FREIGHTWAVES SONAR

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Ocean shippers trapped in house of pain

AUGUST 2021

WHITE PAPER

Ocean shippers trapped in house of pain

Ocean shipping issues have caused some to question whether Christmas will be cancelled. While that may be too soon to call, it's clear that these are trying times for shippers and brokers that purchase ocean capacity.

While we are not in a global container shipping boom, we are in a U.S. import boom that has collided with far more impactful ocean capacity constraints. That has produced surging ocean spot rates and great frustration and nervousness from shippers as their containers get rescheduled or "rolled" to later sailings.

It's clear from the data that we highlight in this report (which includes several data series that are not yet in SONAR) that the numerous factors that are delaying ocean shipments and causing ocean rates to surge are reinforcing one another.

Those interrelated, and reinforcing, factors include: (1) historically high U.S. import volume; (2) COVID-related terminal shutdowns in China; (3) ocean carriers accepting as much freight as possible in anticipation of additional shutdowns at Chinese ocean terminals; (4) high percentages of containers "rolling over" to subsequent sailings because there isn't room on existing vessels; (5) surging ocean rates; (6) ocean capacity being redeployed to the China to U.S. West Coast routes and rising volumes of booked vessels from China to SoCal; and (7) severe congestion at U.S. ports, particularly the Ports of Los Angeles and Long Beach.

The data suggest that ocean congestion and service issues are not likely to be alleviated near-term. The number of vessels booked from China to Southern California continues to rise and the National Retail Federation expects August to set a new record for U.S. imports.

Some of the impacts that the ocean shipping situation is having on U.S. domestic freight networks include: elevated imports keeping demand strong; congested intermodal terminals and poor service; and a heightened need for expedited and time-definite service to make up for ocean shipping delays.

Drewry World Container Index (w/w chg.)	
SHA-LAX	$10,969 (+6.3%)
SHA-NYC	$13,505 (Unch.)
RTD-NYC	$6,435 (+1.0%)
NYC-RTM	$1,154 (-1.5%)
SHA-RTM	$13,698 (+0.3%)
SHA-GOA	$13,261 (+2.1%)
Global Composite	**$9,613 (+2.0%)**

Freightos Baltic Daily Index (weekly change)	
China to US West Coast	$18,425(+16.5%)
China to US East Coast	$20,033 (+13.9%)
NA to East China	$900 (-11.5%)
NA to West China	$911 (-5.8%)
CHN to US Panama Spread	$1,608 (-9.4%)
Global Composite	**$10,347 (+8.6%)**

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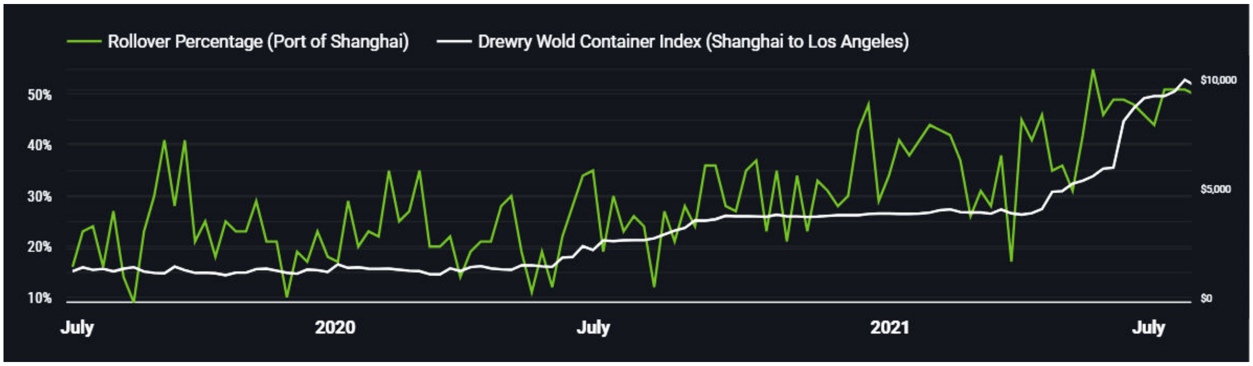
Container rollovers continue to increase, contributing to elevated spot rates

The global supply chain relies heavily on predictability, a characteristic which has been absent for well over a year. COVID-stricken capacity and insatiable demand has fueled many choke points within the maritime sector, often leaving cargo stranded around the globe.

