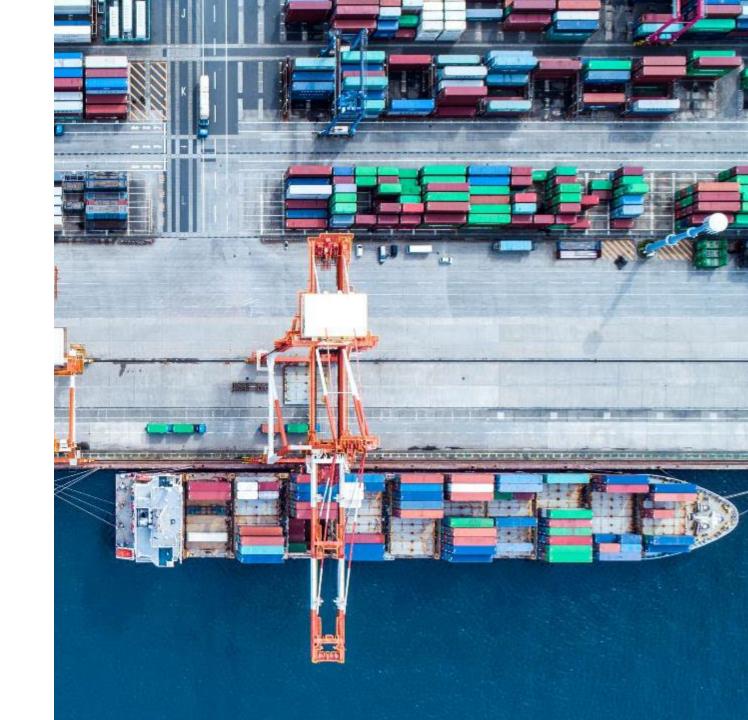




Agenda: Current State of Sea Logistics

- 1. Headlines
- 2. Labor
- 3. Cargo Volume
- 4. Operations
- 5. Rates
- 6. Government
- 7. Industry Metrics
- 8. A Look Forward



Section 1

Headlines

Sea Logistics Industry Headlines



- The EU eliminates the carrier/alliance block exemption
- The EU ETS starts Jan. 1, 2024
- Massive growth in global vessel capacity raises questions about rates, vessel operations & service levels
- Weak cargo demand forecast into 2024 and beyond combined with capacity additions point to possible rate pressure out to 2027 or 2028.
- Carrier use of blank sailings to control capacity could allow carriers to gain a greater ability to influence rates
- 2023 Global cargo volume down significantly vs. 2022 and approx. at 2019 level
- Geopolitical developments (Ukraine war, Israel/Hamas war, China "assertiveness" all raise the level of uncertainty
- Impact of IMO 2023 will be felt more in 2024 than 2023

Section 2

Labor

ILWU Files For Bankruptcy? (What happened to the \$70 million?)

West Coast Dockworkers Union Files for Bankruptcy to Weather Port Lawsuit

How a fight over 2 jobs bankrupted union of 40,000 dockworkers

KUEHNE+NAGE

Source: WSJ 10.1.23; American Shipper 10.2.23

Developments: OCU (Office Clerical Unit)



ILWU Office Clerical Unit negotiations under way in LA-LB

Nov 27, 2012 | Uncategorized



Office clerical workers at Port of Los Angeles go on strike to stop outsourcing good jobs needed by working families in Harbor community

As of October 24th, 2023:

Mostly radio silence/crickets

Is this good news?

Probably. But there are issues

Wages, Pension, Tech & Term

Likely modeled after ILWU contract

The current OCU contract expires on June 30, 2023

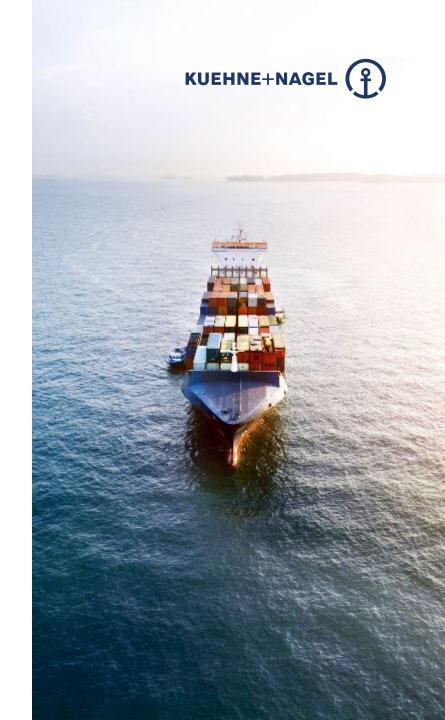
Note: The OCU (ILWU local 63-Office Clerical Unit) represents approx. 600 clerical workers in the LALB port

