. Although APMT was not inclined to extend, there was also no succession plan in place and APMT stayed on for a further six months, but no longer. Even so, activity was all but zero for that period.

In trying to move the port forward a tender was issued to operate the terminal for two years, this coinciding with the remaining concession period for the port authority. The container terminal concession was won by MMS Empreendimentos, which had anchored its bid on a monthly throughput of 66,000 TEU. If realised, this would have broken all port records. Unfortunately, MMS Empreendimentos failed to pass the due diligence process, principally because of the over-ambitious promissory throughput.

The competition then moved on to second-placed Mada Araújo Assessment, which was also subsequently deselected for the same throughput projection reason, this time for 44,000 TEU. The process then moved on to the third-placed bidder, but was reversed at the end of 2023 with Mada Araújo declared the winner after all.

Obviously, the lack of an operator and related uncertainty had disastrous impacts on the port's activity levels as it handled only 334 TEU for the whole of 2023. One year earlier, it handled 343,300 TEU, and for the three years prior, it managed well over 500,000 TEU annually. In contrast, Navegantes, on the opposite (northern) bank of the Itajaí-Açu river, saw handlings grow by ten percent in 2023 to 1.27 million TEU.

##### Pacific coast labour relations

The renewal of employer-worker contracts along the west coasts of Canada and the United States consistently lead to tensions and concerns about potential disruptions to cargo flows as the two sides struggle to reach an agreement. On occasions, the potential becomes actual. This was also the case in 2023 when negotiations for the latest round, originally due in 2022, came to a head. Yet it was not just the collective agreements that were a cause either. In at least one case, local issues were the cause of the uncertainty.

##### US West Coast

In mid-2023, industrial action led to disruption in a number of US West Coast ports. Various actions covered 22,000 dockworkers all along the US West Coast from California to Washington State. The resultant delays saw a reported USD 5 billion worth of cargoes caught up in land and seaside congestion as comparisons were made with the situation seen in the pandemic.

Thankfully, the actions and disruptions were short and sharp rather than prolonged and chronic. The employers, represented by the Pacific Maritime Association (PMA) and the dock workers under the International Longshore and Warehouse Union (ILWU) came to a provisional agreement which, even more importantly, was ratified by the membership of the ILWU a few weeks later. This new agreement covered the July 2022-July 2028 period, so we might be back here again in 2028-29.

##### Portland

Early in 2024, a separate and long-running legal saga between the International Longshore and Warehouse Union (ILWU) and terminal operator International Container Terminal Services, Inc. (ICTSI) came to an end. This stemmed from ICTSI's early withdrawal as the operator of Portland's Terminal 6 in 2017.

The few carriers calling had already left because of industrial action arising from a dispute between the ILWU and another union that started back in 2012.

Subsequent court cases between ICTSI and the ILWU saw the former being awarded USD 19 million in damages (down from the original USD 93 million) after which ICTSI appealed. For its part, the ILWU filed for Chapter 11 bankruptcy protection to save it from going under if accommodation could not be reached. Luckily, the two parties reached an agreement whereby ICTSI received USD 20.5 million and the bankruptcy and original cases were discontinued.

This impacts of the long-running dispute were clear to see upon the port. For the 2015-20 period, Portland's annual handlings averaged 700 TEU when previously they were at the 150,000+ TEU mark. Although they rebounded in 2021 and even reached 170,000+ TEU in 2022, the port took the decision, in 2024, to end container operations because they were not financially sustainable.

Despite the apparent settling of the labour relations climate, Portland still had no terminal operator. It also suffers from geographical disadvantages as it is located 150 kilometres inland, is more expensive than other ports and mainly handles (low-value) agricultural products.

This port's decision to withdraw from the container business entered local politics, with Oregon's governor stating an intention, well into 2024, to allocate USD 40 million from the 2025-2027 budget to keep the terminal going. It remains to be seen if the intention is turned into action.

##### Canada

There were also labour tensions in neighbouring Canada. On 1 July, around 7,500 dock workers across twenty-nine Canadian Pacific coast ports went on strike. This came after negotiations between the employers, represented by the British Columbia Maritime Employers Association (BCMEA), and the workers, represented by the International Longshore and Warehouse Union Canada (ILWU Canada) broke down and required federal mediation. This obviously bore fruit as a new four-year agreement was reached the following month. The major container gateways affected by this dispute, Vancouver and Port Rupert, serve not only Canadian but also significant amounts of United States trade.

##### South Africa - Transnet - a creaking infrastructure

Transnet is South Africa's infrastructure manager and as part of that, the country's dominant terminal operator concentrating upon container, car and breakbulk/multipurpose sectors. It operates five container terminals located in Durban (two), Cape Town, Ngqura and Port Elizabeth. Multipurpose facilities are found in Durban and East London. There are no privately operated box facilities in South Africa.

##### Parastatal Transnet

South Africa's ports fall under the remit of Transnet, a state-owned corporation, also known as a 'parastatal', that controls the national landside freight infrastructure (excluding roads). It operates through six divisions all under the generic Transnet brand and covering: freight rail; engineering (rolling stock maintenance); pipelines; property; and most importantly here, the national ports authority (landlord of South African ports) and port terminals (port and terminal management and operations).

As an operator of infrastructure, Transnet has come under gradual yet increasing criticism as to its efficiency. As 2023 was closing, operational issues at major ports as Durban and Cape Town saw a reported 60,000 containers delayed at sea and vessels delayed, at the latter, for up to two weeks. Best estimates

to completely tackle operational issues at Durban extended to fifteen weeks. Indeed, CMA CGM and Maersk had already removed Durban from the itinerary of their joint Middle East-West Africa "Midas1/MESAWA" service for a portion of the year, with Port Reunion (on the island of the same name) and Port Elizabeth the alternatives.

Alongside operational issues, Transnet has been facing financial and governance challenges, leading the South African government to extend a USD 2.5 billion guarantee facility at the end of 2023 to assist the parastatal in its recovery programme. Almost half of that was needed immediately to assist with upcoming debt obligations. A couple of months earlier, Transnet had actually requested twice as much, including an equity injection.

All of this only increased the argument for privatisation of at least parts of South Africa's ports sector. There was already some movement in 2022, with Transnet seeking private sector involvement in Durban Pier 2 (DCT2) and Ngqura Container Terminal (NCT). By the end of the year, six parties had been shortlisted as potential partners in one or both facilities. Halfway through 2023, ICTSI won the contract to operate DCT2 in a joint venture with Transnet - confirmed after subsequent due diligence early in 2024. Transnet will hold a one-share majority position in the venture, which will receive a 25-year-long operations concession.

##### Terminal Operators and Operations

As well as developments surrounding individual ports, there were also some at terminal operator level. A selection of these is summarised below and includes operators affiliated with shipping lines. All entries are ordered alphabetically.

##### AD Ports - hurrying

Late in 2022, the ambitious AD Ports agreed to buy Noatum of Spain in a standard stevedore/stevedore deal. Approval was received in the opening quarter of 2023 and completed midway through the year. Whilst centred in Spain, Noatum - which has retained its independent branding - also has a presence in Africa, the Americas and Asia. As a stevedore, its container facilities are limited to the Spanish ports of A Coruna, Cartagena, Castellon and Malaga, although it is also involved in another thirty multipurpose, Ro/Ro, reefer or bulk terminals. Outside of port operations, Noatum is active in agency and logistics.

Another AD Ports gain was Karachi Gateway Terminal. This used to be called Pakistan International Container Terminal under the previous concession held by ICTSI. AD Ports is now the majority partner in a joint venture with the local Kaheel Terminals that is now managing, operating and will further develop this facility. In the first decade of what is a fifty-year concession, work will be undertaken to deepen the draught, extend the quayline and increase capacity by one third to 1.0 million TEU.

AD Ports also signed a thirty year concession with the Red Sea Ports Authority (Egypt) to develop and operate a multi-purpose terminal at Safaga. The terminal will cover 81 hectares, and alongside dry and liquid bulk will handle general cargoes including capacities for 450,000 TEU of containers and 50,000 CEU of rolling stock. Completion of the project is tentatively planned for 2025.

##### Adani Ports - a busy year

In 2023, Adani Ports (70%) and Gadot Group (30%) completed their acquisition of Haifa Port in Israel. The USD 1.18 billion deal was delayed as the partners had faced difficulties in financing the acquisition. With its completion, and besides many other properties, the partners became the owner of the Carmel and Eastern container terminals, two of the three box facilities in

# Making Tracks

The Port of Long Beach's Pier B On-Dock Rail Support Facility breaks ground later this year – part of a \$1.5 billion investment in rail infrastructure. We'll increase throughput, lower emissions, lessen traffic impacts and move cargo faster and more efficiently.



this port. The third and newest one, the SIPG Bayport Terminal, is operated by the Shanghai International Port Group.

Another addition to the Adani portfolio came from the acquisition of Karaikal Port Private Limited, the operator of the eponymous Indian and primarily dry bulk port. However, as part of its plan, Adani intends to also develop container facilities there. Adani also secured, early in 2024, an agreement to take on the concession for the Tanzanian port of Dar es Salaam's Container Terminal 2/East Africa Container Terminal. This was previously held by Hutchison Ports via Tanzania International Container Terminal Services.

Moving out of the group, Adani finally managed to sell, in May 2023, its 800,000 TEU Adani Yangon International Terminal in the Myanmar port of the same name. The buyer was Solar Energy Ltd for an apparently reasonable USD 30 million; Adani had hoped for USD 150 million. The sale came about as a result of pressure from human rights groups following the February 2021 military coup in Myanmar.

Finally, very late in 2023, Adani agreed to sell forty-nine percent of its Ennore Container Terminal (800,000 TEU) to MSC's TIL for USD 30 million.

## *Ceres Terminals - from Macquarie to Carrix*

In mid-2023, it became known that Macquarie Asset Management was looking at selling its Ceres Terminals investment. Ceres had been owned by Macquarie since 2019 after purchasing it from NYK. Its activities spread across eighteen North American ports including (interests in) eleven container terminals or operators. This included three Charleston facilities in which Ceres, Ports America and SSA Marine cooperated through the Charleston Stevedoring Company. The same three cooperated in Gateway Terminals, the operator of two Savannah facilities. Including these ventures, estimated handling capacity of the Ceres portfolio was at least 13 million TEU (not adjusted for equity share).

A few months after Macquarie's announcement, Carrix, the parent of SSA Marine, emerged as the buyer of Ceres. SSA Marine was already established in twenty terminals throughout the United States plus ten others in Chile, Colombia, Haiti, Mexico, Panama and Vietnam, these often being ventures with other parties.

Not including the east coast ventures with Ceres (as was) and Ports America, the estimated gross capacity of SSA Marine's portfolio was at least 43 million TEU. Early in 2024, Ceres was folded into SSA Marine, the combination of the two making SSA Marine one of the largest terminal operators in the world.

## *Grimaldi - active in its own way*

Roll-on/roll-off and multipurpose operator, Grimaldi took an eighty percent stake in the former EMA Terminal (Amsterdam) of the troubled Ter Haak Group in 2023. The facility is now known as Amsterdam Multipurpose Terminal with the minority partner being TMA Logistics, a joint venture of which Hutchison Ports is part. Early in 2024, Grimaldi then stepped in to take over the full container Terminal Darsena Toscana in Leghorn after the agreed acquisition by MSC/TIL failed to materialise.

## *Hapag-Lloyd - Culmination of many efforts*

Although it is a top five liner operator by capacity, unlike most of those above it in the rankings, Hapag-Lloyd's involvement in container terminals used to be marginal. In fact, prior to 2019, it only had a 25.1% stake in Container Terminal Altenwerder in Hamburg.

This was added to in 2019 with a ten percent share of Tangier Alliance Terminal (then a project) and in 2022 with interests acquired in Container Terminal Wilhelmshaven and the Damietta Alliance terminal project. That same year, Hapag-Lloyd struck a number of agreements to expand its footprint even more and after the necessary regulatory scrutinies, these acquisitions were completed in 2023. These covered:

- Spinelli Group of Italy (49%), terminals in Salerno and Genoa
- J M Baxi Ports & Logistics Limited of India (40%), with terminals in Kandla, Haldia, Visakhapatnam, Tuticorin, and Nhava Sheva
- SAAM Ports of Chile (100%), ten terminals in north, central and southern America

Thus, within the space of a few years, Hapag-Lloyd had rapidly built up from having interests in just one to around twenty terminals. It has voiced its intention to add a further ten to fifteen by 2030.

Given this rapid expansion, it made sense, therefore, to start grouping these interests into their own organisation, much like TIL is for MSC and APM Terminals is for Maersk. This is precisely what happened late in 2023 when Hapag-Lloyd Terminal Holding was established. In mid-2024 it was rebranded as Hanseatic Global Terminals, a callback to the mid-1300s established Hanseatic League of merchant guilds and market towns, and which at its peak, encompassed nearly 200 locations across much of the north European continent.

## *ICTSI - Losing some, gaining one*

From a shortlist of six, in mid-2023, ICTSI won the contract to operate Durban Pier 2 (DCT2) in a new joint venture with Transnet, South Africa's national port landlord and terminal operator. Transnet will hold a one share majority position in the venture, which will receive a twenty-five year operations concession for DCT2.

Elsewhere, ICTSI's concession for what was the Pakistan International Container Terminal in Karachi ran out halfway through the year. Although it was interested in extending, a new concession was awarded to AD Ports. Another concession ICTSI held, this time in Makassar Container Terminal in Indonesia, also expired during 2023.

## *MSC (TIL and others) - Hamburg, Italy and Brazil*

### *HHLA (Hamburg, Germany)*

MSC lodged arguably the most audacious terminals bid of 2023 when, in September, it reached agreement with the City of Hamburg to take over the publicly-listed Hamburger Hafen und Logistik (HHLA). The City already owned sixty-nine percent with the remainder held by institutional and retail investors. The deal foresaw the City and MSC ultimately acquiring all the shares (or at least 90%) and then transferring them to a special purpose company which would effectively be 50.1% owned by the City of Hamburg with the MSC group holding the rest.

As a terminal operator, HHLA is involved in four of Hamburg's six container handling terminals, plus others in Cuxhaven (Germany, two facilities), Tallinn (Estonia), Trieste (Italy) and Odessa (Ukraine).

Reaction to the announcement was vocal, especially in the local Hamburg market. Hapag-Lloyd, though, did not appear to be overly concerned. This was very restrained to say the least, especially considering it had just been outmanoeuvred in its own back yard; the carrier's CEO admitted that it had been engaged in long-running talks with the City of Hamburg to take over HHLA's activities. Major Hapag-Lloyd shareholder Mr.

Klaus-Michael Kuhne also admitted to two failed attempts to take a controlling position in HHLA. Pointedly, Hapag-Lloyd also stated that a counter-offer was not in its interests, and that it could even reduce its volumes through Hamburg by as much as 20-30%.



**...I believe that the volume that can be handled in Hamburg has its limits...**

Mr. Rolf-Habben Jansen, CEO Hapag-Lloyd (speaking to Reuters)

It is indeed the potential redirection of volumes arising from this deal that is perhaps exercising many minds. MSC has a deserved reputation for supporting its terminal interests by sending them cargoes, lots of them. Yet, whilst it is the runaway leader in the shipping capacity tables, will this automatically give it the ability to satisfy all of its terminal interests with containers?

In a Germany context, it would make sense to divert cargoes from other German ports to Hamburg. Bremerhaven would be the obvious donor, but shortly after the City of Hamburg/ MSC/HHLA agreement was announced, MSC's Terminal Investment Limited (TIL) extended the concession for MSC Gate Bremerhaven for twenty-five years. This suggests a considerable commitment to this port as well.

Moving cargoes from ports outside Germany could be problematic too. MSC/TIL is involved in developing a new 7.0 million terminal in Rotterdam (replacing a 2.2 million TEU terminal it has interests in) and is already involved in a 9.0 million TEU facility in Antwerp.

Whatever the logistical intricacies as to how MSC could support all its terminal interests, by the end of 2023, the City of Hamburg and MSC combined to hold 92.3%. This was above the threshold needed to force other shareholders to sell their stocks.

Whilst the shareholding conditions for the deal were met, and whilst the agreement also received approval from the Hamburg Senate early in 2024, it still had others processes to pass, and undoubted challenges - such as from local politicians opposing the deal - to face.

#### Wilson Sons (Brazil)

Halfway through 2023, it was reported that MSC (TIL) was negotiating the purchase of fifty-seven percent of Wilson Sons of Brazil. This 200+ years old company operates container terminals in the ports of Rio Grande and Salvador. Involved in logistics, towage, a shipyard and offshore as well, Wilson Sons had tried to sell its terminals off in 2018 without success.

The approach by MSC sparked off considerable interest in Wilson Sons such that it subsequently received a number of other offers. Furthermore, negotiations between Wilson Sons and MSC (TIL) appear not to have borne any fruit.

#### Balked in Leghorn (Italy)...

At the start of 2023, TIL agreed to acquire Terminal Darsena Toscana (TDT) in the port of Leghorn from its owner, Gruppo Investimenti Portuali. Via investment company Marinvest, MSC already owned fifty percent of the multipurpose Lorenzi Terminal in the same port.

In the second half of the year, though, TIL withdrew its offer. While no reason was forthcoming, it was suggested that potential conditions put forward by the relevant Italian authorities may have been a factor; as well as Leghorn, MSC is also present in seven other Italian terminals.

This non-development did not leave TDT without a suitor though. The Grimaldi group stepped in with the acquisition completed early in 2024.

#### ...yet Indian and Spanish acquisitions in the pipeline

Over the end-2023/start-2024 period news broke of two agreements MSC or TIL had reached to buy into other terminals. One saw TIL sign to purchase forty-nine percent of the 800,000 TEU Ennore Container Terminal from its owner, India's expansive Adani Ports, for USD 30 million. In Barcelona, MSC agreed to buy fifty percent of Barcelona Europe South Terminal (BEST), which through upgrades is working towards a 3.1 million TEU capacity.

#### ONE - also playing catchup

Much like Hapag-Lloyd has been doing, ONE is also looking to build up its own affiliated portfolio of terminal assets. It made its first forays into this business in 2023 through the good offices of two of its shareholders, namely NYK and MOL, who already had interests in some container terminals. Via these connections, ONE purchased the fifty-one percent share held in terminal operator Trapac by MOL and the same share held by NYK in Yusen Terminals. The minority partners in these were Brookfield and Macquarie, respectively. Trapac operates the Trapac container terminals in Los Angeles and Oakland, whilst Yusen owns the Yusen Terminal in Los Angeles.

Also occurring in 2023, ONE took on the twenty percent held by MOL in Rotterdam World Gateway, its partners there being DP World, Terminal Link (both 30%) and HMM (20%).

#### Other operators and investors

Aside from those more extensive developments a number of other terminal operators made incidental moves in 2023:

**China Merchants Ports** acquired fifty-one percent of Nusantara Pelabuhan Handal from Episenta Utama Investasi of Indonesia. The target company operates two terminals in Tanjung Priok (Jakarta) and one along the Chao Praya River near Bangkok. Nusantara Pelabuhan Handal is also partially listed in Indonesia.

**Cosco Shipping Ports** was finally able to complete its 2022 agreed purchase of a 24.99% stake in Hamburg's Tollerort Terminal from HHLA. This was a reduced share from the originally agreed thirty-five percent as intervention from the German government led to the revision. There was a suggestion that the government would block the deal entirely having classified the terminal earlier in the year as critical national infrastructure.

**CMA CGM** acquired a forty-nine percent share in Cosco Shipping Ports (Spain) from JP Morgan and APG Asset Management. CS Ports (Spain) owns CSP Iberian Valencia Terminal and close to eighty percent of CSP Iberian Bilbao Terminal.

**DP World** withdrew from the 300,000 TEU Tarragona multipurpose terminal in Spain. This came after the port authority had announced earlier in the year that it would remove the concession anyway and look for a new operator because cumulative throughput commitments had not been met for the 2021-23 period.

**Evergreen Marine** took a twenty percent stake in Rotterdam's Euromax, although the seller was not divulged. The other partners at the time were Hutchison Ports and Cosco Shipping Ports affiliate, Longchang Holding.

At the end of 2023, **Gruppo Investimenti Portuali**, announced it was looking at selling off its entire portfolio. As well as Terminal Darsena Toscana, which it eventually sold to Grimaldi early in 2024, this included thirty-eight percent stakes in PSA Genova

Pra', PSA SECH (both Genoa) and PSA Vecon (Venice). Progress on selling these others appears not to have been booked.

## ARTERIES

In 2023, two major shipping arteries, the Panama Canal and the Suez Canal, faced severe disruption, albeit from quite different causes.

### Panama Canal

Panama, the country, suffered a drought in 2023 with the resultant low water levels significantly reducing the transit capacity of its iconic canal. Although low water is a seasonal challenge for the canal, over 2023-24 it was particularly severe; the third driest drought on record. It led to an estimated decrease in transit cargo to about 286 million LT (long tons) from 294 million LT in 2022 and 292 million LT in 2021.

The Panama Canal generally handles between thirty-six and thirty-eight vessels on a daily basis. However, due to the drought (and El Niño), this was reduced to as low as eighteen slots per day at one point, compelling vessels to either wait for a transit slot or choose longer more costlier routes. At one point more than 100 vessels were said to be waiting.

By December 2023, the situation was improving such that the Canal operated, barely, at two-thirds of 'normal' capacity. It still took until mid-2024 to even start approaching its 36-38 transits norm when the number of daily slots rose to thirty-two ships per day.

The auctioning of slots during the tightest period helped limit and soften any financial shortfall suffered by the Panama Canal Authority. In fact, by the end of the year, this practise had raised in the region of USD 235 million, which was twenty percent better than all the auction fees of 2022.

Although via Suez was the most popular alternative route, early in 2024, Maersk adopted a novel approach for a novel service. It split its US East Coast-Australia/New Zealand "OC1" into separate parts. The US end of the service turned at the Panama Atlantic port of Colon, whilst the Australia/NZ leg turned at the Panama Pacific port of Balboa. In between the two hubs, containers were shuttled by train. The service was recombined the following quarter.

### Not just Panama

Low-water levels along the Amazon also impacted ocean-going services connecting with the Brazilian port of Manaus, some 1,500km upstream. Alianca (Maersk) and Log-In (MSC) stopped serving the port for a while late in 2023. Containers were discharged at coastal ports, to be forwarded once the situation improved. Mercosul (CMA CGM) imposed significant extra charges to compensate for the reduced draught allowances and subsequent reduction in vessel capacity.

### Red Sea/Suez Canal

Transits through the Red Sea and, by implication, the Suez Canal were impacted by a de facto proliferation of the Israel/Hamas conflict that started in October 2023. This development saw Houthi rebels, controlling western Yemen, launch standoff attacks against vessels as they entered/departed the southern gateway of the Red Sea.

The targets were originally vessels believed to have some connection with Israel but was soon expanded to include many others (but not all). As well as containerships, the attacks also included bulk vessels, oil/chemical tankers and car carriers.

Most of the targeted or at risk vessels would usually have sailed on through to or come from the Suez Canal, but they were now avoiding that route and diverting around the Cape of Good Hope. Preceding this disruption, Suez Canal transit had been



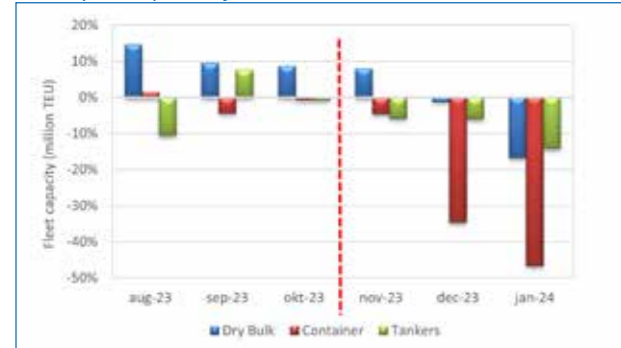
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growing significantly. In 2022, it hosted approximately 23,000 transits which was a noticeable increase from the 21,700 recorded in 2021.

Although 2023's figures still showed an eleven percent increase to 26,400 ships, the underlying figures were already showing signs of stress. According to data from UNCTAD, at the end of October 2023, the 28-day rolling average number of transits for containerships was 116.1. For November this had dropped to 110.5 and then again to 73.8 in December. Come late January, it was just 38.7 transits.

Monthly development of Suez Canal transits



Source: UNCTAD. Differences in 28-day rolling averages at each month start/end

Moving (well) into 2024, there has not been a noticeable decline in attacks. From when they started, many shipping operators, in particular container liner companies, started to adjust their networks by rerouting their vessels around the Cape of Good Hope. This is obviously a costly affair, for as well as the extra time and distance, more vessels are required for each service to maintain a weekly frequency.

Most services that were impacted by these events were between the Far East and Europe. Other routes were also affected like those connecting the Far East or Middle East/Indian Subcontinent with North America's east coast. However, not all services diverted. For example, in mid-2024, of seventeen services that provided Far East-Mediterranean connections, three still sailed through the Suez Canal. Quite often, but not always, those that do make the transit often continue through to Russian ports.

**Northern Sea Route (NSR)**

The Northern Sea Route (NSR), sometimes referred to as the Northeast Passage, offers a potential alternative route for the Far East-Europe trade. In doing so, it provides a possible and further threat to the commercial proposition of the Suez Canal as the NSR connects the eastern and western parts of the Arctic Ocean over a distance of 13,000 kilometres. In contrast, the traditional Far East-Suez-Europe route has a distance of 21,000 kilometres.

China has emerged as an interested party in the NSR's development, perhaps wishing to spread its strategic and supply chain risk. In July 2023, Chinese shipping company NewNew Shipping Line trialled what was suggested could develop into a regular container line between China and the port of Arkhangelsk along the NSR.

What the NSR lacks though, aside from year-round navigation, is development and scalability. For example, although NewNew Shipping's trial was quicker than the via Suez option, the 1,600 TEU vessel deployed was only seven percent the size of those plying the more traditional route.