With ocean carriers continuing to perform at historically low levels of schedule reliability (under 50%), container rollover percentages have become much more severe. A container rollover essentially means that an ocean carrier is not honoring a shipper's reservation on a scheduled vessel; container reservations are then "rolled" on to a later sailing. As of August 9th, the most recent data point available, the average container rollover rate across 30+ major port systems was 42%, up from 30% in 2020, and 23% during the same period of 2019.

Therefore, even after securing capacity, roughly two of every five containers are failing to get loaded onto their scheduled vessel. Container rollover rates are a good barometer of port-level congestion, which coincides with supply side limitations. Viewing rollover rates can become a solid leading indicator of lane-level supply depletion, which heavily applies upward pressure on spot rates.

A rising percentage of containers rolled from scheduled sailings to subsequent sailings has given rise to skyrocketing ocean spot rates. The Shanghai to Los Angeles lane has been particularly problematic for ocean shippers.



(Chart: FreightWaves, Average container rollover percentage for the Port of Shanghai, China {Green}; the Drewry World Container index spot rate from Shanghai to Los Angeles {White})

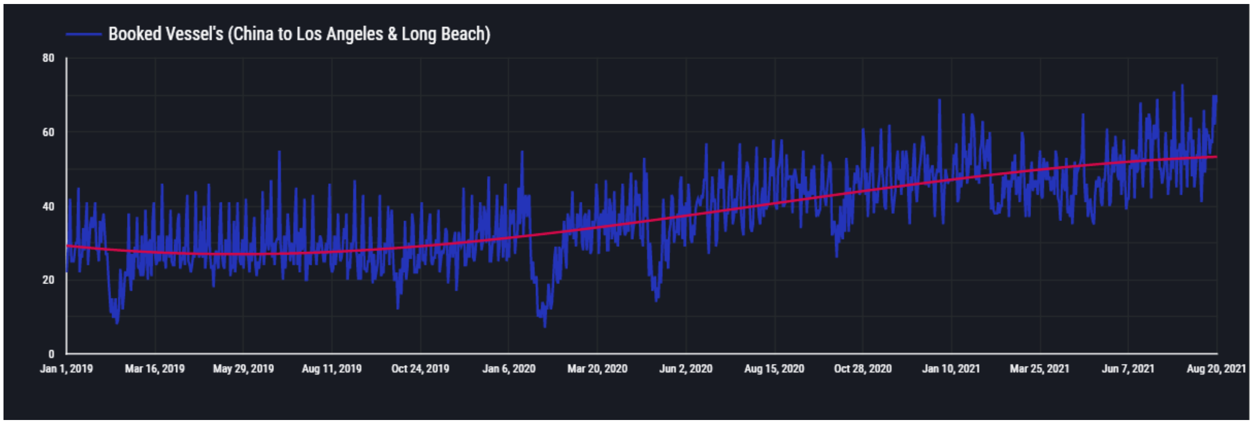
The Port of Shanghai has experienced a rapid escalation in container rollover percentages within the past year. Currently at 47%, rollover rates in the port have nearly doubled from 2020 levels, when they averaged 24%.

The magnitude of increases in the percentage of containers being rolled has translated directly into spot rate increases, as measured by the Drewry World Container Index. Current spot rates for 40' containers from Shanghai to Los Angeles are perched at $10,322/FEU, an increase of 221% year-over-year (y/y). During the same time period, U.S. Customs and Border Patrol import shipments from Shanghai to Los Angeles increased by just 18% y/y. The relatively modest increase in shipment volumes highlights how capacity limitations resulting from congestion have become much more of a driver of sky high spot rates than demand itself.

Congestion likely to get far worse along the West Coast, eclipsing levels seen back in February

According to Gene Seroka, the executive director of the Port of Los Angeles, 90% of vessels arriving at the Port of L.A. are heading immediately to anchor. For the second time this year, the Marine Exchange has been prompted to open up alternative drift areas, as anchorage areas have become full. The backup in San Pedro has already matched February levels of 40 container ships awaiting a berth, and it's likely to increase even further as the number of booked vessels inbound to Southern California continues to increase.

The number of booked vessels from China to Southern California continues to reach new highs, which will only add to the congestion in San Pedro Bay.



