

# Containerized Ocean Transportation:

The source of problems, current conditions & what to expect in the future



SYFA Conference  
November 4th, 2021  
Bill Rooney

# Agenda

1. Some history & background
2. Recent developments
3. Where are we now: Current state of the network & rates
4. Looking forward





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**Some History & Background  
Then .....What Happened?**

## **Container shipping “rational” but structurally challenged**

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1. Commodity service
2. Capital intensive
3. Fragmented
4. Family and government ownership prevents a shake out
5. Artificially low cost of capital (direct and indirect)
6. Largest clients well organised and exploit weakness



# Economics of the Ocean Market

## Historical Context:

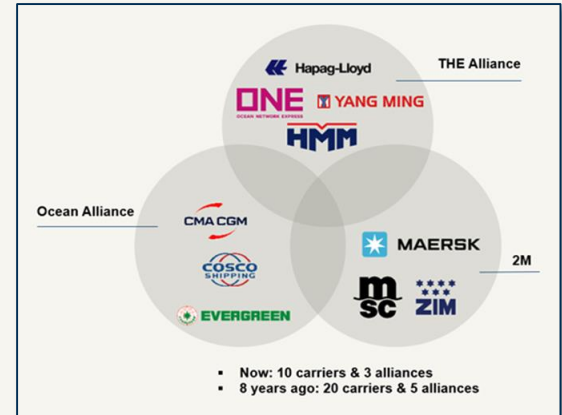
- 20 to 30 carriers
- Government ownership/subsidies
- Very low freight rates & returns on assets
- Consolidation

## Current Situation:

- 10 major carriers
- Only 3 alliances
- Carrier ability to manage capacity in real time = higher rates

## Trade Patterns :

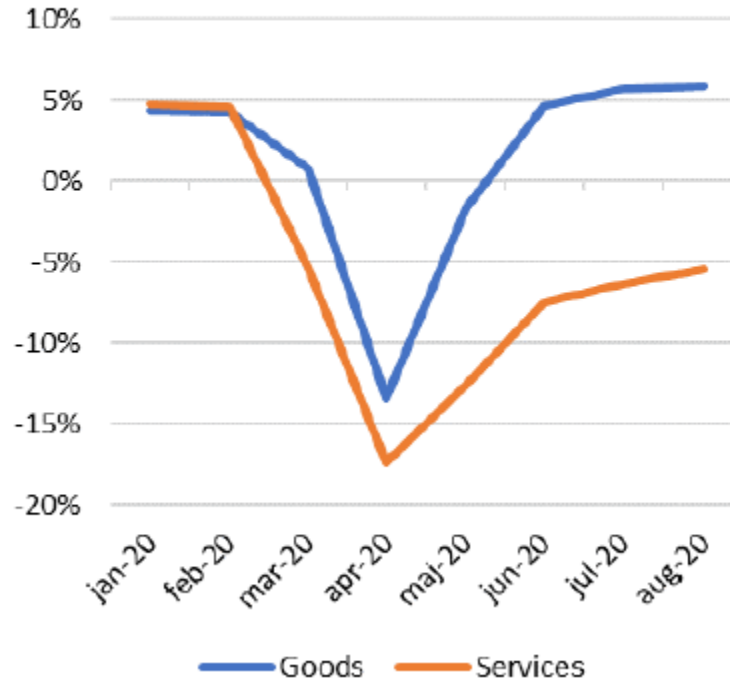
- Trade grew at approx. 10% per year from 1990 until 2008.
- Post great recession trade has grown at 3% to 4% per year.
- Slower trade growth forced carriers to find other ways to remain viable (larger, more efficient ships; more concentrated alliance structure; better capacity management)



# US Spending Trends: Early Covid



Fig.A2: Consumer Spending  
Year-on-Year growth

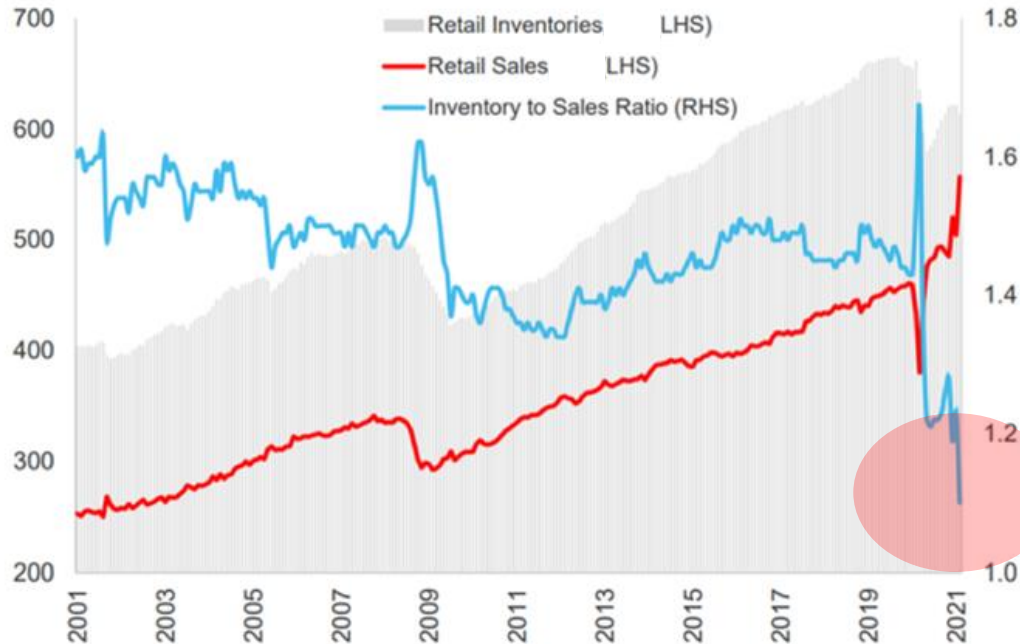


Source: Sea-Intelligence 10.4.20

## World trade Growth 2021 vs 2019 (Jan to May data)

Jan-May 2021 vs Jan-May 2019	Exporting region							Total imports
	Far East	Europe	North America	Australasia	Middle East/ISC	Sub Saharan Africa	Latin America	
Far East	4.6%	0.7%	-7.8%	-1.7%	12.2%	17.1%	4.0%	3.0%
Europe	0.4%	4.5%	-11.0%	-19.4%	6.9%	4.1%	5.0%	1.2%
North America	29.6%	8.8%	-21.7%	-11.5%	31.2%	20.6%	3.4%	22.3%
Australasia	7.5%	5.7%	-5.5%	-9.5%	10.7%	-4.6%	21.4%	4.7%
Middle East/ISC	-4.6%	-4.5%	-11.9%	8.3%	-9.9%	3.6%	5.5%	-5.7%
Sub Saharan Africa	-0.8%	3.4%	4.0%	-8.2%	9.9%	11.6%	34.6%	4.0%
Latin America	24.9%	12.3%	0.6%	-9.8%	45.2%	2.9%	7.8%	13.7%
Total exports	8.6%	3.5%	-7.4%	-4.4%	6.7%	10.0%	5.7%	5.6%

## Looking Forward: US Retail Sales & Inventories (monthly data in billions of USD) 20 years of development



### Facts:

- US retailers are struggling to meet demand as surging consumer spending, combined with shortages in shipping industry, pushed inventories to historic lows
- Ratio between inventories and sales has never been so low over the last 30 years
- Given the current circumstances, no matter how strong the demand will be, US inventories won't be able to recover until 2022





# 2

## Recent developments

## Developments

# Misplaced Christmas empty shelf paranoia sweeps across the press



Sam Chambers · October 13, 2021

3 🔥 1,184 📄 2 m

## Supply chain gridlock dominates Sunday talk shows

DOT Secretary Buttigieg says 24/7 port operations aren't panacea, looks to expedite truck driver licensing

*Source: SPLASH, American Shipper*



## Developments

### LA-LB ports approve new fees on excessive container dwells

Bill Mongelluzzo, Senior Editor | Oct 29, 2021 4:46PM EDT

### FMC waits for details on California port surcharges

### Shippers fear 'catastrophic' fallout from 'crazy' California port fees

### NS cutting free time for international boxes

Ari Ashe, Senior Editor | Nov 01, 2021 10:01AM EDT

*Source: American Shipper, JOC, Freight Waves*



## Developments

### Tighter Warehouse Space Adds to the Supply-Chain Squeeze

Availability fell to record lows last quarter, including a 1% vacancy rate in the Los Angeles area, CBRE says

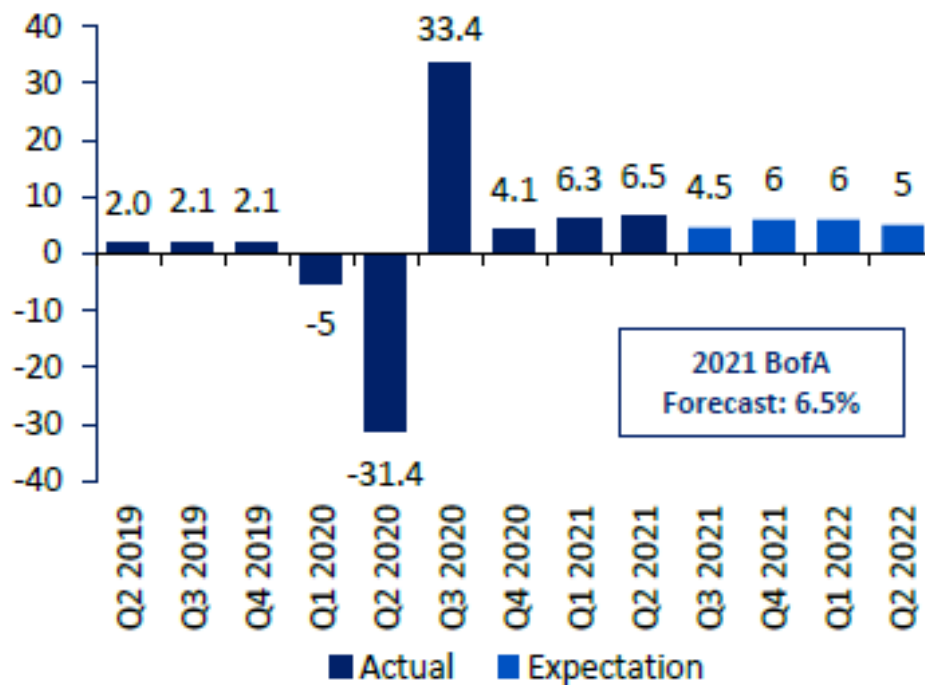
Biden's 24/7 port schedule is pointless when warehouses aren't open at 3 a.m. and there aren't enough truckers to collect cargo, logistics exec says