Addressing the developmental weakness, in October 2023, Russia's state nuclear agency Rosatom announced it had set up a 51/49 joint venture with Dubai's DP World to develop container shipping through the Arctic. Also occurring in 2023, FESCO, the largest container shipping company in Russia, was nationalised and subsequently transferred to Rosatom, who said the move would help it develop shipping along the Route.

For all the plans, agreements and trials, the number of relevant transits made of the NSR is microscopic when set against the container shipping sector as a whole. According to the Centre for High North Logistics, there were just forty-three full transits of the NSR in 2022, with container vessels accounting for five of those. In 2023, whilst the overall total had nearly doubled to seventy-nine full transits, only four were made by containerships.

For all the tiny steps made, the Northern Sea Route still has a very long way to go to be considered anything like a viable option for containerships. And this is outside of the environmental and not unrelated moral dimension of supporting any NSR option.

Figure 25  
PROGRESS ON NEW TERMINALS IN 2023, includes

Facility	Port	Action	Cap
<b>Europe/Mediterranean</b>			
New CT	Cadiz	Tender launched	-
East Med Hub 2	Mersin	Ground-breaking	1.0
East Port Said CT 2	Port Said	Construction started	2.0
Rijeka Gateway	Rijeka	Ground-breaking	1.0
Norte de Raos	Santander	Commissioned	-
Northern extension	Valencia	Approved	5.0
Montesyndial Venice	Venice	Approved	-
<b>Far East</b>			
Can Gio Tranship. Port	Can Gio	Planned	15.0
New CT	Gresik	Ground-breaking	3.0
Kaohsiung ICT	Kaohsiung	Commissioned	-
Hateco Hai Phong ICT	Lach Huyen	Announced	1.1
East Java MPT	Lamongan	Ground-breaking	-
CT 10-17	Port Kelang	Approved	13
New CT	Sihanoukville	Commissioned	14.5
Xiang'An port area	Xiamen	Planned	4.3
New CT	Yangpu	Construction started	3.0
<b>North America</b>			
Velasco CT berth 8	Freeport (Tx)	Construction completed	-
2nd CT	Prince Rupert	Proposed	2.0
Roberts Bank	Vancouver	Approved	-
New MP Term	Veracruz	Agreement signed	-
<b>Indian Sub Continent/Middle East</b>			
Laldia port area	Chittagong	Proposed	-
Patenga CT	Chittagong	Commissioned	0.5
Tuna Tekra (DPW)	Kandla	Agreement signed	2.2
Khidderpore MP Dock	Kolkata	Agreement signed	-
Machilipatnam Port	Machilipatnam	Construction started	-
New MP terminal	Safaga	Agreement signed	0.45
Vadhaven port	Vadhaven	Approved	15
<b>Africa</b>			
New East Mole Term	Pointe Noire	Approved	-
Sanyang Deepsea Port	Sanyang	Approved	-
Lekki ICT	LekkiPort	Commissioned	1.2
New CT	Ndayane	Approved	1.2
Boegoebaai MP port	Boegoebaai	Tender launched	-
New quay	Tanga	Commissioned	-
<b>Latin America</b>			
UPI-B Cais Sul	Suape	Approved	0.4
New CT	Valparaiso	Announced	-
<b>Australasia</b>			
Webb Dock	Melbourne	Proposed	-

**Notes:**  
 • Capacity in million TEU  
 • Capacities are provisional

Figure 26  
PROGRESS ON UPGRADING TERMINALS IN 2023, includes

Facility	Port	Action	Cap
<b>Europe/Mediterranean</b>			
Europa Term (USA)	Antwerp	Construction started	3
Port Nou Terminal	Barcelona	Construction completed	-
Central Quay	Bilbao	Tender launched	-
Advance CT Burgas	Burgas	Construction started	0.15
Malta Freeport	Marsaxlokk	Construction started	-
APMT Maasvlakte II	Rotterdam	Agreement signed	2.0
RWG	Rotterdam	Agreement signed	1.8
APMT Medport 2	Tangier	Construction completed	-
Molo VIII	Trieste	Agreement signed	-
<b>Far East</b>			
Belawan New CT	Belawan	Agreement signed	0.8
Iloilo commercial port	Iloilo	Tender launched	-
Long An Port	Long An	Commissioned	-
Manila ICT Berth 8	Manila	Ground-breaking	0.2
Qinzhou IT berth 9-10	Qinzhou	Commissioned	-
<b>North America</b>			
Fleet Dock Tarm	Argentina	Approved	-
Bayport CT Wharf 6	Houston	Construction completed	-
APMT facility, phase II	L. Cardenas	Construction started	1.0
ITS-berth G236	Los Angeles	Construction completed	-
Centerm CT	Vancouver	Construction completed	-
Deltaport 4th berth	Vancouver	Proposed	2.0
<b>Indian Sub Continent/Middle East</b>			
Terms 1&2 expansion	Dammam	Ground-breaking	4.0
New Mangalore CT	N. Mangalore	Construction started	0.16
<b>Africa</b>			
CT2	Tema	Construction completed	-
<b>Latin America</b>			
Term Cuenca del Plata	Montevideo	Construction started	-
Terminal Pacifico Sur	Valparaiso	Announced	-
<b>Australasia</b>			
Victoria ICT	Melbourne	Agreement signed	-
Wharf 6	Napier	Commissioned	-
Victoria ICT	Melbourne	Announced	1.3

**Notes:**  
 • Capacity additions in million TEU  
 • Capacities are provisional

Figure xx  
CANCELLED PROJECTS/CLOSED FACILITIES IN 2023, includes

Facility	Port	Action	Cap
<b>Europe/Mediterranean</b>			
Central Quay	Bilbao	Cancelled	-

**Notes:**  
 • Capacity additions in million TEU  
 • Capacities are provisional



**Figure 27**  
**TERMINAL CRANES ORDERED IN 2023, includes**

Facility	Port	Description	Outreach	Facility	Port	Description	Outreach
<b>Europe/Mediterranean</b>							
CT Altenwerder	Hamburg	3x RC-StS	61m	<b>North America</b>			
CT Wilhelmshaven	Wilhelmshaven	2x StS	26-boxes	PSA Penn Terminal	Philadelphia	1x StS	48m
Medcenter CT	Gioia	6x StS	24-boxes	Norfolk IT	Virginia	2x StS	26-boxes
MSC Le Havre	Le Havre	9x StS	27-boxes	Virginia Intl Gateway	Virginia	3x StS	26-boxes
Ydre Nordhavn	Copenhagen	2x StS	-	<b>Africa</b>			
<b>Far East</b>							
Pasir Panjang	Singapore	5x StS	25-boxes	Malindi	Zanzibar	1x MHC	-
Lach Huyen	Hai Phong	6x StS	23-boxes				

**Notes:**  
 • StS=Ship-to-Shore, MHC=Mobile Harbour Crane  
 • Overview is a selection of orders

**Figure 28**  
**TERMINAL CRANES DELIVERED IN 2023, includes**

Facility	Port	Description	Outreach	Facility	Port	Description	Outreach
<b>Europe/Mediterranean</b>							
Abu Qir CT	Abu Qir	3x StS	23-boxes	<b>Far East</b>			
Nemport CT	Aliaga	3x StS	70m	Batu Ampar port	Batu	1x StS	-
Mardas CT	Ambarli	3x StS	-	Dachan Bay CT	Guangzhou	3x StS	73m
Antwerp Gateway	Antwerp	3x StS	26-boxes	T3	Kaohsiung	2x StS	-
Genoa Port Terminal	Genoa	1x MHC	61m	Port of Hai Phong	Port	6x StS	23-boxes
Gion Port	Gijon	1x StS (2nd hand)	16-boxes	Qinzhou Autom'd CT	Qinzhou	3x StS	25-boxes
Medcenter CT	Gioia Tauro	3x StS	25-boxes	Pasir Panjang	Singapore	5x StS	25-boxes
KokkSilverstone Port	Kokkola	1x StS (2nd hand)	17-boxes	Tuas	Singapore	4x StS	-
CoNaTeCo	Naples	1x StS	19-boxes	Tanjung Pelepas Term.	Tanjung	3x StS	62m
Yilport	Oslo	1x StS	14-boxes	Vostochnaya St'doring	Vostochny	2x MHC	16-boxes
Sines CT XXI	Sines	2x StS	24-boxes	<b>Indian Sub Continent/Middle East</b>			
MedPort (APMT II)	Tangier	6x StS	-	Basra MP Terminal	Basra	2x MHC (2nd hand)	-
Tripoli CT	Tripoli	1x StS	-	Hutchison terminal	Jazan	3x StS,	23-boxes
<b>North America</b>							
PSA Atlantic Hub	Halifax	2x StS	24-boxes	Red Sea Gateway	Jeddah	3x StS	25-boxes
Bayport CT	Houston	3x StS	22-boxes	South Asia CT	Karachi	3x StS, ZPMC	70m
SSA Jacksonville CT	Jacksonville	3x StS	25-boxes	Vallarpadam ITTC	Kochi	2x StS	25-boxes
Long Beach CT	Long Beach	2x StS	-	Adani Mundra CT	Mundra	2x StS, ZPMC	68m
Fenix Marine CT	Los Angeles	2x StS	-	Gateway Term India	Nhava Sheva	3x StS	23-boxes
TIMSAs	Manzanillo	1x MHC	22-boxes	Adani project	Vizhinjam	1x StS	72m
Terminal Maritima	Mazatlan	1x MHC	22-boxes	<b>Africa</b>			
APMT Port Elizabeth	New York	2x StS	23-boxes	Contakry CT	Conakry	1x StS	47m
Port Everglades CT	Port Everglades	3x StS	22-boxes	OPCSA	Las Palmas	2x StS	70m
Tenth Ave. Mar. Term	San Diego	2x MHC	-	Lome CT	Lome	2x StS	67m
Garden City Term	Savannah	4x StS	24-boxes	CT1	Mombasa	4x StS	55m
Garden City Term	Savannah	4x StS	-	APM Terminals	Monrovia	2x MHC	61m
SSA Terminals Seattle	Seattle	2x StS	25-boxes	Congo Terminal	Pointe Noire	2x StS	23-boxes
DP World term	St. John	2x StS (2nd hand)	-	Meridian Port Svcs	Tema	3x StS	23-boxes
Tacoma	Tacoma	2x StS	24-boxes	<b>Latin America</b>			
Port Tampa Bay CT	Tampa Bay	2x StS,	18-boxes	APMT Callao	Callao	1x StS	-
<b>Australasia</b>							
Brisbane Are/(Patrick)	Brisbane	1x StS, Liebherr	20-boxes	DP World Callao	Callao	3x StS	23-boxes
Cashin Quay	Lyttelton	1x StS, Liebherr	-	Iquique Term. Int.	Iquique	1x MHC	21-boxes
Victoria ICT	Melbourne	2x StS	21-boxes	Tecon Santa Catarina	Itapoa	1x StS	25-boxes
				Superterminalis	Manaus	3x pedestal	-
				Nassau Cont. Port	Nassau	1x MHC	-
				T. Port. Euroandinos	Paita	1x StS	23-boxes
				Yilport Pto Bolivar	Puerto Bolivar	4x StS	-
				San Antonio IT	San Antonio	2x StS	22-boxes
				Santos Brasil	Santos	2x StS	25-boxes

**Notes:**  
 • StS=Ship-to-Shore, MHC=Mobile Harbour Crane  
 • Overview is a selection of deliveries  
 • Includes repositions (2nd hand)

**Figure 29**  
**INDIVIDUAL TERMINAL SALES IN 2023, includes**

Facility	From	To	Share
<b>Europe/Mediterranean</b>			
Amsterdam MPT USA	Ter Haak Group	Grimaldi	80%
DP World Yarimca	DP World	Evyap Deniz	42%
Euromax	Shareholders	Evergreen	20%
Evyap CT	Evyap Deniz	DP World	58%
Fenix-MMPK Bronka	Russian state	NKK Logistics	100%
Heraklion Port	Port Authority	Grimaldi	67%
Rotterdam World Gat.	MOL	ONE	20%
Setramar Terminal	Pogialli/Brichetti	Davidson Kempner/One33	70%
Tollerort Terminal	HHLA	CoscoSP	25%
<b>Far East</b>			
Ningbo Daxie CM IT	China Merchants	Public offer	45%
Xiamen Ocean Gate	Xiamen Haicang	CoscoSP#	30%
Adani Yangon IT	Adani Ports	Solar Energy Ltd	100%
<b>North America</b>			
Yusen Terminal	NYK	ONE	51%
<b>Indian Sub Continent/Middle East</b>			
Ennore CT	Adani Ports	TIL	49%
Sokhna New CT (proj.)	Hutchison Ports	CMA Terminals	25%
Sokhna New CT (proj.)	Hutchison Ports	CoscoSP	25%
<b>Africa</b>			
Atlantic TS Takoradi	Shareholders	Yilport	35%
Togo Terminal	AGL	Gov't of Togo (1)	25%

**Notes:**  
 • \* = agreed not approved/completed  
 • # = Becoming sole owner  
 • (1) Taking share to 90%

**Figure 30**  
**TERMINAL GROUP SALES IN 2023**

Group	From	To	Share
Ceres Terminals	Macquarie IP	Carrix	100%
CNMP	ATB France	Seafrigo	100%
CSP Spain	JP Morgan/APG	CMA CGM	49%
Global CT New York	GCT Inc.	CMA Terminals	100%
Grupo Spinelli	Shareholders	Hapag-Lloyd	49%
Haifa Port	Port Authority	Adani/Gadot Chem.	100%
Heraklion Port	Port Authority	Grimaldi	67%
HHLA	MSC	Shareholders	12%
J.M. Baxi	Bain/Kotak family	Hapag-Lloyd	40%
Karaikal Port	Shareholders	Adani Ports	100%
Kramer Group	Shareholders	QTerminals	Majority
Luka Rijeka	OT Log./Rubicon	Czech Port Acq.	25%
Noatum Ports	Shareholders	AD Ports	100%
Nusantara Pelabuhan	Episenta Utami	China Merchants*	51%
SAAM terminals	SM SAAM	Hapag-Lloyd	100%
Trapac Terminals	MOL	ONE	51%
Vado Ligure port	Qingdao Port	APMT (1)	10%

**Notes:**  
 • \* = agreed not approved/completed  
 • 1) = taking total up to 60%

**Figure 32**  
**OTHER PORT/TERMINAL CHANGES IN 2023**

Port/Facility	Country	Change	Result
Wilmington	United States	Concession	Gulfstream removed
Tarragona MPT	Spain	Withdrawal	DP World withdrew
Makassar CT	Indonesia	Concession	Concession expires
Global Ports	Russia	Delisted	London Stock Exchange
Karachi ICT	Pakistan	Concession	New operator
Karachi ICT	Pakistan	Rebranded	Karachi Gateway Terminal
APMT Itajai	Brazil	Concession	Concession not extended

**Figure 31**  
**GLOBAL TERMINAL OPERATOR THROUGHPUT**

Rank 2022	Stevedores	2022 share	2022 TEU	2021 TEU	2020 TEU
4	APM Terminals	5.6%	48,800,000	50,400,000	45,700,000
16	Bolloré	0.4%	3,400,000	3,400,000	3,000,000
3	China Merchants	5.8%	50,600,000	48,000,000	47,100,000
9	CMA CGM	1.1%	9,400,000	7,300,000	6,300,000
2	CoscoSP	6.1%	52,900,000	49,000,000	46,200,000
5	DP World	5.4%	46,500,000	47,900,000	44,000,000
13	Eurogate	0.7%	6,300,000	6,700,000	5,900,000
12	Evergreen	0.9%	7,800,000	7,700,000	7,200,000
14	HMM	0.5%	4,500,000	4,900,000	4,700,000
6	Hutchison	5.2%	45,100,000	47,000,000	44,700,000
8	ICTSI	1.3%	11,700,000	11,000,000	10,100,000
15	MOL	0.4%	3,600,000	3,000,000	3,300,000
17	NYK	0.4%	3,100,000	3,200,000	3,300,000
1	PSA	7.0%	61,000,000	64,300,000	59,500,000
20	SAAM	0.2%	2,000,000	2,200,000	1,900,000
10	SSA Marine	1.0%	8,700,000	8,800,000	7,900,000
7	MSC/TIL	4.1%	35,800,000	33,700,000	31,800,000
19	Yang Ming	0.3%	2,500,000	2,600,000	2,200,000
11	Yilport	0.9%	7,900,000	7,400,000	6,300,000
18	Wan Hai	0.3%	2,600,000	2,600,000	2,600,000
<b>Total above operators</b>		<b>48%</b>	<b>414,200,000</b>	<b>411,100,000</b>	<b>383,700,000</b>
Estimated world		100%	867,000,000	864,000,000	803,000,000

**Notes:**  
 • Data sourced from Drewry, equity based  
 • Throughput by equity share  
 • PSA and Hutchison adjusted to account for PSA 20% in Hutchison  
 • TIL excludes volumes of terminals owned directly by MSC

**Figure 32**  
**GLOBAL TERMINAL OPERATOR LOCATIONS**

<p><b>APM Terminals, The Hague</b></p> <p><b>Europe:</b> Aarhus, Algeciras, Aliaga, Barcelona, Bremerhaven, Castellon, Gijon, Gothenburg, Kalundborg, Marseilles, Poti, Rijeka, Rotterdam, Savona, Valencia</p> <p><b>Americas:</b> Buenaventura, Buenos Aires, Callao, Itajai, Itapoa, Lázaro Cárdenas, Los Angeles, Miami, Mobile, New York/New Jersey, Pecem, Progreso, Puerto Limon, Puerto Quetzal, Santos</p> <p><b>Asia:</b> Aqaba, Colombo, Guangzhou, Khalifi Bin Salman, Laem Chabang, Nhava Sheva, Pipavav, Qingdao, Saigon, Salalah, Shanghai, Tanjung Pelepas, Tianjin, Xiamen, Yokohama</p> <p><b>Africa:</b> Abidjan, Conakry, Lagos, Monrovia, Onne, Pointe Noire, Port Said, Tangier Med, Tema</p> <p><b>China Merchants Ports, Hong Kong</b></p> <p><b>Europe:</b> Ambarli, Antwerp, Dunkirk, Le Havre, Marsaxlokk, Marseilles, Odessa, Rotterdam, Thessaloniki, Nantes</p> <p><b>Americas:</b> Antioquia, Houston , Kingston, Miami, Paranaguá</p> <p><b>Asia:</b> Busan, Chao Praya River, Colombo, Dalian, Hambantota, Jakarta/Tanjung Priok, Kaohsiung, Laem Chabang, Qingdao, Saigon, Shantou, Shenzhen, Singapore, Tianjin, Xiamen, Zhangzhou, Zhanjiang</p> <p><b>Africa:</b> Casablanca, Djibouti, Lagos, Lome, Tangier</p> <p><b>CMA CGM, Marseilles</b></p> <p><b>Europe:</b> Algeciras, Antwerp, Bilbao, Dunkirk, Helsinki, Le Havre, Marsaxlokk, Marseilles, Odessa, Rotterdam, Seville, Thessaloniki, Valencia, Zeebrugge, Kotka, Nantes</p> <p><b>Americas:</b> Antioquia, Degrad des Cannes, Dutch Harbour, Fort de France, Fortaleza, Houston , Kingston, Long Beach, Los Angeles, Miami, New York/New Jersey, Pointe-a-Pitre</p> <p><b>Asia:</b> Abu Dhabi/khalifa, Beirut, Busan, Kaohsiung, Kobe, Laem Chabang, Lattakia, Mundra, Nhava Sheva, Qingdao, Saigon, Singapore, Tianjin, Tripoli, Xiamen, Yokohama</p> <p><b>Africa:</b> Alexandria, Casablanca, Kribi, Lekki, Tangier</p> <p><b>Cosco Group/Cosco Shipping Ports, Hong Kong</b></p> <p><b>Europe:</b> Ambarli, Antwerp, Bilbao, Hamburg, Marseilles, Piraeus, Rotterdam, Savona, Valencia, Zeebrugge</p> <p><b>Americas:</b> Chancay, Long Beach, Los Angeles, Seattle</p> <p><b>Asia:</b> Abu Dhabi/khalifa, Busan, Dalian, Guangzhou, Hong Kong, Jeddah, Jinzhou, Kaohsiung, Lianyungang, Nanjing, Nantong, Ningbo, Qingdao, Qinhuangdao, Qinzhou, Quanzhou, Shanghai, Shenzhen, Singapore, Suzhou - Taicang, Suzhou - Zhangjiagang, Tianjin, Xiamen, Yangzhou, Yingkou</p> <p><b>Africa:</b> Port Said</p> <p><b>DP World, Dubai</b></p> <p><b>Europe:</b> Antwerp, Izmit, Le Havre, London, Marseilles, Rotterdam, Southampton, Yuzhny, Constanta</p> <p><b>Americas:</b> Buenos Aires, Callao, Caucedo, Lirquen, Nanaimo, Paita, Paramaribo, Posorja, Prince Rupert, Saint John, San Antonio, Santos, Vancouver BC</p> <p><b>Asia:</b> Batangas, Belawan, Busan, Chennai, Cochin (Kochi), Dubai, Hong Kong, Jeddah, Laem Chabang, Manila, Mundra, Nhava Sheva, Port Qasim, Qingdao, Saigon, Surabaya/Gresik, Yantai</p> <p><b>Africa:</b> Algiers, Banana, Berbera, Bosaso, Dakar, Djen-Djen, Luanda, Maputo, Sokhna, Ndayane</p> <p><b>Australasia:</b> Brisbane, Fremantle, Melbourne, Sydney</p> <p><b>Eurogate, Bremen</b></p> <p><b>Europe:</b> Bremerhaven, Hamburg, La Spezia, Limassol, Ravenna, Salerno, Ust-Luga, Wilhelmshaven</p> <p><b>Africa:</b> Damietta, Tangier Med</p> <p><b>Evergreen, Taipei</b></p> <p><b>Americas:</b> Colon, Los Angeles, Oakland, Tacoma</p> <p><b>Asia:</b> Colombo, Kaohsiung, Laem Chabang, Osaka, Taichung, Taipei, Tokyo</p> <p><b>Africa:</b> Abu Qir</p> <p><b>Hapag-Lloyd</b></p> <p><b>Europe:</b> Genoa, Hamburg, Salerno, Wilhelmshaven</p> <p><b>Americas:</b> Antofagasta, Caldera, Guayaquil, Iquique, Port Everglades, San Antonio, San Vicente</p> <p><b>Asia:</b> Kandla, Kolkata, Nhava Sheva, Paradip, Visakhapatnam</p> <p><b>Africa:</b> Damietta, Tangier</p> <p><b>Hutchison Ports, Hong Kong</b></p> <p><b>Europe:</b> Amsterdam, Barcelona, Felixstowe, Moerdijk, Rotterdam, Thamesport, Stockholm, Gdynia</p>	<p><b>Americas:</b> Balboa, Colon, Ensenada, Freeport, Lázaro Cárdenas, Manzanillo (Mex), Veracruz</p> <p><b>Asia:</b> Ajman, Basra, Busan, Hong Kong, Huizhou, Jakarta/Tanjung Priok, Karachi, Kwangyang, Laem Chabang, Ningbo, Port Kelang , Ras Al Khaimah, Saigon, Shanghai, Shenzhen, Sohar, Umm Al Quwain, Xiamen, Yangon, Jazan</p> <p><b>Africa:</b> Abu Qir, Alexandria</p> <p><b>Australasia:</b> Brisbane, Sydney</p> <p><b>HMM, Seoul</b></p> <p><b>Europe:</b> Algeciras, Rotterdam</p> <p><b>Americas:</b> Long Beach, Tacoma</p> <p><b>Asia:</b> Busan, Kaohsiung, Tokyo</p> <p><b>ICTSI, Manila</b></p> <p><b>Europe:</b> Batumi, Rijeka, Gdynia</p> <p><b>Americas:</b> Buenaventura, Guayaquil, La Plata, Manzanillo (Mex), Puerto Cortes, Rio de Janeiro, Suape</p> <p><b>Asia:</b> Batangas, Cagayan de Oro, Davao, General Santos, Iloilo, Manila, Subic Bay, Umm Qasr, Yantai, Lamongan</p> <p><b>Africa:</b> Matadi, Onne, Toamasina</p> <p><b>Australasia:</b> Lae, Melbourne, Port Moresby</p> <p><b>"K" Line, Tokyo</b></p> <p><b>Europe:</b> Antwerp</p> <p><b>Asia:</b> Kobe, Nagoya, Osaka, Tokyo, Yokohama</p> <p><b>MOL, Tokyo</b></p> <p><b>Asia:</b> Hai Phong, Kobe, Laem Chabang, Nagoya, Osaka, Saigon, Tokyo, Yokohama</p> <p><b>MSC, Geneva</b></p> <p><b>Europe:</b> Ambarli, Antwerp, Bilbao, Bremerhaven, Civitavecchia, Cuxhaven, Genoa, Gioia Tauro, Hamburg, Iskenderun, Klaipeda, La Spezia, Le Havre, Marseilles, Naples, Odessa, Rotterdam, Sines, Tallinn, Tekirdag, Trieste, Valencia, Venice, Leghorn, St. Petersburg</p> <p><b>Americas:</b> Balboa, Buenos Aires, Callao, Colon, Freeport, Freeport (Texas), Houston , Itajai, Long Beach, Los Angeles, Montreal, New Orleans, New York/New Jersey, Port Everglades, Rio de Janeiro, Santos, Seattle, Valparaíso, Vitória</p> <p><b>Asia:</b> Abu Dhabi/khalifa, Ashdod, Dili, Ennore, King Abdullah Seaport, Mundra, Ningbo, Port Reunion, Singapore, Tuticorin, Umm Qasr, Sao Tome</p> <p><b>Africa:</b> Abidjan, Alexandria, Conakry, Cotonou, Dakar, Freetown, Kribi, Lagos, Las Palmas de Gran Canaria, Libreville, Lobito, Lome, Monrovia, Moroni, Pointe Noire, San Pedro, Tema, Walvis Bay, Zanzibar, Tangier</p> <p><b>NYK, Tokyo</b></p> <p><b>Americas:</b> New York/New Jersey, Oakland</p> <p><b>Asia:</b> Dalian, Jakarta/Tanjung Priok, Kaohsiung, Kobe, Laem Chabang, Nagoya, Tokyo, Yokohama</p> <p><b>PSA, Singapore</b></p> <p><b>Europe:</b> Antwerp, Gdansk, Genoa, Mersin, Sines, Venice</p> <p><b>Americas:</b> Balboa, Buenaventura, Buenos Aires, Eddystone, Halifax</p> <p><b>Asia:</b> Busan, Chao Praya River, Chennai, Dalian, Dammam, Fuzhou, Guangzhou, Inchon, Jakarta/Tanjung Priok, Kakinada, Kitakyushu, Kolkata, Laem Chabang, Lianyungang, Nhava Sheva, Qinzhou, Saigon, Singapore, Tianjin, Tuticorin, Umm Qasr</p> <p><b>SSA Marine, Seattle</b></p> <p><b>Americas:</b> Barranquilla, Charleston, Colon, Everett, Houston , Jacksonville, Long Beach, Manzanillo (Mex), Montreal, New Orleans, Oakland, Philadelphia, Port au Prince, San Antonio, San Juan, San Vicente/Talcahuanao, Santa Marta, Savannah, Seattle, Tacoma, Tuxpan, Wilmington (NC)</p> <p><b>Asia:</b> Cai Lan, Saigon</p> <p><b>Yang Ming, Taipei</b></p> <p><b>Europe:</b> Antwerp</p> <p><b>Americas:</b> Los Angeles</p> <p><b>Asia:</b> Kaohsiung, Taipei</p> <p><b>Yilport, Kocaeli</b></p> <p><b>Europe:</b> Ferrol, Gävle, Gemlik, Huelva, Izmit, Leixoes, Lisbon, Marsaxlokk, Oslo, Setubal, Taranto, Figueira da Foz</p> <p><b>Americas:</b> Paita, Puerto Bolivar, Puerto Quetzal</p> <p><b>Africa:</b> Takoradi</p>
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**Figure 34**  
**TOP 130 CONTAINER PORTS**