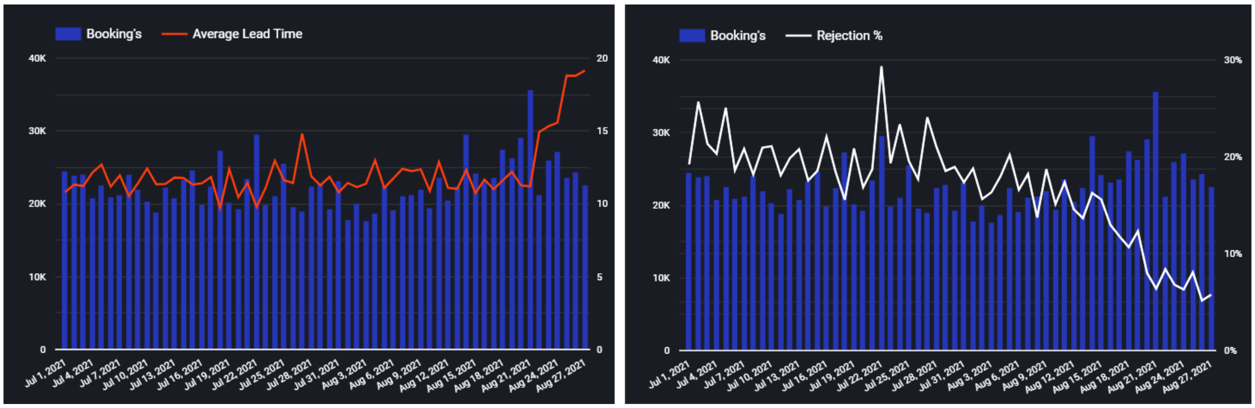
(Chart: FreightWaves, Daily vessel capacity being booked from China with destination locations of the Port of Los Angeles and the Port of Long Beach)

Daily vessel capacity departing from China to the ports of Long Beach and Los Angeles has increased quite significantly from levels seen back in February. The increase in vessel capacity comes as more extra loaders (additional vessels brought from other services) and re-routed vessels have been added to trans-Pacific services to take advantage of the historic rate environment.

On top of the additional vessel capacity, pent-up demand from Yantian (following a COVID outbreak) is likely still contributing to the influx, with the lingering effects of the Ningbo terminal closure to come in the next few weeks. Current congestion in San Pedro Bay comes as a result of vessels departing from Asia at the end of July and early August. With vessel sailings still trending upward, the next three to four weeks will likely bring about enhanced congestion in the region.

As the backlog of vessels grows, hundreds of thousands of loaded containers are waiting offshore. The backlogs keep inventory off shelves and also reduce available trans-Pacific capacity. Vessels in the midst of congestion can be delayed for as long as 50 days, causing sweeping disruptions to their scheduled service rotations. Delays in scheduling create more disincentive for carriers to allow time for U.S. exports to be loaded into ocean shipping containers. The vessel delays are putting some retailers' holiday shipments in jeopardy of not being fulfilled in time for peak seasonal sales periods.

Fear of potential lockdowns within China prompts carriers to book as much freight as possible.



(Chart: FreightWaves, {LEFT} China to USA bookings {Blue}, compared to average booking lead time {Orange}, {RIGHT} China to USA bookings {Blue}, compared to average daily rejection % {White})

The recent terminal closure within the port of Ningbo has brought about increased fears of additional lockdown measures being put into place in China. COVID-induced restrictions put a massive strain on capacity at the port of Yantian in June and also on air cargo crews and equipment. Rising delta variant outbreaks and China's zero tolerance exposure policy have led many to believe that more lockdowns are almost inevitable.

In response to this, we have seen a large reduction in declined bookings by the ocean carriers on shipments departing from China. Average lead times between booking date and origin date of departure have increased with the tightening trans-Pacific capacity, resulting from increased vessel congestion. Despite the tightening conditions, carrier rejections have fallen below 10% on these same bookings, the first time below that threshold since the early days of the pandemic. The reduction in rejections seem to stem from carriers attempting to book as much trans-Pacific freight as possible prior to more disruptions and trying to take advantage of the inflated rates as much as possible. Simultaneously, shippers have reached the deadline for booking shipments in time for seasonal demand replenishment.

Booking ample capacity hedges carriers from experiencing significant revenue loss during any subsequent lockdowns. With the ability to schedule blank sailings and re-route services following any disruptions, carriers can further drive up spot rates to compensate for any depletion in volumes. Booking cancellations and rebookings will continue to plague shippers through the remainder of the year as capacity and infrastructure starve under heightened demand and virus constraints.