*Source: Reuters, WSJ*



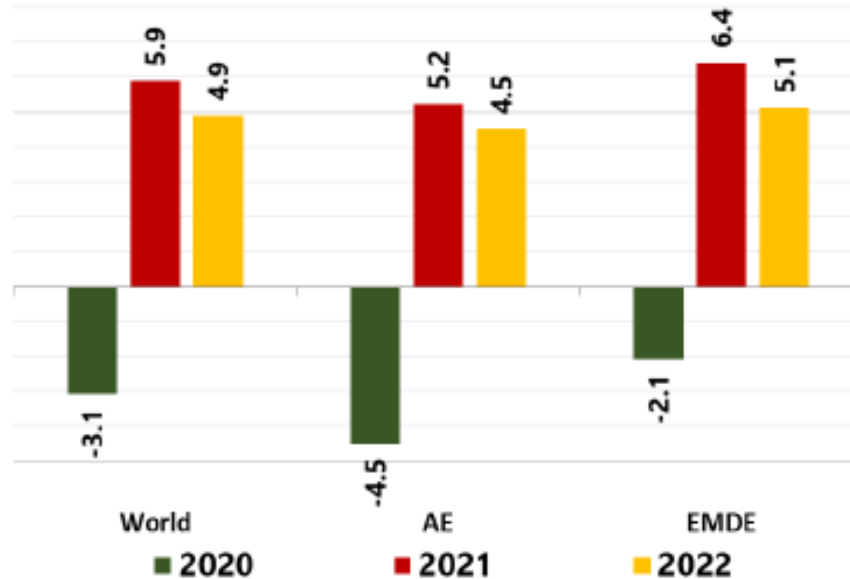
## U.S. GDP Growth Expectation

Source: Bank of America Merrill Lynch Global Economic Research



# Changing Economic Outlook: GDP Forecasts (Oct. 2021)

**Fig. C1: Global Economic Outlook**

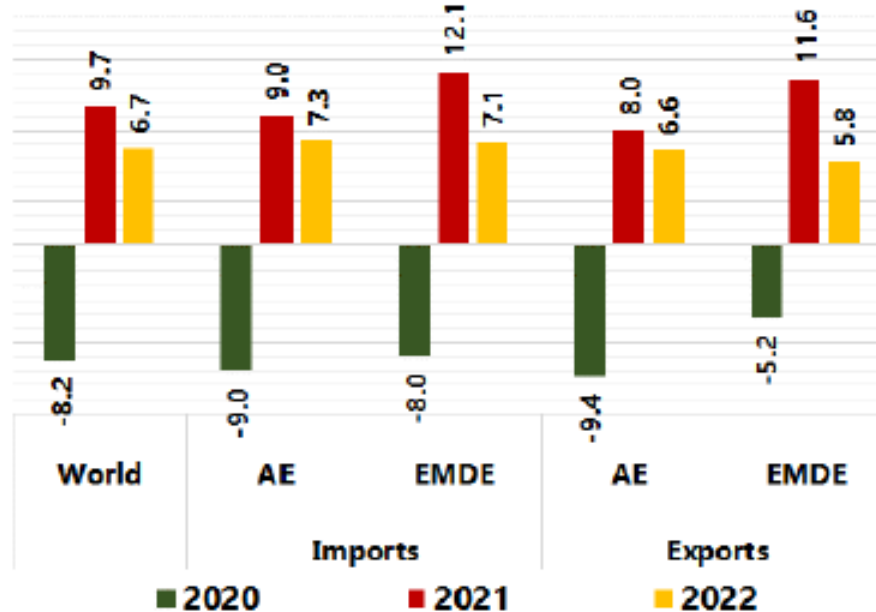


*Source: IMF, SeaIntelligence*



# World Trade Outlook (Oct. 2021)

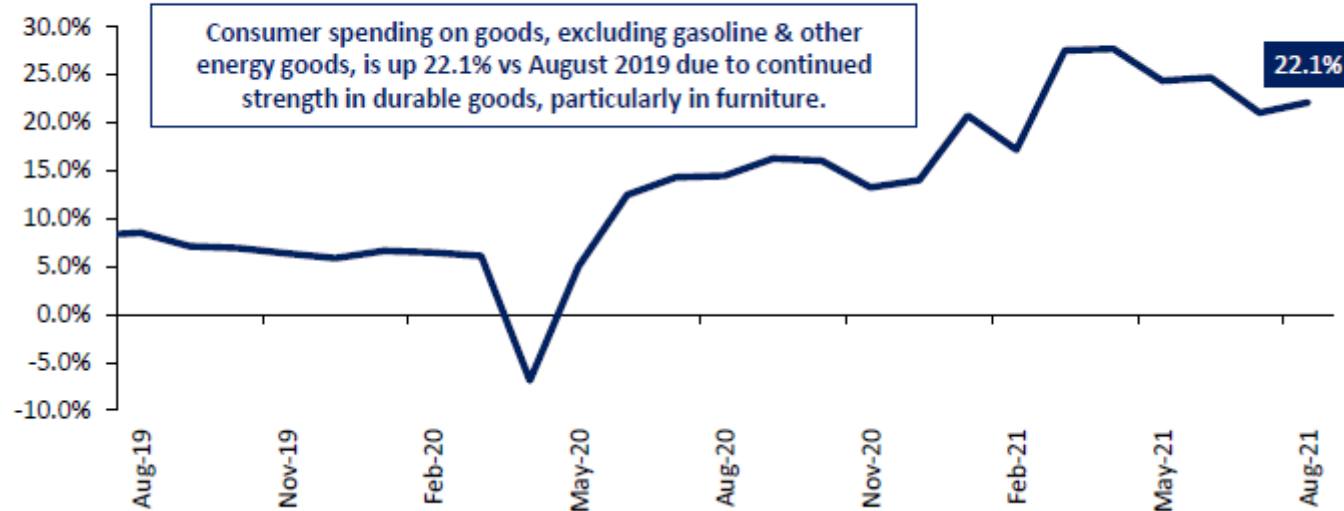
**Fig. C2: World Trade Outlook**



*Source: IMF, SeaIntelligence*

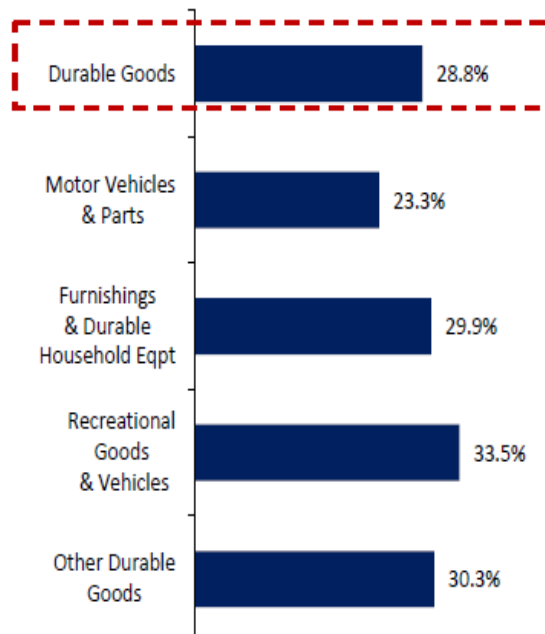
# US Consumer Spending on Goods

## U.S. Consumer Spending on Goods

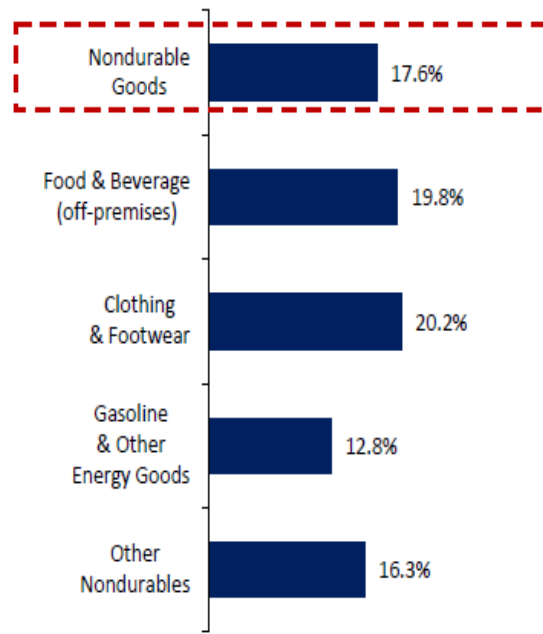


# US Consumer Spending (Aug. 2019 vs. Aug. 2021)

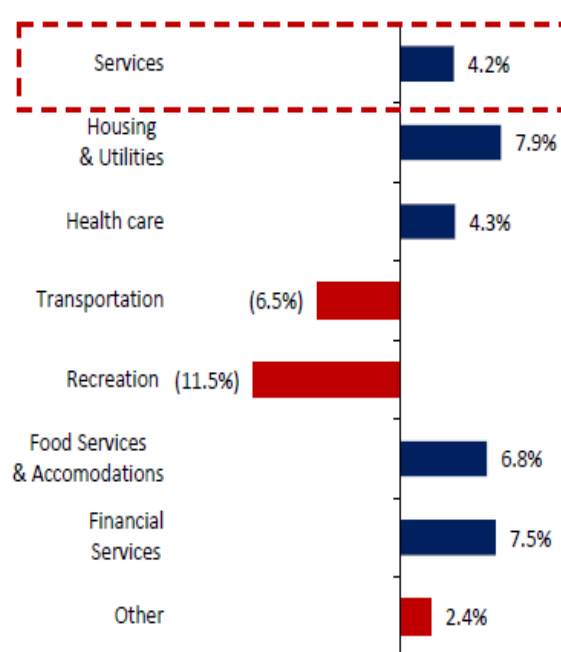
## Durable Goods



## Nondurable Goods



## Services



Note: Reflects % change for 2021 vs. 2019, seasonally adjusted (SA), for the month ending August 31<sup>st</sup>, 2021

## Developments

### US inventories reach record high

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The data for US inventories shows a mixed message of record high inventories as well as record low levels of inventories when seen relative to sales.

### Inland Empire warehouse vacancy rate hit 0.7% in quarter: CBRE

Industrial vacancies nationwide fall to record 3.2% in Q3, asking rents at all-time high

*Source: Sea-Intelligence, Freight Waves*

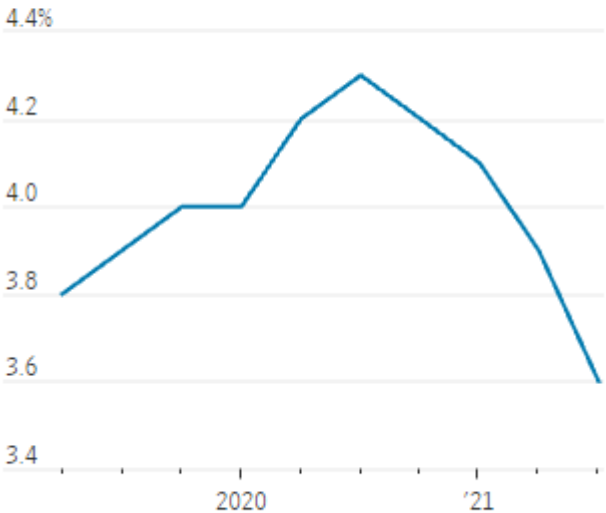


# Warehouse Space Tight

## Tight Squeeze

Average vacancy rate for industrial real estate in the U.S.