Ranking	Port	2023 TEU	'22/'21	2022 TEU	2021 TEU	2020 TEU	Ranking	Port	2023 TEU	'22/'21	2022 TEU	2021 TEU	2020 TEU		
46	58	Abu Dhabi	4,667	26%	4,330	3,440	3,233	17	17	Los Angeles	8,634	-7%	9,911	10,700	9,213
115	113	Alexandria	1,628	1%	1,488	1,474	1,693	33	37	Manila	5,209	10%	5,474	4,976	4,438
41	40	Algeciras	4,733	-1%	4,763	4,797	5,106	54	60	Manzanillo	3,699	3%	3,474	3,371	2,910
113	119	Aliaga	1,586	8%	1,494	1,389	1,276	71	68	Marsaxlokk	2,800	-3%	2,890	2,970	2,440
72	69	Ambarli	3,170	-3%	2,867	2,943	2,888	111	110	Marseilles	1,337	-1%	1,530	1,539	1,318
15	15	Antwerp	10,900	-7%	11,147	12,010	12,031	62	62	Melbourne	3,190	-2%	3,233	3,294	2,880
108	105	Ashdod	1,597	-2%	1,597	1,636	1,584	92	86	Mersin	1,942	-6%	1,990	2,107	1,949
59	52	Balboa	3,370	-6%	3,349	3,563	3,162	117	116	Mombasa	1,623	0%	1,430	1,436	1,360
105	127	Bandar Abbas	2,116	35%	1,666	1,237	933	103	103	Montreal	1,552	0%	1,723	1,728	1,607
128	120	Bangkok	1,274	-9%	1,268	1,388	1,420	27	27	Mundra	7,420	-5%	6,203	6,515	5,650
52	53	Barcelona	3,280	0%	3,522	3,531	2,958	76	74	Nagoya	2,698	-2%	2,680	2,726	2,471
42	36	Bremerhaven	4,232	-9%	4,570	5,019	4,771	63	66	Nanjing	3,461	3%	3,200	3,110	3,020
110	111	Brisbane	1,555	3%	1,536	1,495	1,304	82	87	Nantong	2,042	10%	2,240	2,030	1,910
121	115	Buenos Aires	1,279	-4%	1,400	1,453	1,372	18	20	New York	7,810	6%	9,494	8,986	7,586
7	7	Busan	23,036	-3%	21,830	22,538	21,599	28	28	Nhava Sheva	6,430	5%	5,993	5,683	4,677
79	78	Callao	2,757	-1%	2,461	2,486	2,251	3	3	Ningbo	35,301	7%	33,350	31,080	28,720
67	51	Cartagena	3,176	-17%	2,982	3,612	3,003	81	79	Oakland	2,066	-5%	2,337	2,448	2,461
123	114	Caucedo	1,488	-6%	1,376	1,470	1,169	80	80	Osaka	2,239	-1%	2,392	2,426	2,359
75	73	Charleston	2,482	1%	2,792	2,751	2,310	125	125	Penang	1,447	6%	1,319	1,248	1,388
116	108	Chennai	1,590	-8%	1,470	1,595	1,387	37	32	Piraeus	5,101	-6%	5,001	5,320	5,437
65	64	Chittagong	3,051	-2%	3,143	3,214	2,840	13	12	Port Kelang	14,061	-4%	13,224	13,724	13,234
26	24	Colombo	6,940	-5%	6,860	7,250	6,850	48	45	Port Said	3,977	7%	4,024	3,774	4,010
35	38	Colon	4,869	4%	5,103	4,916	4,492	124	126	Puerto Limón	1,348	7%	1,321	1,237	1,213
44	48	Dalian	5,028	22%	4,460	3,670	5,110	5	6	Qingdao	28,769	8%	25,670	23,700	22,010
130	129	Damietta	1,772	12%	1,106	987	1,052	34	42	Qinzhou	6,210	17%	5,410	4,630	3,950
90	102	Dammam	2,306	15%	2,039	1,769	1,863	87	94	Quanzhou	1,919	7%	2,080	1,950	2,260
56	59	Dongguan	3,902	0%	3,410	3,400	3,420	30	34	Rizhao	6,260	12%	5,800	5,170	4,860
12	11	Dubai	14,472	2%	13,970	13,742	13,488	10	10	Rotterdam	13,447	-6%	14,455	15,300	14,349
77	76	Durban	2,544	-3%	2,605	2,696	2,595	11	13	Saigon	13,797	5%	13,990	13,341	11,722
61	50	Felixstowe	3,246	-9%	3,297	3,630	3,491	43	43	Salalah	3,790	0%	4,504	4,514	4,344
55	57	Fuzhou	3,496	0%	3,460	3,450	3,520	104	96	San Antonio	1,541	-8%	1,693	1,840	1,571
88	85	Gdansk	2,051	-2%	2,072	2,118	1,924	122	112	San Juan	1,349	-6%	1,399	1,490	1,490
78	77	Genoa	2,394	-1%	2,533	2,557	2,353	45	44	Santos	4,284	1%	4,450	4,394	3,901
58	65	Gioia Tauro	3,549	7%	3,380	3,147	3,193	29	30	Savannah	4,928	5%	5,892	5,613	4,680
6	5	Guangzhou	25,414	2%	24,600	24,180	23,170	1	1	Shanghai	49,158	1%	47,300	47,030	43,500
84	83	Guayaquil	2,254	0%	2,170	2,163	2,071	101	101	Shantou	1,758	-2%	1,760	1,800	1,590
31	31	Hai Phong	6,070	3%	5,629	5,489	3,739	4	4	Shenzhen	29,880	4%	30,040	28,770	26,550
112	118	Haifa	1,545	9%	1,521	1,400	1,410	106	98	Sines	1,665	-9%	1,663	1,820	1,612
85	88	Haikou	1,400	7%	2,150	2,010	1,970	2	2	Singapore	39,010	-1%	37,290	37,571	36,871
118	109	Hamad	1,318	-9%	1,409	1,544	1,413	102	99	Southampton	1,761	-5%	1,736	1,818	1,762
23	21	Hamburg	7,743	-5%	8,283	8,728	8,540	53	55	Surabaya	4,100	0%	3,494	3,490	3,600
9	9	Hong Kong	14,345	-7%	16,573	17,772	17,953	21	23	Suzhou	9,512	12%	9,080	8,110	6,290
119	123	Honolulu	1,350	9%	1,400	1,280	1,250	74	75	Sydney	2,721	3%	2,797	2,704	2,494
49	56	Houston	3,825	15%	3,975	3,453	2,989	57	46	Tacoma/Seattle	2,974	-9%	3,384	3,736	3,320
64	61	Inchon	3,451	-5%	3,147	3,325	3,249	98	91	Taichung	1,610	-10%	1,785	1,979	1,821
114	106	Itajai	1,268	-7%	1,493	1,610	1,273	97	89	Taipei	1,620	-11%	1,790	2,009	1,618
89	93	Izmit	2,159	5%	2,059	1,968	1,801	24	25	Tangier	8,614	6%	7,597	7,170	5,771
127	117	Jacksonville	1,313	-8%	1,298	1,407	1,277	60	63	Tangshan	2,093	2%	3,340	3,290	3,120
39	41	Jeddah	5,586	5%	4,960	4,739	4,737	16	16	T. Pelepas	10,481	-5%	10,513	11,088	9,846
73	82	Jiaying	3,404	28%	2,850	2,220	1,960	25	26	Tanjung Priok	7,290	3%	7,164	6,926	6,134
95	97	Jinzhou	1,840	3%	1,880	1,830	1,640	99	100	Tekirdag	1,701	-2%	1,773	1,812	1,444
19	18	Kaohsiung	8,834	-4%	9,492	9,864	9,622	8	8	Tianjin	22,187	4%	21,020	20,270	18,350
83	81	Karachi	1,930	-3%	2,210	2,290	2,080	40	39	Tokyo	4,571	1%	4,932	4,863	4,746
107	107	Keelung	1,533	1%	1,623	1,601	1,533	36	29	Valencia	4,804	-10%	5,076	5,614	5,415
69	72	King Abdullah	2,935	3%	2,905	2,814	2,154	51	47	Vancouver	3,127	-4%	3,540	3,679	2,841
86	92	Kingston	1,995	8%	2,138	1,975	1,631	50	54	Virginia Ports	3,288	5%	3,703	3,520	2,813
70	71	Kobe	2,835	2%	2,891	2,824	2,647	126	124	Vladivostok	1,520	3%	1,300	1,259	1,100
96	84	Kwangyang	1,856	-12%	1,862	2,123	2,151	119	121	Weihai	1,470	4%	1,400	1,340	1,220
22	22	Laem Chabang	8,868	3%	8,741	8,523	7,546	129	128	Wenzhou	1,300	13%	1,180	1,040	1,010
91	104	L. Cárdenas	1,869	20%	2,027	1,686	1,064	14	14	Xiamen	1,255	3%	12,430	12,046	11,410
66	67	Le Havre	2,630	0%	3,102	3,096	2,417	100	122	Yangpu	1,834	35%	1,770	1,310	1,020
32	35	Lianyungang	6,140	11%	5,570	5,030	4,800	47	49	Yantai	4,628	13%	4,120	3,650	3,300
94	90	Lome	1,907	-2%	1,953	1,986	1,725	38	33	Yingkou	5,331	-4%	5,000	5,210	5,650
93	95	London	1,718	6%	1,964	1,857	1,747	68	70	Yokohama	3,019	4%	2,980	2,859	2,662
20	19	Long Beach	8,019	-3%	9,134	9,384	8,113</								

## SHIPS AND CONTAINERS

### SHIPS

#### Global fleet developments

##### Headline figures

At the end of 2023, the capacity of the global container shipping fleet was 28.5 million TEU, an increase of 2.1 million TEU and eight percent year-on-year. Both figures were around double those of 2022. The TEU increase was the largest this century with the previous best being a relatively lowly 1.5 million TEU in 2006. Some 267 ships were added to the fleet, with only 2005 and 2006 seeing more (272 and 315 respectively).

At the end of 2023, the average ship could carry 4,210 TEU, some 160 TEU more than 2022. As with almost every single successive year, this is the highest average ever recorded. To place this in context, in 2001, the average container ship was 1,350 TEU, meaning that capacity has in fact grown by seven percent for each ship, every year.

##### Container capable fleet available to liner operators

Year	Ships	TEU	TEU Growth %	Growth TEU
2023	6,782	28,528,700	8%	2,153,369
2022	6,515	26,375,300	4%	1,030,500
2021	6,319	25,344,800	5%	1,108,600
2020	6,171	24,236,200	3%	622,200
2019	6,150	23,614,000	4%	883,700
2018	6,147	22,730,300	6%	1,220,300
2017	6,047	21,510,000	4%	830,000
2016	6,007	20,680,000	2%	422,000
2015	6,087	20,258,000	8%	1,436,000
2014	5,968	18,822,000	6%	1,058,000
2010	5,967	14,809,000	9%	1,166,000
2005	5,380	9,131,000	12%	963,000
2001	4,548	6,143,000	7%	-
<b>CAGR 10-yr</b>	<b>1.4%</b>	<b>5%</b>	<b>Ave 10-yr</b>	<b>1,076,000</b>
CAGR 2010	1.0%	5%	Ave 2010	1,055,000
CAGR 2005	1.3%	7%	Ave 2005	1,078,000
CAGR 2001	1.8%	7%	Ave 2001	1,018,000

As of 31 December of each year. Analysis based on data sourced from Alphaliner. Growth is year-on-year.

#### Containership deliveries

There were 335 vessel deliveries in 2023, nearly twice that of the ten-year average. These new ships brought around 2.3 million TEU, which was also close to twice the average for the decade.

The capacity provided by those delivered ships worked out at between eight and nine percent of the year-start point. This was the second strongest year for the decade after 2015 which was only 0.7 percentage points more. After 2022's correction, the average capacity of these latest deliveries grew by 1,100 TEU to 6,800 TEU, which was still one of the smallest averages over the decade.

#### Containerships delivered

Year	Ships	Total TEU	Ave TEU	Fleet at year start	Delivery Share
2023	335	2,281,200	6,800	26,375,300	8.6%
2022	175	998,400	5,700	25,344,800	3.9%
2021	150	1,077,600	7,200	24,236,200	4.4%
2020	124	830,000	6,700	23,614,000	3.5%
2019	134	986,000	7,400	22,730,300	4.3%
2018	164	1,286,000	7,800	21,510,000	6.0%
2017	150	1,114,000	7,400	20,680,000	5.4%
2016	133	877,000	6,600	20,258,000	4.3%
2015	216	1,744,000	8,100	18,822,000	9.3%
2014	184	1,401,000	7,600	17,764,000	7.9%
<b>Averages</b>	<b>177</b>	<b>1,260,000</b>	<b>7,100</b>	<b>22,619,000</b>	<b>5.6%</b>

Notable vessel deliveries in 2023 saw, in quick succession, two different largest ever containerships. These were, in order of arrival, the "OOCL Spain" (24,188 TEU) and the "MSC Irina" (24,346 TEU), which should hold the crown for the foreseeable future as there are no larger vessels on order.

Other noteworthy deliveries included the complete series of six ships of 24,100 TEU for ONE; the LNG/dual-fuelled "CMA CGM Bahia", which went on to become the first such powered box ship to call South America; and the "Laura Maersk", the first methanol fuelled containership in the world.

#### Notable vessel deliveries in 2023 included

What	Operator	Fuel	Description
MSC Irina (24,346 TEU)	MSC	Oil	LARGEST box ship in the world by capacity (1st of 6)
OOCL Spain (24,188 TEU)	OOCL	Oil	LARGEST containership in the world by capacity (and 1st of 12)
MSC China (24,100 TEU)	MSC	Oil	LAST of eight
ONE Innovation (24,100 TEU)	ONE	Oil	FIRST of six
ONE Intelligence (24,100 TEU)	ONE	Oil	LAST of six
Berlin Express (23,700 TEU)	Hapag-Lloyd	LNG	FIRST of twelve
Great Antwerp (20,000 TEU)	Grimaldi	Oil	FIRST of six container-Ro/Ro multipurpose
MSC Noa Ariela (16,500 TEU)	MSC	Oil	FIRST of seven
MSC Ilena (16,000 TEU)	MSC	Oil	FIRST of nine
Ever Max (15,400 TEU)	Evergreen	Oil	FIRST of twenty
MSC C. Montaine (15,400 TEU)	MSC	Oil	LAST of ten
MSC Freya (15,300 TEU)	MSC	LNG	LAST of eleven
CMA CGM Bahia (13,200 TEU)	CMA CGM	LNG	FIRST of six
ZIM Amber (7,800 TEU)	ZIM	LNG	FIRST of fifteen
CMA CGM Innovation (7,300 TEU)	CMA CGM	LNG	FIRST of ten
Matoya Bay (2,900 TEU)	CMA CGM	Oil	FIRST of eight
Janet Marie (2,500 TEU)	Pasha Hawaii	LNG	LAST of two
Laura Maersk (2,100 TEU)	Maersk	Methanol	FIRST methanol powered containership in the world
Sawasdee Mimosa (1,800 TEU)	Sinokor	Oil	LAST of sixteen
Kaifu (1,100 TEU)	Imoto Line	Oil	FIRST of three
TS Mawei (1,100 TEU)	TS Lines	Oil	FIRST of eight

#### Containership recycling

After two quiet years, vessel scrapping bounced back. There were eighty-six ships totalling 164,000 TEU sold for recycling, although this was still below the ten-year averages of 96 ships and 247,000 TEU.

The average age of the 2023 scrapped ships was relatively high at over twenty-seven years with only 2021 and 2022 seeing older. The share of global capacity removed was a marginal yet still definite 0.6%, with the previous two years reflecting a lower share. The oldest ship recycled came, as it does more often than not, from Matson and its forty-four-year-old "Horizon Pacific" (2,400 TEU).

#### Containerships sold for demolition

Year	Ships	Total TEU	Ave TEU	Ave Age	Fleet TEU at year start	Scrapped share
2023	86	164,000	1,900	27.3	26,375,300	0.6%
2022	7	11,100	1,600	27.7	25,344,800	0.0%
2021	12	12,800	1,100	29.6	24,236,200	0.1%
2020	82	201,000	2,500	23.6	23,614,000	0.9%
2019	95	198,900	2,100	23.1	22,730,300	0.9%
2018	58	113,000	1,900	23.4	21,510,000	0.5%
2017	152	441,000	2,900	20.8	20,680,000	2.1%
2016	201	699,000	3,500	18.6	20,258,000	3.5%
2015	94	215,000	2,300	23.3	18,822,000	1.1%
2014	173	417,000	2,400	23.2	17,764,000	2.3%
<b>Averages</b>	<b>96</b>	<b>247,000</b>	<b>2,600</b>	<b>24.1</b>	<b>22,133,000</b>	<b>1.2%</b>

Demolitions as noted by Dynamar from various sources. Differences between year-end fleet figures and the contributions from orders/demolitions may occur as ships will enter and leave the "global" fleet list for other reasons (e.g. casualty, conversion).

With ships needed to cope with congestion and diversions - both these phenomena related to the Red Sea situation - during the opening trimester of 2024 only fourteen ships totalling 22,500 TEU had been sold for scrapping.

#### Containerships ordered

Containership ordering slowed after the highs of 2022 and 2021. Even so, with 192 ships ordered for a total of 2.0 million TEU, 2023 was still dynamic. That capacity was equivalent to 7.5% of the year-start fleet, a share that was only surpassed by the aforementioned 2022 and 2021 plus 2015.

#### Containerships ordered

Year	Ships	Total TEU	Ave TEU	Fleet at year start	Order Share
2023	192	1,973,400	10,300	26,375,300	7.5%
2022	366	2,967,700	8,100	25,344,800	11.7%
2021	540	4,533,000	8,400	24,236,200	18.7%
2020	92	735,000	8,000	23,614,000	3.1%
2019	87	749,000	8,600	22,730,300	3.3%
2018	174	1,070,000	6,100	21,510,000	5.0%
2017	75	599,000	8,000	20,680,000	2.9%
2016	68	284,000	4,200	20,258,000	1.4%
2015	229	2,258,000	9,900	18,822,000	12.0%
2014	133	1,002,000	7,500	17,764,000	5.6%
<b>Averages</b>	<b>196</b>	<b>1,617,000</b>	<b>8,300</b>	<b>22,133,000</b>	<b>7.3%</b>

Two of the most interesting orders were also the most expensive on a per TEU basis. Intra-North Europe operator Samskip contracted Cochin Shipyard of India to build a pair of 822 TEU ships (365x 45') that will utilise hydrogen fuel cells. At a reported USD 66.5 million apiece, this works out at remarkable USD 80,900 per TEU. Compare that with MSC's series of ten ships of 11,500 TEU which, at USD 120 million each, comes in at USD 10,435/TEU.

The other order was made by Zephyr & Borée for five ships of 1,300 TEU. Their price tag was around USD 62.2 million TEU, equivalent to USD 47,845/TEU. As well as being methanol-fuelled, the ships will be fitted with masts that will allow for the use of wind assistance.

#### Example vessel orders made in 2023

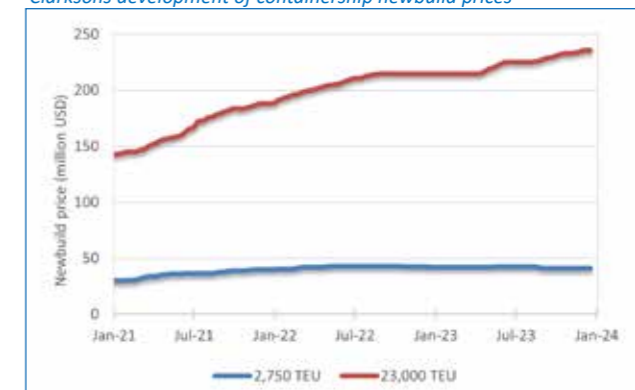
Owner/Operator	No.	Capacity (TEU)	Price (TEU)	Price per TEU {USD}
Samskip	2	822	66.5	80,900
Zephyr & Borée	5	1,300	62.2	47,846
Seaboard Marine	2	1,450	35.0	24,138
Ningbo Ocean	8	1,058	24.0	22,684
Samudera	2	1,900	33.0	17,368
Reederei Nord	2	1,900	32.0	16,842
Wan Hai	3	3,055	49.0	16,039
HMM	7	9,000	124.3	13,810
HMM	2	9,000	124.3	13,810
CK Line	2	2,700	37.0	13,704
CMA CGM	8	9,200	126.0	13,696
CMA CGM	12	13,000	171.4	13,181
Yang Ming	5	15,500	187.4	12,090
CMA CGM	6	16,000	175.0	10,938
CMA CGM	6	16,000	175.0	10,938
Evergreen	16	16,000	175.0	10,938
Evergreen	8	16,000	175.0	10,938
Danaos Shipping	2	5,900	63.0	10,678
MSC	10	11,500	120.0	10,435
<b>Averages</b>	<b>108</b>	<b>278,000</b>	<b>2,600</b>	<b>21,176,000</b>

All prices are in USD per ship or per TEU. Orders are as reported and exclude options not taken up. They are also aggregated for multiple orders of the same capacity and price. Vessels in bold are mentioned in the text.

Having stabilised from September 2022, average newbuilding prices for ships of 23,000 TEU started to creep up again the following April. From that point on, when they were USD 215 million, they finished 2023 some USD 20 million higher, with the average up eight percent on that of the previous year.

Prices for newbuild ships of 2,750 TEU were much more stable in 2023. They started the year at USD 42 million, and although they enjoyed a slight bump in the middle third of the year, they fell back again in the closing period to finish a little above USD 41 million. The year average of USD 41.9 million was marginally lower than the previous three years.

#### Clarksons development of containership newbuild prices



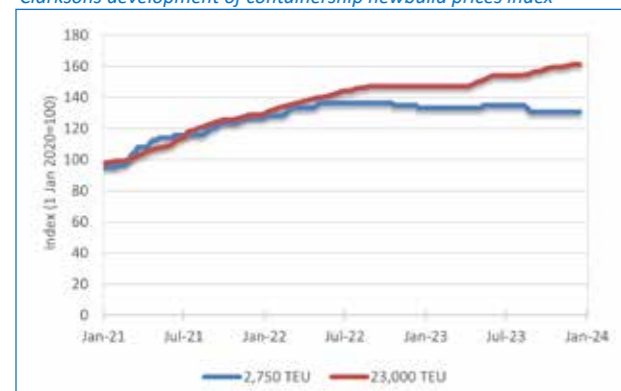
Source: Clarksons



Understandably, the newbuild price developments in USD are of a much greater magnitude for the larger 23,000 TEU ships than for the 2,750 TEU class. The former had a low/high variance during 2023 of USD 20 million while for the smaller vessels, the gap between the highest and lowest price was just USD 1.2 million.

At the relative level, the difference between the two only got bigger in 2023, especially with the price for the smaller capacity class declining whilst it kept on increasing for the larger size. As a result, the 2,750 TEU index finished the year on 1,310, down 23 points on the year start. For 23,000 TEU ships, the closing index value was 1,613, which was 140 points better.