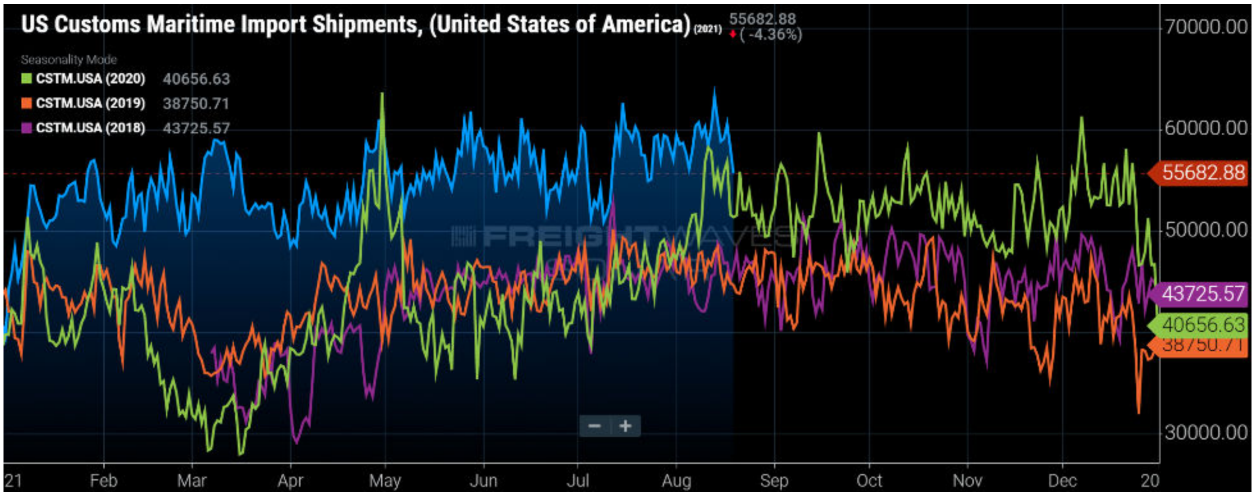
That heightened level of vessel bookings, shown above, translates to TEU volume booked from China to the U.S. in late August/early September that is about 24% higher than year ago levels. Our Inbound Ocean TEU Volume Index is yet another data series that suggests that tightness in ocean capacity and congestion at the Southern California ports will persist in the near-term.

(Chart: FreightWaves, Ocean TEU Index; a daily index of TEUs volume booked with ocean container lines with a China origin and U.S. destination.)

Delays in ocean shipments have contributed to intermodal terminal congestion and service issues.

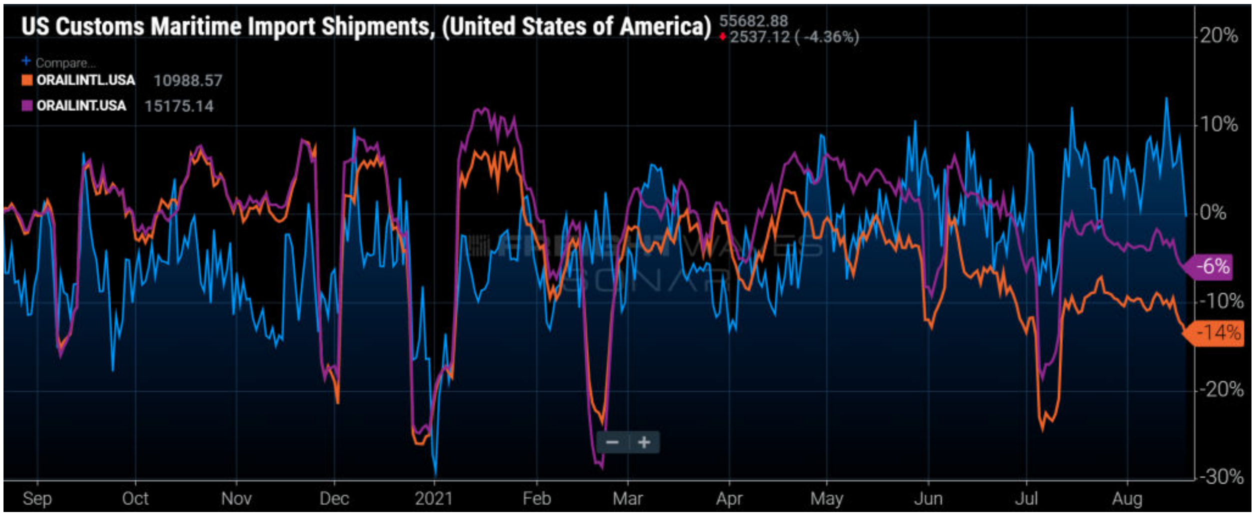
In recent weeks, congestion in the intermodal network has caused railroads to suspend intermodal services in certain lanes, meter intermodal volume in others, re-open intermodal terminals, and increase intermodal spot rates in key lanes in an effort to protect capacity for shippers with intermodal contracts.