area. The ILWU has honored OCU picket lines in the past

Source: ILWU; JOC 3.6.23

SC Ports vs. the ILA

SC Ports asks US Supreme Court to overturn ruling on Hugh Leatherman Terminal



Source: WCSC

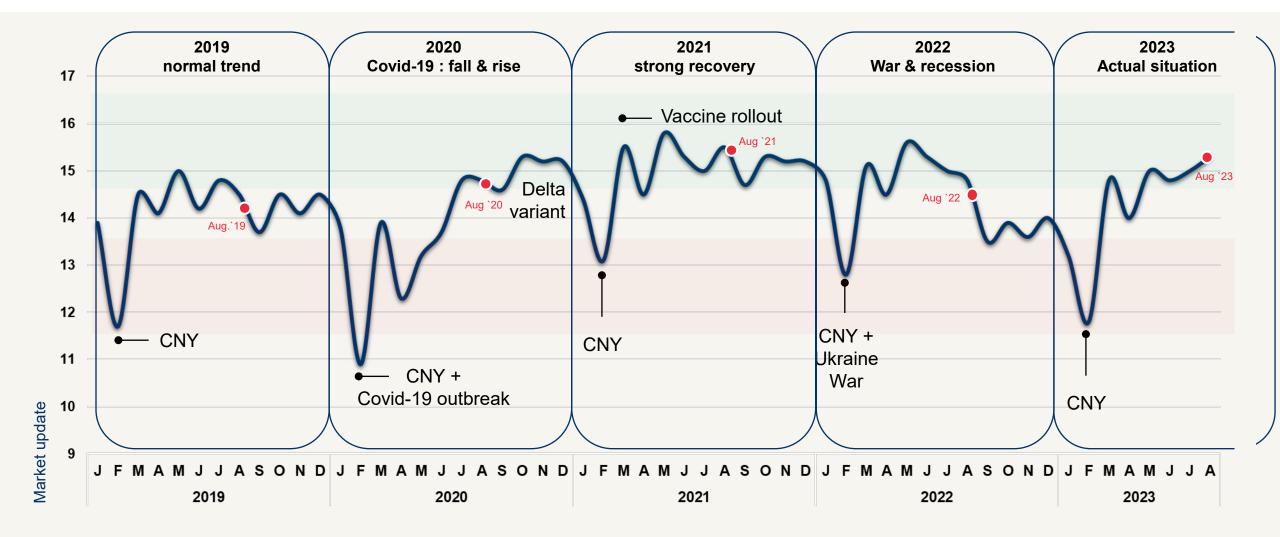


Section 3

Cargo Volume

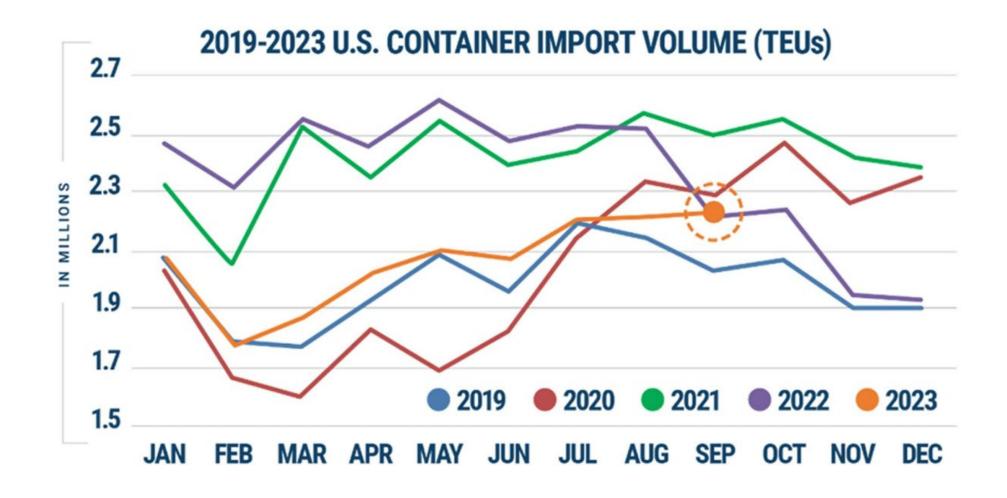
Global traded container volume 2019 – 2023 Million TEU per month





Cargo Volume: Total US Import Volume (September data)

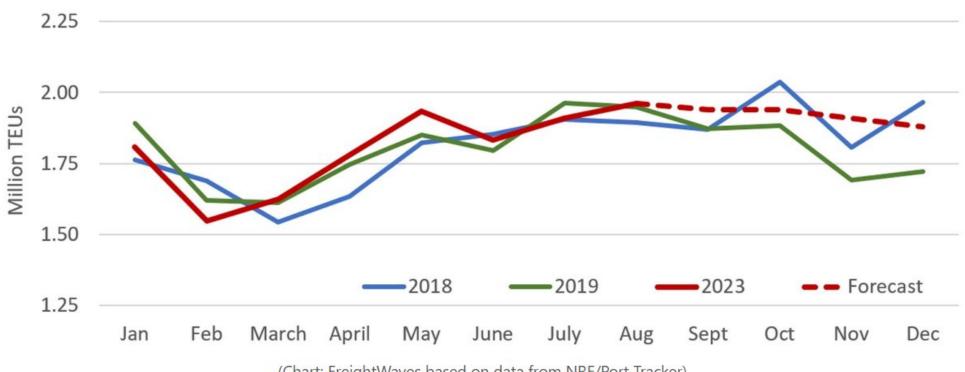




US Cargo Volume (September Data)



Global Port Tracker: 2023 imports vs. pre-pandemic volumes



(Chart: FreightWaves based on data from NRF/Port Tracker)

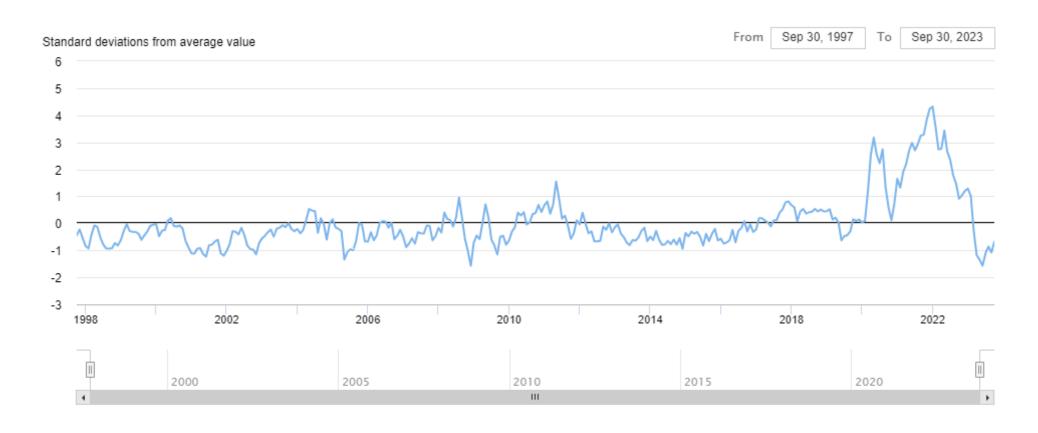


Section 4

Operations

Global Supply Chain Pressure Index





Sources: Bureau of Labor Statistics; Harper Petersen Holding GmbH; Baltic Exchange; IHS Markit; Institute for Supply Management; Haver Analytics; Refinitiv; authors' calculations.

