October 11, 2021 | 10:30 AM ET

SONAR highlight reel: China's energy crisis is a significant freight demand risk

This "SONAR highlight reel," which we publish every other week, is intended to concisely hit data highlights and trends in truckload, intermodal and maritime.

Spot rates continue to rise as freight flows to the spot market – particularly on the West Coast. Capacity constraints remain in place, although conditions have improved over the past year. Contract rates are up over 25% year-over-year (y/y), which has helped drive better carrier compliance as rejections are down 500 basis points y/y. Ultimately, pressure on the truckload market will continue for the rest of the year.

The latest week of domestic intermodal volume suggests that domestic intermodal congestion is getting "less worse." Loded domestic intermodal volume in the first week of October is up 7.5% from August-September levels. Meanwhile intermodal tender rejections have fallen in most locations and domestic intermodal spot rates are flattening at a high level. Unfortunately, international intermodal volume is falling due to the many capacity constraints. These declines are concentrated in the outbound L.A. lanes.

Maritime spot rates slid once again in the most recent week, as production in China was curbed due to the annual Golden Week holiday. The energy crisis in the same region threatens to slow exports, putting pressure on an already crimped global supply chain. All other indications point toward continued tightness, as import shipment volumes remain 2% higher y/y.

Dry van spot all-in rates per mile[1] (w/w chg.)

LAX-DAL	$3.64 (+$0.07)
CHI-ATL	$3.71 (+$0.09)
PHL-CHI	$2.32 (-$0.07)
ATL-PHL	$2.96 (+$0.03)
DAL-ATL	$2.59 (+$0.05)
DAL-LAX	$1.35 (+$0.02)
National	**$3.53 (+$0.05)**

Freight volume index (weekly change)

Ontario, CA	686.61 (-5.5%)
Atlanta	618.24 (-2.1%)
Dallas	506.32 (+0.7%)
Harrisburg, PA	491.94 (+0.2%)
Los Angeles	429.03 (-6.9%)
Allentown, PA	416.48 (-2%)
National	**15,786.9 (-0.7%)**

Tender rejection rates (weekly change)

Ontario	16.4% (-216 bps)
Atlanta	19.33% (+118 bps)
Dallas	22.35% (+90 bps)
Harrisburg	23.09% (-148 bps)
Los Angeles	16.4% (-215 bps)
Allentown	23.32% (-37 bps)
National	**21.29% (-58 bps)**

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[1] Truckstop.com all-in per-mile rate

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Rates hold strong as rejections and tender levels slide