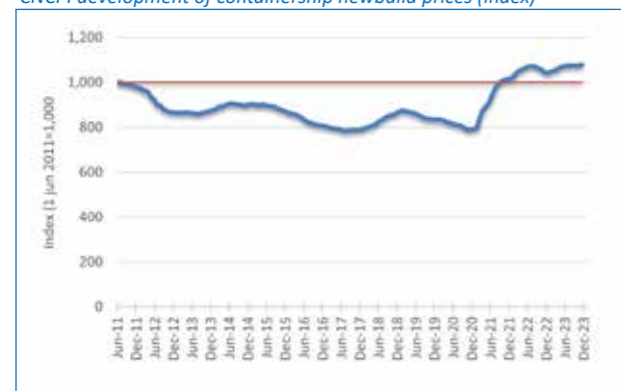
#### Clarksons development of containership newbuild prices index



Based upon data sourced from Clarksons

Another indicator of new vessel prices, the China Newbuilding Containership Price Index (CNCPI), experienced a small dip over the end-2022 and start-2023 period. Thereafter, it grew consistently, albeit much slower for the closing quarter of 2023. The year highpoint of 1,078, came in December. The annual average of 1,066 and even January's year low point of 1,042 were the best ever noted since the index's inception in 2011.

#### CNCPI development of containership newbuild prices (index)



With vessel orders outpaced by deliveries, the number of vessels still to be delivered fell by ninety-five ships and 399,000 TEU. This left 842 ships at the end of 2023, the second highest number since 2008 and sixth highest this century. The capacity of these ships was 7.1 million TEU, which was also the second highest since 2000, beaten only by 2022's 7.5 million TEU. The average capacity of the on order fleet was the largest ever.

#### Containership orderbook development

Year	Ships	TEU	Share	Ave TEU
2023	842	7,089,000	25%	8,400
2022	937	7,488,500	28%	8,000
2021	709	5,793,200	23%	8,200
2020	305	2,482,000	10%	8,100
2019	339	2,292,000	10%	6,800
2018	418	2,744,000	12%	6,600
2017	344	2,667,000	12%	7,800
2016	421	3,244,000	16%	7,700
2015	513	4,151,000	20%	8,100
2014	456	3,326,000	18%	7,300
Ave '16-'20	365	2,685,800	12%	7,400
Ave '11-'15	517	3,827,400	22%	7,400
Ave '06-10	829	4,680,000	37%	5,700
Ave '01-'05	726	2,709,000	34%	3,600
<b>CAGR 10-yr</b>	<b>7%</b>	<b>9%</b>	<b>17%</b>	<b>7,800</b>
CAGR 2010	3%	5%	18%	7,700
CAGR 2005	-2%	3%	24%	6,900
CAGR 2001	3%	8%	26%	6,000

As at 31 December of each year.

Share = share of existing fleet

Analysis based on data sourced from Alphaliner

#### Containerships laid-up

The vessel lay-up pattern in 2023 started off relatively high compared with the preceding couple of years with capacity shares of 2-3% and vessel averages of 5,000-6,000 TEU. After March, though, both measurements dropped significantly and remained low for the rest of the year to leave annual averages of 1.6% and 4,100 TEU. These were slightly higher than 2021-22, but generally lower for years before then.

#### Containership lay-up development by month in 2023

Month	Ships	Total TEU	Share	Average
Dec	120	371,000	1.3%	3,100
Nov	111	390,000	1.6%	3,500
Oct	121	442,000	1.6%	3,600
Sep	105	317,000	1.2%	3,000
Aug	81	247,000	0.9%	3,000
Jul	81	284,000	1.1%	3,500
Jun	67	242,000	0.9%	3,600
May	70	293,000	1.1%	4,200
Apr	89	379,000	1.4%	4,300
Mar	120	607,000	2.8%	5,100
Feb	162	850,000	3.3%	5,200
Jan	95	577,000	2.2%	6,100
<b>Averages</b>	<b>102</b>	<b>416,000</b>	<b>1.6%</b>	<b>4,100</b>
2022	67	283,000	1.1%	4,200
2021	55	191,000	0.8%	3,500
2020	271	1,405,000	6.0%	5,200
2019	177	733,000	3.2%	4,100
2018	127	394,000	1.8%	3,100
2017	215	751,000	3.9%	3,500
2016	315	1,244,000	6.2%	3,900
2015	168	546,000	2.1%	3,300
2014	153	375,000	2.1%	2,400

Number of ships and total nominal capacity in lay up (all carriers/owners) in the 2nd half of each month

#### Containership sales

Sales activity picked up slightly in 2023 but was still quieter than what could be considered as an average year. Some 184 vessels were moved on, this being forty-nine more units than in the previous year. Their total capacity was 645,000 TEU (+193,000 TEU). One noticeable difference from the previous year was that in 2023, six vessels larger than 10,000 TEU changed hands. Three of those were sister ships of 14,200 TEU bought by Yang Ming from non-operating owner Shoei Kisen.

#### Vessel sales by capacity 2023

Capacity range	Ships	Average TEU	Total TEU
1,000-2,999	114	1,800	206,600
3,000-4,999	36	4,100	146,600
5,000-6,999	11	6,100	66,600
7,000-9,999	17	8,700	147,200
10,000-13,999	3	11,700	35,114
14,000+ TEU	3	14,200	42,660
<b>Total 2023</b>	<b>184</b>	<b>3,500</b>	<b>644,800</b>
2022	135	3,300	452,100
2021	378	3,500	1,323,500
2020	176	4,700	825,400
2019	155	4,600	708,500
2018	205	3,400	691,000
2017	292	3,900	1,134,000
2016	125	3,200	409,000
2015	179	3,200	578,000
2014	160	2,500	501,500

Sales as noted by Dynamar from a variety of sources. Includes estimates in case of block sales for a range of ships where individual vessel capacities are not advised.

For the third year in a row, MSC emerged as the most active carrier in the second hand market. It is believed to have bought (at least) thirty-six ships in 2023 with a total capacity of 173,000 TEU, which was similar to its activity levels of the previous year. To place this in context, this capacity would be equivalent to a virtual thirteenth largest container liner operator in the world as at the end of 2023. Regional carrier SITC was the actual thirteenth largest with 102 ships and 162,000 TEU.

#### Casualties

##### Fires, groundings, or collisions

Although not usually covered in these pages, 2023 kicked off with three groundings in as many weeks. These involved the "CMA CGM Barracuda" (5,100 TEU) in the Wester Scheldt waterway to Antwerp, the "MSC Elaine" (8,600 TEU) in Gioia Tauro, Italy, and the "Monte Pascoal" (5,600 TEU) at Bocachica, Bay of Cartagena, Colombia.

Apart from these, other notable casualties included the September collision in the Aegean Sea between the 700 TEU "Libertas-H", operated at the time by X-Press Feeders, and the 6,400 dwt general cargo ship "Sea Leader". This resulted in a fire breaking out on the "Libertas-H", which was thankfully brought under control. Both vessels diverted to a nearby Greek island for further inspection.

Fires are, for understandable reasons, a great concern for any vessel and its crew. Aside from engine room fires, for container shipping it is hazardous cargoes that are a particular issue, or rather the misdeclaration or mishandling of. For car carriers, it is the batteries used in electrically powered vehicles.

Cargo related fires in 2023 included the "KMTCS Shenzhen" (2,800 TEU) in August. Luckily, it was near Port Kelang when fire broke out in some containers, with at least nine reportedly affected. The fire was brought under control by firefighting tugs and land-based firefighters.

Sometimes, even the proximity to assistance cannot prevent such a situation escalating. In July 2023, the multipurpose-Ro/Ro "Grande Costa d'Avorio" (2,000 TEU) experienced a very intense fire across three decks whilst alongside at the Port of Newark (New York). It lasted five days in the course of which, tragically, two local firefighters died. On this occasion, Grimaldi pointed out that there were neither electrically-powered vehicles nor hazardous cargoes on board.

Casualty incidents always lead to investigations and even legal action. The latter can take an inordinately long time as was shown with the resolution of the "MSC Flaminia" case, this dating from 2012. Some eleven years later, the US Court of Appeals ruled that tank container operator Stolt-Nielsen and shipper Deltech were respectively 45/55% liable for the cause of the fire that broke out on the vessel. This supported an earlier ruling made in 2018 that centred on three tank containers in hold no. 4, where the fire broke out. These were carrying divinylbenzene and it was ruled that warnings were not passed on to MSC, the vessel's operator, regarding its hazardous nature.

#### Containership casualties in 2023

Vessel	Owner/Opr	TEU	Incident
Angel	Navramar Shipping	1,600	Vessel started taking on water, developed a list and eventually ended up on its side in shallow water. 600 of the 1,349 empty TEU on board were lost, causing the nearby Kaohsiung port to temporarily close access. All 19 crew evacuated via lifeboats. At least 200 containers were recovered.
Grande Costa d'Avorio	Grimaldi/Grimaldi	2,000	Container-Ro/Ro multipurpose vessel experienced a very intense fire across three decks whilst alongside at Port of Newark (New York) that lasted five days. Tragically, two local firefighters died.
KMTC Shenzhen	KMTC/TS Lines	2,800	Vessel carrying 1,189 boxes, sailing near Port Kelang. Fire broke out in containers, with at least nine reported affected. Fire brought under control by firefighting tugs and land-based firefighters.
Libertas-H	Hinsch Reederei/X-Press Feeders	700	Collided with 6,400 dwt gen. cargo vessel 'Sea Leader' in Aegean Sea and caught fire. Crew extinguished fire, no casualties, both vessels diverted to a nearby small port.
Resurgence	Kotkou Kaiun/SITC	900	Vessel collided with 'Wan Hai 288' (2,000 TEU) whilst navigating Long Tau River (south Vietnam). Suffered damage to cargo deck area but continued voyage to Ho Chi Minh (Cat Lai). See also 'Wan Hai 288'.
Santa Loukia	Eastern Med. M'time	1,700	Collided with 'Wan Hai 272' (1,800 TEU) whilst in Bangkok approach fairway. Experienced cargo (deck) damage but able to resume voyage. See 'Wan Hai 272'.
Wan Hai 272	Wan Hai/Wan Hai	1,800	Collided with 'Santa Loukia' (1,700 TEU) whilst in Bangkok approach fairway. Sustained serious damage and remained for inspection. See 'Santa Loukia'.
Wan Hai 288	Wan Hai/Wan Hai	2,000	Vessel collided with 'Resurgence' (900 TEU) whilst navigating Long Tau River (south Vietnam). Suffered damage to foredeck and also grounded. A number of containers also damaged/dislodged. Vessel was later refloated. See also 'Resurgence'.
Wan Hai A02	Wan Hai/Wan Hai	13,200	Having departed Ho Chi Minh (Cai Mep) terminal, vessel lost control whilst navigating a river bend and struck the 81,600 dwt dry bulker 'Vasos 2' which was undergoing cargo operations. The bulker was pushed onto the quay causing damage to the berth and the collapse of conveyor and suction handling equipment.
Xin Yuan Long 6	Shishi Xinyuanglong Shipping	900	Collided with a sand carrier vessel whilst departing Ningbo port, suffered a water ingress, heavy list and partially sunk. At least 40 boxes reported as falling overboard.

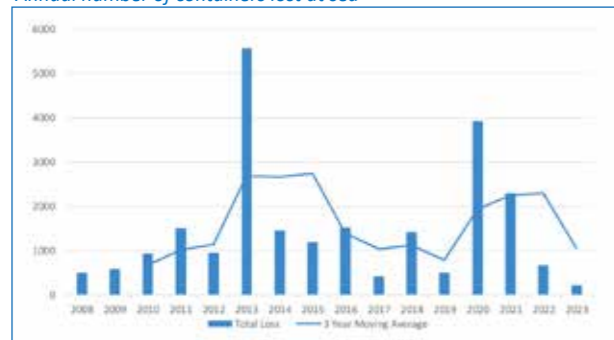
### "MSC Flaminia" fire

The 2001-built "MSC Flaminia" (6,800 TEU) was sailing in the Atlantic en route Antwerp in July 2012 with 2,876 containers on board when an explosion occurred and fire broke out. This destroyed or damaged close to 100 containers. The vessel was abandoned by the crew, two of whom died. Salvors attended with firefighting operations requiring weeks of effort and it was not until September that the vessel reached safe haven at Wilhelmshaven. The owners decided to repair the ship and it returned to service two years after the original incident. It is still sailing, albeit under its current charter name of "CMA CGM San Francisco".

### Container box casualties at sea

Aside from casualties involving vessels per se, there are also those that involve or are the result of damaged, lost or destroyed containers. In that regard, it is interesting, and comforting, that the World Shipping Council reported that the number of containers lost overboard in 2023 was 222 compared with 661 boxes a year earlier. Most incidents involved a small number of containers with only one carrier reporting more than 100 units lost for the year. Since 2008, there have been two peaks, one in 2020-2021 when demand for ship capacity was extremely high and vessels were loaded up to their max, whilst the 2013 spike was heavily affected by the sinking of the "MOL Comfort"

### Annual number of containers lost at sea



Source: World Shipping Council

Going beyond containers lost at sea, Dynamar noted thirteen separate container box incidents in 2023 (and which may include instances already mentioned among the vessel casualties), which was three fewer than in 2021. It is also worth remembering that there are many more container box incidents that do not reach the public domain.

Nearly half of these 2023 incidents were related to bad weather with fire and port operations being responsible for two each. One major incident that occurred in poor weather was the "Angel" whilst sailing near Kaohsiung. In July 2023, it started taking on water, developed a list and eventually ended up on its side in shallow water. Multiple sources reported that 600 of the 1,349 empty TEU on board were lost, causing the port to temporarily close access because of the potential hazard to navigation these caused. All nineteen crew evacuated via lifeboats. By the end of the month, 200 containers had been recovered.

When considering all the incidents involving container box casualties, so not just boxes overboard, 800 containers could have been affected in some way. This is an "at least" figure as many incidents will not have been reported and even some of those that were have no numbers attached. However, mitigating the total, some incidents relate to damaged or other affected boxes, rather than total losses, and a number of those that

have gone overboard will indeed have been recovered, as was shown in the case of the "Angel".

### Vessel casualties involving container boxes in 2023 included:

Vessel	Where	When	Circumstances
Anil	Assaluyeh (Iran)	Jan-23	Small vessel (2,100 gross tons) capsized whilst undergoing cargo operations. Unknown number of containers entered the harbour's waters.
Sea Xpress	Mundra International Container Terminal	Jan-23	Lost stability during cargo operations at MICT, with vessel listing up to 70 deg. and 20 boxes reported as falling overboard. Vessel regained stability after around five hours.
MSC Shristi	350nm east of Bermuda	Mar-23	Vessel experienced bad weather en route Dominican Republic ex-Boston and lost 46 boxes from 3 separate incidents in the space of two days.
Avila	Bay of Biscay	Apr-23	Vessel sailing from Bilbao to Vigo, with initial reports suggesting 2 boxes were lost overboard in bad weather, although later on, 4 (40') were noted as drifting in the same area. Vessel diverted to Gijon for re-stowing.
Maersk Hanoi	At Rijeka	Jul-23	High winds caused quayside crane to topple and fall onto vessel alongside causing damage to 15 boxes.
Pangaon Express	Chit-tagong-Pangaon (Bangladesh)	Jul-23	Vessel undergoing voyage to Pangaon Inland Terminal when strong waves caused it to list and partially sink. The 140 TEU vessel was carrying 96 TEU, at least 3 of which fell overboard, maybe 10-15.
Xin Yuan Long 6	Near Ningbo	Jul-23	Collided with a sand carrier vessel whilst departing port, suffered a water ingress, heavy list and partially sunk. At least 40 boxes reported as falling overboard.
KMTC Shenzhen	Near Port Kelang	Aug-23	Fire broke out in containers, with at least 9 reported affected. Fire brought under control by firefighting tugs and land-based firefighters.
Luna Maersk	Aegean Sea	Oct-23	Sailing from Piraeus to Thessaloniki, fire broke out in container which the crew managed to contain. Vessel returned to Piraeus.
Sivumut	Iqaluit (Baffin Island, Canada)	Oct-23	Vessel lost 23 containers whilst waiting outside Iqaluit harbour, 16 of which, at least, were later recovered.
Mayview Maersk	North Sea/off Denmark	Dec-23	Lost at least 40 containers during Storm Pia en route Gdansk, where it continued on to for inspection. At least 4 containers washed up on Danish coastline.

### Construction and design

#### Biggest ships

In 2023, three vessels held the title of the largest containership in the world. The incumbent as the year started was the "Ever Alot". Delivered in mid-2022, it was originally advertised as having a capacity of 23,888 TEU, but China's Hudong Zhonghua Shipbuilding managed to squeeze in a few more boxes to push it just beyond the 24,000 TEU limit.

The reign of the "Ever Alot" lasted to February 2023 when it was supplanted by the 24,188 TEU "OOCL Spain". However, the newly crowned successor held on for a matter of only weeks, if not days, as the following month, it was superseded by the 24,346 TEU "MSC Irina".

### Delivery of largest ships

vessel	Capacity	Delivery
MSC Irina	24,346 TEU	Mar-23
OOCL Spain	24,188 TEU	Feb-23
Ever Alot	24,004 TEU	Jun-22
Ever Ace	23,992 TEU	Jul-21
HMM Algeciras	23,964 TEU	Apr-20
MSC Gulsun	23,756 TEU	Jul-19
OOCL Hong Kong	21,400 TEU	May-17
Madrid Maersk	20,600 TEU	Apr-17
MOL Triumph	20,200 TEU	Apr-17
Barzan	19,900 TEU	Apr-15
MSC Oscar	19,200 TEU	Jan-15
CSC Globe	19,000 TEU	Nov-14
Maersk Mc-Kinney Moller	18,270 TEU	Jul-13
CMA CGM Marco Polo	16,000 TEU	Nov-12
Emma Maersk*	15,500 TEU	Sep-06

As at time of delivery; "Emma Maersk" and her sisters have subsequently been upgraded to 16,800 TEU

### Record load

Late in 2023, the 24,136 TEU "ONE Integrity" departed Singapore on its way to Europe carrying the equivalent of some 21,954 TEU. This made it the new record holder for the number of containers carried in one go. It was the first time for a while that this record had moved as the previous holder was the "Ever Ace" whose 21,718 TEU load dated from mid-2021.

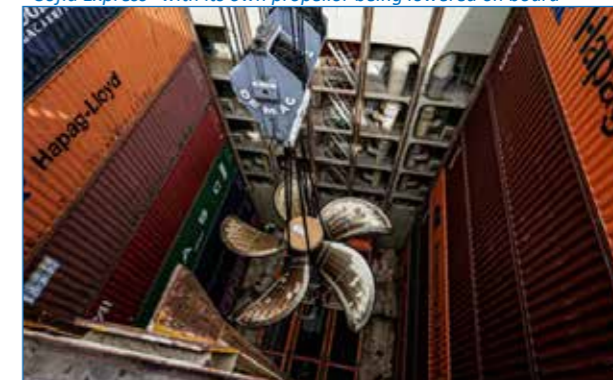
### Vessel load records

Vessel	TEU Loaded	Utilisation	Route	When
ONE Integrity	21,954	91.0%	Singapore to North Europe	Nov-23
Ever Ace	21,718	90.5%	Shenzhen (Yantian) to North Europe (Rotterdam)	Jul-21
CMA CGM Jacques Saade	21,433	92.8%	Singapore to North Europe	Apr-21
CMA CGM Rivoli	20,828	90.1%	Singapore to Malta	Feb-21
CMA CGM Jacques Saade	20,723	89.7%	Singapore to North Europe	Oct-20
HMM Algeciras	19,621	81.9%	Shenzhen (Yantian) to North Europe	May-20
MSC Gulsun	19,574	82.4%	Tanjung Pelepas to North Europe	Jul-19
Monaco Maersk	19,284	93.8%	Tanjung Pelepas to North Europe	Jun-19
MOL Tribute	19,190	95.1%	Singapore to Europe	Feb-19
Mumbai Maersk	19,038	92.4%	Tanjung Pelepas to North Europe	Aug-18
Al Nefud [UASC]	18,749	94.4%	Far East to North Europe (Felixstowe)	Feb-17
Al Muraykh [UASC]	18,601	93.6%	Port Kelang to North Europe	Dec-15
Maersk Mc-Kinney Moller	18,168	99.4%	Algeciras to Far East	Jan-15
Emma Maersk	15,500	100.0%	Zeebrugge to Far East	Oct-14
Mary Maersk	17,259	94.5%	Algeciras to Far East	Jul-14

### Interesting cargo

It does not often happen that a ship carries its own propeller inside the hold rather than it being attached aft. However, this is precisely what happened to Hapag-Lloyd's "Sofia Express" (8,750 TEU) in mid-2023 when it carried two propellers from Hamburg, where they were manufactured, to Dubai, where installation was to take place. The second propeller was to be fitted on Hapag-Lloyd stablemate vessel "Al Manamah" (7,300 TEU).

### "Sofia Express" with its own propeller being lowered on board



### Shipyards

At the end of 2022, and following regulatory objections from the European Commission to an earlier deal involving Korea Shipbuilding and Offshore Engineering (KSOE), the financially troubled Daewoo Shipbuilding and Marine Engineering (DSME) was taken over. The buyer was another compatriot shipbuilder, the Hanwha Group, involved principally in the defence sector. A few months later, DSME was renamed Hanwha Ocean.

Early in 2024, Hanwha Ocean, decided to withdraw from the containership building business. Despite the containership ordering boom, Hanwha/DSME had secured orders for only twenty containerships in 2021, six in 2022 and zero in 2023. Clearly losing money on box ships, it decided, therefore, to concentrate on more profitable LNG carriers. This is the sector that was source of the objection to the merger with KSOE, who was also strong in this segment.

To give an indication as to the level of competition in the containership market, Chinese builders won orders for approaching sixty percent of the total placed in 2023. The rest was spread around South Korea on twenty-nine percent with Japan seeing virtually the rest. Given this pressure, it was suggested that South Korea's two other shipbuilding majors, HD Korea Shipbuilding & Offshore Engineering and KSOE, could also leave containerships to concentrate on more profitable segments.

### ENERGY AND PROPULSION

The energy transition is now well and truly underway and with the delivery of the very first methanol-powered ships to offer another option alongside LNG, there is a real sense that alternatively-fuelled ships are gaining critical mass.

### Choices, choices, choices

Essentially, vessel operators have only had three realistic options in mitigating harmful emissions:

- Burn marine fuel that complies with the emissions regulations be it higher-grade yet conventional fuel oil or specially developed (very) low sulphur fuel oil
- Continue to burn conventional high sulphur fuel but use exhaust scrubbers
- Move to a new non-oil based but still compliant fuel or power type

Each option had its pros and cons, proponents and opponents, yet as time has gone on, positions and situations have evolved. This is particularly so for the new non-oil fuel types.

The initial direction that alternative marine fuels took was LNG but increasingly, other types have presented themselves, with methanol now, arguably, more popular than LNG. However, as these and other options offer different advantages for different trading profiles, carriers have started looking at a range of solutions, rather than just settling on one.

Come mid-2027, the alternatively fuelled fleet is expected to surpass 370 vessels able to carry a combined 4.3 million TEU. To place in context, this is slightly more than the mid-2024 capacity of Maersk's fleet, it being the then current second largest container carrier in the world operating 705 vessels.

As the projected figures consider only existing vessels and new-builds on order, they will be increased by retrofits of which there could be many as the following examples, all of which were announced in 2023, suggest:

- MAN Energy Solutions, Seaspan and Hapag-Lloyd signing for fifteen engine retrofits to run on methanol, with forty-five options attached
- MAN and Cosco Heavy Industry Shanghai signing to retrofit two 13,800 TEU and two 20,100 TEU vessels to methanol fuel, with options on another nine of similar sizes
- Maersk contracting to retrofit a 15,300 TEU unit to methanol in 2024, which could be similarly extended to ten sister ships.

It is not just LNG and methanol though. Other options are also seeing tangible progress. It is by no means sure that every single one will be adopted at all, let alone in scale - the realities of economics will dictate that - but it is unlikely that one solution will emerge to the exclusion of all others.

### Ammonia

Most developments surrounding this alternative have been limited to "ammonia ready" ships, i.e. newbuilds that could be retrofitted, at a significant cost, to burn ammonia at a later date. The first of those, the "CMA CGM Masai Mara" (6,000 TEU), was delivered in 2023. It is the lead of a series of six. ONE, MSC and PIL are amongst those to also have ammonia ready ships on the way.

The year 2023 also saw the first committed plan to build an ammonia fuelled containership. (The first vessel in the world to run on ammonia is a tug owned by NYK - a shareholder of major carrier ONE - that is undergoing conversion in 2024).

Yara Clean Ammonia and North Sea Container Line established the NCL Oslofjord joint venture to develop the "Yara Eyde", a 1,300 TEU newbuild that will run on green ammonia. The fuel will be produced by Yara International, who will also back the investment with fertiliser cargoes equivalent to forty percent of the ship's capacity. Upon deployment, expected in 2026, the vessel will run between Oslo, Porsgrunn (Norway), Hamburg and Bremerhaven. The ship itself will be owned by Delphis of the CMB group who, coincidentally, is also owner of the aforementioned "CMA CGM Masai Mara".

NCL Oslofjord's ammonia-powered box vessel



The world's largest non-operating containership owner, Seaspan, also has hopes for the concept as it proposed a 15,000+ TEU design for an ammonia fuelled vessel in 2023. A little further than a proposal, early in 2024, container liner ONE and Nihon Shipyard received an approval in principle (AiP) from classification society DNV for their jointly designed ammonia/

dual-fuel vessel of 3,500 TEU. Whether this transpires into something concrete remains to be seen; in 2022 "K" Line (another ONE shareholder) received an AiP for the design of an ammonia-fuelled 200,000 dwt dry bulk ship.

However, not all was good news for the ammonia option. Oil major Shell announced in 2023 that it would not progress further along the ammonia pathway over concerns regarding toxicity and would concentrate on other alternatives as LNG and methanol instead.

#### Ammonia positives and negatives

The big environmental positive with ammonia (NH<sub>3</sub>) is that burning it does not produce carbon dioxide (CO<sub>2</sub>). The fuel itself is cheaper than methanol and hydrogen and it has a lower flammability than other fuels.