Continual peak season for U.S. imports: Maritime import shipments passing through U.S. Customs have been well above 2018-2020 levels for virtually the entirety of 2021.



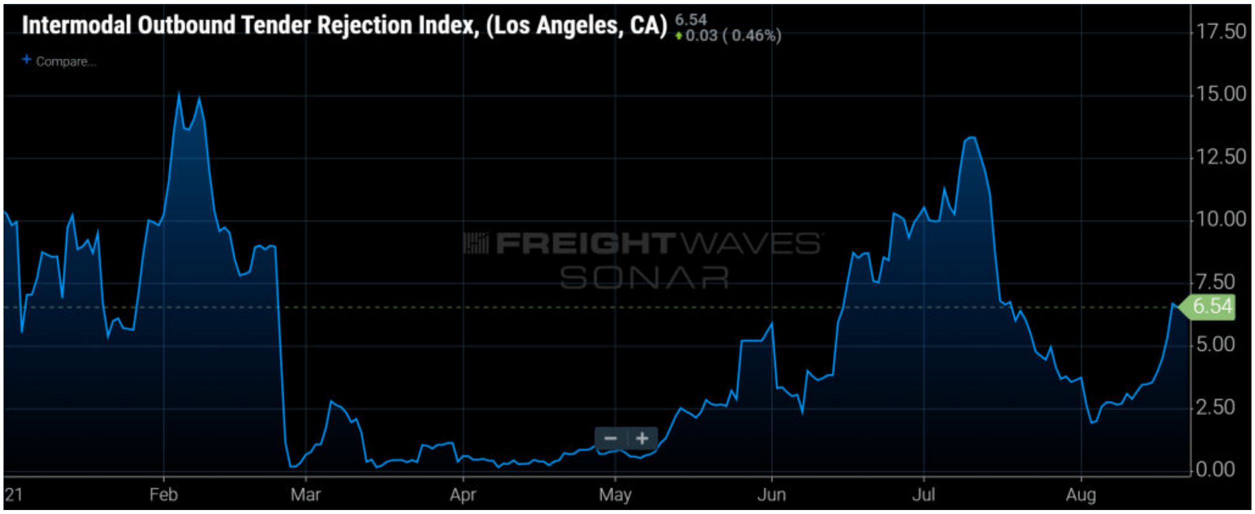
(Chart: FreightWaves SONAR. The volume of imports passing through U.S. Customs is shown for 2018, 2019, 2020 and 2021 in purple, orange, green, and blue, respectively.)

Due to congestion and network balance issues, international intermodal volume has underperformed maritime import shipment volume in the past year. That has been particularly true during the summer months. International intermodal volume typically moves much more in line with import volume.



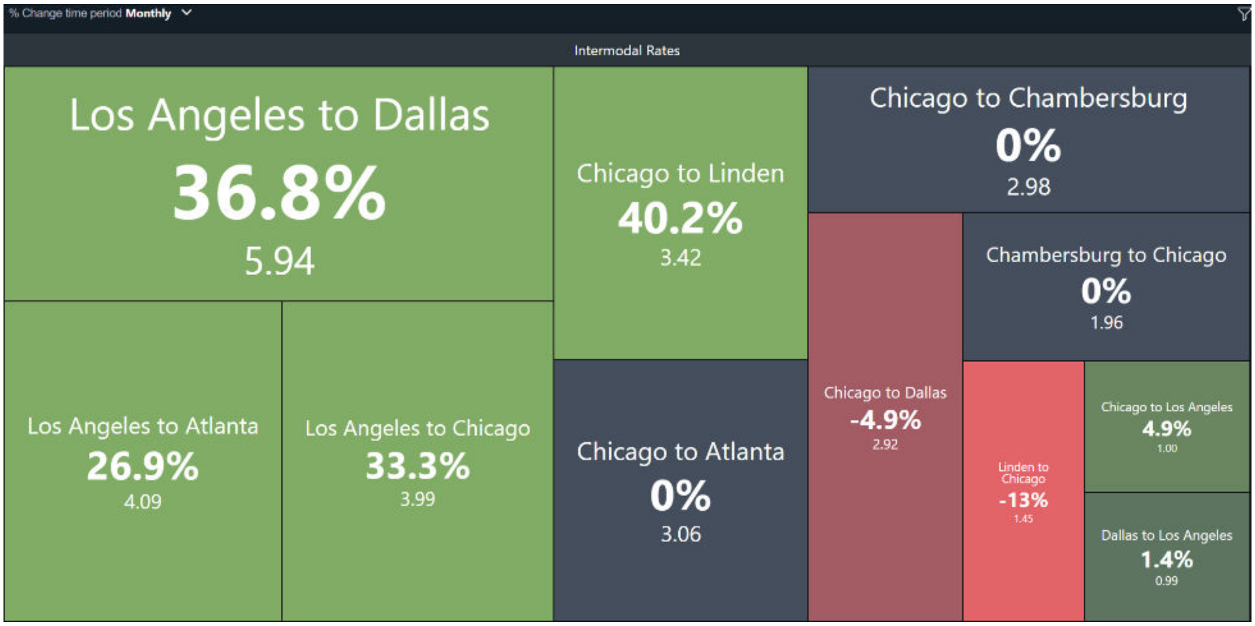
(Chart: FreightWaves SONAR. The volume of shipments passing through U.S. Customs is shown in blue, while the loaded international intermodal volume is shown in orange and all international intermodal volume, which includes loaded units and empties, is shown in purple.)