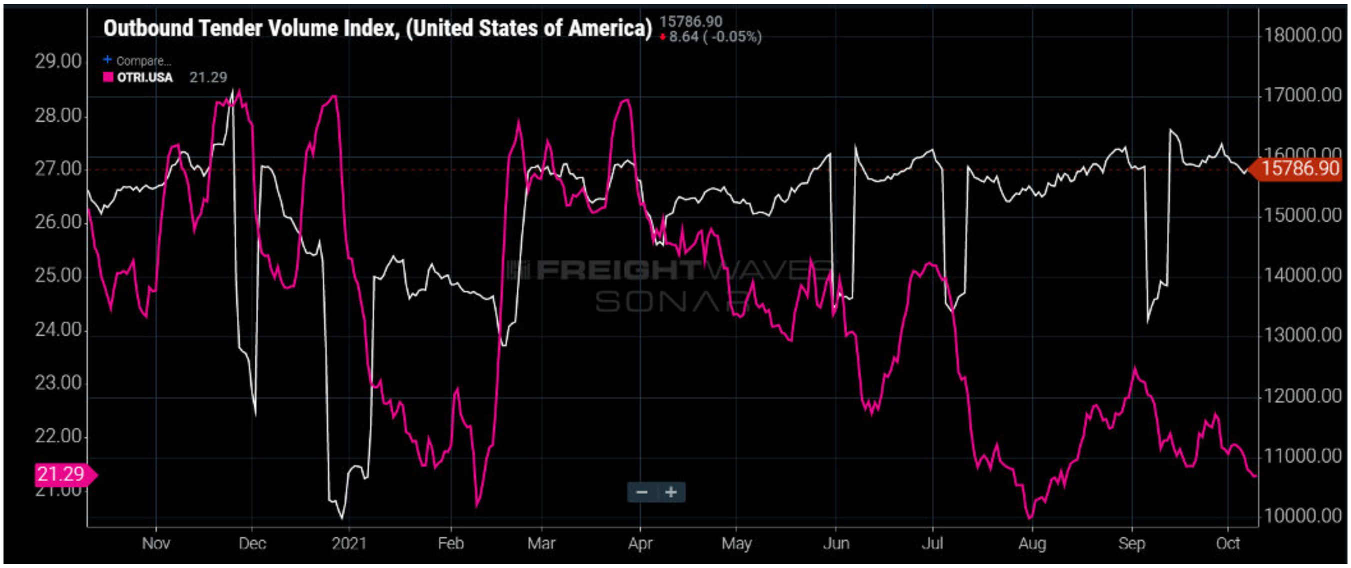


Chart: FreightWaves SONAR. Outbound Tender Volume Index {white, right axis} and Outbound Tender Reject Index {pink, left axis}

The Outbound Tender Volume Index (OTVI), which tracks shippers' requests for capacity, erased last week's positive momentum as tender volumes slid. OTVI has dipped back below the 16,000 mark, pulling back by 1.5% week-over-week (w/w). As it stands now, absolute tender levels are up just 2% y/y.

The pullback to kick off the fourth quarter is a traditional trend that OTVI experienced during the two prior years, though the levels were drastically different. The pullback to start the quarter is standard as freight volumes ramp up prior to the close of the third quarter as shippers attempt to move goods off their docks. October is traditionally a stable month before volume levels grow into the peak holiday season during November.

OTVI, which includes accepted tenders and rejected tenders, signals that shippers are sending out more tenders to carriers than ever before. Adjusting OTVI by the tender rejection rate aids in painting a picture of accepted freight volumes moving through networks. The accepted tender volumes did pull back by 1% over the past week, erasing all of last week's gain. Even with the pullback in accepted tender volumes, volume levels have expanded with the gap y/y. Accepted volume levels are running up over 10% y/y, the widest it has been (non-holiday-influenced) since early August.

Increased import demand compared to a year ago is setting up freight volumes to continue to climb through the rest of the fourth quarter. Import shipments have consistently held on to peak-season levels throughout the entire year, and ocean bookings from China destined for U.S. ports set a new all-time high just a couple of weeks ago. That is likely going to further add to the congestion in San Pedro Bay. It will also put pressure on spot volumes out of Los Angeles as shippers bypass the contract market, both truckload and intermodal. Los Angeles spot volumes have exploded over the past year, with all of the lanes, according to Truckstop.com, leaving LA up over 100%, with the exception of Los Angeles to Las Vegas, which is up 81%.