### Quarterly rate



Source: CBRE

Source: CBRE, WSJ

# US Inventories

Fig.A5: Sales by category

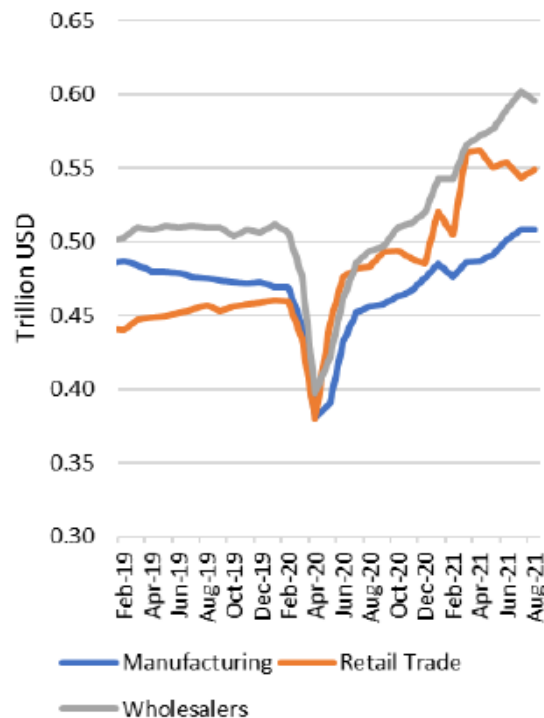


Fig.A4: Inventories by category

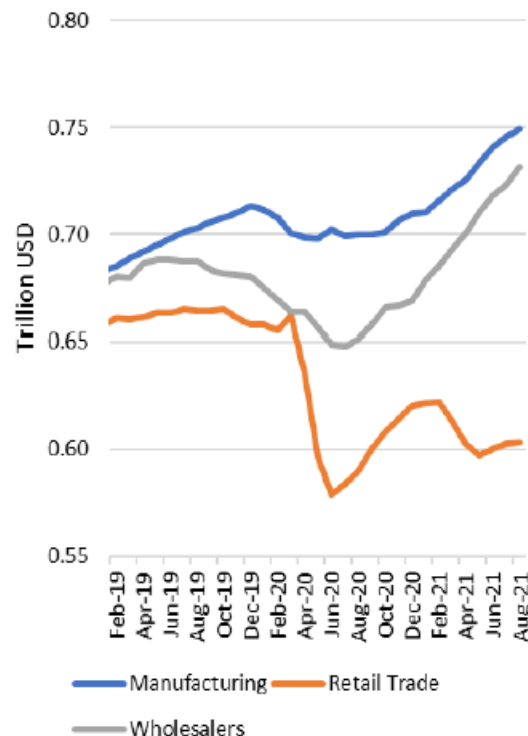
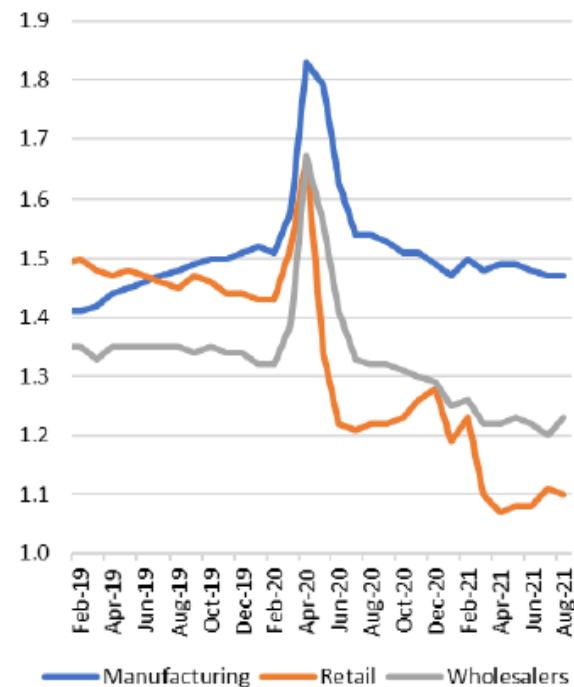


Fig.A3: Inventory to Sales ratio by category

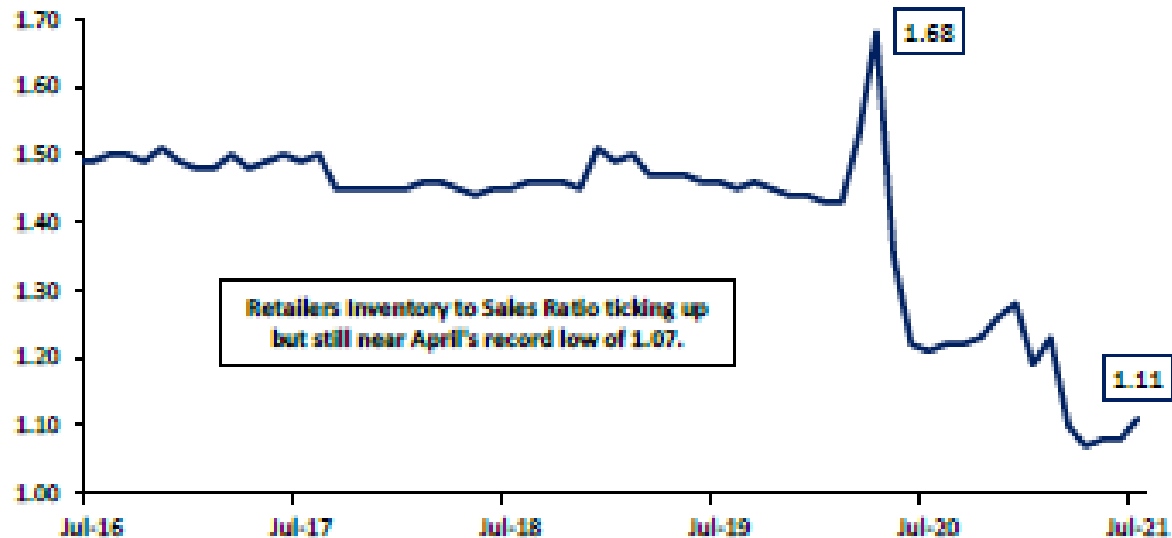


Source: Sea-Intelligence



## Total Retailers Inventory-to-Sales Ratio

Source: Federal Reserve Bank of St. Louis; Seasonally Adjusted



# Fuel Price (IFO380)

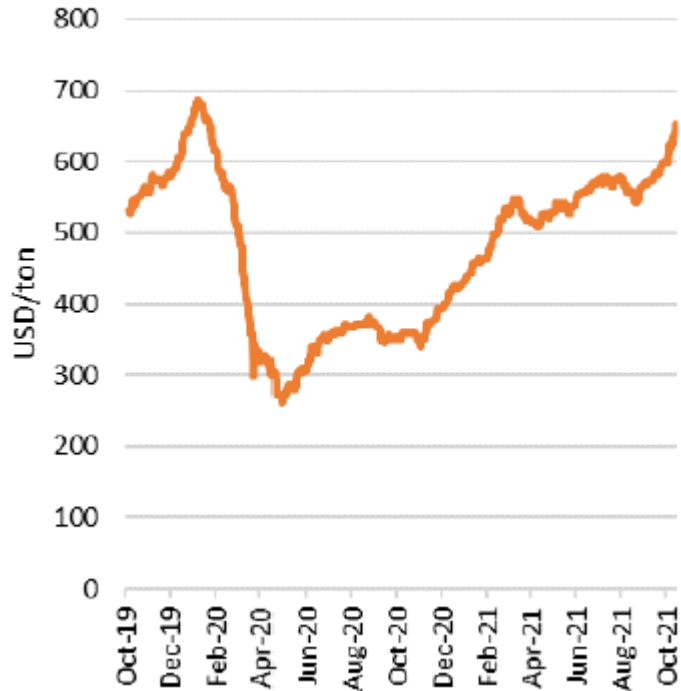
Fig.C1: Long-term bunker fuel price (IFO380)