Notes: GSCPI readings for the most recent months can be revised as realized data become available, replacing the imputed values generated through principal component analysis. Further, for some series, mainly the BLS airfreight cost indices, each new release comes with revisions to up to twelve months of previous data. Thus, revisions can have an impact up to a year back in time.

North America Operations Status Week 41



Port	Yard	Gate	Rail	Waiting time
Montreal				
Halifax				
Baltimore				1 day
Newark PNCT				
Newark APMT				
Norfolk				0-1 day
Philadelphia				
Wilmington				
Jacksonville				
Port Everglades				
Charleston				
North Charleston				
Savannah				0-3 days
Miami - POMTOC				1 days
Freeport				1 day
Houston				0-5 days
New Orleans				1 day
Mobile				1 day
Tampa				
Long Beach				4-5 days
Los Angeles				
Oakland				
Seattle				0-1 day
Vancouver				3 days
Prince Rupert				1 day
Dutch Harbor				
Kodiak				

Source: Maersk



Vessel Speed

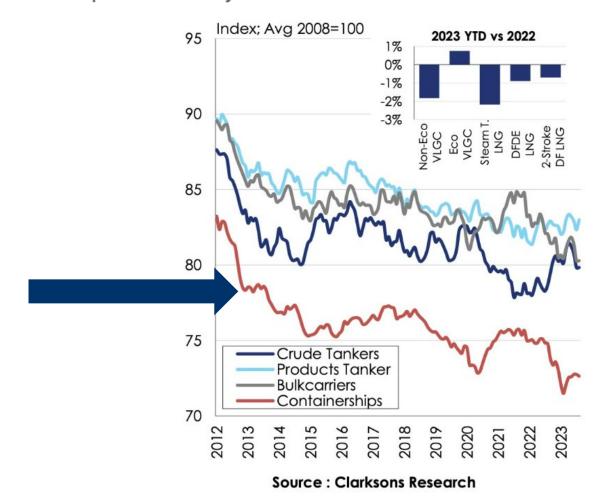


Bulk carriers and containerships moving at slowest speeds on record this year

Source: Splash 10.2.23

Vessel Speed: Going Down

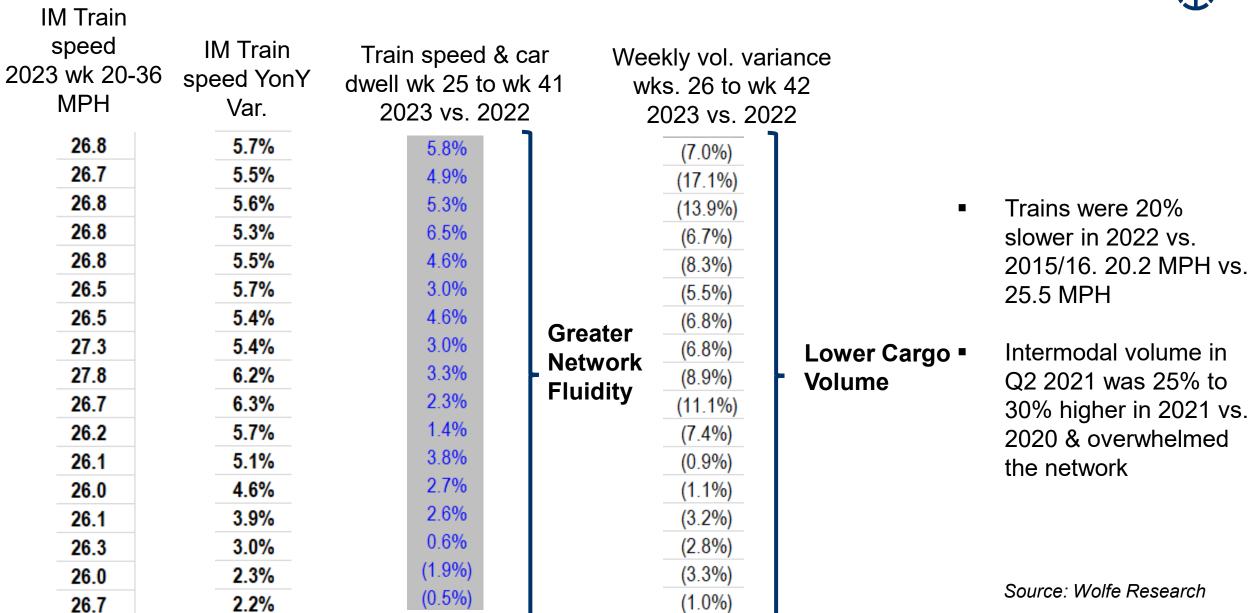
Average containership speeds between January and August were down 3% on the 2022 average, reaching a record low of 13.7 knots in February and despite subsequently ticking up to 13.9 knots in Q3, remaining below the lowest level on record prior to this year.



Source: Splash 10.2.23

Train Fluidity (6 Class 1 RR)





Panama Canal Water Level: January 2023





Source: Hapag-Lloyd

Panama Canal Water Level: July 2023





Source: Hapag-Lloyd

Panama Canal Status

- Panama Canal Drought Conditions Seen Extending Into 2024
- Panama Canal Authority warns restrictions will stay in place for at least 10 months
 - 32 vessel transit per day vs. a max. of 38 to 40. Max. draft is 50 ft. current limit is 44 ft.
- Trans-Pac ships tapping Lázaro Cárdenas amid Panama draft limits



Source: WSJ 9.12.23 Splash 8.25.23; JOC 10.23.23

Section 5

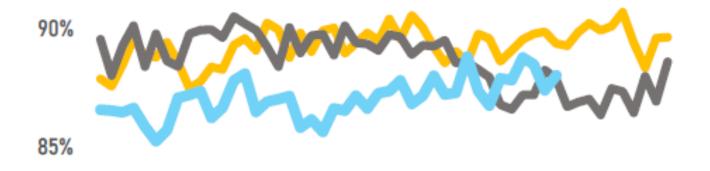
Rates

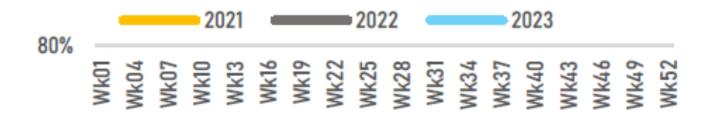
Vessel Utilization: Main Linehaul Trades