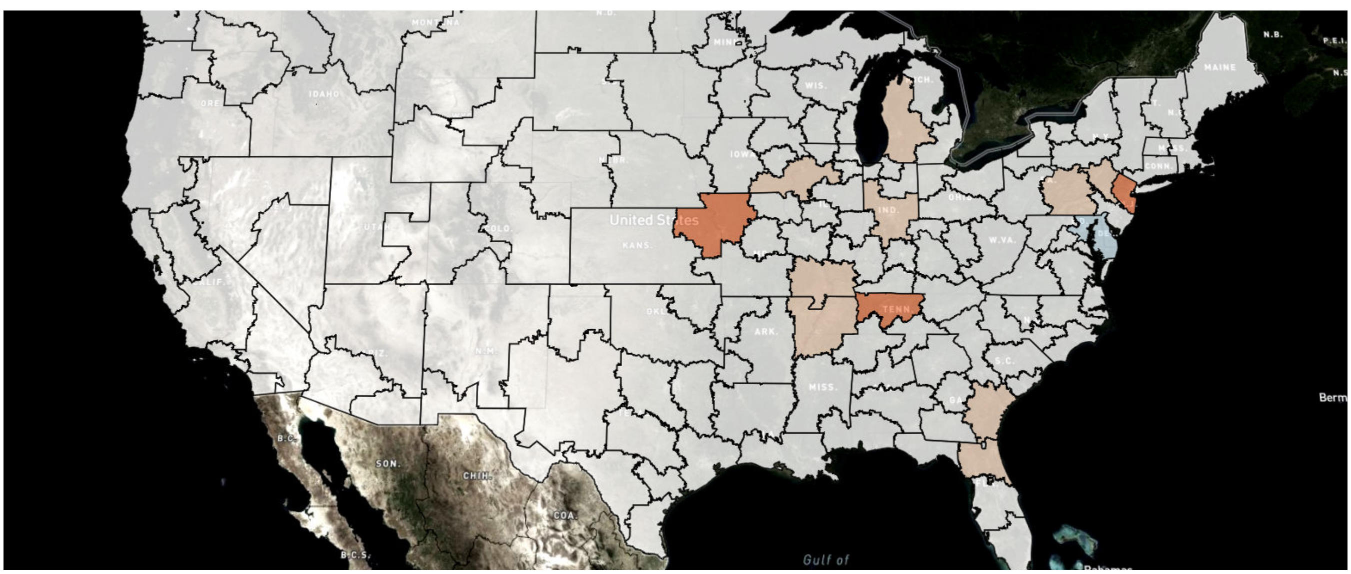
The Outbound Tender Reject Index (OTRI), a measure of relative capacity in the market, continued its downward slide that started in the middle of last week. Over the past week, OTRI fell by 38 basis points (bps) to 21.48%. The most recent reading is the lowest rejection rates have been since the middle of August.

OTRI is moving in an opposite direction from last year, when rejection rates were relatively volatile around the 25% mark. Rejection rates in 2021 have been below the 25% mark since the Fourth of July holiday. Even though relative capacity appears to be looser than a year ago, conditions are still quite difficult for shippers that are having to secure capacity in the open market.

Even though rejection rates are still extremely elevated, especially compared to 2019 levels, rejection rates are over 515 bps lower than year-ago levels. This signals that contract rate increases (up over 25% y/y) have aided in driving carrier compliance but securing capacity is still extremely difficult.

Traditionally, OTRI tracks the spot market closely, signaling when rates and loadboard volumes could increase. There is also a potential shift of shippers going directly into the spot market and avoiding the contract market altogether. Shippers are taking these actions to ensure freight is moving, which is going to keep inflationary pressures on spot rates. However, there could be some divergence in spot rates and rejection rates in the short term.

Overall, the capacity constraints in the market continue to make it difficult for shippers to secure necessary capacity – even with elevated rates. Those constraints aren't going to go away quickly, and any easing will have to be led by the demand side of the equation first.



Relative capacity is loosening in the center of the country: SONAR: WRI

Relative capacity did loosen across the majority of the country over the past week as rejection rates fell in 86 of the 135 freight markets. The map above shows the Weighted Rejection Index, which is the product of the Outbound Tender Reject Index-Weekly change and Outbound Tender Market Share. The WRI is used to show which markets are tightening or loosening the fastest relative to the size of the market.

The map highlights markets like Kansas City that are loosening relatively quickly based on the size of the market. Rejection rates in Kansas City did fall over the past week by 370 bps, to 25.11%. The market is still tighter than the overall market, but rejection rates are at the lowest level since mid-July. The pullback in rejections comes as freight volumes increased in the market, signaling that carriers were entering the market to service the influx in demand.

The largest markets did see muted increases in rejection rates over the past week. The largest market, Ontario, and neighboring market Los Angeles saw rejection rates increase by 38 bps w/w to 17.39%. Relative capacity in the markets is much looser than it was a year ago, when rejection rates were above 26%. In Atlanta, rejection rates increased by 19 bps w/w, so capacity conditions in the market are very similar to last week.