Source: SeaIntelligence

# Fuel Price (VLSFO)

Fig.C2: VLSFO fuel price



**Surging oil demand sees VLSFO prices surpass \$600 for first time since the start of the pandemic**

*Source: SeaIntelligence, SPLASH*

## Developments

# Container market to remain tight through 2022: Drewry

Michael Angell, Associate Editor | Oct 20, 2021 8:00AM EDT

## No relief from 'ridiculously expensive' container shipping rates

FBX Asia-West Coast spot-rate index rate spiked 21% on Thursday

*Source: JOC, American Shipper*



## Developments

### Covid Impact Not Over Yet (From WSJ 11.1.21)



**China Locks 30,000 Visitors  
Inside Shanghai Disneyland  
After Covid-19 Case**

*Source: WSJ*





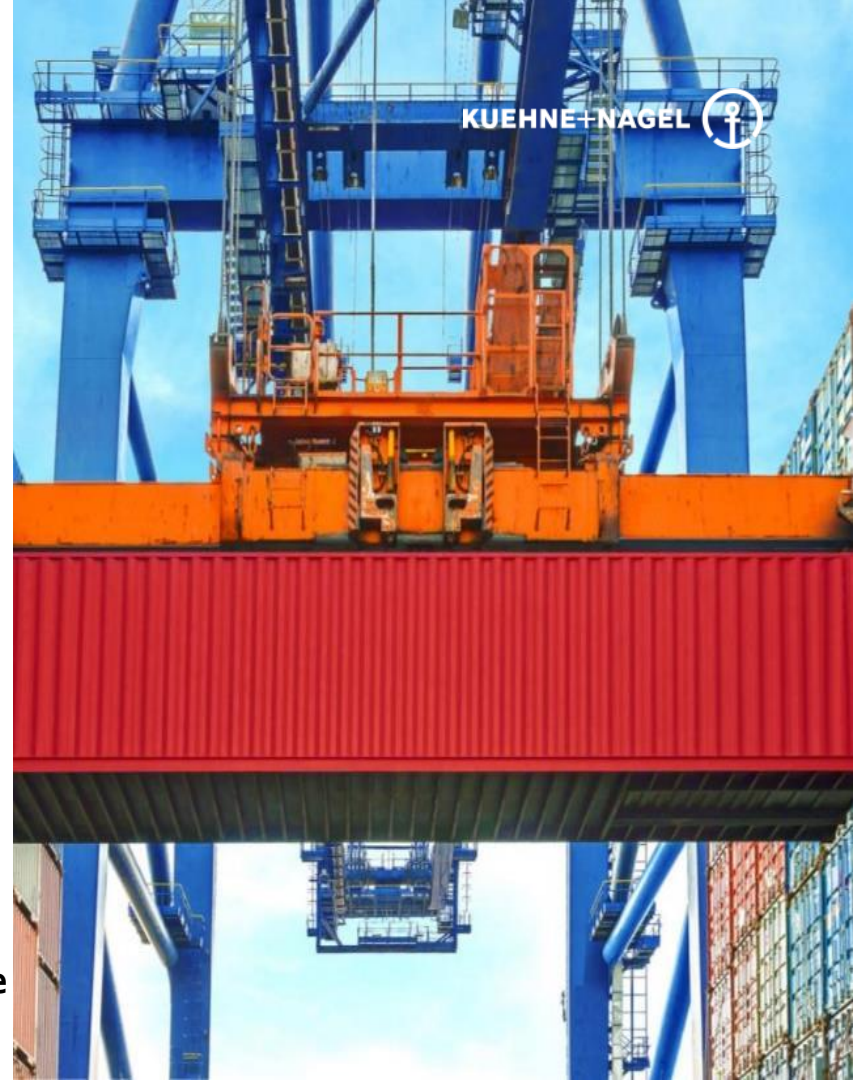
# 2

**Where Are We Now?  
Current State of the  
Network & Rates**

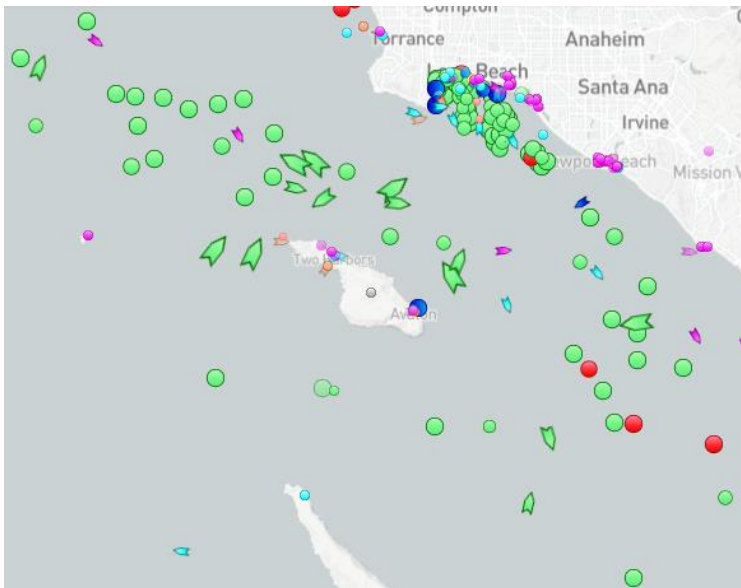


## Summary Observations on 11.4.21

- Global network congestion & asset shortages continue
- Rates still at record levels... but appear to have peaked
- Cargo volumes expected to continue at high levels for the rest of the year & into 2022....esp. US
- The US is in a critical network congestion situation for vessels, ports, ramps, trucking, chassis and rail. It's a perfect storm & no improvement yet
- Covid still an issue but on the down swing globally
- Nothing in the market on either the supply or demand sides points to any significant improvement in conditions until after Lunar New Year 2022 and probably not until mid-year 2022
- US government action will have limited or no impact in the short run



# Port Congestion

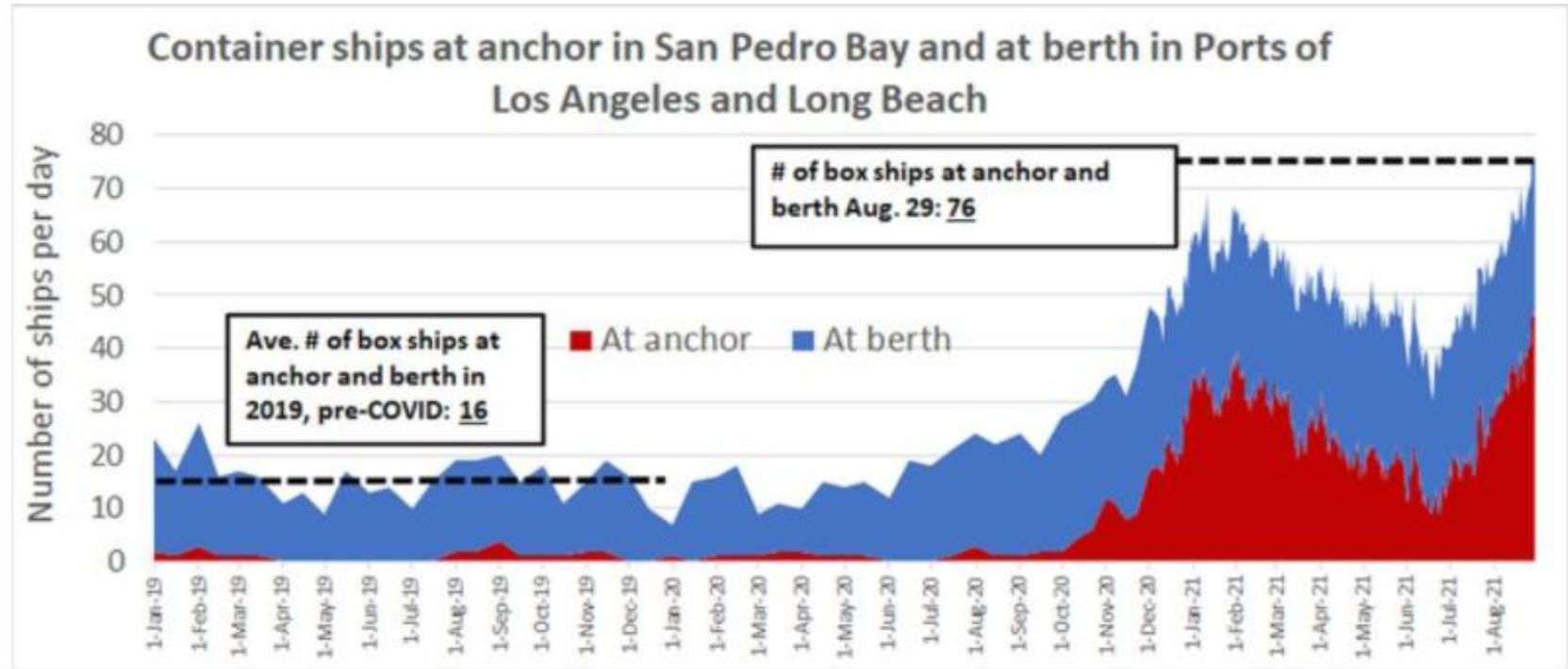


LALB on October Nov. 2<sup>nd</sup> 2021

## Ships waiting at anchor as of 11.2.21:

- Los Angeles/Long Beach: 71
- Oakland: 1
- SEA/TAC/VAN 13
- Savannah: 21
- New York/NJ: 3
- ANT/Rott: 11
- BHV/HAM: 3

# Los Angeles/Long Beach Vessel Status Pre & Post Covid

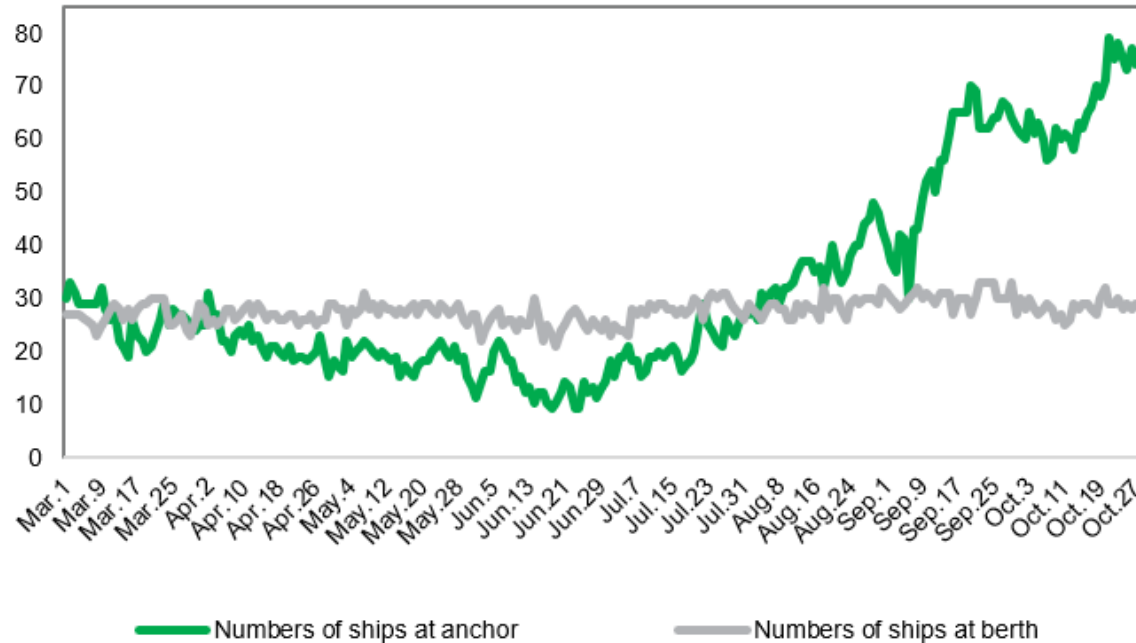


Source: American Shipper & Marine Exchange of Southern California

# LALB Vessels at Anchor or Drifting

## No easing in sight for LA-LB container ship backlog

Container ships at berth and waiting at anchor in the ports of Los Angeles and Long Beach



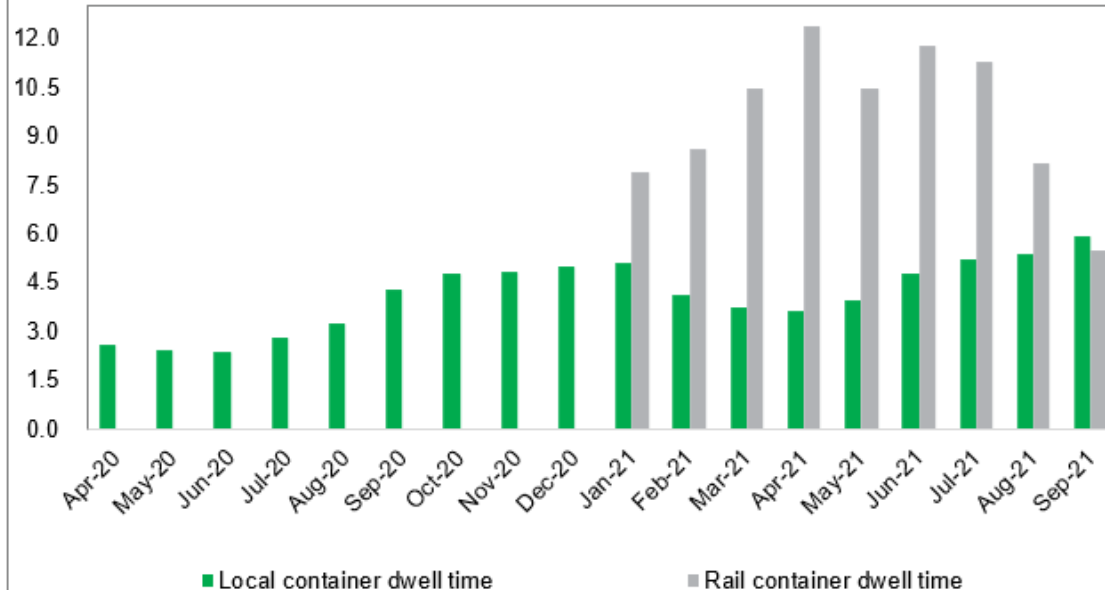
Source: Marine Exchange of Southern California

