The State Of Ocean Freight and Logistics Technology

AHFA Annual Logistics Conference

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Agenda

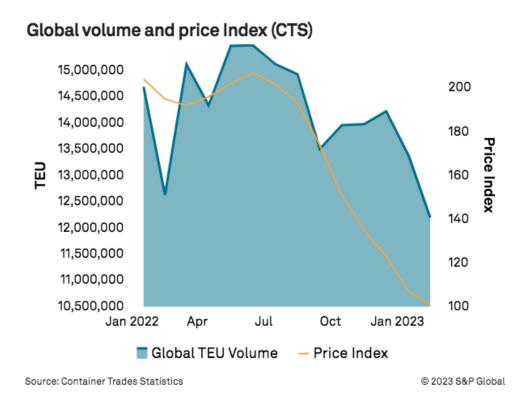
- Part One: Ocean Freight Market Outlook
 - Pricing
 - Decarbonization
 - Regulatory Environment
- Part Two: Logistics Technology Outlook
 - Visibility
 - PO Management
 - Digital Forwarders
 - Detention/Demurrage
- Takeaways
- Q&A

Is it Groundhog Day?

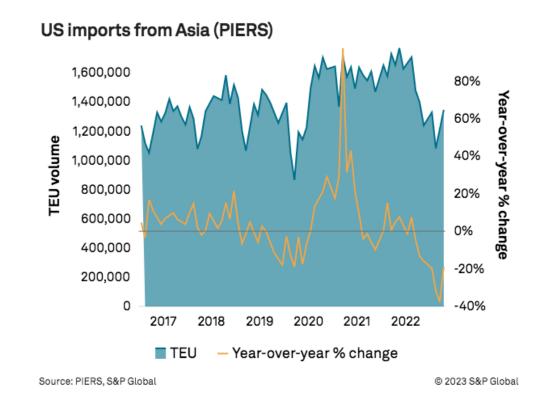


Ocean Freight Volumes: A Victim of its Own Success

Volume has fallen off the market top…

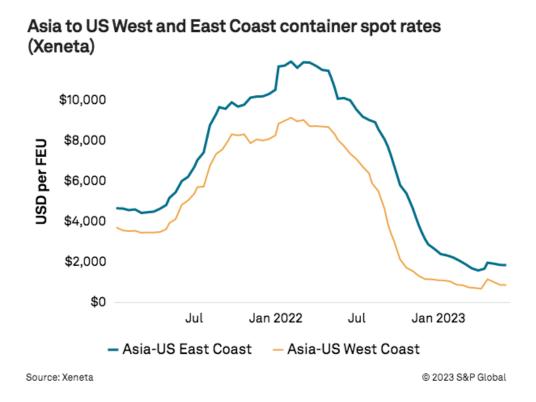


 ...but US import volumes are still strong from a historical perspective.



Pricing Back to Pre-Pandemic Levels

 Spot rates are well below the start of the pandemic surge...



...but aren't low on a historic basis.

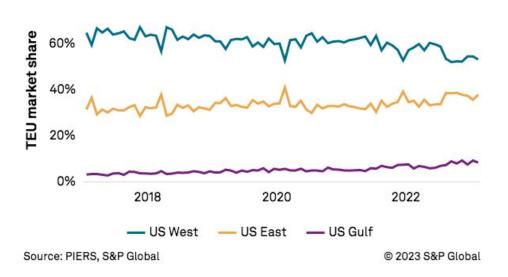
Shanghai to Los Angeles, New York container spot rates (Drewry)



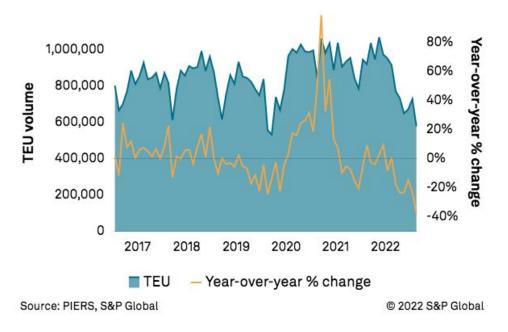
Lingering ILWU Contract Impacting Coastal Market Share

West Coast share of Asia imports erodes as labor talks drag on

Coastal share of US containerized imports from Asia by month (PIERS)



US containerized imports from Asia to West Coast (PIERS)

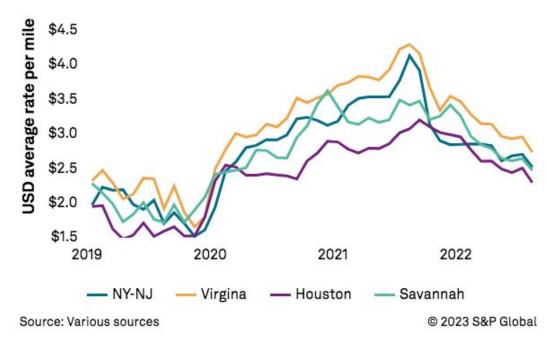


Outbound Trucking Rates from Key US Ports

Outbound spot dry van trucking rates from LA, Seattle (Various sources)