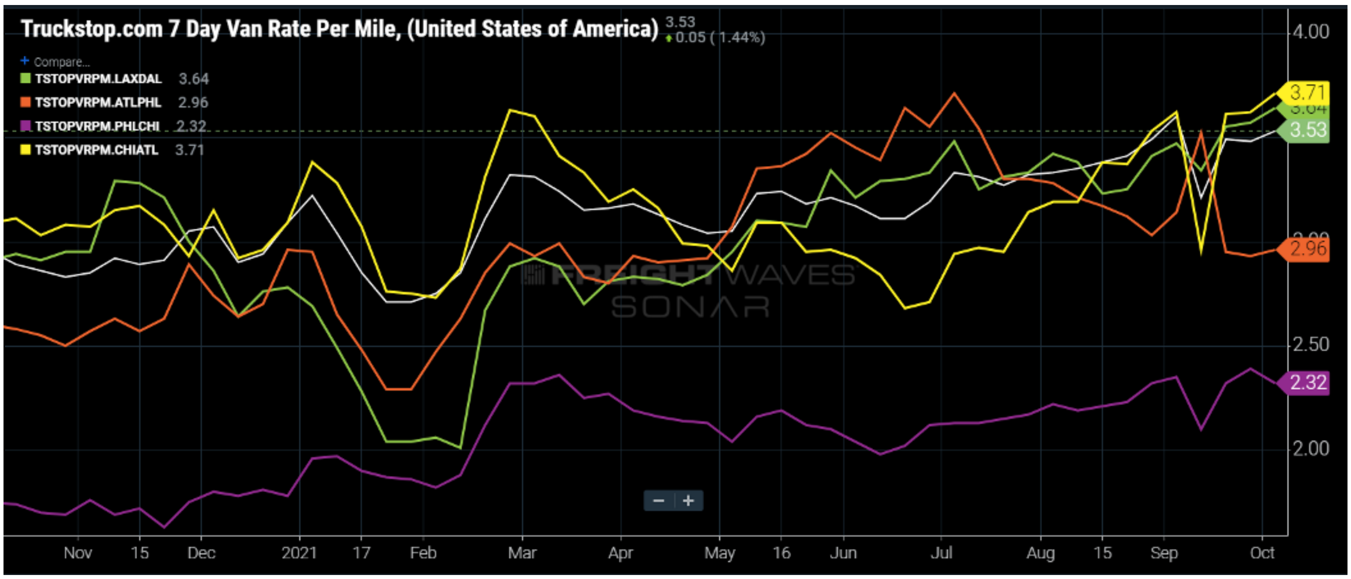


Chart: FreightWaves SONAR. Truckstop.com's dry van spot rates: National {white}, Los Angeles to Dallas {green}, Atlanta to Philadelphia {orange}, Philadelphia to Chicago {purple} and Chicago to Atlanta {yellow})

Truckstop.com's national spot rate, which includes fuel surcharge and other accessorials, increased by 5 cents per mile over the past week to $3.53. Of the 102 lanes from Truckstop.com's load board, 69 reported increases last week, with Chicago becoming increasingly expensive.

The national spot rate continues to climb because of freight demand, while rejection rates suffered a slight pullback. That further signals that freight could be moving into the spot market, bypassing the contract market. The national spot rate continues to run up 20% y/y, signaling that the pullback two weeks ago was just a short-term hiccup and not indicative of future rate changes.

Dry van contract rates did pull back in the most recent week by 5 cents per mile to $2.72. Dry van contract rates, which are reported on a two-week lag, are off the all-time high set in the previous week. The slowdown in contract rates came two weeks after the slowdown in spot rates, which was expected based on how the contract rates are reported.

Contract rates, which are just the base linehaul rate, excluding fuel surcharges and other accessorials that are included in spot rates, have closed the gap significantly. Contract rates are now up over 25% y/y and likely to continue to climb through the rest of the year.

Ultimately, upward pressure on freight rates is likely to remain in place for at least the next six months and beyond as supply chain constraints continue to be worked through.

Is domestic intermodal congestion getting "less worse?"