© 2021 IHS Markit

# LALB Dwell Times

## LA-LB container dwells continue to rise

Average number of days local-delivery containers and rail containers spend at Los Angeles-Long Beach port complex



Source: Pacific Merchant Shipping Association

© 2021 IHS Markit

Source: JOC

# Vessel Delays (current)

## Almost all trades impacted by bottlenecks

Fig.A1: Delays in excess of 2016-19 baseline  
Global average

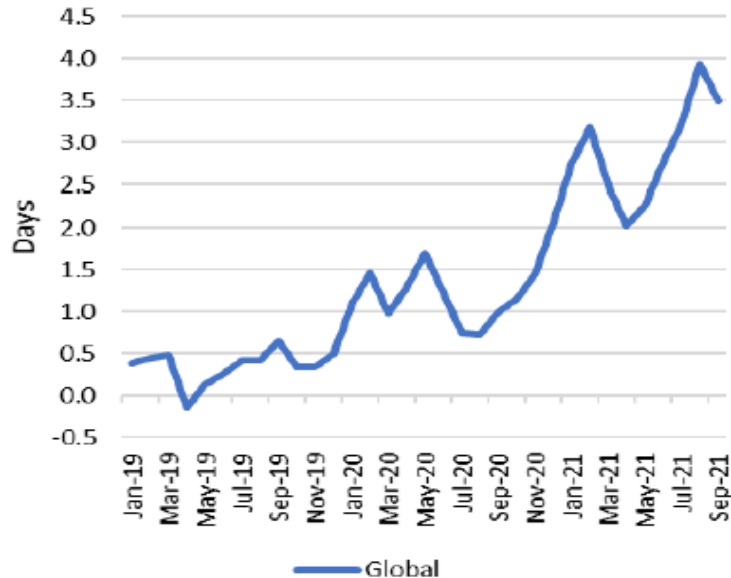
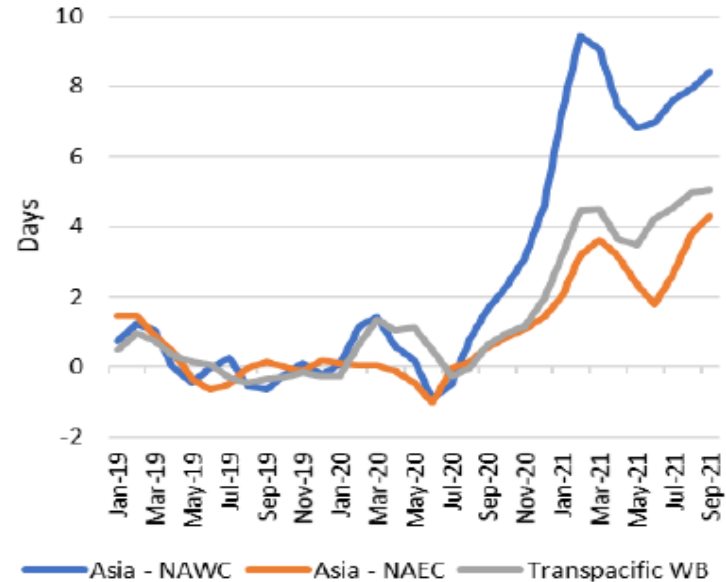


Fig.A3: Delays in excess of 2016-19 baseline  
Transpacific





# Vessel Delays (Sept. 2021)

Fig.A5: Delays in excess of  
2016-19 baseline  
Atlantic

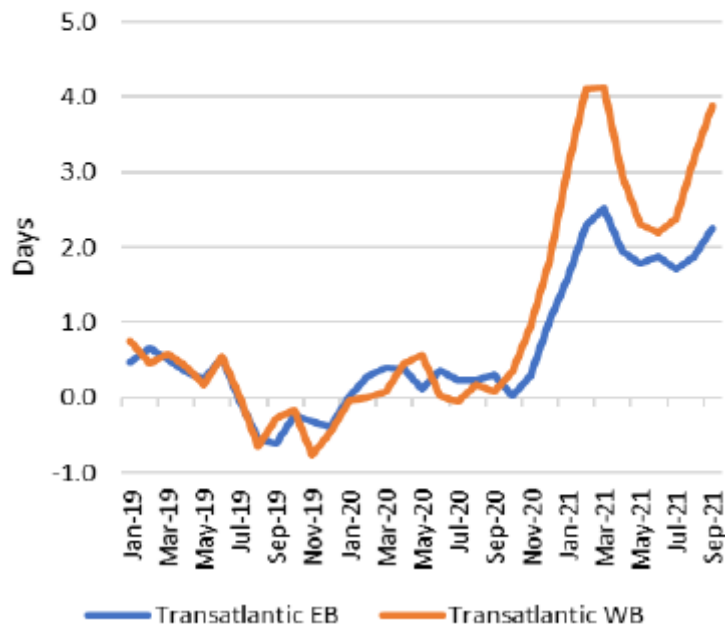
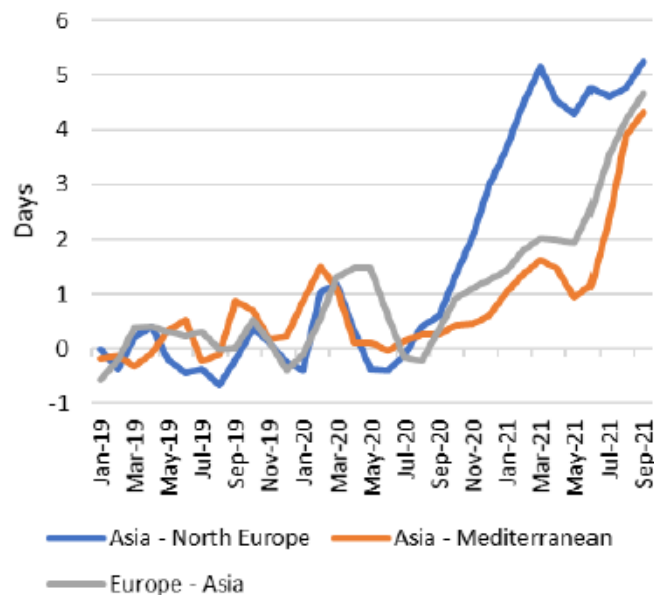
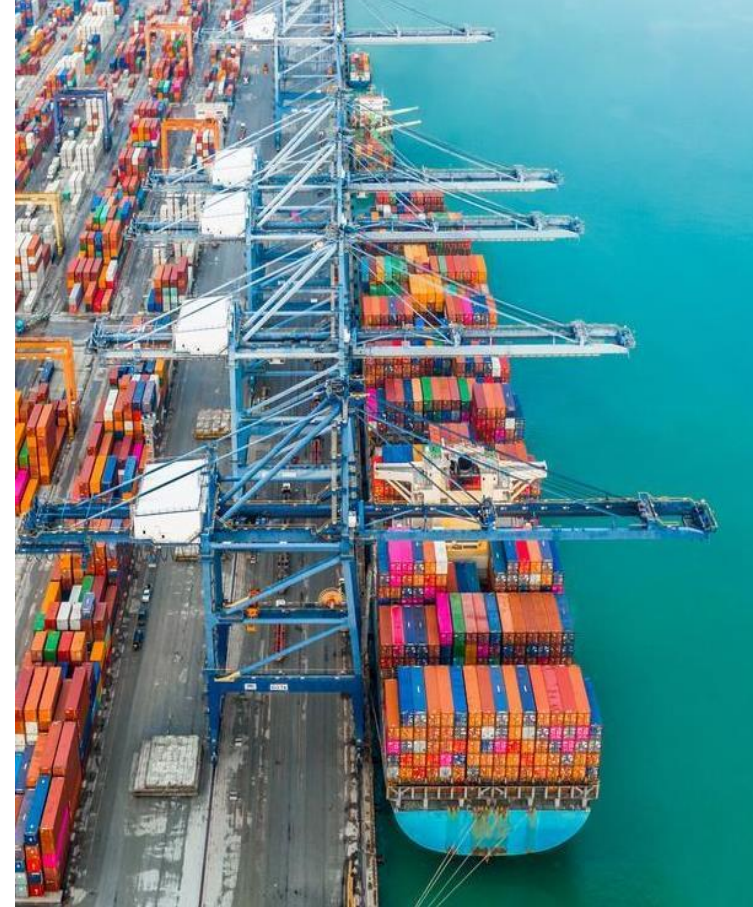
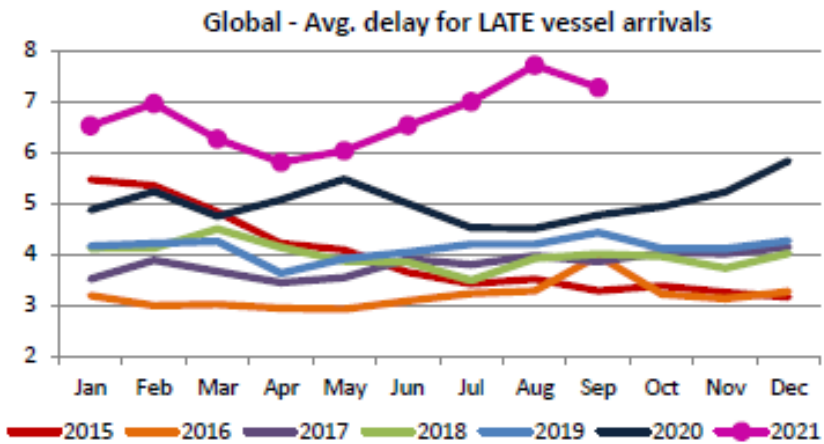
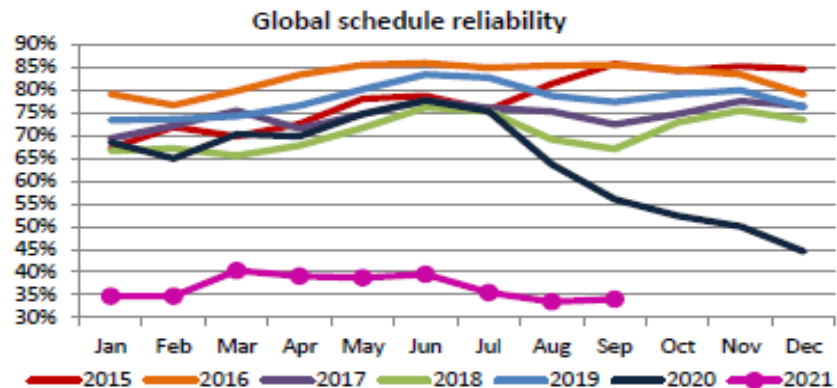