However, ammonia is very toxic and has a low energy density, this latter meaning that it would need a tank four times the size of one that stores traditional heavy fuel oil. Further, a lot of energy is required to produce ammonia, which also produces carbon dioxide if not done in a renewable way. The technology is also unproven in a maritime setting, so there is still a lot to learn from its operations and emissions.

### BFO - biofuel oils

This section looks specifically at biofuels derived from cooking oil (BFO) or similar - methanol is technically a biofuel as well - often referred to as second generation or waste biofuels. It is not a zero emissions option but can contribute significantly to reducing greenhouse gas emissions.

Following a range of trials undertaken by virtually all the major carriers, BFO is gradually being adopted as part of the literal and actual fuel mix. Its ready availability and recycled credentials have also made it popular with major shippers. They have concluded multiple agreements with carriers in order to reduce their carbon and emissions footprints now, by using BFO, rather than a few years down the line, as would be the case with most other applications and technologies.

### Carbon capture

Very much a newcomer to the container shipping debate, carbon capture is essentially still in the trial and development phase, but could start scaling up quite soon. Illustrating this, late in 2023, MSC announced it would trial a carbon capture system on the 23,800 TEU "MSC Mia".

At around the same time, HJ Shipbuilding and Construction and engine manufacturer Wartsila announced the development of an 8,500 TEU containership design that would incorporate carbon capture and storage technology. This will capture carbon dioxide (CO<sub>2</sub>) from the engine and boiler and keep it in a liquid state. Carbon capture technology has already been retrofitted to a small number of ships of around 1,000 TEU, these taking the CO<sub>2</sub> from the exhaust, which is stored on board and then used for agricultural or other industrial purposes on land.

### Electric power (batteries)

It is estimated that there are around 1,000 electrically powered vessels of all types around the world. These are all small and deployed to shortsea or coastal routes, with ferries being a particularly popular adopter of the technology. As yet, container shipping has yet to embrace the concept en masse and those that have - or will do - also share the small/coastal characteristics.

The standard bearer for electrically powered container vessels, is the "Yara Birkeland", which entered commercial operations in Norway in 2022 along its roundtrip route of around 25 kilometres.

That same year saw the order, by Cosco Shipping Development, of a pair of 700 TEU electrically powered vessels. The first of these, the "Zhong Yuan Hai Yun Ly Shui 01" was delivered in 2023 and is deployed to a local service between Yangshan and Nanjing that is principally inland waterways based.

"Zhong Yuan Hai Yun Ly Shui 01"



Further developments came at the end of 2023 with Ningbo Ocean Shipping issuing a tender for a pair of fully-electric containerships of 740 TEU, and which was converted into firm orders in the first half of 2024. There was also the delivery of the "Electramar", a 5,400 dwt plug-in hybrid general cargo vessel to intra-North Europe operator AtoB@C Shipping of Sweden. It is the first of twelve such that the carrier will eventually receive.

#### Plug-in hybrid shipping

Much like cars, hybrid ships also include a conventional combustion engine alongside a rechargeable battery. The battery can be used as either the prime mover or an auxiliary to support the combustion engine. The plug-in capability means that the battery can be recharged using onshore power.

Whilst there are concerns surrounding the safety aspect of lithium batteries with some ferries, for example, experiencing fires in recent years, research and classification society rules have led to the development and implementation of extra safety systems. All the while, the battery technology is evolving and with more powerful batteries will come the potential to instal them on larger ships.

### Hydrogen

Although the efficacy of hydrogen as a marine fuel option has in the past been questioned by companies as Compagnie Maritime Belge (CMB) and engine manufacturer Wärtsilä, intra-North Europe operator Samskip displayed confidence in the concept with an order placed in 2023 for two hydrogen fuelled vessels. Able to carry 365x 45'containers, alongside the hydrogen fuel cells there will also be a diesel generator for longer voyages. To be constructed by Cochin Shipyard of India, deliveries are expected in 2025-26 whereupon they will initially operate between Rotterdam and Norway.

Samskip's hydrogen-powered design



One of the disadvantages of hydrogen powered vessels is the amount of space needed to store the fuel. In general, this makes the form not particularly viable for long-distance voyag-

es and why, perhaps, the only taker so far is the regional carrier Samskip.

### LNG

At this moment in time, LNG is the preferred alternative for the container shipping sector. It is definitely the most advanced. Come mid-2027, there should be some 250 fully cellular containerships able to run on LNG. They will be able to carry 3.0 million TEU, an average of 12,200 TEU per ship. This is more than twice the projected number of methanol fuelled ships and 2.3 times the capacity.

LNG as an alternative fuel is quite clearly an accepted form of the emissions reduction approach. This counts not only for the number of ships now employing the technology, but also its presence in the supply market. In mid-2023, for example, it was reported that the Rotterdam price for LNG as a marine fuel had even dropped below that of very low sulphur fuel.

#### The LNG discussion

The application of LNG as an alternative fuel has come under almost as much scrutiny as scrubbers with studies looking at its effectiveness and potential risk. This last arises from methane leakage at various points along the supply chain. With methane having a global warming potential around thirty times that of carbon dioxide, the sum of all slippages along the supply chain could cause more harm than the emissions benefits gained from LNG's usage as a marine fuel.

Shipowners, operators, suppliers and others along the supply chain are not oblivious to the issues and have worked towards mitigating these at the very least. One is the Methane Abatement in Maritime initiative. This was established by Lloyds Register together with seven partners, including MSC, Seaspan and Shell. It will gather data on the extent of methane slip to gain a better understanding of the scale of the issue. The hope is that this will then help with investment decisions, particularly surrounding whether liquified bio or synthetic LNG are workable options. Membership was doubled early in 2023 with NYK and MOL, both shareholders in major carrier ONE, among that particular tranche.

### Methanol

Whilst starting much later than LNG fuelled vessels, methanol has quickly found favour with a number of owners and operators as a potential alternative. Indeed, in 2022 already, more methanol-fuelled containerships were ordered than LNG.

As per the mid-2024 orderbook, there were 116 methanol (ready) fuelled fully cellular containerships pending construction and delivery. When combined with the four already received, the entire fleet had a virtual capacity of 1.3 million TEU at an average of 11,150 TEU with deliveries stretching into 2027.

It is no exaggeration to say that Maersk has pioneered the adoption of methanol as a marine fuel. Exemplifying this, late in 2023 it received the very first of what was then twenty-five methanol ships it had ordered. This was the 2,100 TEU "Laura Maersk", which, after its repositioning trip to northern Europe and some ad-hoc sailings, was placed upon a new Bremerhaven-Denmark/Sweden service.

Whilst this vessel is clearly intended for shortsea operations, Maersk's orderbook included a series of twelve ships of 16,600 TEU, which are very much deepsea beasts. The first of those, the "Ane Maersk" was received in the opening quarter of 2024 and subsequently deployed to a Far East-Europe service.

The 'Ane Maersk' being floated out late in 2023



Also within this first trimester of 2024, X-Press Feeders received a 1,200 TEU methanol fuelled vessel. The first of eight such units, it was deployed to the carrier's so-called "European Green Corridors" which will (initially) be centred on two single-vessel northwest Europe-Baltic loops.

As part of the build up to the delivery of its vessels, Maersk has been establishing contracts with multiple suppliers around the world for sustainable methanol. In 2023, it also established, together with its parent company, the C2X joint venture. This company aims to develop, own and operate green methanol production facilities with the aim of generating 3.0 million tons annually come 2030. This will not be purely for its shipping activities, with potential customers targeted in sectors facing energy transition challenges as fuel, glue, plastics and textiles.

However, due to concerns over fuel availability (Maersk's efforts notwithstanding) and the premium attached to it, late in 2023, CMA CGM switched an order for eight methanol-fuelled ships of 9,200 TEU to LNG.

#### Methanol positives, negatives and complications

Methanol (CH<sub>3</sub>OH) is a type of alcohol, albeit unsuitable for consumption. It has a number of advantages such as being easy to handle with no operational safety implications. It is also readily available and existing bunker storage facilities and delivery systems can be converted to handle it. Shipping is already experienced in handling methanol and conversion costs for ships are much lower than with other options. It does not emit methane like LNG and conventional fuels. It does emit carbon dioxide, but a lot less of it (around 65% less).

Methanol is traditionally produced on an industrial scale from natural gas by reforming it with steam and then converting and distilling the resulting synthesised gas mixture to create pure methanol. The form of the industrial process is nowadays referred to by colour. Thus there is black/grey (from coal or fossil fuels), blue (from natural gas) or green (from bio sources or green electricity).

'Grey' methanol is actually more harmful than very low sulphur fuel oil on a so-called 'well-to-wake' basis. Thus, in order to be truly sustainable, substantial amounts of renewable energy are required and involves mixing with carbon dioxide, which itself needs to be sourced renewably. Maersk is reportedly looking at bio-methanol which uses methane captured from decomposing organic waste. This is one of the best ways to produce bio-methanol. Unfortunately, there will not be enough from this source to power even a small part of the fleet, not forgetting that methanol used by ships cannot be used for other purposes that would, in turn, have to find an alternative.

Finally, apart from being poisonous and having a sharp odour, the liquid is highly flammable and has a relatively low energy density, meaning that it requires more bunker space than other fuel options.

#### Nuclear power

Nuclear-powered commercial ships are not new but have been very limited in number. This is not surprising given the potential cost to build and the complications (and implications) of operating them. This is not to mention the possible and understandable concerns of ports (and their immediate hinterlands) that

could play host to such ships. In fact, it is not inconceivable for a number of ports to refuse to accept such a vessel.

Thus far, only six nuclear-powered cargo ships have ever been built, but not all of those carried cargoes or finished their time as nuclear-powered vessels. Essentially, the continuous civilian application of nuclear-powered vessels has been limited to twelve Soviet/Russian ice-breakers, seven of which are still active with three being built since 2020.

"N.S. Savannah" - the world's first nuclear powered cargo ship



The potential challenges notwithstanding, and entering - cleverly - the decarbonisation debate, late in 2023, China State Shipbuilding Corporation's Jiangnan Shipyard announced it had designed a 24,000 TEU nuclear-powered containership. This would make it not only one of the largest container vessels in the world, it also would be by far the largest nuclear-powered cargo ship ever.

The design, which has reportedly received an approval in principle from DNV, promises a zero emission lifetime and could even make it the largest nuclear-powered ship ever constructed. If the proposed vessel were similar to the "Ever Alot", the first containership to push past the 24,000 TEU barrier, it would be 399.99 metres long and displace 290,000 tons. The latest class of United States Navy nuclear-powered supercarriers, led by the "Gerald R Ford", is 330-340 metres long and displaces 100,000 tons.

Jiangnan Shipyard, 24,000 TEU nuclear-powered vessel design



#### Scrubbers

The scrubber fitted fleet approached 970 ships able to lift 8.7 million TEU come mid-2023, according to figures from Alphaliner. This would have approximated to around fifteen percent of containerships and thirty-two percent of capacity. It is not thought that these shares will increase significantly in the coming years and undoubtedly reflects the mounting evidence of the environmental costs these systems bring, especially the open loop type of scrubbers.

#### Open loop scrubbers

With this particular system, seawater is brought in, used as the scrubbing element, and passed out back into the sea. Exhaust scrubbers remove not only the sulphur element as per the IMO's regulation, but also others as heavy metals and toxic organic compounds. With there being no intermediate cleaning process, the environmental impacts of these systems are considerable; a vessel can literally pump out hundreds of cubic metres of wash water every hour. Even for the closed loop, which is more expensive and uses treated seawater that stays within the circuit on board, the wash water still needs to be disposed of somewhere and somehow.

Exemplifying the issues, one report issued in 2023 by the Chalmers University of Technology in Sweden, concluded that over ninety percent of the hazardous metals and polycyclic aromatic hydrocarbons (PAC) found in some Baltic Sea ports came from discharged scrubber wash water. Coincidence or not, both Denmark and Sweden confirmed (in 2024) that they will ban the discharge of open loop scrubber wash water in their territorial waters from July 2025, this being extended to all types of scrubber system four years later.

#### Wind power and assistance

Whilst yet to gain the same sort of momentum as other alternatives, there are a number of interesting developments for wind assisted propulsion. The emphasis here is upon "assistance"; wind is unlikely to return as the sole or prime mover. It is therefore more of an emissions reduction or mitigation measure than a zero emissions option. Developments in 2023 around wind power or similar for the container sector included:

#### Econowind - containerised Econowind

Netherlands-based Econowind has designed and manufactured small sail systems that can be (retro)fitted to vessels or even placed in shipping containers. With regards to the latter, in 2023, it was announced that Ocean Network Express (ONE) was to trial two of Econowind's containerised sail units. These would be fitted to a 1,050 TEU containership for a six month trial scheduled to commence early in 2024.

Econowind's containerised system prepared for ONE



#### Hapag-Lloyd/Technolog - Concept design

Major carrier Hapag-Lloyd and engineering consultancy company Technolog have been working on a concept design for a wind-assisted container vessel. This is still very much in the concept phase but efforts are being geared towards a 4,500 TEU vessel that would be principally powered by its own engine and assisted by eight retractable airfoil sails. It is possible that these

could act on their own for low speeds and with the right wind conditions.

How a wind assisted containership could look



#### Neoline Armateur - "Neoliner"

First announced back in 2018 as a project involving Renault and its compatriot Neoline, the initial plan was to design and construct two wind-powered Ro/Ro ships to carry cars by 2020. Whilst the project timeline clearly slipped, early in 2023, Neoline announced that equity financing of more than USD 65 million had been received from sources that included CMA CGM and Corsica Ferries. Additional financing was also provided by various financial, regional and investment institutions.

The financing will go towards the first ship, "Neoliner". It will be a 1,200 lane metre, 320 car/265 TEU capacity multipurpose-Ro/Ro vessel. It will feature a 76 metre tall and 3,000 square metre Solidsails unit that can be retracted and is fitted to folding masts. The vessel is to be constructed by RMK Marine of Turkey.

Artist's impression of "Neoliner" wind-powered cargo vessel



#### Veer Voyage - "Design No.1"

Another name in the development of wind power emerged in 2023, that of Veer Voyage. It is one of three companies reported to have taken on the zero emissions challenge laid down by the Zero Emissions Ship Technology Association (the other two come from the tanker and offshore support sectors). Veer Voyage of the Bahamas has proposed a 100 metre long green hydrogen and sail (assisted) vessel able to carry 140 TEU and reach speeds of up to 18 knots on wind power alone. The design has already received an approval in principle from the American Bureau of Shipping.

Artist's impression of Veer Voyage "Design No.1"



Zéphyr &amp; Borée - "Project Meltem"

In 2021, Zéphyr & Borée introduced its "Project Meltem", an 1,830 TEU vessel that is 185 metres long and equipped with eight wingsails, with an eye to the Transatlantic trade. However, in mid-2023, it placed an order for five hybrid methanol-fuelled and wind-powered vessels of 1,200 TEU from Hyundai Mipo of South Korea. Their reported price of USD 62.2 million each was around twice that of standard designs. Deliveries are expected from late 2025 and into 2026.

Zéphyr &amp; Borée, "Project Meltem"



### The crucial role played by the shippers

Whilst there are clearly fascinating, innovative and exciting developments in container shipping's energy transition, these have been pushed forward by regulations or commitments from the International Maritime Organization (IMO) and others. There are also many substantial shippers who are fully on-board the energy transition. After all, environmentally responsible and sustainable supply chains feed directly into their wider sustainability policies and goals. These, in turn, will undoubtedly have been influenced by the wishes, if not demands, of their customers, the end-users of their products.

One interesting initiative in 2023 was the Zero Emission Maritime Buyers Alliance (ZEMBA) which was launched by the Cargo Owners for Zero Emissions (coZEV) membership body. In 2023, ZEMBA launched a tender that eventually incorporated twelve coZEV members to move cargoes using fuels that offered at least a ninety percent reduction of greenhouse gas emissions when compared with existing low sulphur fuel, and for which a premium will be paid. This was won by Hapag-Lloyd and will cover a period of two years starting in 2025. It could be good for around 600,000 TEU; a second tender is on the cards for 2024.

Alongside or accompanying such multilateral initiatives as coZEV, there are various contracts between individual shippers and shipping companies that commit to moving substantial amounts of cargo via as sustainable as possible shipping products. Examples of such agreements reached in 2023 included:

- Amazon/Maersk: signed their fourth annual agreement, this latest to transport 40,000 TEU via the carrier's 'ECO Delivery' product. Focussing initially on biofuels, it will be expanded to include Maersk's methanol option too
- Flying Tiger Copenhagen/Maersk: as from 2024, the entirety of retailer Flying Tiger Copenhagen's ocean shipping needs sent via Maersk will fall under the 'ECO Delivery' product
- Hellman Worldwide Logistics/HMM: sees Hellman join HMM's 'Green Sailing Service' and which uses second generation (waste stock) biofuels and, from 2025, LNG and green methanol fuelled vessels
- IKEA/Hapag-Lloyd: where IKEA cargoes will be moved via Hapag-Lloyd's waste biofuel-based 'Ship Green 100' product
- IKEA/HMM: also sees IKEA join HMM's "Green Sailing Service" for one year
- Nestlé/CMA CGM: all cargoes sent by Nestlé on CMA CGM ships to be carried by vessels using second generation biofuel
- Nike/CMA CGM: for the mid-2023 to mid-2024 period, sustainable biofuels will be used for thirty-six percent of Nike's volumes sent via CMA CGM
- Volvo/Maersk: agreement signed for around 15,000 containers of production material and spare parts to be carried by Maersk vessels using second generation biofuel oil

### Cargo Owners for Zero Emissions (coZEV)

Launched in 2021 by nine major shippers, including the likes of Amazon, IKEA, Michelin and Unilever, its members have, as an ambition, to source their ocean freight requirements via zero-carbon fuel options by 2040. Membership has since grown in stages to thirty-five. These additions include similarly global names as Dupont, Electrolux Meta, Nestlé, Philips and Trek Bikes. All told, coZEV is now a very influential group, and any container shipping line not listening to what these shippers want, would automatically exclude itself out of the running for substantial volumes of cargo.

## SHIPOWNERS

### Ship finance

According to Petrofin of Greece, the forty largest banks lending to shipping in 2023 (all sectors) were exposed to some USD 285 billion, a marginal increase on 2022's figure of USD 283 billion. As a whole, the global ship finance sector is fast approaching a projected exposure of some USD 375 billion.

The ten largest ship financiers saw some movement in the lower reaches with Société Générale entering at number nine (was fifteenth) and China Merchants Bank Leasing Co. climbing three places to number ten. ING recorded the largest movement, dropping from number five at the end of 2022 to the number eleven spot.

European financiers retained their leading position within the top ten but with a diminishing share. This fell from twenty-nine to twenty-five percent at the end of 2023. Figures for Chinese and Japanese financiers remained steady. The gap between BNP Paribas, holding the number one position, and the second largest, China Exim, was also stable.

### Petrofin Top 40 Shipping Banks

Bank	end-2023	end-2022	end-2021
BNP Paribas	21	20	20
China Exim	19	18	19
KfW	16	15	17
Bank of China	13	13	15
Credit Agricole CIB	15	13	14
Sumi Trust	11	11	13
ING	10	13	13
HSBC	n/a	9	11
Sumitomi-Mitsui	11	10	11
Credit Suisse	8	14	10
Others (numbers 11-40)	124	136	147
<b>Total, Top 40</b>	<b>284</b>	<b>289</b>	<b>290</b>
Share Top 10, of which	44%	47%	49%
- Europe	25%	29%	29%
- China	11%	11%	12%
- Japan	8%	7%	8%

Source: Petrofin. Figures in USD billion and are as at end of the previous year. Includes estimates

At the start of 2023, Credit Suisse, with some USD 1.5 trillion in managed assets and a major shipping lender, had to be rescued by compatriot and rival UBS. The failure a few months later of the American Silicon Valley and Signature Banks led to some concern as to the health of the banking sector in general. Luckily, these incidents did not develop into a wider contagion.

### Corporate developments

Early 2023 saw the completion of a couple of strategic realignments that were started the previous year. One was the near USD 11 billion acquisition of publicly-listed Atlas Corporation, which took place in the first quarter of 2023. Atlas is the owner of major containership owner, Seaspan.

The buyer was Poseidon Acquisition Corporation, a joint venture involving container carrier Ocean Network Express, Fairfax Financial Holdings and affiliates of the Washington family and Mr. David Sokol. This last named was already the company Chair and owned around sixty-eight percent in Atlas, which was delisted as a result of the acquisition.

A much smaller owner, Tufton Oceanic, completed its move out of the containership sector with the sale of its final box ship, a 2,500 TEU unit, early in 2023. Over the period of around thirteen months, Tufton had sold six container ships.

September 2023 saw LC Logistics, parent of Chinese carrier and shipowner BAL Container Line, complete its initial public offering on the Hong Kong Stock Exchange. BAL was one of those who launched transpacific services when capacity was tight and freight rates soared in 2021.

BAL had closed its Transpacific operations by the time 2023 had started, leaving it active only as an NVOCC and small ship owner with four vessels totalling 4,000 TEU in capacity. It also had two 14,700 TEU vessels on order, slated for delivery in 2025. They were ordered en bloc for USD 281 million, but in what appears to have been a piece of good business, they were sold to MSC for a reported USD 333 million in mid-2024.

As the year was drawing to a close, Capital Product Partners began selling off its sixteen strong containership fleet as it transformed to being a gas carrier owner. As of mid-2024, the process was still ongoing with its fleet reduced to eight boxships able to lift 65,000 TEU. By the time all is completed, the company will have been re-branded as Capital New Energy Carriers

### Listed owners' fleets, end-2023/early-2024

Non-operating Owner	Country	Vessels	TEU	Average
Capital Product Partners*	Greece	13	106,000	8,100
Cosco Shg Dev	China	67	528,000	7,900
Costamare	Greece	68	513,000	7,500
CSSC Shipping*	China	9	92,000	10,200
Danaos	Greece	68	421,000	6,200
Ernst Russ	Germany	30	60,200	2,000
Euroseas/Euromar	France	22	65,300	3,000
Global Ship Lease	United Kingdom	68	375,000	5,500
LC Logistics	China	4	4,000	1,000
MPC Container Ships	Norway	60	131,000	2,200
Navios Containers	Monaco	37	178,000	4,800
Ocean Yield*/**	Norway	13	89,000	6,800
Seaspan Corporation***	Hong Kong	161	1,649,000	10,200
SFL Corporation*	Bermuda	34	300,000	8,800
<b>Total</b>		<b>654</b>	<b>4,510,000</b>	<b>6,900</b>
Global container fleet end-2023		6,782	28,529,000	4,200
Share of global fleet: end-2023		10%	16%	-

Source: Non-operating owners annual reports or announcements. Notes: Nationality based upon location of Head Office or Principal Executive Office (as per filings) or equivalent. Fleets are year-end where possible, if not early the following year. Asterisked\* are principally involved in other shipping sectors. \*\* some vessel capacities adjusted for ownership share. \*\*\*Part of (delisted) Atlas Corporation

## CONTAINERS

### Global equipment fleet

In 2023, the global container box fleet is estimated to have expanded by a marginal one percent, for the second year in a row, to 51.5 million TEU. In explaining this development, even though manufacturing of new containers continued, it did so at a much reduced pace as the container shipping market normalised over 2022 and started to feel pressure in 2023. Weaker investment in new container equipment resulted and there was also a tendency to sell older equipment into the secondary market sooner than had been the case for the past couple of years.

When set against global shipping capacity, which in 2023 had grown by a much stronger eight percent, the ratio of container boxes to container vessel slots dropped considerably to 1.80. In other words, if a carrier operated 1,000 container vessel slots, it would be expected to operate a container fleet of 1,800 TEU. This is the lowest ratio ever noted, the previous low point being the 1.81 of 2019. It suggests, prima facie, that there are increasing numbers of empty container slots whenever a ship sets sail.

### Boxes and slots

	'23/'22	2023	2022	2021
Containership capacity	8%	28,529	26,375	25,345
Total container box fleet	1%	51,481	50,897	49,888
<b>Global Box/Slot ratio</b>	<b>-0.13pts</b>	<b>1.80</b>	<b>1.93</b>	<b>1.97</b>

Situations as at year-ends. Figures in TEU x 1,000 except ratio. Analysis based upon data sourced from WorldCargo News/Drewry Maritime Research and Alphaliner.

Comparing the end-2023 box fleet and estimated global container carryings suggests that on average, containers undertook 3.43 paying trips in 2023. This was a one percent reduction compared with 2022 and represented the sixth straight year of contraction.

The historic lows of 2022-23 could reflect many factors. In no particular order, the main ones will be taking longer to get from origin port to destination port (slow steaming, increased transshipment/concentration upon affiliated terminals, route diversions), containers waiting longer landside (poor schedule reliability, landside congestion), and growing imbalances (reduced ratio of return cargoes).

## Boxes and carryings

	'23/'22	2023	2022	2021
Global container trade	0%	175,600	175,100	183,300
Ave. container box fleet	2%	51,189	50,393	47,026
Movements per box	-1%	3.43	3.47	3.90

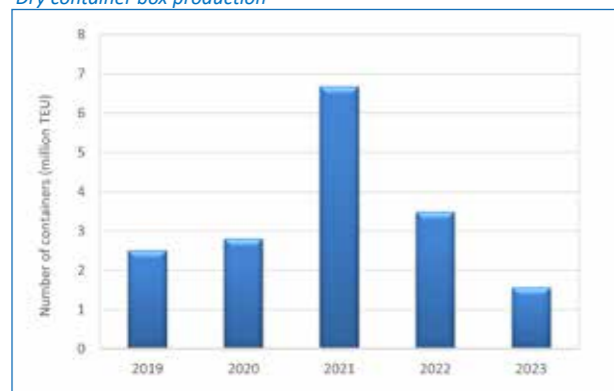
Container trade as estimated by Dynamar and for the whole year. Container box fleet as at year-end, as sourced from WorldCargo News. All figures except annual movements per box are TEU x 1,000.