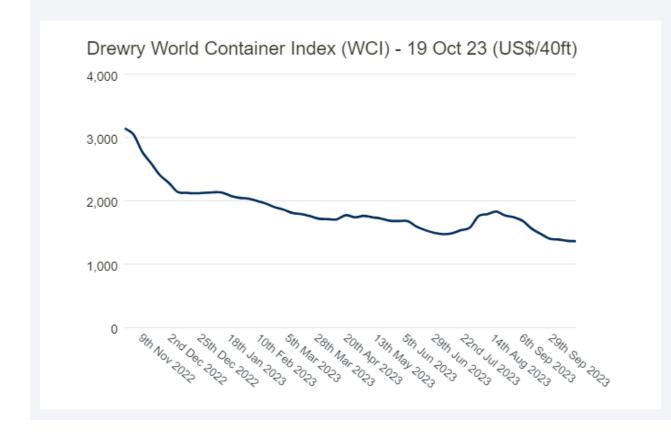




Drewry World Container Index

(Index as of October 19th, 2023 for 8 large trades)

Drewry's World Container Index remained stable at \$1,364 per 40ft container this week.



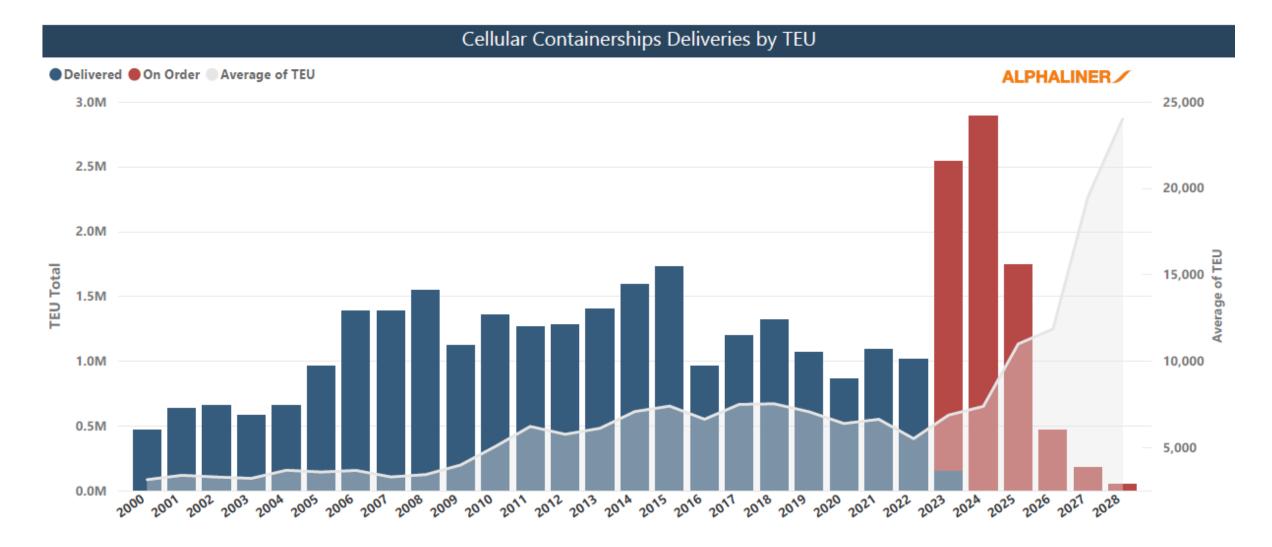


Facts:

- Supply/Demand balance fundamentally drives rates up or down
- Blank sailings are a more important tool today for carriers to control capacity and potentially rates
- The vessel order book reached approx. 30% of the existing fleet. One of the highest ratios on record. Over the next 2 yrs. the carriers will have to absorb approx. 7 to 8 million new TEUs of vessel space
- It is expected that vessel owners will scrap twice as much vessel capacity in the next 10 yrs. as they did in the past 10 yrs.
- It is expected that slower steaming and compliance with IMO 2023 will absorb some but not all of the new vessel capacity

Vessel Orders/Deliveries





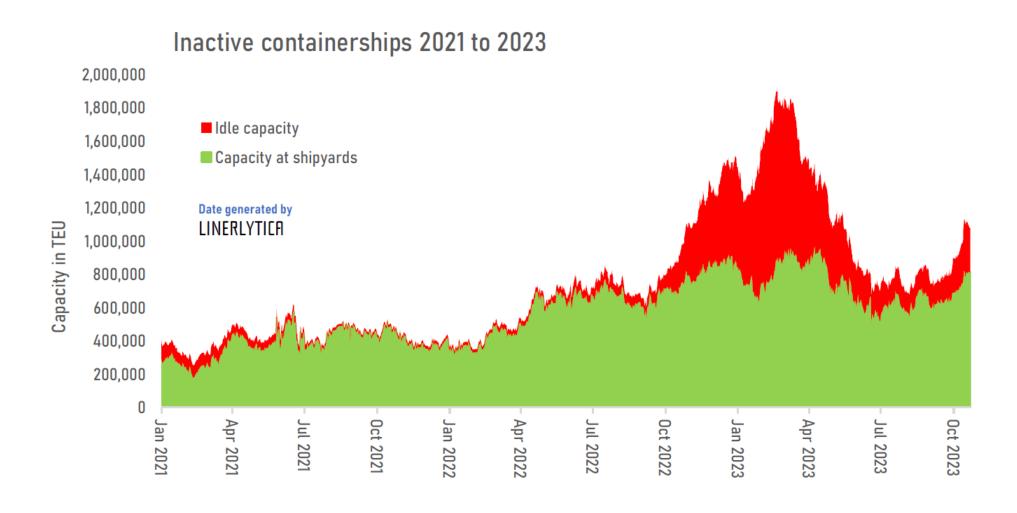
Capacity, Blank Sailings & Rates

- Blanked sailings fail to halt plummeting spot indices
- Carriers Pull Capacity to Boost Floundering Spot Rates
- More trans-Pac service cuts on tap for October as carriers seek to buoy rates
- Asia-North Europe blank sailings to soar in October amid capacity overhang