Fig.A4: Delays in excess of  
2016-19 baseline  
Asia-Europe



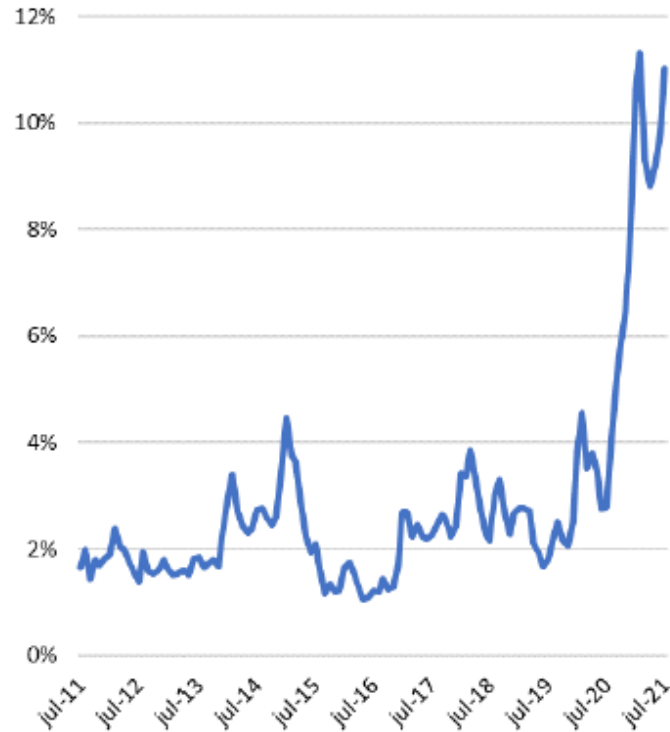
## Carrier Schedule Reliability (September data)



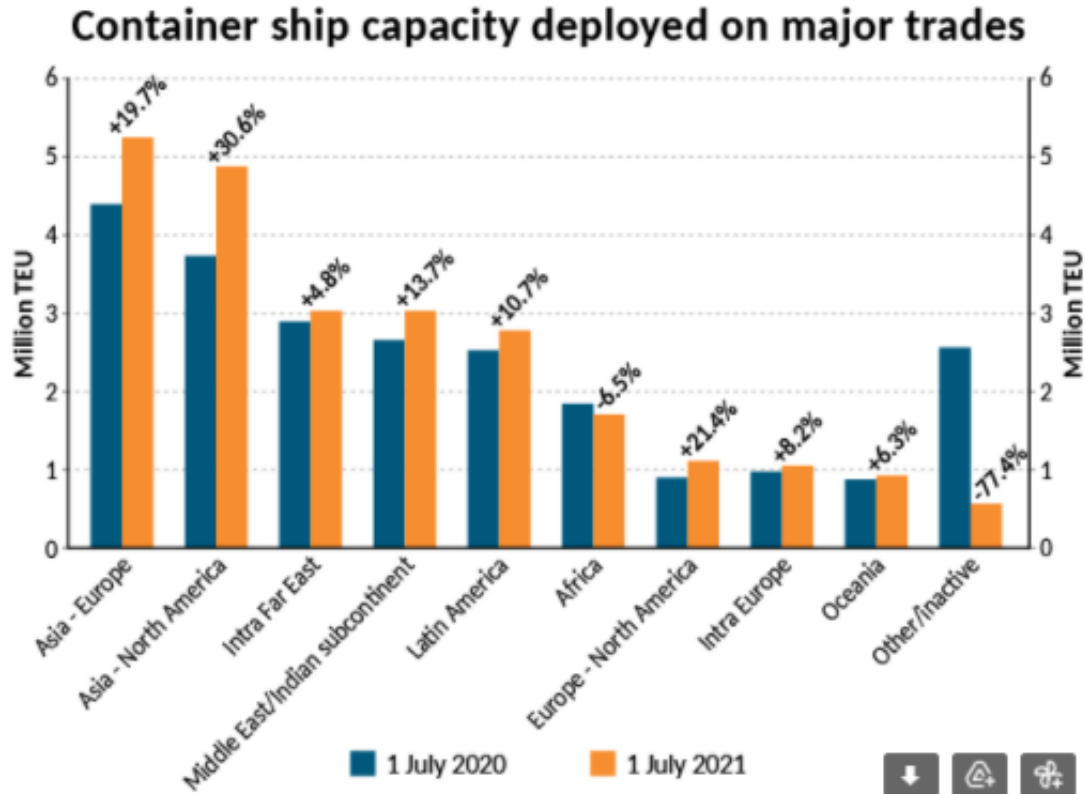
Source: sea intelligence Maritime Analysis / Global  
Liner Performance Report – October 2021

# Vessel Capacity: What Has Congestion Caused?

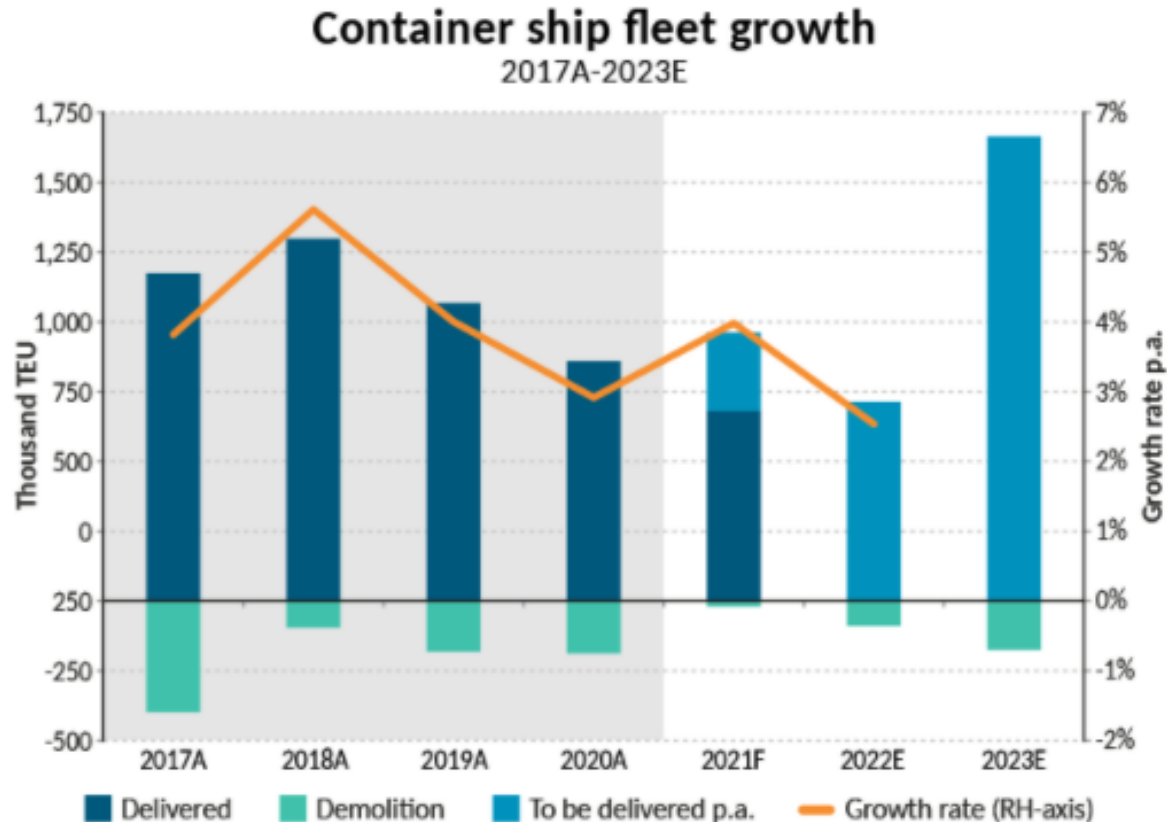
Fig.C1: Absorption of global fleet  
due to delays



# Vessel Capacity by Trade 2021 vs 2020

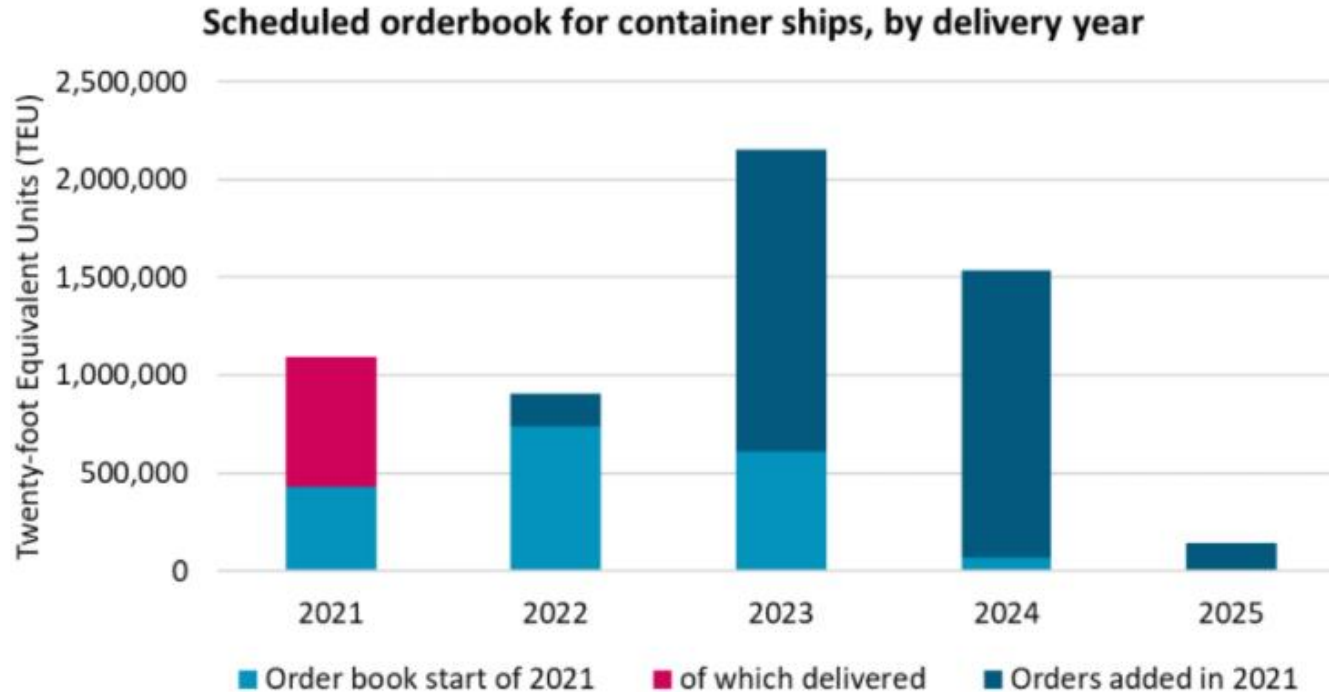


# Container Ship Fleet Growth I



Source: BIMCO, Clarksons

# Container Ship Fleet Growth II



Source: BIMCO, Clarksons

# Train Fluidity & Intermodal Volume (Class 1 RR)

## Train speed & car dwell wks 32 to 42 2021 vs. 20

(1.6%)  
(2.4%)  
(1.4%)  
(0.0%)  
0.2%  
(0.4%)  
(1.5%)  
(2.0%)  
(2.0%)  
(2.6%)  
(3.7%)