The intermodal tender rejection rate, an imperfect but still relevant metric of congestion, has increased on outbound L.A. loads this summer.



(Chart: FreightWaves SONAR. Tender rejection rate for all outbound intermodal loads from the greater L.A. area.)

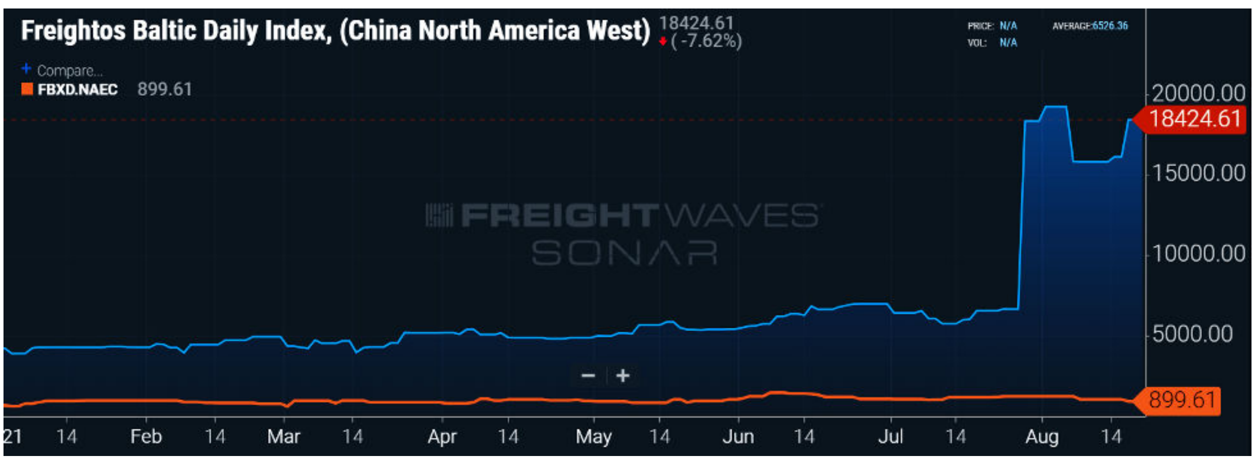
In response to L.A. congestion, the railroads sharply increased door-to-door domestic intermodal spot rates in the past month to protect capacity for contracted shippers. The spot rates shown below for outbound L.A. loads are too high to be competitive with truckload carriers.



(Chart: FreightWaves SONAR. Spot rates to move 53' containers door-to-door, including fuel surcharges.)