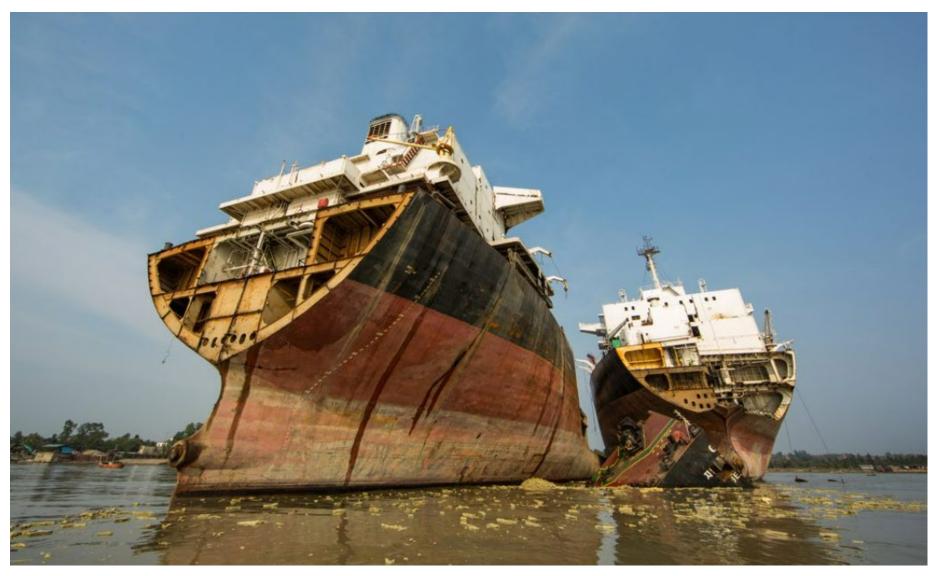


Inactive Vessel Capacity



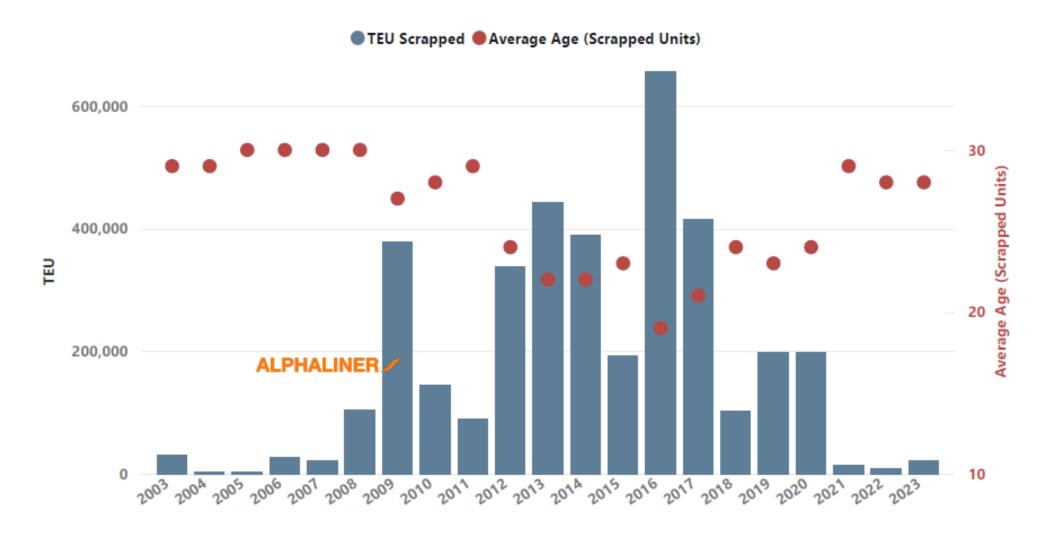


Vessel Scrapping



Vessel Scrapings





Trans-Atlantic Rates

Trans-Atlantic shipping suffers 'meltdown' as rates hit new low

Drewry's trans-Atlantic spot index at lowest level in over a decade

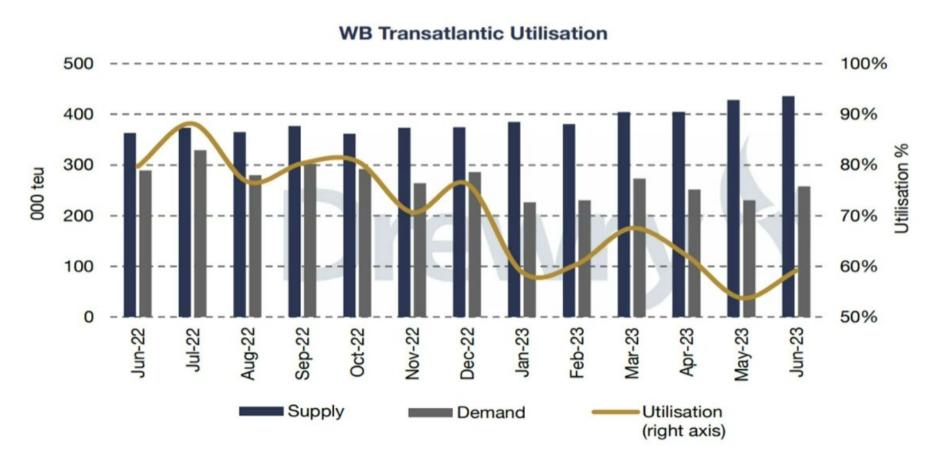
> Full-on rate collapse in the Atlantic



Source: American Shipper 8.17.23; SeaIntelligence 9.3.23

TAWB Vessel Utilization





Drewry

Trans-Atlantic WB Rates



Fig.A3: Annualized growth versus same month 2019



Fig.A4: 4-week avg capacity 120.000 100.000 80.000 TEU per week 40.000 20.000 Aug-12 Aug-16 Aug-18 Aug-19 Aug-20 Aug-17