## Intermodal volume wks 32 to 42 2021 vs. 2020

(2.8%)  
(4.2%)  
(5.2%)  
(7.3%)  
(8.0%)  
(6.8%)  
(8.1%)  
(5.7%)  
(6.0%)  
(9.3%)  
(9.5%)

**Trains are 13% slower in 2021 vs. 2016. 20.8 MPH vs. 24 MPH  
A mixed bag for 2021 vs. 2020.**

**Intermodal volume in Q2 2021 was 25% to 30% higher in 2021 vs. 2020**

**Intermodal volume for weeks 33 to 43 in 2021 is lower than comparable weeks in 2020 and 2019. Domestic is down but international is up**





# Container shipping can't lose sight of IMO 2023 impact

Lars Jensen, CEO & Partner, Vespucci Maritime, and JOC Analyst | Nov 01, 2021 10:20AM EDT

## 2023 and onwards: New IMO regulations

Being EEXI and CII compliant will reduce the CO<sub>2</sub> emissions and well as the capacity available

Regulation	EEXI	CII
When	2023	Every year from 2023
What	Vessel design efficiency compliance 	Yearly CO <sub>2</sub> emission compliance stricter every year 
How	By limiting power engine and max speed	By limiting consumption through optimized operations or lower ops speed
Consequences	<ul style="list-style-type: none"><li>Invest to optimize engine power</li><li>Majority of the world fleet to go to drydock to make technical changes</li><li>Current rotation can't be performed with new max speed:<ul style="list-style-type: none"><li>✓ Additional vessels required</li><li>✓ Change the design of the service</li></ul></li></ul>	<ul style="list-style-type: none"><li>Current rotations are consuming too much:<ul style="list-style-type: none"><li>✓ Additional vessels required</li><li>✓ Change the design of the service</li></ul></li><li>No speed can be used for schedule recovery</li><li>More fleet sliding generating more blank sailings</li><li>Non-compliant vessels won't be allowed to sail</li></ul>

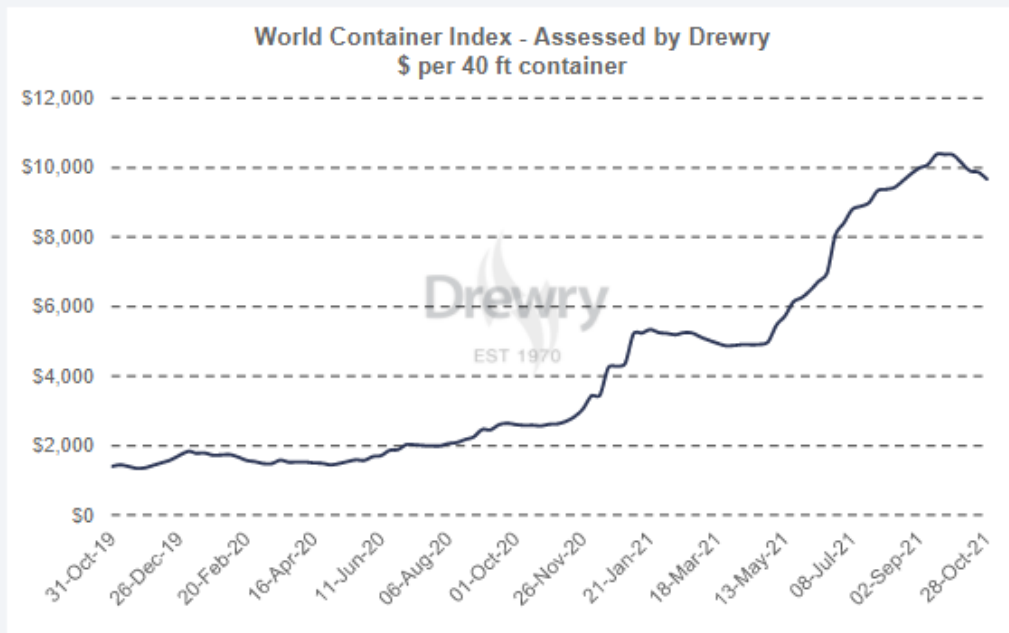
As from 2022, most of the 6,000 containerships worldwide will go on drydock to make technical changes to reduce CO<sub>2</sub> emissions **limiting temporarily the capacity**

To remain compliant, most of the vessels will have to reduce their speed, as a result **more ships will be needed to maintain weekly frequencies, reducing further global capacity**

# Drewry World Container Index

(Index as of October 28, 2021 for 8 large trades)

Drewry's composite World Container index decreased 2% to \$9,669.47 per 40ft container this week.



## Facts:

- Carriers responded to early Covid-19 lack of demand with massive vessels lay-ups
- As economies re-started carriers cautiously re-instated capacity
- In many regions (example North America) consumption spiked due to more disposable income available to consumers: less spending on services such as vacation travel, but higher spending's on consumer durables boost container shipping and rates
- Spike led to equipment imbalance and shortages which drove up rates
- Rates have continued to rise in many trades....but have they peaked?
- Government involvement & inquiries growing in the US, Europe & Asia

# Drewry Spot Rates Assessment October 28th, 2021

Route	14-Oct-21	21-Oct-21	28-Oct-21	Weekly change (%)	Annual change (%)
Composite Index	\$9,900	\$9,865	\$9,669	-2% ▼	276% ▲
Shanghai - Rotterdam	\$14,605	\$14,555	\$14,062	-3% ▼	543% ▲
Rotterdam - Shanghai	\$1,590	\$1,582	\$1,591	1% ▲	45% ▲
Shanghai - Genoa	\$13,651	\$13,544	\$13,123	-3% ▼	389% ▲
Shanghai - Los Angeles	\$10,898	\$10,898	\$10,976	1% ▲	172% ▲
Los Angeles - Shanghai	\$1,307	\$1,315	\$1,302	-1% ▼	151% ▲
Shanghai - New York	\$14,025	\$13,939	\$13,554	-3% ▼	178% ▲
New York - Rotterdam	\$1,154	\$1,189	\$1,189	0%	115% ▲
Rotterdam - New York	\$6,200	\$6,157	\$6,161	0%	206% ▲

Source: Drewry Supply Chain Advisors

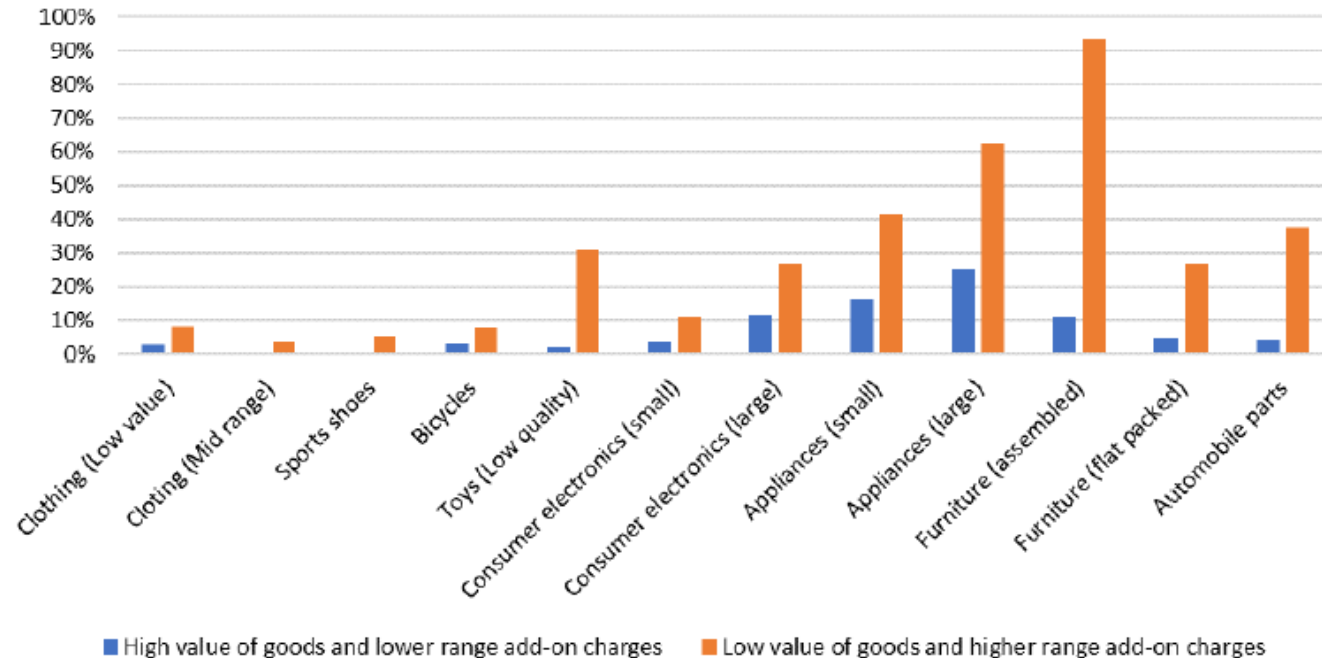
# Rates in a Historical Context



Source: Drewry & The Economist

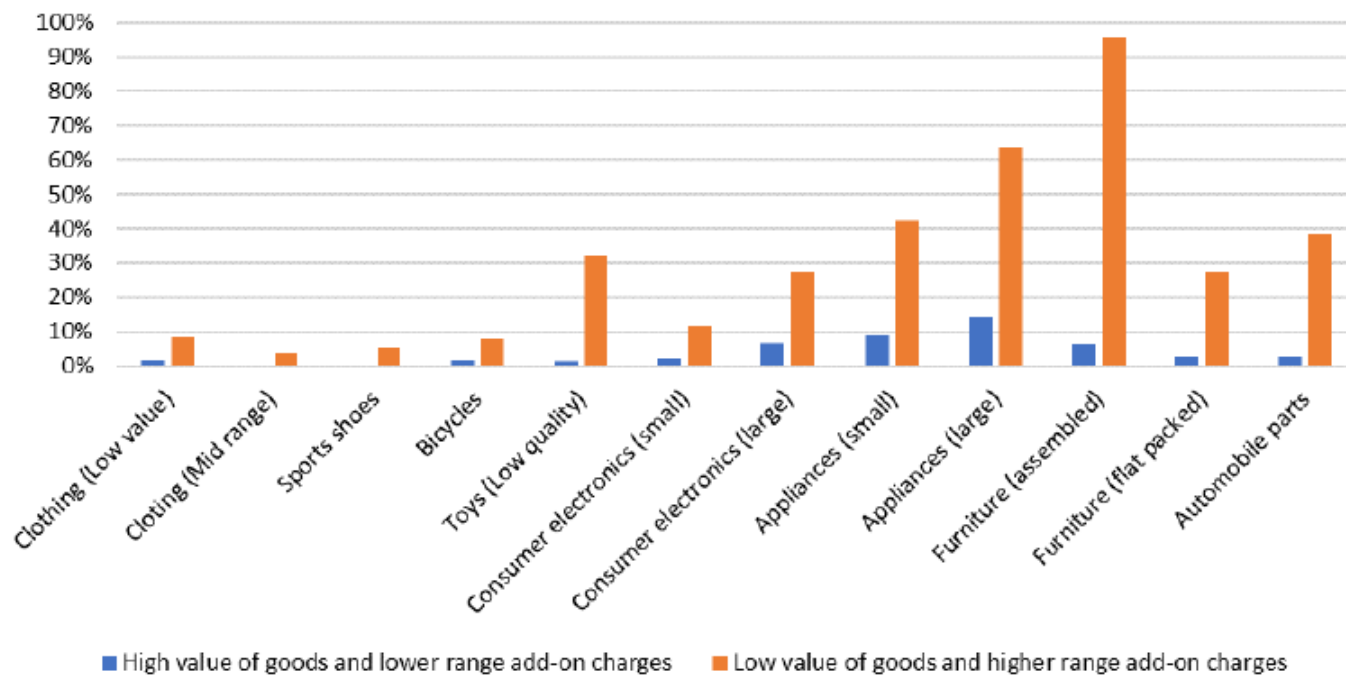
# Rates vs. Product Value: Asia to N. Europe