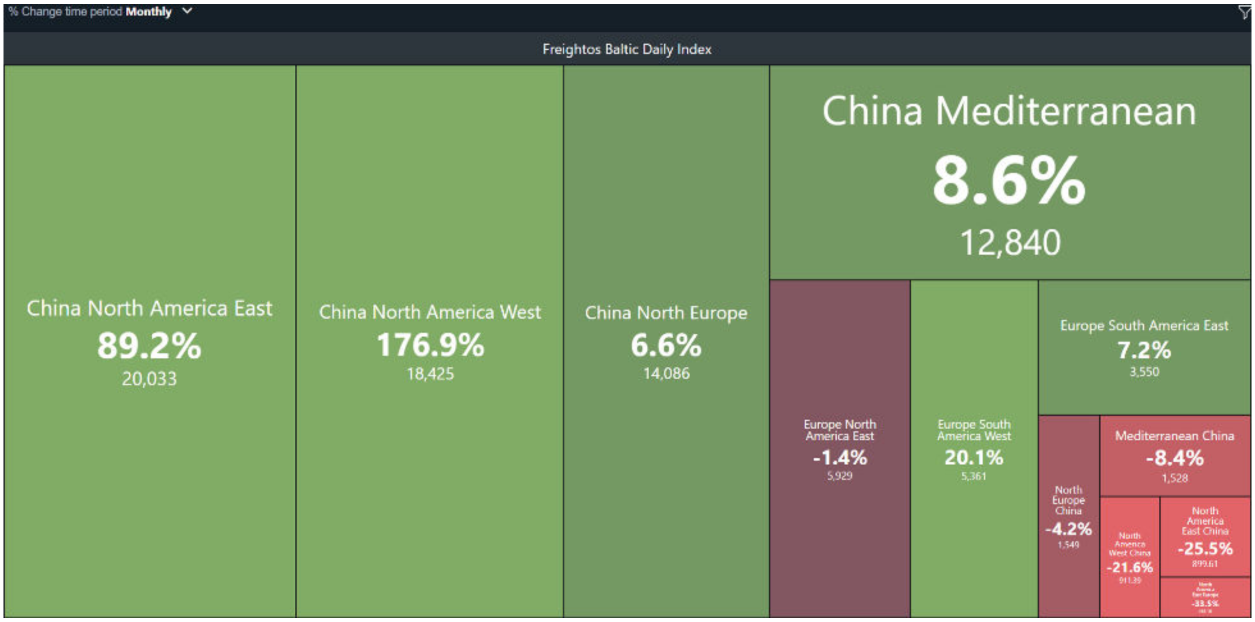
Surging ocean spot rates highlight the degree of capacity tightness, particularly in ocean lanes from China to the U.S.

Eastbound trans-Pacific spot rates jumped on a change in calculation methodology (rates now account for booking premiums and surcharges).



(Chart: FreightWaves SONAR. Eastbound trans-Pacific spot rates {China to NA West pictured in Blue} now excludes data that doesn't account for booking premiums, leading to a 176% jump at the end of July. All other lane calculations {NA to East China pictured in Orange} remain unchanged)

In the past month, ocean spot rates have continued to rise on outbound China lanes and rates have declined on inbound China lanes. As shown above, the rate changes from China-North America East and China-North America West lanes primarily reflect changes to the rate calculation methodology.



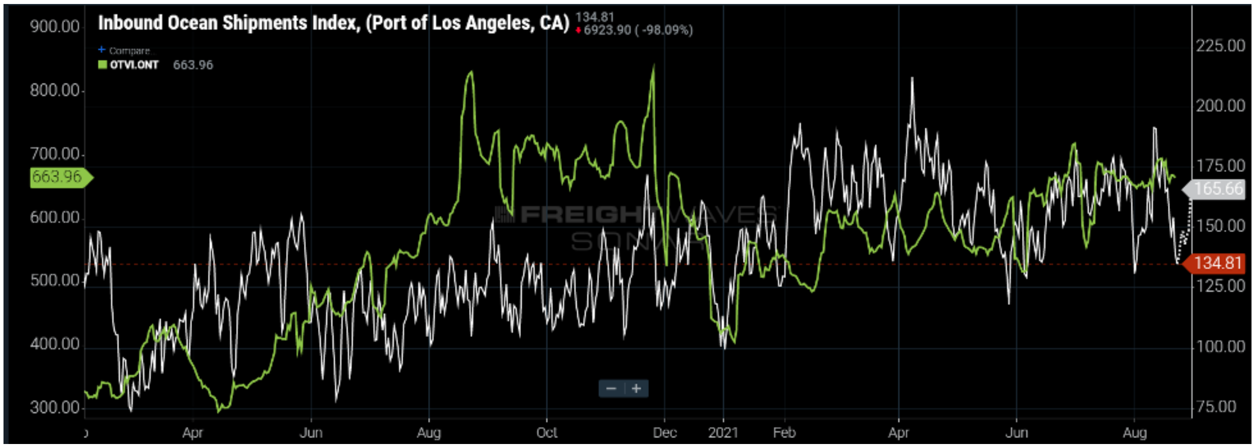
(Chart: FreightWaves SONAR. The Freightos Baltic Daily Index, which measures the daily price to move 40-foot containers in 12 major maritime lanes, is shown above.)