Rotterdam-New York 8.000 7.000 6.000 5.000 USD/FFE 4.000 3.000 2.000 1.000 Aug-18 Aug-19 Aug-14 Aug-15 Aug-16 Aug-17 Aug-20 Aug-21

Fig.A1: Spot Rate (WCI)

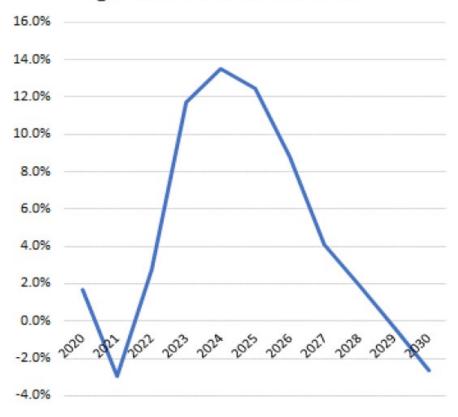
Vessel Capacity & Rates



2028 is earliest for overcapacity absorption

The influx of new vessels is worsening market conditions for carriers. Looking at the most positive, reasonable expectations for global demand growth in the coming years, the current overcapacity will only be absorbed by 2028.

Fig.A8: Cumulative excess supply growth less structural factor





Section 6

Government

EU Competition Law: The Block Exemption

- Europe to end ocean carrier exemption from EU competition law
- Liners wait anxiously on
 Washington's reaction as EU drops
 antitrust exemption
- Customers could end up paying the price for new competitive landscape







EU Emissions Trading System (ETS)

- 1. Approved by European Parliament in April 2023
- 2. Covers all GHG (CO2 to start. Others in 2026)
- 3. Carriers (others?) will be required to pay for allowances covering GHG
 - 40% in 2024
 - 70% in 2025
 - 100% in 2026
- 4. First legal compliance point is Sept. 2025
- 5. Cost per ton of GHG = \$110
- 6. Approx. total cost/yr. = \$10 billion for 100% of GHG

EU Emissions Trading System



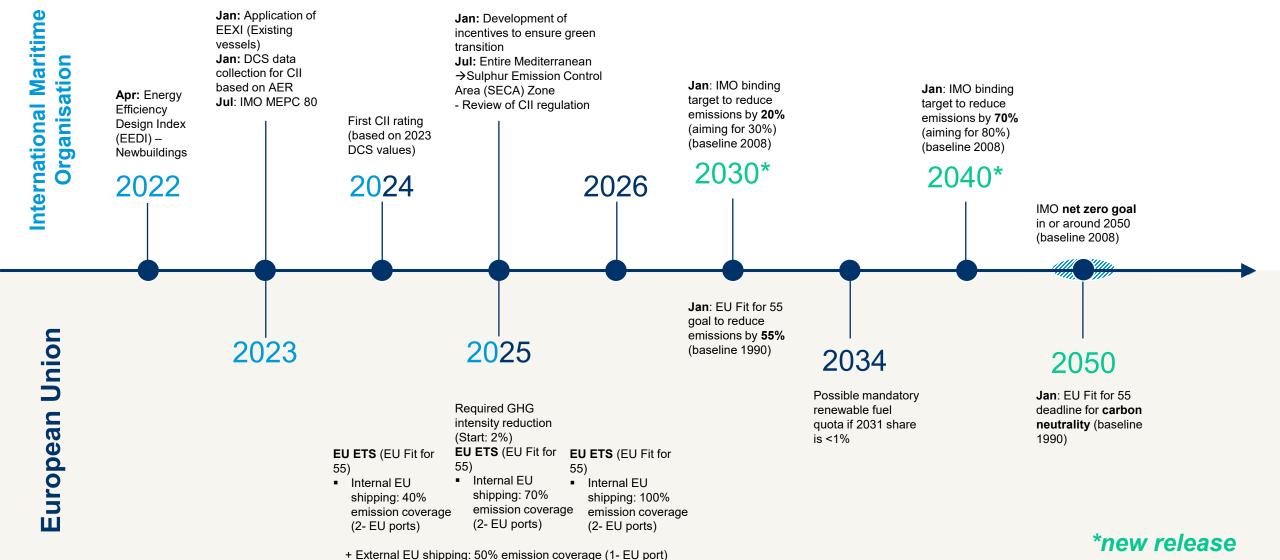


	Fig.A1: ETS surcharge (EUR/FFE)								
	Dry	Dry	Reefer	Reefer					
	Maersk	Hapag	Maersk	Hapag					
Asia - N.Eur	70	24	105	62					
Asia - Med	20	14	30	32					
N.Eur - Asia	46	24	69	62					
Med - Asia	11	14	17	32					
Asia-N.Eur R/T	116	48	174	124					
Asia-Med R/T	31	28	47	64					

Source: Sealntelligence 10.1.23; JOC 10.6.23

Environmental regulatory timeline





California Environmental Regulations





California poised to ban new diesel trucks

The earliest requirements would be for drayage trucks, which carry cargo to and from the ports of Los Angeles, Long Beach and Oakland and cause severe air pollution in nearby communities. All of them must be converted to electric models by 2035, and new sales beginning in 2024 must be zero emissions.

California's Zero-Emissions Rule Triggers a Run on Diesel Rigs

Source: Nadia Lopez 4.26.23; WSJ 9.20.23



California Dray Regulation

- \rightarrow
- **California's Assault on Trucks**

An accelerated ban on diesel fleets will wreak havoc on the industry.