Fig.A5: Ocean freight rate as share of cargo value  
Asia-North Europe



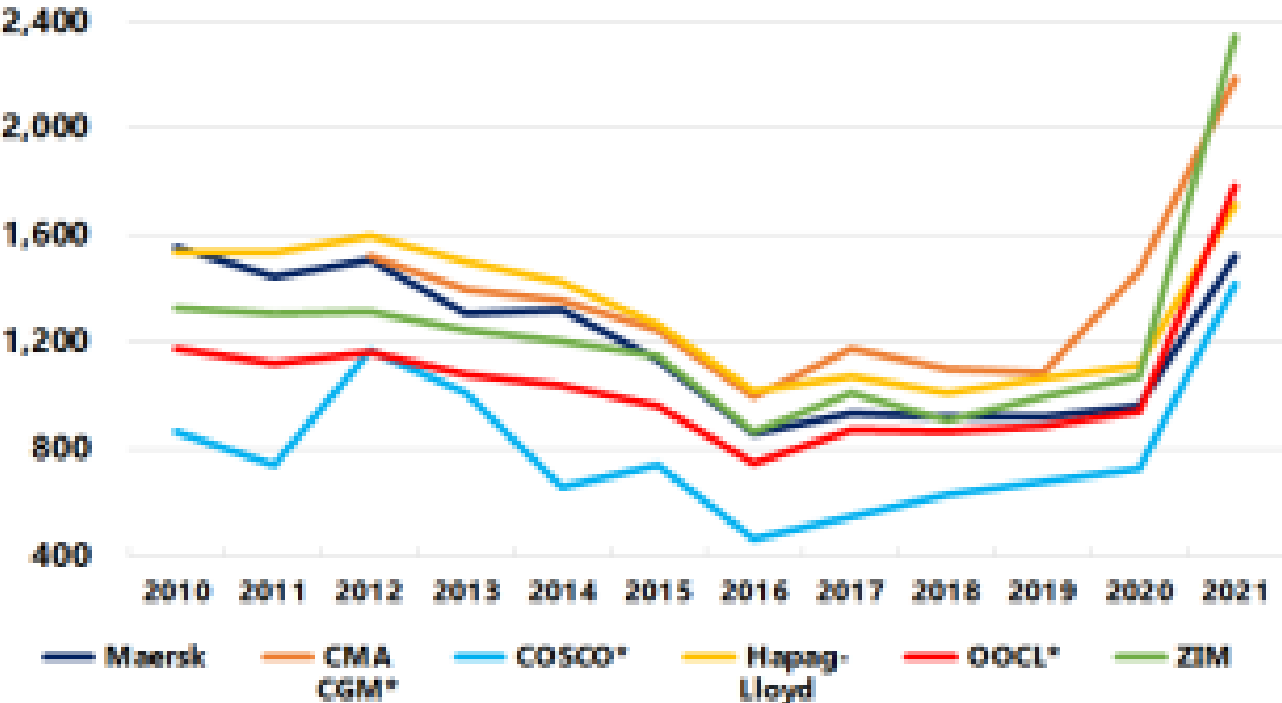
# Rates vs. Product Value: Asia to US West Coast

Fig.A6: Ocean freight rate as share of cargo value  
Asia-USWC



# Average Freight Rates by Carrier 2010 to 2021

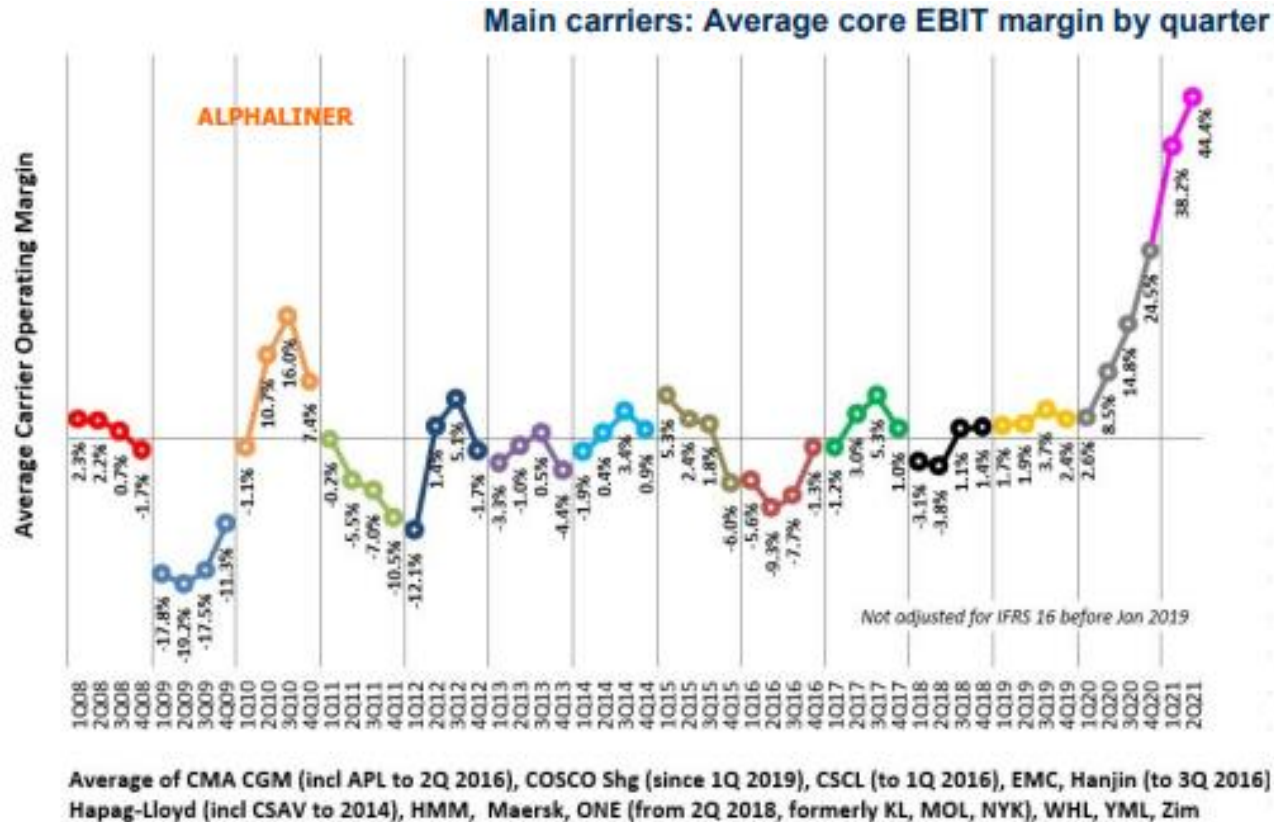
**Fig. A8: Average Freight Rate (USD/TEU)**



Source: SeaIntelligence 9.5.21



# Carrier EBIT Margins 2008 to 2021



# Carrier Operating Income Q2 by year 2010 to 2021

Table A3: Q2 Segment EBIT/Operating Profit 2010-2021 in Millions USD														
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Y/Y 21/20	Sum 12-21
Maersk*	1.076	- 49	265	467	567	530	- 123	277	65	416	552	3.580	3028	6.596
CMA CGM	N/A	N/A	392	172	204	325	- 81	472	67	286	530	3.808	3278	6.176
COSCO****	409	- 502	- 357	- 261	- 38	357	156	596	80	367	364	4.513	4149	5.777
Hapag-Lloyd	275	24	31	79	- 29	104	- 49	95	47	200	395	1.915	1520	2.788
ONE**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	- 120	5	242	2.657	2415	2.784
OOCL***	0	81	30	- 2	68	105	- 38	10	- 6	72	78	1.428	1350	1.744
Evergreen*****	N/A	N/A	23	- 8	20	11	- 35	73	- 65	36	176	1.862	1685	2.093
Yang Ming	N/A	N/A	36	- 80	17	- 0	- 143	5	- 115	- 12	21	1.516	1495	1.245
HMM	128	- 68	- 77	- 59	- 47	- 61	- 220	- 112	- 179	- 98	116	1.250	1135	512
ZIM	42	- 79	1	- 29	- 9	42	- 48	36	- 13	44	73	1.159	1086	1.257
Wan Hai	N/A	N/A	49	17	54	43	15	33	3	15	56	818	761	1.102
*2017 to 2019-Q2 EBIT of A.P. Moller - Maersk Group; rest Maersk Ocean Segment														
**2020 to 2021-Q2 EBIT of Ocean Network Express; rest Net Result														
***OOCL 1H EBIT divided by 2														
****COSCO Shipping Holdings Co., Ltd.														
*****Evergreen Marine Corp. (Taiwan) Ltd.														



3

Looking forward



## Looking Forward: Factors to Consider



1. Economic activity: Oct. GDP forecasts for 2021 (5.2% US & 5.9% world) (was 6.5% US & 6% world) and 2022 (4.5% US & 4.9% world) (was 5% US & world) continue to be high which will drive product demand
2. Government spending and support. Huge spending plans and budgets will push large amounts of money into the economy
3. Retail inventories continue to be low and rebuilding continues. Current retail ratio at 1.10 (Aug. 2021)
4. US personal saving rate is still double historic norms (Aug. 2021 at 9.4% vs 7%). A further drop would push more money into spending
5. Will inflation & supply chain issues hurt the economy & spending?
6. While consumer spending patterns have begun to return to the normal product/service split, there is still a high % being spent on products. If the spending split returns to historic norms cargo volumes will drop. Product spending moving from approx. 31% of disposable income to 33% or 34% means approx. \$500 billion more spent on products annually

# US Stevedore Labor Considerations

- ILWU contract expires July 1, 2022
- It's time to start considering the implication for your sea logistics cargo
- Any labor action will have an immediate & dramatic effect on sea logistics & related activities in North America
- Points to consider:
  - Keep management informed
  - Consider moving cargo via alternative gateways starting now
  - Consider starting to build critical inventory early in 2022
- Deciding to take action or to develop contingency plans after the start of a labor disruption is too late



# Thank you



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