## Manufacturing

## Overview

Feeding into the modest box fleet growth, container manufacturing experienced a substantial drop in 2023 with the output of dry boxes, usually accounting for around ninety percent of the global total, estimated to have contracted by fifty-five percent. This resulted in the construction of fewer than 1.6 million TEU and came on top of a forty-eight percent drop in 2022.

## Dry container box production



Source: World Cargo News/Drewry Maritime Research. 2023 = Dynamar estimate based upon 9M

## Sales

The three major manufacturing groups did somewhat better than the global manufacturing figures suggest. Even so, their sales were still forty percent down on those of 2022. Shanghai Universal (Dong Fang, ultimately part of Cosco Shipping Development) and CIMC managed to limit their losses to 38-39%. Singamas, on the other hand, saw sales slump by fifty-six percent.

## Container newbuild sales by manufacturer

Manufacturer	'23/'22	2023	2022	2021
	Change (%)	TEU	TEU	TEU
CIMC	-39%	756,600	1,238,700	2,659,600
Singamas	-56%	106,000	242,000	345,000
SULE	-38%	590,600	958,900	1,645,000
Sub-total	-40%	1,453,200	2,439,600	4,649,600

Source: Manufacturers. SULE = Shanghai Universal Logistics Equipment

After the container supply situation more than stabilised in 2022, the rush of the buyers to publicise the order or receipt of new boxes stopped almost entirely. This was shown by only nine announcements being noted that year compared with twenty-five in 2021. For 2023, the situation was hardly any better as only ten announcements were noted.

## Dry or special box orders/deliveries in 2023 included

Receiver	Order	Notes
FESCO	26,000 TEU	Deliveries over 2023: 6,000x 20'; 20,000x 40'
Wan Hai	20,350 TEU	Orders (Dong Fang)
Evergreen	60,800 TEU	Orders (Dong Fang), 60,000x standard + 800 specials
Evergreen	18,900 TEU	Orders (Evergreen Heavy Industrial Corp)

Abbreviations: DV = Dry Van [i.e. standard container]; HC = High Cube; FR = Flat Rack

## Reefer container orders/deliveries in 2023 included

Fleet	Orders/deliveries	Notes
Great White	800 Deliveries + Carrier machinery	
Yang Ming	2,000 Deliveries + Carrier machinery	
Viasea	50 Deliveries, all 45' HC	
Canadian Pacific Kansas City	1,000 Deliveries, all 53'	
Evergreen	7,000 Orders (Dong Fang) + Carrier machinery	
ZIM	1,000 Orders + Star Cool machinery	
ONE	6,500 Orders/deliveries: new units to be added 2022	

Unless otherwise stated, all refer to 40' high cube boxes (HC).

## Other manufacturing news

Vietnamese state-controlled but still publicly-listed steel producer Hoa Phat is developing a container manufacturing facility in Ba Ria/Vung Tau, southern Vietnam. In the first phase, which is already up and running, the plant has an annual capacity of 200,000 TEU. This could ultimately ramp up to 500,000 TEU. It will also source a special blend of steel developed by its affiliated steelworks.

Considering the difficulties inherent in startups, the delivery of Hoa Phat's first batch of containers in August 2023 to New Way Lines, a domestic shipping company, was not too far off schedule; commercial operations were originally hoped for in the closing quarter of 2022. This initial order was for 100 containers and was soon followed up by another one of 500 boxes, all 20' units, for the same client.

## Container leasing and financing

Over the course of 2023, the gap between the container equipment fleets controlled by the ocean carriers (plus other transport companies) and leasing companies widened by nearly 1 million TEU. This came because the leasing sector's fleet contracted whilst that of the carriers managed to expand. The difference in the relative growth rates of the two was four percentage points. Despite these contrasting evolutions, the lessors managed to hold on to a forty-nine percent share.

## Container fleet lessor/carrier shares

	'23/'22	2023	2022	2021
Carriers (+ others)	3%	26,500	25,737	24,410
Lessors	-1%	24,981	25,148	25,478
Lessor share	-	49%	49%	51%

Situations as at year ends. Figures in TEU x 1,000 except ratio. Data sourced from WorldCargo News/Drewry Maritime Research.

Looking at the container leasing sector, 2023 witnessed the changes to the ownership of multiple major players. First up was the acquisition by Brookfield Infrastructure Partners of Triton International, the biggest lessor in the world with a fleet of some 7 million TEU. The deal was completed in September for an estimated USD 13.3 billion.

What used to be the world's largest container leasing company, Textainer, controlling a fleet of more than 4 million TEU, was also subject to a takeover bid in 2023. The prospective buyer, infrastructure fund Stonepeak, offered around USD 7.4 billion, which was accepted by the shareholders. The acquisition was completed in April 2024.

At the end of 2023, Wren House Infrastructure, which despite being UK based is actually part of the Kuwait Investment Authority, purchased an undisclosed stake in major container leasing company SeaCube. The seller was Ontario Teachers' Pension Plan, OTPP. Although the precise stake was not disclosed, an earlier report suggested that the OTPP was looking to move forty-nine percent. Since the deal was completed, the parties have been presented as co-controllers.

Figure 35

## TOP 20 CARRIERS OPERATED FLEET VERSUS ORDERBOOK

Rank	Parent/main company	Operated fleet		Orderbook		
		Ships	TEU	Ships	TEU	Share
3	CMA CGM	624	3,578,400	110	1,198,600	33%
4	Cosco Shipping	490	3,054,300	50	837,500	27%
7	Evergreen	211	1,644,900	70	823,500	50%
5	Hapag-Lloyd	266	1,963,900	12	252,000	13%
8	HMM	70	783,700	26	265,000	34%
17	IRISL	31	137,700	0	0	0%
15	KMTC	64	150,100	2	16,400	11%
2	Maersk	675	4,117,100	36	453,100	11%
1	MSC	800	5,613,700	122	1,472,100	26%
6	ONE	231	1,799,800	33	409,500	23%
12	PIL	88	294,800	12	118,900	40%
18	SeaLead Shg	28	128,900	0	0	0%
20	Sinokor	82	123,100	12	62,700	51%
13	SITC	102	162,000	14	22,100	14%
16	Unifeeder	82	138,100	6	14,500	10%
11	Wan Hai	120	482,800	18	125,300	26%
14	X-Press Feeders	81	154,400	15	19,600	13%
9	Yang Ming	94	707,400	5	77,500	11%
19	Zhonggu Shg	89	126,600	2	9,300	7%
10	ZIM	124	619,300	29	222,200	36%
Sub-total		4,352	25,781,000	574	6,399,800	25%
Rest		2,430	2,747,700	268	689,200	25%
World total		6,782	28,528,700	842	7,089,000	25%
Share Top-20		64%	90%	68%	90%	-

## Notes:

- Operated fleet: all container capable ships operating in liner services
- Orderbook: cellular vessels only
- Analysis based on data sourced from Alphaliner
- As at 31 December 2023

Figure 36

## OWNED AND CHARTERED CAPACITY BY LINER OPERATOR

Rank	Rank	Operator	Operated capacity	Owned capacity	Owned share	Chartered capacity	Chartered share	Share of total charter capacity
Chart. Cap.	Oper. Cap.	(main company)	TEU	TEU	%	TEU	%	capacity %
2	3	CMA CGM	3,578,400	1,772,300	50%	1,806,100	50%	14.3%
4	4	CoscoSH	3,054,300	1,731,100	57%	1,323,300	43%	10.5%
7	7	Evergreen	1,644,900	965,300	59%	679,600	41%	5.4%
6	5	Hapag-Lloyd	1,963,900	1,192,000	61%	772,000	39%	6.1%
10	8	HMM	783,700	551,300	70%	232,500	30%	1.8%
-	17	IRISL	137,700	137,700	100%	0	0%	0.0%
14	15	KMTC	150,100	84,400	56%	65,700	44%	0.5%
3	2	Maersk	4,117,100	2,490,900	61%	1,626,200	39%	12.9%
1	1	MSC	5,613,700	2,704,000	48%	2,909,600	52%	23.1%
5	6	ONE	1,799,800	783,600	44%	1,016,200	56%	8.1%
13	12	PIL	294,800	200,200	68%	94,600	32%	0.8%
12	18	Sea Lead Shipping	128,900	0	0%	128,900	100%	1.0%
17	20	Sinokor	123,100	103,500	84%	19,600	16%	0.2%
19	13	SITC	162,000	155,800	96%	6,200	4%	0.0%
11	16	UniFeeder	138,100	0	0%	138,100	100%	1.1%
18	11	Wan Hai	482,800	466,700	97%	16,100	3%	0.1%
15	14	X-Press Feeders	154,400	105,100	68%	49,300	32%	0.4%
9	9	Yang Ming	707,400	244,800	35%	462,600	65%	3.7%
16	19	Zhonggu Shipping	126,600	83,300	66%	43,300	34%	0.3%
8	10	ZIM	619,300	28,700	5%	590,700	95%	4.7%
Total of the above companies			25,781,000	13,800,700	54%	11,980,600	46%	95.0%
Total liner fleet (owned & chartered)			28,528,700	15,919,000	56%	12,609,700	44%	100.0%

## Notes:

- TEU capacity is just a snapshot, chartering or redelivery of vessels obviously has its impact on the fleet operated by the individual carrier
- Analysis based on data sourced from Alphaliner
- As at 31 December 2023

Figure 37

## CELLULAR FLEET COMPOSITION

Size category	Cap Share	Fleet		Orderbook	
		Ships	TEU	Ships	TEU
18,000+	30%	184	3,952,000	49	1,168,900
13,300-17,999	61%	408	5,876,300	238	3,594,900
10,000-13,299	16%	207	2,273,800	32	355,200
7,500-9,999	18%	481	4,274,052	95	781,884
5,100-7,499	18%	464	2,908,600	84	527,300
4,000-4,999	1%	640	2,901,600	8	35,700
3,000-3,999	17%	292	1,004,100	53	174,300
2,000-2,999	8%	836	2,131,000	70	177,300
1,000-1,999	12%	1,512	2,188,100	179	264,400
-999	3%	953	631,300	36	19,300
<b>Total ships</b>	<b>25%</b>	<b>5,977</b>	<b>28,140,852</b>	<b>844</b>	<b>7,099,184</b>

## Notes:

- Analysis based on data sourced from Alphaliner
- As at 31 December 2023

**Figure 38**  
**INDICATIVE CHARTER RATES 2023**

**Hamburg Index**  
In USD/slot/day (based on homogeneous 14 tons TEU capacity)

Category	800-999		1,000-1,260		2,000-2,299		3,100-3,500		3,950-4,400		6,000-7,000	
	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU
geared/g'less	geared	geared	geared	g'less	g'less	g'less	g'less	g'less	g'less	g'less	g'less	g'less
January	15.02	28.82	20.75	6.15	6.15	6.15	15.66					
February	14.20	12.15	7.90	6.15	6.30	15.66						
March	15.02	12.50	9.06	6.15	6.36	15.66						
April	14.88	12.50	9.06	6.15	6.07	15.66						
May	16.09	13.56	9.06	6.77	7.02	5.48						
June	15.77	14.13	9.06	6.77	7.43	4.82						
July	15.77	11.98	9.06	6.65	8.05	4.82						
August	13.93	11.98	9.06	6.68	8.05	4.82						
September	13.95	11.98	9.06	6.68	8.05	4.82						
October	10.46	10.44	6.87	6.68	5.02	4.82						
November	9.31	10.44	6.27	6.68	6.20	4.82						
December	10.11	10.44	5.43	5.42	6.20	4.82						

**Average Dynamar-calculated monthly charter rates**  
In USD/ship/day (based on nominal TEU capacity)

Category	1,100		1,700		2,750		4,400		6,800		9,000	
	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU	TEU
Geared/g'less	geared	geared	g'less	g'less	g'less	g'less	g'less	g'less	g'less	g'less	g'less	g'less
January	11,500	13,813	18,000	19,813	33,875	56,625						
February	11,688	13,875	17,563	19,125	31,000	53,875						
March	13,000	15,250	18,250	22,500	35,000	55,000						
April	13,250	16,250	19,063	25,375	36,750	56,000						
May	13,650	16,775	19,863	26,813	39,250	58,750						
June	13,220	15,600	19,350	27,500	42,100	59,900						
July	11,375	12,625	17,125	24,688	41,250	59,250						
August	10,500	12,250	15,438	20,938	36,875	53,500						
September	10,160	11,730	15,200	19,280	33,200	49,200						
October	9,350	10,788	11,874	17,063	27,688	42,500						
November	7,763	9,563	12,750	16,750	26,375	40,625						
December	7,000	9,150	12,250	17,250	25,500	40,000						

**Figure 39**  
**ACTUAL CHARTER RATES REPORTED IN 2023**

Month	Year of built	TEU	USD	Months
January	2004	7,000	38,500	6 mths
February	2000	4,900	21,000	5-8 mths
March	2008	10,000	44,250	24 mths
April	2023	2,700	22,500	24-28 mths
May	2013	3,400	20,500	11-14 mths
June	2003	4,400	21,000	24 mths
July	2012	5,000	28,000	21-24 mths
August	2005	5,000	20,000	11-13 mths
September	2005	6,400	38,000	2-3 mths
October	2005	7,000	38,000	40-60 days
November	2006	4,300	16,750	3-9 mths
December	2011	10,100	37,000	36 mths

**Notes:**  
• In USD per ship per day for the period indicated

**Figure 40**  
**CHINA CONTAINERSHIPS NEWBUILDING PRICES INDEX**

Month	2023	2022	2021	2020
Jan	1,042	1,017	792	835
Feb	1,048	1,025	796	835
Mar	1,051	1,043	842	831
Apr	1,058	1,054	877	825
May	1,067	1,059	892	819
Jun	1,071	1,066	907	818
Jul	1,074	1,071	938	811
Aug	1,076	1,072	973	809
Sep	1,075	1,071	994	804
Oct	1,076	1,062	1,006	796
Nov	1,075	1,057	1,011	788
Dec	1,078	1,044	1,015	789
<b>Average</b>	<b>1,066</b>	<b>1,072</b>	<b>1,015</b>	<b>835</b>
High	1,078	1,053	920	813
Low	1,042	1,017	792	788

**Figure 41**  
**CONTAINERSHIP NEWBUILDING PRICES**

Month	2,750 TEU			23,000 TEU		
	2023	2022	2021	2023	2022	2021
Jan	42.0	40.4	30	215.0	191.3	143.3
Feb	42.0	40.6	30.4	215.0	195.4	145
Mar	42.0	41.9	32.7	215.0	198.4	147.8
Apr	42.0	42	34.6	215.9	201.3	154.1
May	42.3	42.6	35.9	220.6	204.3	157.5
Jun	42.5	43	36.3	224.7	206.5	161.9
Jul	42.5	43	36.5	225.0	210.4	170.3
Aug	42.4	43	36.6	225.5	213	176.4
Sep	41.3	43	38	228.6	214.8	180.5
Oct	41.3	43	39	232.1	215	183.4
Nov	41.3	42.5	39.5	233.4	215	185.6
Dec	41.3	42.4	40	235.4	215	188
<b>Average</b>	<b>41.9</b>	<b>42.3</b>	<b>35.8</b>	<b>223.8</b>	<b>206.7</b>	<b>166.1</b>
High	42.5	43	40	235.4	215	188
Low	41.3	40.4	30	215.0	191.3	143.3

**Notes:**  
• Figures are USD x million and are the monthly averages of weekly reports, these being based themselves on three-month trends.  
• Source: Clarksons Shipping Intelligence Weekly

**Figure 42**  
**INDICATIVE VESSEL ORDERS USD/TEU 2023**

Owner	TEU	Ships	USD Million	USD/TEU
CK Line	2	2,700	37.0	13,700
CMA CGM	12	13,000	171.4	13,200
CMA CGM	8	9,200	126.0	13,700
Danaos Shipping	2	6,000	63.0	10,500
Evergreen	24	16,000	175.0	10,900
HMM	9	9,000	124.3	13,800
MSC	10	11,500	120.0	10,400
Ningbo Ocean	8	1,058	24.0	22,700
Reederei Nord	2	1,900	32.0	16,800
Seaboard Marine	2	1,500	35.0	23,300
Wan Hai	3	3,055	49.0	16,000
Yang Ming Marine	5	15,500	187.4	12,100
Zephyr & Boree	5	1,200	62.2	51,800

**Figure 43**  
**CONTAINERSHIP ORDERS 2023**

By/for carriers (either directly or through non-operating owners)

Operator	Month	Ships	TEU	Total TEU	Operator	Month	Ships	TEU	Total TEU
CK Line	Sep	2	2,700	5,400	MSC	Jan	10	11,500	114,800
CMA CGM	Jan	12	13,000	156,000	MSC	Aug	10	10,300	103,000
CMA CGM	Mar	6	15,000	90,000	Ningbo Ocean	Jul	4	1,100	4,400
CMA CGM	Jun	10	24,200	242,000	ONE	Mar	10	13,800	138,000
CMA CGM	Sep	8	9,200	73,600	Seaboard Marine	Jun	2	1,500	3,000
CoscoSH	Mar	4	16,000	64,000	SeaLead	Jan	1	4,600	4,600
Evergreen	Jun	24	16,000	384,000	Seatrade	Jun	2	1,800	3,600
HMM	Feb	9	9,000	81,000	Unifeeder	Oct	2	1,300	2,600
KMTC	Jan	2	8,200	16,400	Wan Hai	Mar	3	3,100	9,300
Maersk	Jan	1	4,600	4,600	X-Press Feeders	Jun	6	1,300	7,800
Maersk	Jun	5	9,000	45,000	Yang Ming	May	5	15,500	77,500
<b>Total</b>		<b>138</b>	<b>11,800</b>	<b>1,630,600</b>					

By/for non-operating owners (without charterer attached or known)

Operator	Month	Ships	TEU	Total TEU	Operator	Month	Ships	TEU	Total TEU
Danaos	May	2	6,000	12,000	Nissen Kaiun	Mar	2	5,900	11,800
Danaos	Jun	2	8,300	16,600	Nissen Kaiun	Mar	1	1,000	1,000
Hainan shengda	Mar	1	2,700	2,700	Nissen Kaiun	Aug	2	5,900	11,800
Hans Peter Wegener	Jul	2	1,100	2,200	Reederei Nord	Apr	2	1,900	3,800
HS Schiffahrts	Jul	3	1,100	3,300	Reederei Nord	Jul	2	1,900	3,800
JMU*	Jan	4	9,000	36,000	Tsuneishi Hiroshima*	Sep	4	5,900	23,600
Kyokuyo Shipyards*	Apr	2	1,100	2,200	Visser Shipping	Jul	2	1,100	2,200
Mitsubishi	Mar	1	1,000	1,000	Wessels Reederei	Jul	2	1,100	2,200
Mitsui	Jan	2	8,200	16,400	Zephyr & Boree	May	4	1,200	4,800
<b>Total</b>		<b>40</b>	<b>3,900</b>	<b>157,400</b>					

**Notes:**  
• Ships of 1,000 TEU or larger  
• \*shipyard, owner not known

**Figure 44**  
**NEWBUILDING PRICES PER SIZE CATEGORY**

Month	Diff '23/'22	2,700 TEU			Month	Diff '23/'22	24,000 TEU		
		2023	2022	2021			2023	2022	2021
January	4%	42.0	40.4	30.0	January	12%	215.0	191.3	143.3
February	3%	42.0	40.6	30.4	February	10%	215.0	195.4	145.0
March	0%	42.0	41.9	32.7	March	8%	215.0	198.4	147.8
April	0%	42.0	42.0	34.6	April	7%	215.9	201.8	154.1
May	-1%	42.3	42.9	35.9	May	8%	220.6	204.8	157.5
June	-1%	42.5	43.0	36.3	June	8%	224.7	207.4	161.9
July	-1%	42.5	43.0	36.5	July	7%	225.0	211.0	170.3
August	-1%	42.4	43.0	36.6	August	6%	225.5	213.5	176.4
September	-4%	41.3	43.0	38.0	September	6%	228.6	215.0	180.5
October	-4%	41.3	42.9	39.0	October	8%	232.1	215.0	183.4
November	-3%	41.3	42.5	39.5	November	9%	233.4	215.0	185.6
December	-2%	41.3	42.3	40.0	December	9%	235.4	215.0	188.0
<b>Average</b>	<b>-1%</b>	<b>41.9</b>	<b>42.3</b>	<b>35.8</b>	<b>Average</b>	<b>8%</b>	<b>223.8</b>	<b>206.9</b>	<b>166.1</b>
High	-1%	42.5	43.0	40.0	High	9%	235.4	215.0	188.0
Low	2%	41.3	40.4	30.0	Low	12%	215.0	191.3	143.3

**Notes:**  
• Source: Clarksons Shipping Intelligence Weekly  
• Figures are USD x million and are the monthly averages of weekly reports, these being based themselves on three-month trends.

Figure 45

## CAPACITY EVOLUTION OF THE POSTPANAMAX CONTAINERSHIP

Ship	Year of Launch	Capacity TEU	Dwt (t)	Draught (m)	Length over all (m)	Breadth (m)	Width (boxes)	Speed Knots
<b>NewPostPanamax (by Length over all and/or Breadth)</b>								
MSC Irina	2023	24,346	240,000	17.0	399.9	61.3	24	-
OOCL Spain	2023	24,188	228,300	16.5	399.9	61.3	24	22.5
MSC Tessa	2023	24,116	240,700	17.0	400	61.5	24	22.5
Ever Alot	2022	24,004	242,000	17.0	399.9	61.5	24	22.5
Ever Ace	2021	23,992	240,200	16.5	400	62.0	24	22.5
HMM Algeciras	2020	23,964	232,000	16.5	399.9	61.0	24	22.4
MSC Gulsan	2019	23,700	228,100	16.4	399.8	61.0	24	22.0
CMA CGM Jacques Saade	2020	23,100	215,000	16.0	399.9	61.0	24	22.0
OOCL Hong Kong	2017	21,400	191,300	16.0	400	58.8	23	22.0
Madrid Maersk	2017	20,600	190,300	16.0	399	58.6	23	22.0
MOL Triumph	2017	20,200	193,200	16.0	400	58.8	23	22.5
Barzan	2015	19,900	195,600	16.0	400	58.6	23	21.0
MSC Oscar	2014	19,200	199,300	16.0	395.4	59.0	23	22.8
CSC Globe	2014	19,000	195,000	16.0	400	58.6	23	23.0
Maersk McKinney Moller	2013	18,300	200,000	16.0	400	59.0	23	22.0
CMA CGM Benjamin Franklin	2015	17,900	185,000	16.0	399	54.0	21	22.2
CMA CGM Marco Polo	2012	16,000	186,500	16.0	394.4	53.6	21	24.1
Emma Maersk	2006	15,600	175,000	16.0	397	56.4	22	24.0
<b>NewPanamax</b>								
CMA CGM Argentina	2019	15,100	156,900	16.0	366	51.0	20	22.0
Sajir	2014	15,000	140,000	15.5	368.5	51.0	20	22.0
Cosco Shipping Himalayas	2017	14,600	153,800	15.5	366	51.2	20	22.5
CSC Star	2011	14,100	155,500	15.5	366	51.2	20	24.0
MSC Daniela	2008	13,800	155,400	15.6	366	51.3	20	23.5
Rayen	2018	14,700	148,600	16.0	366	48.2	19	21.8
CMA CGM G. Washington	2017	14,400	148,000	16.0	366	48.2	19	22.0
Umm Salal	2011	13,500	145,000	15.5	365.5	48.2	19	25.0
Maersk Edinburgh	2010	13,600	140,530	15.5	366	48.2	19	24.0
MSC Filomena	2010	13,400	142,400	15.5	366	48.2	19	26.0
CMA CGM Andromeda	2009	11,400	128,760	15.5	363	45.6	18	24.7
ZIM Antwerp	2009	10,100	116,440	15.0	349	45.6	18	24.0
Cosco Europe	2007	10,100	115,000	15.0	349	45.6	18	25.0
<b>PostPanamax</b>								
CMA CGM Ivanhoe	2008	9,700	120,000	15.0	350	42.8	17	24.5
Maersk Altair	2007	9,600	110,800	15.0	337	45.6	18	24.0
CSC Long Angeles	2006	9,600	112,000	14.5	350	45.6	18	25.0
Cosco Guangzhou	2006	9,500	108,000	14.5	350	42.8	17	25.4
CMA CGM Rigoletto	2006	9,400	107,500	14.5	349	42.8	17	24.1
CMA CGM Carmen	2006	8,500	101,000	14.5	335	42.8	17	25.0
MSC Pamela	2005	9,200	110,000	14.5	336	45.6	18	25.0
Gudrun Maersk	2005	9,100	115,000	14.8	367	43.0	17	24.0
Colombo Express	2005	8,800	104,400	14.6	335	42.8	17	25.0
Axel Maersk	2003	8,200	109,000	15.0	352	42.8	17	24.0
OOCL Shenzhen	2003	8,100	99,500	14.5	323	42.8	17	25.0
Long Beach Bridge	2002	5,600	69,000	14.0	278	40.0	16	25.0
Hamburg Express	2001	7,500	100,000	14.5	320	42.8	17	25.0
P&O Nedlloyd Houtman	2001	6,800	88,700	13.5	299	42.8	17	25.0
MSC Flaminia	2001	6,700	84,900	14.5	304	40.0	16	25.5
Hyundai Patriot	2001	6,500	80,600	14.0	304	40.0	16	24.4
MOL Vigilance	2000	4,900	67,300	13.6	294	32.3	12	24.0
Hanjin Amsterdam	1999	5,600	69,000	14.0	279	40.0	16	26.0
Svendborg Maersk	1998	8,000	104,700	14.5	347	42.8	17	24.0
NYK Sirius	1998	6,100	82,300	14.0	300	40.0	16	23.0
Cosco Qingdao	1997	5,400	69,300	14.0	280	39.8	15	24.5
Regina Maersk	1996	7,000	82,100	14.0	318	42.8	17	24.5
OOCL Hongkong	1995	5,300	68,000	14.0	276	40.0	16	25.0
President Truman	1988	4,500	53,600	12.5	275	39.4	15	24.0