- 272 EV registered in CA now. 510,000 needed by 2035
- EV trucks cost 2 to 3 times the cost of a Diesel truck
- EV trucks weigh 8 tons more than Diesel trucks reducing load and driving more trips
- Range runs 150 to 330 miles and charging takes 5 to 8 hrs.
- Currently 700 charging depots. 157,000 needed by 2030.
 450/week need to be added starting now.
- 1 charging station will sue approx. the same electricity as
 1,000 (or a small town)
- Required grid upgrades will require 5 to 10 years

Source: WSJ 8.31.23

California Environmental Rules



- Proposed emissions rule would cap LA-LB port volumes
- SCAQMD Indirect Source Rule (with port & terminal max. box volume)

Source: PMSA



Environmental Regulations Important For Ocean Transportation

- 1. IMO (International Maritime Organization)
- 2. UN 30x30 (United Nations)
- 3. EU Fit for 55 (European Union)
- 4. EU emissions trading system (carbon tax)
- 5. Possible industry-wide carbon tax
- 6. US vehicle regulations (e.g. heavy duty trucks)
- 7. California CARB dray and truck regulations
- 8. California SCAQMD Indirect Source Rule
- 9. EU efforts to move to rail from truck
- 10. US efforts to eliminate fossil fuels



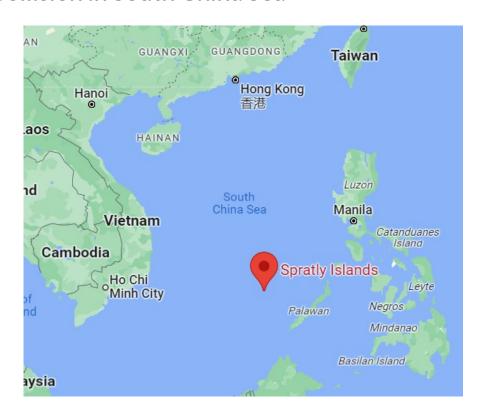
War In The Middle East

War in Israel: The new geopolitical flashpoint for ocean shipping

Source: American Shipper 10.11.23

Geopolitics: Getting Tense?

- China Says It 'Lawfully' Blocked Philippine Ships
- Philippines Blames Chinese Coastguard of Intentional Collision in South China Sea

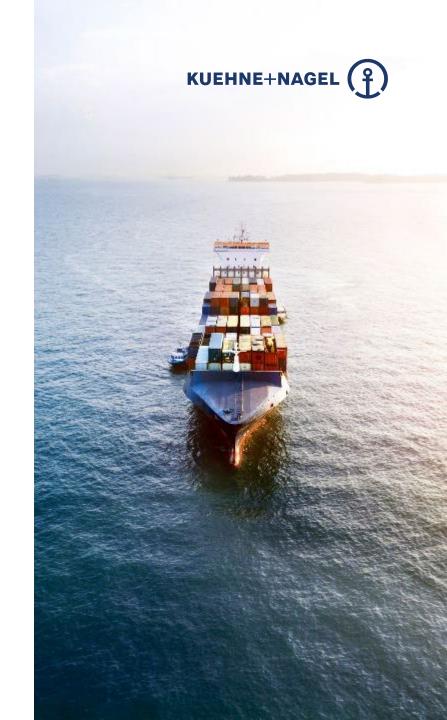


Source: gCaptain 10.23.23



US - China Relations

- China's Fighter Jets Aren't Just Flying Around Taiwan. They're Practicing.
- Apple Risks Getting Caught in Taiwan Tensions With iPhone Supplier Probes



Source: WSJ 9.21 & 10.24.23

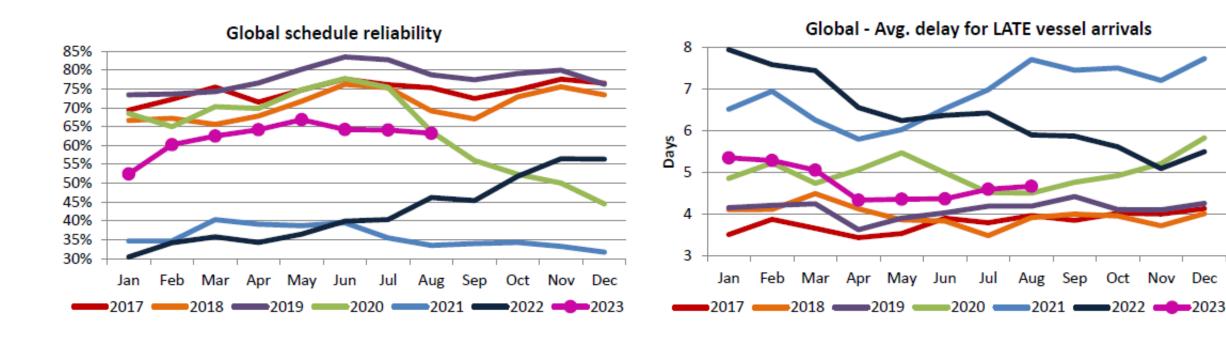


Section 7

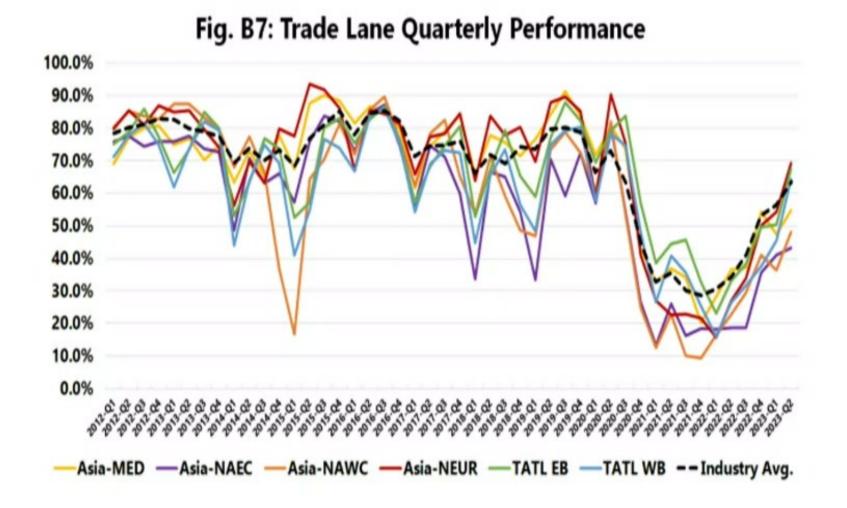
Industry Metrics

Carrier Schedule Reliability (August 2023 Data)