Three ports responsible for 54% of imports lead to elevated truckload volumes in corresponding markets about 2 weeks later.

Three U.S. ports experienced 54% of all U.S. imports – Port of Los Angeles (19.5%), Port of New York/New Jersey (18.7%) and Port of Long Beach (16.5%). The three large domestic transportation markets that are responsible for the throughput of freight represent 9% of shippers' requests for truckload capacity.

Imports into the Los Angeles market, which encompasses both the Port of Los Angeles and Port of Long Beach, were up over 13% y/y in July. The Outbound Tender Volume Index (OTVI), a measure of volume levels by shippers' request for capacity, was more than 14% higher than 2020 levels throughout July. Adjusting outbound volumes from the Ontario market with tender rejection rates, which were up slightly y/y, customs import volumes track extremely close to outbound tender volumes, on roughly a two-week lag.

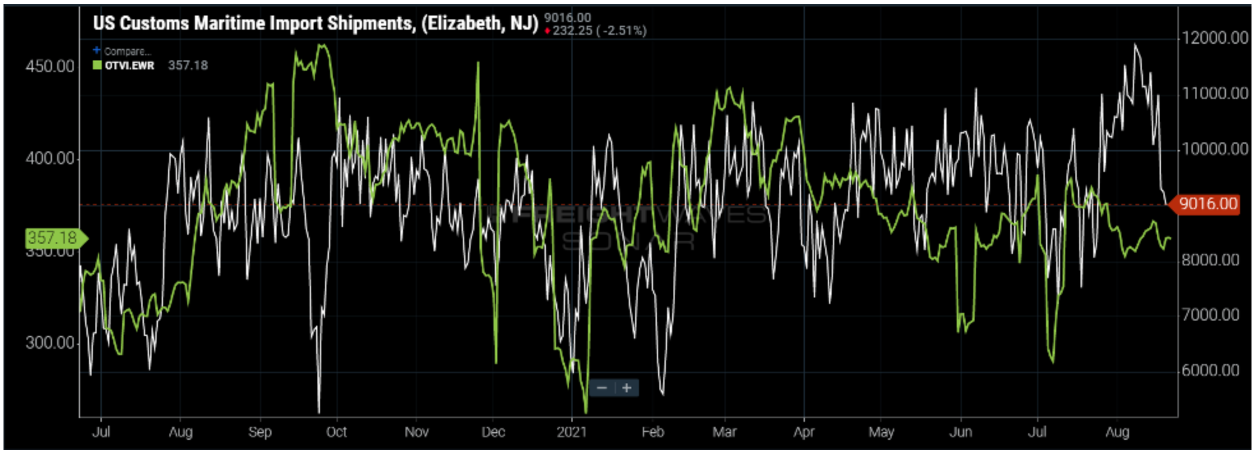
Ocean bookings into West Coast ports lead requests for truckload capacity by a month and a half



(Chart: Inbound Ocean Shipments Index for the Port of Los Angeles {white} and Outbound Tender Volume Index for Ontario {green})

The Inbound Shipments Index (IOSI), which is based on ocean bookings data, has spiked multiple times in Los Angeles over the past year; every spike has led to an increase in outbound tender volumes in Ontario almost two months later. In the chart above, IOSI spiked on February 8 and OTVI.ONT spiked on March 30. IOSI hit a bottom on March 29 before rebounding in early April and outbound volumes from Ontario were depressed for nearly a week between May 11 and May 17 before surging in the back half of May, partially aided by Memorial Day.

Recent rise in imports into the Port of New York/New Jersey hasn't translated into truckload volumes – yet.



(Chart: FreightWaves SONAR. Customs imports shipments into the Elizabeth, NJ market {white} surged in early August, outbound tender volumes levels lagged behind {green})

On the East Coast, import levels tend to lead shippers' requests for capacity by more than 15 days. The recent surge in import volumes has yet to translate into domestic transportation demand. The recent surge saw a new all-time in customs import shipments on August 8, and given the intermodal congestion, will likely lead to increased truckload volumes in the coming weeks. Bookings destined for the Port of New York/New Jersey, as measured by the Inbound Ocean Shipments Index, have increased by 18% in the past month.

Increased ocean bookings into the ports of Los Angeles, Long Beach and New York/New Jersey mean that truckload volumes will be strong for weeks after the shipments clear Customs, given the congestion in intermodal networks.

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