## Notes:

- By year, since the launch of the first postPanamax unit in 1988

Figure 46

## TANK CONTAINER FLEET

Operators	Share 2023	2023 Units	2022 Units	2021 TEU
Bertschi Group	4%	33,400	31,100	28,300
Bulkhaul	3%	23,300	23,000	24,000
China Railway Log.	3%	27,500	27,500	27,500
Den Hartogh Log.	3%	24,100	24,500	23,000
Hoyer Group	5%	41,600	39,900	35,500
Int. Tank Transport	2%	20,000	20,000	19,000
Newport	5%	38,500	38,500	37,500
NRS Ocean Log	2%	17,800	15,600	7,000
Stolt Tank Cont.	6%	50,900	47,000	43,000
E-Way Group	2%	21,000	20,000	14,000
Other	34%	289,800	155,900	176,600
<b>Total operators</b>	<b>69%</b>	<b>587,800</b>	<b>568,800</b>	<b>489,900</b>
Shippers & other	23%	196,500	199,100	211,300
Idle leasing	8%	64,000	36,900	38,800
<b>Total Fleet</b>	<b>100%</b>	<b>848,300</b>	<b>804,800</b>	<b>740,000</b>

Leasing Companies	Share 2023	2023 Units	2022 Units	2021 TEU
Albatros Tank	3%	9,900	9,900	7,500
CS Leasing	11%	33,200	29,200	18,000
Eurotainer	16%	50,000	55,000	49,500
EXSIF Worldwide	23%	71,200	70,000	66,500
Int. Eq. Leasing	3%	8,600	8,200	7,600
Peacock	7%	23,000	20,000	18,000
Raffles Lease	8%	25,000	30,000	16,000
Seaco Global	14%	43,000	43,000	43,000
Trifleet Leasing	8%	24,300	22,400	19,000
Triton Int.	4%	12,800	12,200	13,000
Other	4%	11,300	56,500	61,600
<b>Total</b>	<b>100%</b>	<b>312,200</b>	<b>360,900</b>	<b>323,000</b>

## Notes:

- Source: ITCO

Figure 47

## THE 15 LARGEST CARRIERS BY REEFER PLUG CAPACITY

Rank TEU	Rank Plugs	Main/Parent Company	Number of ships	Total TEU capacity	Reefer plugs	plugs/TEU
1	1	MSC	772	5,162,100	523,100	0.10
2	2	Maersk	682	4,139,700	484,000	0.12
3	3	CMA CGM	627	3,497,900	390,000	0.11
4	4	Cosco Shipping	463	2,928,300	233,800	0.08
5	5	Hapag-Lloyd	257	1,859,700	197,900	0.11
6	6	Evergreen	213	1,673,600	144,800	0.09
7	7	ONE	214	1,641,800	142,300	0.09
8	10	HMM	77	801,500	62,200	0.08
9	11	Yang Ming	93	705,600	57,800	0.08
10	8	ZIM	138	604,700	70,500	0.12
11	9	Wan Hai	142	488,700	63,900	0.13
12	12	PIL	90	297,100	34,200	0.12
13	14	SITC	99	157,300	21,600	0.14
14	16	KMTC	66	153,300	17,300	0.11
15	20	Irisl	32	136,900	9,400	0.07
<b>Top-15</b>			<b>3,965</b>	<b>24,248,200</b>	<b>2,452,800</b>	<b>0.10</b>
<b>Other carriers</b>			<b>2,607</b>	<b>3,140,900</b>	<b>398,200</b>	<b>0.13</b>
<b>Total</b>			<b>6,572</b>	<b>27,389,100</b>	<b>2,851,000</b>	<b>0.10</b>

## Notes:

- One reefer plug fits two TEU
- As of 1 July 2023



Figure 48

## GDP/POPULATION DEVELOPMENT

NAFTA	2025	2024	2023	2022	2021
GDP (USD x billion)	32,875.5	31,660.4	30,437.2	28,890.8	26,283.1
Population (millions)	511.5	508.4	505.2	502.2	499.4
GDP per capita	64,267.5	62,275.0	60,243.2	57,528.1	52,631.3
Share global GDP	29%	29%	29%	29%	27%
Share global population	6%	6%	6%	6%	6%
GDP per capita	449%	452%	452%	446%	420%
North America Free Trade Agreement (NAFTA) Members: Canada, Mexico, United States					
Caricom	2025	2024	2023	2022	2021
GDP (USD x billion)	119.7	115.4	111.9	105.5	92.5
Population (millions)	20.0	19.8	19.6	19.4	19.2
GDP per capita	5,984.8	5,830.4	5,710.3	5,439.9	4,820.7
Share global GDP	0.1%	0.1%	0.1%	0.1%	0.1%
Share global population	0.2%	0.2%	0.2%	0.2%	0.2%
GDP per capita	41.8%	42.3%	42.9%	42.1%	38.4%
Caribbean Community (CARICOM) Members: Antigua & Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat*, St. Kitts & Nevis, St. Lucia, St. Vincent & Grenadines, Suriname, Trinidad & Tobago. Countries asterisked* = figures not available.					
SAARC	2025	2024	2023	2022	2021
GDP (USD x billion)	5,276.5	4,885.3	4,524.6	4,182.2	3,891.4
Population (millions)	1,945.3	1,925.9	1,906.3	1,886.6	1,866.7
GDP per capita	2,712.4	2,536.6	2,373.5	2,216.8	2,084.7
Share global GDP	5%	4%	4%	4%	4%
Share global population	24%	24%	24%	24%	24%
GDP per capita	19%	18%	18%	17%	17%
South Asian Association for Regional Cooperation (SAARC) Members: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka.					
GCC	2025	2024	2023	2022	2021
GDP (USD x billion)	2,155.1	2,108.9	2,092.8	2,108.1	1,681.0
Population (millions)	63.3	62.1	61.0	59.8	58.4
GDP per capita	34,071.5	33,962.4	34,330.1	35,233.8	28,767.7
Share global GDP	2%	2%	2%	2%	1%
Share global population	1%	1%	1%	1%	1%
GDP per capita	238%	246%	258%	273%	229%
Gulf Co-operation Council (GCC) Members: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE					
African Union	2025	2024	2023	2022	2021
GDP (USD x billion)	3,540.9	3,276.0	3,035.2	2,840.0	2,571.7
Population (millions)	1,437.9	1,404.0	1,370.3	1,337.5	1,305.5
GDP per capita	2,462.5	2,333.3	2,215.0	2,123.3	1,970.0
Share global GDP	3%	3%	3%	2%	2%
Share global population	18%	18%	17%	17%	17%
GDP per capita	17%	17%	17%	16%	16%
African Union (AU) Members: Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Cameroon, Central Africa Republic, Chad, Comoros, Congo (Dem.Rep.), Congo (Rep.), Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome & Principe, Senegal, Seychelles, Sierra Leone, Somalia*, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Tunisia, Uganda, Western Sahara*, Zambia, Zimbabwe. Countries asterisked* = figures not available (Somalia, population unavailable).					
Mercosur	2025	2024	2023	2022	2021
GDP (USD x billion)	2,988.5	2,865.4	2,715.6	2,552.9	2,240.8
Population (millions)	303.0	301.3	299.6	298.1	296.9
GDP per capita	9,863.6	9,510.9	9,064.6	8,562.7	7,546.6
Share global GDP	3%	2%	2%	2%	2%
Share global population	4%	4%	4%	4%	4%
GDP per capita	69%	69%	68%	66%	60%
Mercado Comun del Sur (Mercosur) Members: Argentina, Brazil, Paraguay, Uruguay, Venezuela (suspended)					
EU	2025	2024	2023	2022	2021
GDP (USD x billion)	20,237.1	19,308.7	18,319.7	17,199.5	17,094.2
Population (millions)	447.6	447.1	446.6	446.0	445.3
GDP per capita	45,209.8	43,182.1	41,017.5	38,560.0	38,391.8
Share global GDP	18%	17%	16%	15%	15%
Share global population	6%	6%	6%	6%	6%
GDP per capita	316%	313%	308%	299%	306%
European Union (EU) Members: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, (United Kingdom transitioning out of the EU, effective 1 Jan 2021)					
PIF	2025	2024	2023	2022	2021
GDP (USD x billion)	2,351.7	2,255.5	2,148.8	2,045.9	1,917.6
Population (millions)	44.6	44.0	43.4	42.8	42.4
GDP per capita	52,704.0	51,253.0	49,521.0	47,780.9	45,254.3
Share global GDP	2.0%	2.1%	2.1%	2.0%	2.0%
Share global population	0.6%	0.6%	0.6%	0.5%	0.5%
GDP per capita	368.0%	371.7%	371.7%	370.0%	360.9%
Pacific Islands Forum (PIF) Members: Australia, Cook Islands*, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, New Zealand, Niue*, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu. Countries asterisked* = figures not available.					
ASEAN	2025	2024	2023	2022	2021
GDP (USD x billion)	4,567.5	4,261.0	3,958.1	3,646.2	3,358.6
Population (millions)	690.2	684.2	678.2	672.2	666.1
GDP per capita	6,617.7	6,227.4	5,835.9	5,424.7	5,042.3
Share global GDP	4%	4%	3%	3%	3%
Share global population	9%	9%	9%	9%	9%
GDP per capita	46%	45%	44%	42%	40%
Association of Southeast Asia Nations (ASEAN) Members: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam					
SICA	2025	2024	2023	2022	2021
GDP (USD x billion)	499.5	469.3	440.1	414.5	380.9
Population (millions)	65.5	64.6	63.7	62.9	62.0
GDP per capita	7,622.4	7,260.7	6,903.2	6,593.0	6,142.9
Share global GDP	0.4%	0.4%	0.4%	0.4%	0.3%
Share global population	0.8%	0.8%	0.8%	0.8%	0.8%
GDP per capita	53.2%	52.7%	51.8%	51.1%	49.0%
Central America Integration System (SICA) members: Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama					

## Notes:

- Based upon information sourced from IMF. GDP at current prices in USD as converted by source from national currency; population in millions

## NON-CONTAINER TRADES

## BREAKBULK MULTIPURPOSE

The 'multipurpose' sector covers those vessels carrying breakbulk cargoes that are not dedicated heavy-load ships like module carriers and semi-submersible ships. Most often, but not always, multipurpose ships are employed on liner-like services or at least regular sailings along distinct trade lanes. The method of cargo loading and discharge is via lift-on/lift-off (Lo/Lo) and/or roll-on/roll-off (Ro/Ro). Most vessels are also fitted with own gear (cranes) of varying capacities.

The specialised heavy-load vessel operators are covered in their own sub-section. Combined, the multipurpose and specialist heavy-load sectors comprise the overall 'breakbulk' market. Within the multipurpose section, the Lo/Lo and Ro/Ro operators are discussed separately.

## Lo/Lo fleet and operator overview

In mid-2024, the ten largest operators of multipurpose tonnage deployed a combined fleet of 602 ships with a total deadweight of 16.2 million tons. These carriers were active in multiple sub-sectors. Two were forest products carrier operators (G2 Ocean and Saga Welco), and others were traditional multipurpose operators usually running liner services (e.g. Chipolbrok, AAL Shipping and Swire). Some provided a combination of liner and tramp services (e.g. Cosco Shipping Specialized Carriers - CoscoSSC - and Wagenborg). Finally, there was one who was active principally on a tramp basis (Arklow, and then only intra-regional).

Heading the top ten was forest products carrier G2 Ocean (87 vessels and 4.8 million TEU) with CoscoSSC now in second place (77 ships and 3.0 million dwt), pushing the other forest products carrier, Saga Welco (49 ships and 2.5 million dwt), into third. BBC Chartering, despite it operating the largest fleet by number (133 ships), is only fourth by total deadweight (1.7 million dwt).

BBC Chartering provides a mixture of tramp and liner-like services. Chipolbrok, in contrast, is principally a liner operator. Its average of 35,700 dwt per ship is the third largest by this measurement. However, as it operates a thirty ship strong fleet, it is pushed into sixth place by total capacity due to Wagenborg's more numerous (102) yet much smaller (11,400 dwt average) ships.

In seventh and eighth are multi-breakbulk sector operators AAL Shipping and Spliethoff. The former operates more closely to the scheduled container liner service principles whilst Spliethoff offers regular sailings along defined trades. Finally, there was the aforementioned Arklow with MACS coming in at tenth. It operates scheduled services between Europe, United States and Southern Africa.

Through subsidiaries, CoscoSSC and Spliethoff also have considerable heavy-load and/or Ro/Ro assets, amongst others.

## Top 10 breakbulk operators by dwt capacity

Rank	Carrier	# ships	Total dwt	Avg dwt	Avg Age
8	AAL Shipping	23	649,600	28,200	12
9	Arklow Shg	50	411,400	8,200	6
4	BBC Chartering	133	1,676,600	12,600	13
6	Chipolbrok	30	1,069,900	35,700	12
2	CoscoSSC	77	3,020,700	39,200	10
1	G2 Ocean	87	4,760,300	54,700	17
10	MACS	10	294,400	29,400	13
3	Saga Welco	49	2,491,300	50,800	20
7	Spliethoff	41	680,600	16,600	17
5	Wagenborg	16,231,600	27,000	14	16
<b>Top 10</b>		<b>569</b>	<b>14,373,400</b>	<b>25,300</b>	<b>11</b>

As per mid-2024. The above analysis is based on the number of general cargo/multipurpose ships, with or without crane capacity, operated by the companies. Only ships in excess of 5,000 dwt have been included. The following vessel types have NOT been considered here: conventional Ro/Ro, vehicle carrier, conventional reefer, heavy-load, dry bulk or similar, and containers

Looking at the same top ten fleet but from the angle of ships own crane capacities, the situation was slightly different. BBC Chartering was now the largest with an aggregate heavy-lift capacity of 50,800 tons, and a maximum on at least one vessel of 900 tons. All crane related figures here and in the accompanying table are combinable which usually relates to two cranes working in tandem (or twin-lift), to handle a piece heavier than their individual capacities.

Some way behind, but in a clear second place, was CoscoSSC with a total heavy-lift capacity of 19,700 tons at an average of 260 tons and a maximum of 700 tons.

## Heavy-lift versus heavy-load

As a rule of thumb, 500 tons is taken as the dividing line between "multipurpose heavy-lift" and the more specialised "heavy-load" segment. These are separate markets with the vessels deployed to them operated differently. It is possible, though, for vessels that would technically be considered heavy-load capable because of their crane capacities to be employed in the operationally different multipurpose market. As such, some units able to lift more than 500 tons are included in the multipurpose-heavy lift analysis.

The highest average per ship belongs to AAL Shipping with 530 tons (combined lift capacity). Chipolbrok is second in this regard at 470 tons with there being a big gap to third at 380 tons, this provided by BBC Chartering.

At the other end of the scale are the forest product carriers G2 Ocean and Saga Welco who principally operate low capacity gantry cranes averaging 80 tons and 50 tons respectively. Lowest of all is Wagenborg on 30 tons average, but considering it operates the smallest geared ships - none of Arklow's qualifying fleet is crane equipped - this is not a surprise.

## Top 10 breakbulk Operators by heavy-lift (tons) capacity

Rank	Operator	Ships	Total HL	Avg HL	Max HL
4	AAL Shipping	23	12,180	530	700
10	Arklow Shg	50	-	-	-
1	BBC Chartering	133	50,780	380	900
3	Chipolbrok	30	14,240	470	700
2	CoscoSSC	77	19,750	260	700
6	G2 Ocean	87	6,630	80	150
9	MACS	10	1,680	170	300
8	Saga Welco	49	2,570	50	140
5	Spliethoff	41	9,320	230	360
7	Wagenborg	102	3,470	30	160
<b>Top 10 breakbulk</b>		<b>602</b>	<b>120,600</b>	<b>200</b>	

As per mid-2024. The above analysis is based on the number of general cargo/multipurpose ships, with crane capacity, operated by the 10 largest companies by deadweight. Only ships in excess of 5,000 dwt have been included. The following vessel types have NOT been considered here: conventional Ro/Ro, vehicle carrier, conventional reefer, heavy-load, dry bulk and containers.

## Ro/Ro fleet and operator overview

The Grimaldi Group of Italy continued to be the dominant operator of multipurpose Ro/Ro tonnage controlling a fleet of nearly seventy ships with an aggregate capacity in excess of 1.7 million dwt. It was still way ahead of all other operators even more so since the previous second largest, compatriot Messina Line, is moving out of Ro/Ro operations and has sold a number of ships to that end. As a result, it no longer features in the table.

As a result, NYK Bulk and Projects Carrier is now the second largest with twelve ships and 277,000 dwt. Although Spliethoff's Transfennica was the only other carrier with a fleet number in double figures, its total deadweight was bettered slightly by that of Bahri's six ships.

## Top 10 conventional Ro/Ro operators by dwt capacity

Rank	Operator	Ships	Total dwt	Avg dwt	Ave age
3	Bahri	6	155.6	25.9	11
9	Chun An	4	54.9	13.7	18
8	Eastern Car Liner	5	64.0	12.8	16
1	Grimaldi	69	1,713.6	24.8	13
6	Kyowa Shipping	8	105.0	13.1	13
5	Matson	3	126.2	42.1	17
2	NYK BPC	12	277.0	23.1	17
4	Transfennica	10	155.1	15.5	16
10	Wagenborg	3	34.9	11.6	20
7	Wallenius SOL	5	99.7	19.9	9
<b>Top-10</b>		<b>5</b>	<b>99.7</b>	<b>19.9</b>	<b>11</b>

As per mid-2024

The same ten carriers measured by lane metre (Lm) capacity also showed Grimaldi as the clear leader with 295,000 Lm. It also had the largest average per ship with 4,280 Lm. Whereas Messina was the previous second (53,000 Lm total, but with the largest average of 7,700 Lm) Transfennica took over that position with a total of 30,000 Lm at 3,000 Lm per ship. NYK BPC was now third (26,000 Lm total at 2,170 Lm per ship). In terms of averages, Matson (4,000 Lm) and Wallenius SOL (3,980 Lm) also featured well.

## Top 10 conventional Ro/Ro operators by Lane metres

Rank	Operator	Ships	Total Lm	Avg Lm	Ave age
4	Bahri	6	21,000	3,500	11
9	Chun An	4	6,200	1,550	18
8	Eastern Car Liner	5	8,400	1,680	16
1	Grimaldi	69	295,300	4,280	13
7	Kyowa Shipping	8	11,200	1,400	13
6	Matson	3	12,000	4,000	17
3	NYK BPC	12	26,000	2,170	17
2	Transfennica	10	30,100	3,010	16
10	Wagenborg	3	4,000	1,330	20
5	Wallenius SOL	5	19,900	3,980	11
<b>Top-10</b>		<b>125</b>	<b>434,100</b>	<b>3,470</b>	<b>13</b>

As per mid-2024

## Corporate and market developments

In 2023, Norden of Denmark acquired the business and staff of compatriot Thorco Projects which were then assimilated into Norden's Freight Services & Trading business unit. This was, in fact, Norden's first-ever business acquisition.

That Norden did not take over the Thorco company turned out to be wise as at the end of the year, Danish police opened an investigation into possible fraud at Thorco committed by senior figures. By not taking on the legal entity, Norden had isolated itself against any possible legal complications arising from this investigation.

Also occurring in 2023, Harren & Partner rebranded itself as Harren Group. This grouping includes SAL Heavy Lift, Combi Lift and Intermarine as well as shipping companies active in other sectors plus service entities.

## "AAL Brisbane" lightering cargoes at Beaumont, Texas

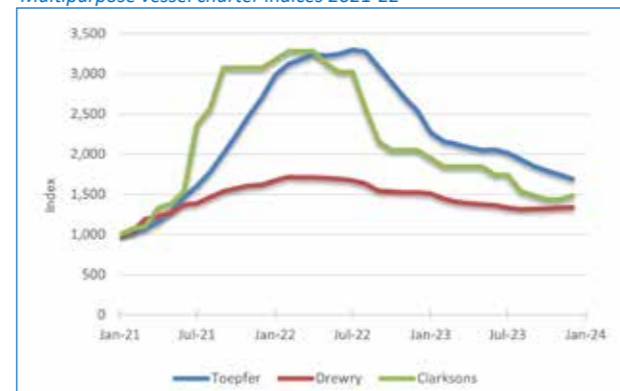


It is the nature of the non-containerised sectors that they can carry a range of very interesting cargoes that, unlike those that might be boxed up or hidden within a cargo hold, the casual observer can actually see and marvel at. One example from the multipurpose sector came in October 2023 when AAL Shipping moved 12,800 freight tons of project cargo from Kunsan and Pyeongtaek in South Korea to Beaumont in Texas in one lift. The vessel concerned was the "AAL Brisbane" (31,000 dwt) with individual items including a variety of absorbers and dehydrators. All were destined for an LNG project.

Charter rates for multipurpose tonnage declined steadily throughout 2023 after delays in various projects and the non-appearance of the expected (hoped for) surge in demand. Low activity in the minor bulk markets also had a detrimental impact on the sector.

This market context fed through to the relative performances of three main multipurpose indices. Taking January 2021 as the datum, the Toepfer-based index figure averaged 1,981 in 2023, which was down by 1,085 points on the average for 2022. The Clarksons equivalent also struggled as its monthly average was down by 1,073 to 1,684, even after a slight uptick in December. The Drewry-based index, which is usually not as volatile as the other two, averaged 1,370 in 2023, this being 266 points down, year-on-year.

## Multipurpose vessel charter indices 2021-22



## Messina's "Jolly Perla" with rolling stock



Although it is consciously moving away from the container-Ro/Ro sector to become fully container, Messina Line still operated a few flexible Ro/Ro capable vessels in 2023. These can carry a range of cargoes over and above cars as was shown with trains and rolling stock loaded onto the "Jolly Perla" (45,200 dwt) in mid-2023 at Barcelona and carried to Alexandria, Egypt, for Egyptian National Railways.

## HEAVY-LOAD

The breakbulk heavy-load sector is a composite of three sub-sectors. One is the general heavy-load sub-sector that comprises multipurpose Lo/Lo ships deployed in support of projects and super-heavy loads. Another is the basic open deck ship which also operates in a roll-on/roll-off mode but then direct from quayside to deck without the need for ramps. The third option is the very specialised and impressive semi-submersible type, which can carry all manner of cargoes, including substantial floating structures and other vessels.

Considering its specialist nature, there are barely fifteen carriers operating more than a few heavy-load vessels. As such, the following summary concentrates upon the ten largest, some of whom are also active in more than one of the breakbulk sub-sectors.

The heavy-load sector is now dominated by the Chinese companies Cosco Heavy Transport (a subsidiary of CoscoSSC) and the previous number one, Shanghai Zhen Hua, the in-house shipping company of crane and port machinery manufacturer, ZPMC. The reason for CoscoHT's rise is the commercial management responsibilities it took on for Guangzhou Salvage Bureau's fleet of five semi-submersible units in 2023. Whilst both CoscoHT and Shanghai Zhenhua operated sixteen vessels, CoscoHT's were 2,500 dwt heavier on average to give a total of 783,000 dwt.

Boskalis of the Netherlands was now in third with a fleet of eleven ships totalling 634,000 dwt. This represented a high average of 57,600 dwt but was by no means the highest. This fell to eighth placed GPO Heavy-Lift, whose four vessels were 64,000 dwt each.

The Jumbo-SAL Alliance of the separate Jumbo and SAL Heavy Lift companies maintained its clear advantage in vessel numbers at thirty-three. This is eleven more than the United Group, whose fleet contracted when its commercial management contract for Guangzhou Salvage's quintet came to an end. It is still the fifth largest heavy-load carrier by deadweight though.

## Top-10 Heavy Load operators by deadweight

Rank	Operator	Ships	Total dwt	Avg dwt	Ave age
7	Biglift	15	257,800	17,200	16
3	Boskalis	11	634,000	57,600	27
9	CCCC Int.	3	112,900	37,600	26
1	CoscoHT	16	782,900	48,900	9
10	Dong Bang	7	106,800	15,300	14
8	GPO Heavy-Lift	4	254,300	63,600	5
4	Jumbo-SAL	33	401,100	12,200	17
6	Seaway 7	7	314,200	44,900	27
5	United Group	22	337,400	15,300	4
2	Zhen Hua	16	759,000	47,400	31
<b>Top-10</b>		<b>134</b>	<b>3,960,500</b>	<b>29,600</b>	<b>16</b>

As per mid-2024

## Specialist heavy-load operators

The specialist heavy-load operators carry huge structures and modules of all kinds and are heavily influenced by the oil and gas markets. These cargoes are loaded or discharged via hoist, float-on/off, roll-on/off or skid-on/off. The segment is made up of three main kinds of ships:

- Strengthened multipurpose/project/heavy-load carriers of minimum 500 tons crane capacity
- Semi-submersible vessels: open-stern, closed-stern, dock ships, all of which can be geared and/or ramped
- Open deck ships (non-geared/non-semi-submersible), also referred to as module carriers

As already mentioned, there was a significant switch of vessels in 2023 when the commercial management contract for Guangzhou Salvage Bureau's five semi-submersible ships moved from United Heavy Transport of Germany. The new manager was a joint venture established by Guangzhou Salvage and Cosco Shipping Specialized Carriers (including its subsidiary Cosco Heavy Transport). This new arrangement took on responsibility for not only Guangzhou Salvage's fleet but also Cosco's.

In 2022, HAL Trust, an investment company established with the proceeds from the sale of Holland America Line, initiated a bid to acquire the publicly-listed Boskalis, known for heavy-load operations as well as dredging, pipe laying and diving support. HAL Trust, which was already the largest shareholder with a 46.2% stake, eventually completed the acquisition early in 2023.