Schedule Reliability





Section 8

A Look Forward

Sourcing Patterns

- → US Nearshoring, Reshoring And Onshoring Is Booming
- US retailers downgrade import forecast through January amid sufficient inventories



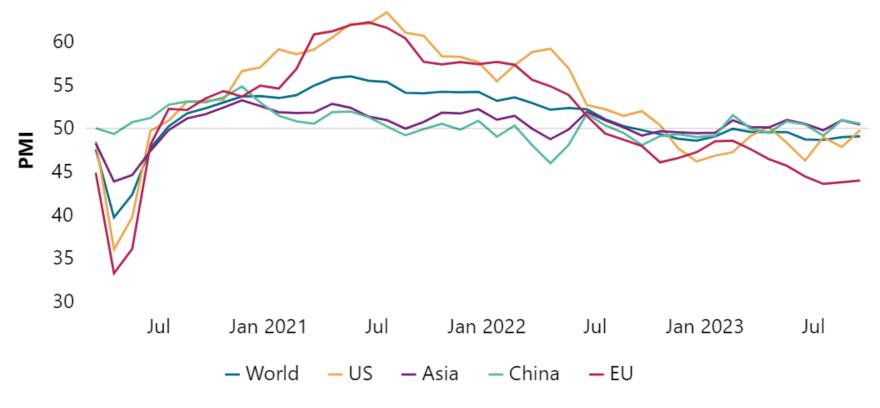
Source: Bloomberg 10.7.23; JOC 10.10.23

Manufacturers PMI



Global manufacturing growth sputtering

Manufacturing purchasing managers' index, seasonally adjusted; index more than 50 indicates growth since the previous month

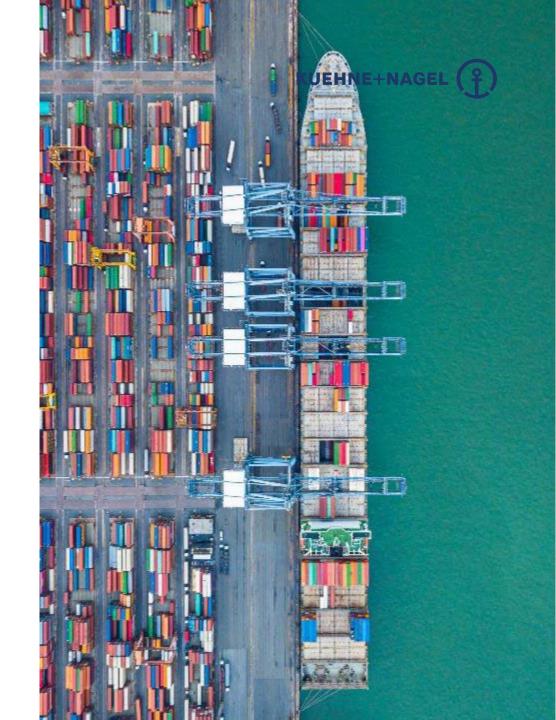


Source: S&P Global © 2023 S&P Global

Source: JOC 910.11.23

US Economic Forecast

- Inventories still high
- Modest sales growth in 2023 (3%)
- Slowdown in US credit card spending
- Avg. credit card interest rate at 23%!
- Holiday spending level in doubt



World GDP & Trade Outlook



Fig. A1: Global Economic Outlook

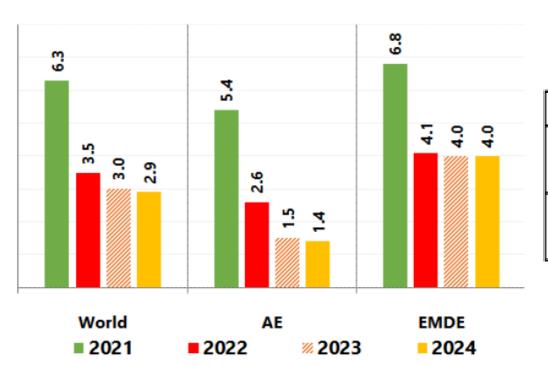


Table. A2: Revisions in World Trade Projections

						Diff. From July 2023 report			
		2020	2021	2022	2023	2024		2023	2024
World Trade Volume		-8.2	10.1	5.1	0.9	3.5		-1.1	-0.2
Advanced Economies	Import	-9.0	9.5	6.7	0.1	3.0		-1.8	-0.1
	Export	-9.4	8.7	5.3	1.8	3.1		-1.0	-0.1
Emerging Economies	Import	-8.0	11.8	3.2	1.7	4.4		-0.2	-0.5
	Export	-5.2	11.8	4.1	-0.1	4.2		-1.3	0.1

US West Coast Strategic Issues



West Coast Ports Face Hurdles Winning Back Importers

- A union with monopoly power
- Local population & political attitudes toward the transportation industry
- California regulation (business & environmental)
- No apparent acceptable way to increase terminal capacity

Source: WSJ 9.4.23





Disclaimer

- This document has been prepared and approved by Kuehne+Nagel or one of its affiliated companies and is for informational purpose only.
- The information presented in this document is intended for the recipient to whom it was delivered. Reproduction or distribution of this document in whole or in part is not permitted without the express written consent of Kuehne+Nagel or one of its affiliated companies.
- This document contains forward-looking statements. We caution the reader that forward-looking statements are no guarantees of future performance. Past returns are no indication of future returns. The development of the industry and markets described in this document may differ materially from the forward-looking statement contained herein.
- Information and opinions contained in this document have been compiled from sources believed to be reliable. Unless otherwise stated, any statements herein are based on our own estimates at the time of publication.
- Kuehne+Nagel or any of its affiliated companies make no representation as to the accuracy or completeness of any of the information contained herein and accept no liability for loss arising from the use of the information provided.
- This document is not an offer of any kind and of educational nature only. It had been prepared separately from any proposed offering of any security.