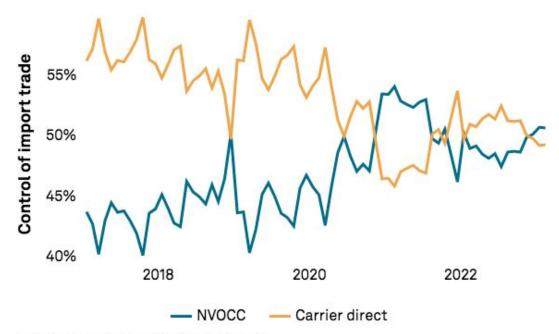


Outbound spot dry van trucking rates from NY-NJ, Virginia, Houston, Savannah (Various sources)



NVOs Have Majority Market (and 5-Yr Trendline is Going Up)

Carrier direct vs NVO control of Asia imports (PIERS)



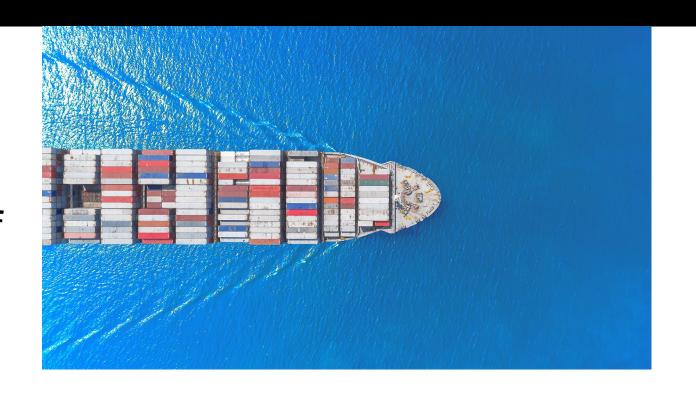
Notes: The PIERS analysis doesn't include less-than-containerload shipments

Source: PIERS, S&P Global © 2023 S&P Global



The Decarbonization Mandate Looming Over Shipping

- CII in effect from Jan. 1
- Emission Trading System (ETS) from 2024
- •EU requiring 80 percent of emissions to be cut by 2050
- Maersk to shift 25% of cargo to green fuels by 2030



The Cost to Shippers

"If you are willing to pay \$6,000 or \$18,000 per FEU during a supply chain crisis, you may also be willing to pay something for sustainability issues. Whether that willingness to pay a premium amounts to a few bucks or hundreds of dollars on a global industry wide average is hard to say."

Peter Sand, Xeneta

"Shippers were willing to pay an average premium of 3% for zero-carbon shipping — compared with less than 2% in 2021 — that would generate \$10 billion to \$20 billion in extra revenue for the shipping sector. This was far below the 10 to 15 percent premium needed to reach net-zero shipping targets by 2050. But 65% were willing to pay an even greater premium in the future."

Boston Consulting Group Survey in 2022

Which Maritime Fuel Will it Be?

- LNG
- Ammonia
- Methanol
- Hydrogen



Uncertain Regulatory Picture

- •OSRA22
- Detention/demurrage rulemaking
- More legislation on the cards: End of VSAs?
- Carrot vs Stick: DOT
 FLOW initiative



Logistics Technology: Running in Place?

Visibility problem areas persist:

- Terminal milestones
- Modal handoffs
- Discrepancies between carrier/system arrival notices
- Transshipment black holes



Visibility Provider Models

- Aggregators
- Niche data providers
- IoT (+ analytics)
- Data + something else
- White label or branded



Market has Diversified

- More options on the market than in past cycles (too many?)
- Price is becoming a factor
- •Data or platform?
- •Is one mode enough?
- Can shippers/LSPs establish their own visibility "tech stack"



Budgeting for Visibility

- Shippers:
 - Revert to 2019 thinking (line item vs embedded in TMS/3PL)
 - "I'm not gonna pay a lot for this muffler"
 - Can visibility be a "shared" service with "shared budget"?



Pandemic Induced Demand for PO Management

- Pandemic bullwhip a sign that no one has nailed forecasting
- Connecting manufacturing legs to transportation legs remains a challenge
- Shippers have a decision: 3PL (software + service), control tower (4PL) or standalone software



Software Providers Eye D&D Opportunities

- Detention/demurrage costs spiraled during pandemic
- Went from cost of doing business to an exorbitant variable expense
- Standalone providers focusing on D&D alerts, calculations
- Broader software vendors adding D&D features



Where Things are Going

- Inventory management
- Reduce D&D costs
- Finance (payment, cash flow management
- Customer service (consumer, retail or industrial)
- To IoT or not to IoT
- Decarbonization
- Being choosy by product line



Takeaways

- C-Levels have turned attention to new crises
- Logistics back to being a "utility"
- Ocean freight is a long game play short-term games at your peril (there are more shippers than shipping lines)
- Will diminished attention on supply chain hamper further shipping legislation?
- What's old is new: software categories left for dead (PO mgmt, TMS) are still the core backbone systems for shippers and 3PLs



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