## Boskalis' "BOKA Vanguard" lifting a floating production



This very specialised segment goes beyond what the multipurpose operators can lift and often includes single structures like the 25,000 ton floating production unit "Whale" carried by Boskalis' semi-submersible "BOKA Vanguard" (116,200 dwt) late in 2023 to Ingleside, United States Gulf coast.

## VEHICLE CARRIERS

In mid-2024, the ten largest vehicle carrier operators deployed a combined fleet of 545 vessels with an aggregate deadweight capacity of some 10.4 million tons.

**Vehicle carriers**

Vehicle carrier is a generic name for the various types of car carriers: PCC (pure car carrier), PCTC (pure car and truck carrier), and LCTC (large car and truck carrier). The latter two types also have heavy-duty angled stern ramps that can typically accommodate wheeled loads of up to around 300 tons. Along with reinforced decks below and adjustable decks above, PCTCs can carry almost any kind of cargo in addition to their core business of "cars". Typical non-car cargoes include boats and yachts, "High and Heavy", machinery and tools, mining equipment, power generation plant, railway coaches and locomotives, pallets and (big) bags. These are placed on cassettes, mafi trailers, chassis and other rolling equipment. Nonetheless, cars still decide the trades vessels ply.

Wallenius Wilhelmsen, including its associates Armacup, ARRC and EUKOR, remained the clear number one carrier by deadweight and ships. It operated 121 vessels and 2.9 million dwt. The second largest carrier by deadweight was still NYK Ro/Ro (94 ships and 1.8 million dwt). Compatriot MOL ACE moved into third (87 ships and 1.5 million TEU) with Glovis of South Korea moving down (66 ships, 1.3 million dwt) having reduced its fleet somewhat. Japanese carrier "K" Line Global RoRo maintained its fifth spot.

**Top-10 vehicle carrier operators by deadweight**

Rank	Operator	Ships	Total dwt	Avg dwt	Ave age
4	Glovis	66	1,348.4	20.4	13
7	Grimaldi	17	259.8	15.3	12
6	Hoegh Auto.	33	728.7	22.1	17
5	"K" Line	73	1,307.4	17.9	14
3	MOL ACE	87	1,534.8	17.6	15
9	Neptune Lines	18	195.3	10.9	15
2	NYK	94	1,791.3	19.1	15
10	SAIC Anji Log.	16	164.4	10.3	11
8	Toyofuji	20	197.1	9.9	18
1	WWO	121	2,900.6	24.0	16
<b>Top-10</b>		<b>545</b>	<b>10,427.7</b>	<b>19.1</b>	<b>13</b>

As per mid-2024

When looking at aggregate car equivalent unit capacities (CEU), the positions are virtually unchanged from the deadweight-based rankings, the exception being that Hyundai Glovis jumps up to second, ahead of NYK and MOL ACE. At an average per ship consideration, Höegh Autoliners is the largest with 7,000 CEU, this beating Wallenius Wilhelmsen and Glovis who both average 6,700 CEU. Grimaldi, "K" Line and NYK are the other carriers with average capacities of at least 6,000 CEU.

**Top-10 vehicle carrier operators by CEU**

Rank	Operator	Ships	Total CEU	Avg CEU	Ave age
5	Glovis	66	443,300	6,700	13
7	Grimaldi	17	104,700	6,200	12
6	Hoegh Auto.	33	231,500	7,000	17
4	"K" Line	73	444,200	6,100	14
3	MOL ACE	87	517,000	5,900	15
8	Neptune Lines	18	63,500	3,500	15
2	NYK	94	569,500	6,100	15
10	SAIC Anji Log.	16	58,200	3,600	11
9	Toyofuji	20	61,300	3,100	18
1	WWO	121	810,800	6,700	16
<b>Top-10</b>		<b>545</b>	<b>3,304,100</b>	<b>6,100</b>	<b>13</b>

As per mid-2024

In 2023, Maersk sold its remaining shares in Hoegh Autoliners in three tranches, these bringing in at least USD 362 million. In addition to the immediate financial gain, these sales were yet another example of Maersk's continuing strategy to eliminate assets and activities that are not central to its primary container logistics business.

In April 2024, the head of the Grimaldi shipping group, Mr. Emanuele Grimaldi, purchased 5.1% of the publicly-listed Hoegh Autoliners. This is notable because the Grimaldi group has a

history of taking control of publicly-listed companies through incremental share purchases. This is how Atlantic Container Line, Finnlines and ferry operator Minoan Lines all became part of the group.

**Still a supercharged market**

Unlike the container sector, which started cooling down in 2022, the car carrier market stayed strong such that in 2023 it broke all records shipping almost 23 million vehicles. For most of that year, charter rates held steady at historically high levels before climbing further in the fourth quarter as demand stayed strong and the supply of available vessels remained limited. Clarksons charter rates for a generic 6,500 CEU vehicle carrier reached a record high of USD 115,000 per day, a sevenfold increase over the average levels witnessed for 2019.

Whilst the ordering of new vessels caught up, considered opinion is that the planned deliveries will still fall short of satisfying the anticipated demand increase through to 2025 at the least. At the end of 2023, around 100-110 vessels were set for delivery over the next two years, with 190 vessels or so expected all told by 2028. However, with approaching 150 vessels in the 2023 fleet more than 20 years old, these are ships that would, in normalised markets, be considered potential candidates for recycling.

Driving the market were the long-distance Far East trades where the major auto exporters had strong years. The growth in Chinese exports was particularly strong as these rose by some fifty-eight percent. It is now considered the world's leading exporter of light vehicles. Whilst some way behind, South Korea's twenty-four percent growth and Japan's twenty-seven percent improvement were still very good indeed.

The shift towards electrification in the global vehicle industry has also been a key factor in the market growth with electric vehicle (EV) sales expected to rise significantly over the coming decade(s). China leads the global market accounting for roughly half of EV sales, and its manufacturers have now targeted markets in Europe and North America.

Several Chinese manufacturers are now also becoming directly involved in shipping operations. For example, Shanghai Automotive (SAIC)'s Anji Shipping has formed a joint venture with COSCO Shipping; BYD will receive eight chartered-in newbuilds that will be delivered over 2024-25; Chery Automobile and JAC Automobile will have three vessels delivered over the same period.

For BYD, now the world's largest builder of electric vehicles, surpassing Tesla even, it received the first of its ships, "BYD Explorer No 1" (7,000 CEU), early in 2024. Owned by Zodiac Maritime, it immediately set to work carrying 5,000 vehicles from China to Europe.

**Vehicle carrier "BYD Explorer No.1"**

Alongside Chinese car manufacturers entering the shipping sector, container liner major CMA CGM also made a similar move.



**GRIMALDI GROUP**

The **FIRST GREEN**  
Ro-Ro **OPERATOR**  
in the **MEDITERRANEAN**

*Pursuing sustainable  
maritime transport*



After it acquired vehicles logistics company Gefco in 2022, this was absorbed into CMA CGM unit CEVA Logistics as the finished vehicles logistics division. In 2023, CMA CGM agreed to charter-in four 7,000 CEU newbuild ships from Eastern Pacific upon their deliveries from end-2023 and into 2024. The first of these, the "CMA CGM Indianapolis" was delivered at the end of 2023 and was followed by the "CMA CGM Monaco" in January 2024.

All these vessels will be commercially managed by CEVA's new finished vehicle logistics division on ten-year charters. The company's plan is to focus on the China to Europe market giving it the ability to transport up to approximately 140,000 vehicles annually. However, this potential could be stretched, literally, by events in the Red Sea.

Amongst others, non-operating owner Gram Car Carriers plus major carriers Wallenius Wilhelmsen and Hoegh Autoliners all announced that they would no longer be transiting the Red Sea. This was in response to the drone and missile attacks many ships faced from Houthi rebels in western Yemen. In fact, in starting their campaign in November 2023, the Houthis booked a spectacular success after landing units by helicopter on to the 5,100 CEU Ray Car Carriers-owned Galaxy Leader. The vessel was hijacked and directed to a nearby port under Houthi control.

### Vessel casualties

As with containerships, vehicle carrier incidents involving fire come under particular scrutiny, especially if lithium batteries are suspected of being the cause. Considering the increased popularity of electric vehicles, this is now a specific concern for the car carrier sector. Aside from the mathematics involved of more electric vehicles (EVs) being moved, the increased demand for EVs has seen cheaper and poorer quality engines that may not have been subject to the same rigorous tests as others. Accompanying this, the increased use of e-commerce freight booking platforms has also led to a lack of oversight and scrutiny of cargoes.

One approach that operators can take is to be selective in cargoes. For example, in 2023, MOL stopped accepting bookings for second hand electric cars fitted with lithium-ion batteries. In 2022, one of its operated ships, the "Felicity Ace" (6,400 CEU) experienced a fire near the Azores whilst carrying 4,000 cars and subsequently sank. The presence of lithium-ion batteries made firefighting operations more challenging.

Early in 2023, the "Ah Shin" (21,500 dwt) caught fire off southern Vietnam en route Singapore from South Korea. Said to be carrying around 4,300 cars at the time, the fire initially affected Decks 8 through 10, with help from outside hampered by rough seas. Three days were needed before it was safe enough for others not involved in the firefighting operation to board. The vessel had already been diverted to nearby Vung Tau and subsequently stayed there for nearly two months. Although the cause of the "Ah Shin" fire was not confirmed, the suspicion lay with lithium batteries.

In July 2023, a fire broke out on the "Fremantle Highway" off the Dutch coast whilst it was sailing from Germany to Egypt. One member of the crew tragically died, and several others were injured. The ship was carrying 2,900 vehicles. The fire was believed to have started near an electric car; around twenty-five such vehicles were on board at the time.

Also occurring in July, the "Grande Costa d'Avorio," operated by Grimaldi, caught fire while alongside at Port Newark (New York). Tragically two firefighters died trying to extinguish the blaze which continued for several days. A further six firefighting personnel were injured. In this case though, the ship's manifest showed no lithium-ion batteries or electric vehicles on

board. Later, Grimaldi suggested a Jeep Wrangler being operated by a third-party during cargo operations that was pushing a non-running Toyota, as a possible origin of the blaze. Specifically, the fire could have started after transmission oil boiled over and came into contact with the Jeep's hot engine or exhaust components.

### Notable historical vehicle carrier casualties have included

Vessel	Month	CEU	Incident
Fremantle Highway	Jul-23	6,200	Caught fire whilst off Dutch coast, with one crew fatality. Believed to have been started near one of the 25 EVs being carried
Grande d'Avorio	Jul-23	3,900	Multipurpose-Ro/Ro vessel caught fire while alongside at Port Newark (New York) and which lasted days, with two firefighter fatalities. No batteries or EVs on board
Ah Shin	Feb-23	6,000	Suffered fire across multiple decks whilst sailing off southern Vietnam carrying 4,300 cars. Diverted to Vung Tau where it stayed for nearly two months
Felicity Ace	Feb-22	6,400	Caught fire near the Azores (Atlantic) carrying 4,000 cars including luxury marques
Byakko	May-21	-	6,800 dwt vehicle carrier collided with chemical carrier off Imabari, Japan, and subsequently sank, with three souls reported missing
Hoegh Xiamen	Jun-20	4,900	Caught fire whilst at berth in Jacksonville due to improperly connected battery in 2nd hand vehicle. Firefighters required eight days to douse the blaze; vessel later declared total constructive loss.
Polaris Highway	Jun-20	7,600	Vehicle on board caught fire whilst alongside in Zeebrugge. Fire extinguished and vehicle removed
Sincerity Ace	Jan-19	6,400	Caught fire whilst sailing from Japan to United States. Vessel evacuated
Grande America	Mar-19	-n/a-	Container-Ro/Ro with cars on board. Fire started in container (believed), but vessel listed and sank as result of free surface water effect and cargo shift
Platinum Ray	May-19	6,200	Caught fire whilst at berth in Ulsan. Some 2,150 vehicles on board
Grande Europa	May-19	4,600	Caught fire off coast of Spain, loaded with close to 1,850 vehicles
Diamond Highway	Jun-19	6,400	Caught fire in West Philippine Sea. Vessel abandoned
Golden Ray	Sep-19	7,700	Capsized, coming to rest on its side in St. Simon Sound, Brunswick. Vessel dismantled in situ, the operation finishing late in 2021
Auto Banner	May-18	5,700	Fire started by started overheating vehicle whilst at Inchon. Vessel declared total constructive loss

### REEFER

Late in 2023, the world fleet of conventional reefer ships larger than 100,000 cubic feet numbered 511 units. This was a reduction of seventeen from the year before and continued the now established downwards trends for both vessels and capacity. The combined capacity of this fleet approached 3.8 million dwt.

### Conventional against container capacity

To give an indication of the scale and flexibility offered by the container segment against the conventional reefer shipping operators, late in 2023 there was the equivalent of 3.7 million TEU in reefer containers in operation. Nearly all of those would have been 40' units. Their combined reefer cargo capacity would have approximated 3.70-3.87 billion cu.ft, some 22-23 times the capacity offered by the entire fleet of conventional reefer vessels..

The ten biggest carriers provided 191 vessels, which was equivalent to thirty-seven percent of the global fleet, improvements of six ships and two points respectively.

The largest operator continued to be Cool Carriers, followed again by Seatrade. Cool Carriers employed a fleet of forty-three ships with a total capacity of 574,000 dwt whilst Seatrade operated twenty-four totalling 303,000 dwt.

Frigoship, with thirty-two ships and 258,000 dwt, maintained its third place, although there was only a marginal difference with GreenSea, despite that latter carrier operating five ships more. Africa Express Line was now the fifth largest, supplanting Fresh Carriers, with eleven ships and 152,000 dwt.

### Top-10 conventional reefer operators by deadweight

Rank	Operator	Ships	Total dwt	Avg dwt	Age
5	Africa Express Line	11	151,600	13,800	19
10	Boyang	11	60,500	5,500	29
1	Cool Carriers	43	574,400	13,400	25
7	Cosiarma	5	80,700	16,100	20
6	Fresh Carriers	14	146,000	10,400	17
3	Frigoship	32	258,500	8,100	28
8	Geest Line	5	77,200	15,400	19
4	Greensea	37	257,700	7,000	23
2	Seatrade	24	303,100	12,600	29
9	Sein Shipping	9	64,700	7,200	33
<b>Top-10</b>		<b>191</b>	<b>1,974,200</b>	<b>10,300</b>	<b>24</b>
Other operators		320	1,824,000	5,700	29
<b>Grand Total</b>		<b>511</b>	<b>3,798,300</b>	<b>7,400</b>	<b>29</b>

As per end-2023

By reefer cargo capacity, the same ten operators controlled more than 89.1 million cubic feet from a global total of 169.1 million cubic feet. Those top carriers operated ships averaging 467,000 cubic feet, which was 1.4 times that of the global average.

The carrier ranking by cubic feet was virtually unchanged from that based upon deadweight with Africa Express moving to sixth and Fresh Carriers moving up to fifth being the only change. Cosiarma's five ships of 639,000 cu.ft. are the largest with Geest Line (616,000 cu.ft.), Cool Carriers (612,000 cu.ft.) and Africa Express (598,000 cu.ft.) not too far behind. All of those mentioned, except for Cool Carriers, operate on (near) container liner like principles.

### Top-10 conventional reefer operators by cu.ft.

Rank	Operator	Ships	Total cu.ft	Avg cu.ft	Age
6	Africa Express Line	11	6,578,800	598,100	19
10	Boyang	11	2,616,300	237,800	29
1	Cool Carriers	43	26,325,800	612,200	25
7	Cosiarma	5	3,195,600	639,100	20
5	Fresh Carriers	14	7,331,500	523,700	17
3	Frigoship	32	12,303,200	384,500	28
8	Geest Line	5	3,079,000	615,800	19
4	Greensea	37	11,404,700	308,200	23
2	Seatrade	24	13,362,900	556,800	29
9	Sein Shipping	9	2,968,100	329,800	33
<b>Top-10</b>		<b>191</b>	<b>89,165,800</b>	<b>466,800</b>	<b>24</b>
Other operators		320	79,920,300	249,800	29
<b>Grand Total</b>		<b>511</b>	<b>169,086,200</b>	<b>330,900</b>	<b>29</b>

As per end-2023. All figures in cu.ft. x 1,000

Dole's sale in 2023 of a pair of 492,000 cu.ft. vessels to Cool Carriers saw it slip out of the top ten as its fleet shrank to just five ships totalling 2.6 million cu.ft.

There was much needed activity on the ordering front in 2023 so that, relatively speaking, at the end of the year, there was an astonishing twenty-five vessels expected for delivery between 2025 and 2027. This included orders for thirteen vessels of 586,000 cu.ft. to be built by Kitanihon Shipyard in Japan. Seven of them are for the account of owner Lepta Shipping (Mitsui & Co Ltd). Commercially, it is believed that four of the thirteen will be destined for Africa Express Line, whilst seven will probably be deployed by Cool Carriers.

Shikoku Dockyard, also of Japan, is building two vessels of 700,000 cu.ft. and two of 900,000 cu.ft. for non-operating owner Nissen Kaiun. As the larger units are sister ships of those already deployed by Cool Carriers, it is believed they will be destined for this operator again. Finally, there were eight ships on order for Chinese owners. Five of them are small (280,000-380,000 cu.ft.) and presumably for the fish trade, with two being 600,000 cu.ft and one at 760,000 cu.ft.



## ...AND FINALLY - AN AGE OF TRANSITIONS

### LOOKING BACK ...

As well as reporting on liner shipping, Dynamar also offers bespoke consultancy to a variety of principals. These projects can include elements of forecasting, yet rather than concentrating upon one specific projection, Dynamar provides four potential scenarios that also consider social, economic, environmental, economic, (geo)political and technological inputs (SEEPT). These four pathways range from very pessimistic, to somewhat pessimistic through to somewhat optimistic and up to very optimistic.

The very pessimistic pathway used to be considered 'a very unlikely' scenario, but given the experience of the past few years, it can no longer be discounted. This is because of the regularly recurring presence of 'Black Swan' events, i.e. ones that are unforeseen and have far-reaching consequences.

'Black Swans' used to be once in a generation occurrences. Prior to 2020, it could be argued that the last one was the sub-prime mortgage crisis in the United States that led to global finance, economic and trade crises over 2008-9 and, arguably, beyond.

Having taken a long time to recover stability, from 2020 onwards, the economic and trading order has seen a continuous series of Black Swans, such that it could be suggested we are in the middle of a flock. The cumulative impact of this 'flock' is that the very unlikely has now moved into the realm of distinct possibility and maybe even probability. Recent history supports such a hypothesis.

In 2020, the world had to come to terms with medical rather than 2008-9 like financial contagion: the coronavirus outbreak. Its impacts were war-like in that restrictions were placed upon individual freedoms to move and interact. The consequences were acute; economic activity stumbled - some aspects even shut down - and global trade suffered.

In response, the world went to war. A vaccine was developed and delivered; novel ways of working evolved; unable to easily cross borders, people concentrated more on home which, ironically, led to a boost in container shipping, especially after factories and supply chains got back up and running as restrictions eased. Gradually, societies opened up, returning to how things used to be and although coronavirus is not eradicated, it is now just another medical condition for us to be wary of.

Having fought through this, just when trade and economies started to feel normal again, the next shock to the system came with the invasion of Ukraine by Russia. Although this is a conflict between neighbouring countries, the impacts have been much wider. Countries around the globe grew concerned about the supplies of grain and Europe saw vulnerabilities in its supplies of energy, especially those depending upon Russia as a source.

Many countries imposed sanctions on Russia, which had a direct impact upon container shipping. Major carriers withdrew from the Russia trades and removed themselves from their Russian interests. Even though containerised trade slowed, other operators stepped in to provide workaround services although their effectiveness could be analogous to a replacement bus service when a train line is down. Still, trade lanes were being redrawn and with every passing day are developing such a state of permanence it is not unreasonable to ask if things will ever go back to the way they were.

Then, late in 2023, came another shock. Even more localised than the Russia/Ukraine war was the conflict that erupted between Hamas and Israel. The impacts upon shipping were, initially, negligible. However, when the Houthis controlling one side of the southern Red Sea started launching missiles and drones against commercial shipping - actions that have not been dissuaded by the presence of significant numbers of naval assets in theatre - container shipping had again to (re)act.

Happenstance was that these attacks coincided with a wave of new vessel deliveries so the redirection of many services away from the Red Sea around southern Africa was not only necessary but also possible.

### ... AND LOOKING FORWARD

#### Overview

Unfortunately, the experience of the past few years means that 'we' are expecting another Black Swan to come at 'us', even if we do not know precisely when, where and what its nature will be. If there is another thing that the past few years has taught us, though, it is that container shipping can rise to the challenge.

With this expectation of another 'Black Swan', the following hypothetical scenarios consider the immediate to short-term only, i.e. for the rest of 2024 (and therefore one pathway only rather than four long-term scenarios). Each covers the key components of the container shipping system. Even with the short-termism, these scenarios could still be disrupted by events way beyond container shipping's control that may suddenly appear.

#### Scenarios (2024)

##### Cargoes



### CLIMBING

Having struggled through much of 2023, cargoes started picking up as the year closed. This was the start of a longer trend, which seems to have received a temporary albeit artificial boost from the Red Sea crisis as 2024 progressed. Perhaps it was nervous shippers with memories of the tight capacity situation of 2021-22 rushing to secure space and bring consignments forward to avoid a repetition.

Even with the Red Sea diversions adding to everything else, cargoes still look set to have a relatively good year in 2024. Helped by inflationary pressures in the main consumer markets softening, and with the new realities of Ukraine/Russia and Israel/Hamas conflict fully accounted for - assuming no escalation - 2024 may prove to be the start point for a longer period of reasonable even if declining growth.

#### Dynamar projection of worldwide full container trade

Year	TEU	Growth y-o-y	CAGR 5-yr	CAGR 10-yr
2026	196,000,000	3.2%	2.9%	1.8%
2025	190,000,000	3.8%	0.9%	2.0%
2024	183,000,000	4.2%	1.9%	1.8%
2023	175,600,000	0.3%	0.0%	1.5%

Projection of Worldwide Full Container Trade

#### Shipping capacity



### UP

Despite new vessels being delivered at an unprecedented rate in 2023 and into 2024, what still remains on the orderbook is of such a magnitude that capacity can do nothing else than expand. Should scrapping resume - which is a possibility - it will be marginal when compared to what is coming in. Approaching 470 vessels bringing around 3.2 million TEU in capacity is expected to be delivered in 2024. The decade average for scrapping is 247,000 TEU, meaning that the global container shipping fleet could grow to more than 31.4 million TEU, an annual increase of ten percent. This is six points stronger than cargoes might grow.

#### Rates



### CANCELING OUT

That difference between cargo demand and shipping supply should have a clear and obvious impact upon rates. However, this will not be immediate and after the strong first half bounce enjoyed as the market adjusted to the Red Sea (and perceptions of difficulties), they will normalise again by the end of 2024 and might even be lower than at the same point of the previous year (2023).

As the capacity increases and cargoes fail to keep pace, carriers might engage in more slow steaming - although as a universally applied concept, other than helping manage emissions and the Carbon Intensity Indicator requirement, is there scope for extra benefits to be gained? - and increased vessel lay-ups to help reduce the actual impact of the new capacity. However, these measures are unlikely to help in slowing the reduction of rates down.

#### Costs (bunkers)



### VOLATILE

Bunker costs are always the joker in the pack. With increased vessel activity, as could be expected by more cargoes to be transported, there may well be a rise in bunker prices, other things remaining equal. However, the costs of fuel are very sen-

sitive to geopolitical developments and have the ability to spike immediately in response. With the only alternative fuel currently consumed in anything like scale being 'grey' or 'fossil' LNG, the energy transition will not unduly influence bunker prices either. Without a new major event, based upon the behaviour of the first half of 2024, as the world has adjusted to new realities, they may well finish the year breaking even.

#### Costs (charter rates)



### DOWN

Charter rates had a difficult 2023 when compared with the previous two years. Even with something of a recovery in the first half of 2024 as the Red Sea diversions absorbed new capacity that came online, there are more challenges to come. With capacity growth being oh so much stronger than cargo growth, and most measures employed that could soak up capacity being pretty much saturated or ineffectual, this will all undoubtedly be reflected in further depressed charter rates across the whole year.

#### Carrier results



### SLIDING

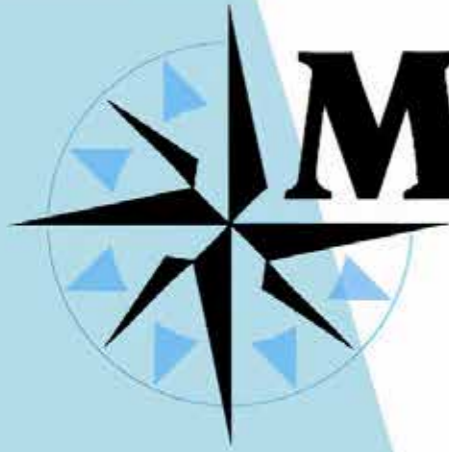
Let us be clear: the carriers have gotten very good at extracting economies and efficiencies. This excellence has transferred to the results shown in the profit/loss accounts. Some are also still spending freely to increase their logistics service offering and perhaps spread some risk. Others are making their first moves into wider fields, such as terminals. Some, however, have already shown signs of vulnerability and experienced losses in 2023, so it is no sure fire thing that all will still end 2024 in a profitable state.

In comparison with 2023, 2024 could still be worse for most if not all carriers. However, the results will still be in the millions, maybe even hundreds of millions. This is as much a reflection of the scale of the operations involved and the range of sectors some are now active in, rather than a purely reflection of the state of the container shipping industry.

Maybe offering that wide variety of transport and logistics services is the necessity required to first survive and even thrive in today's ever changing reality.

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