Is domestic intermodal congestion getting "less worse?" I find the SONAR chart below to be encouraging. It shows the seven-day moving average of daily domestic intermodal container volume (i.e, 53' containers). That volume is still down year-over-year, but it is now down 4% rather than the 8%-10% it had been down in recent months. In the past week, another encouraging sign was that domestic intermodal volume is up 7.5% compared to the average volume levels in August and September.

In an unconstrained network, intermodal volume would be a measurement of demand. But, numerous recent intermodal operational issues have constrained volume amid a surplus of demand. Therefore, I view the recent increase in domestic intermodal volume as an indication that the impact of those constraints may be lessening. It's worth pointing out that there is no similar rise in international intermodal volume (which consists primarily of 40' containers), due to congestion at/near ports, a shortage of chassis and container ship companies' reluctance to send international containers inland.

In the first week of October, domestic intermodal volume rose 7.5% from August-September averages.

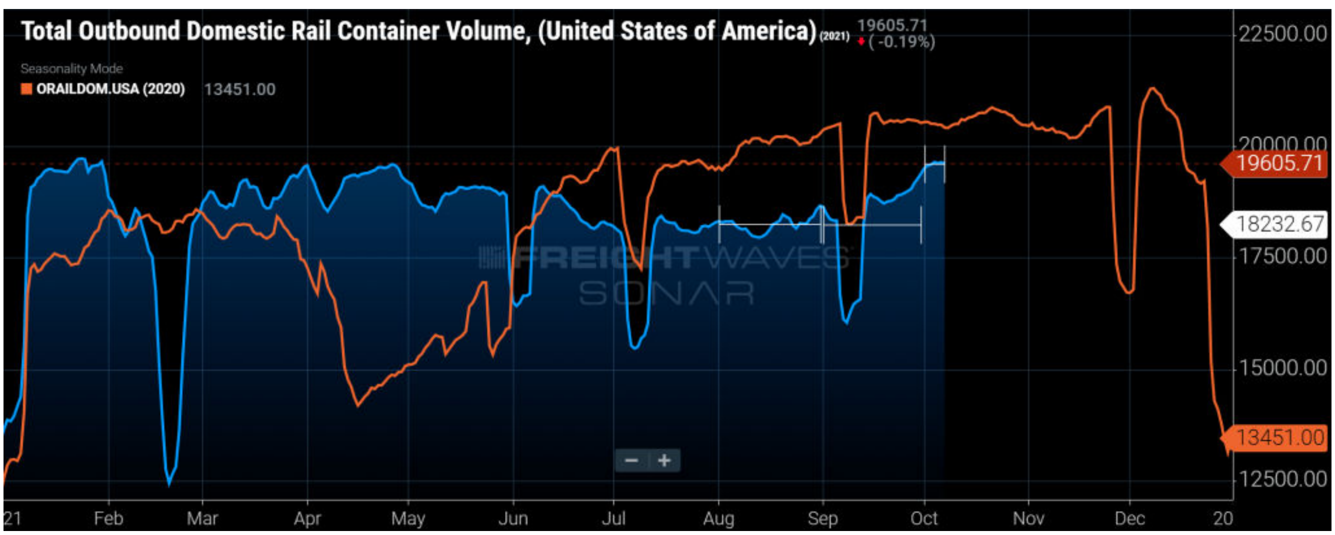


Chart: FreightWaves, SONAR. Total outbound domestic intermodal containerized volume is shown for 2021 and 2020 in blue and orange, respectively.

That's not to say that domestic intermodal is free of issues. Total industry-wide intermodal volume continues to be constrained by a multitude of factors, including chassis and container availability, drayage capacity, intermodal terminal congestion and congestion at/near the ports. The railroads have responded to this congestion by reopening intermodal terminals, leasing additional warehouse space adjacent to intermodal terminals, and taking steps to find additional drayage capacity (such as Union Pacific leveraging the drayage capacity controlled by its subsidiary Loup Logistics).

Domestic intermodal contract rates are higher by double-digit percentages year-over-year. While there is volatility from one week to the next based on changes in mix, the latest intermodal base contract rates are 13% higher y/y.

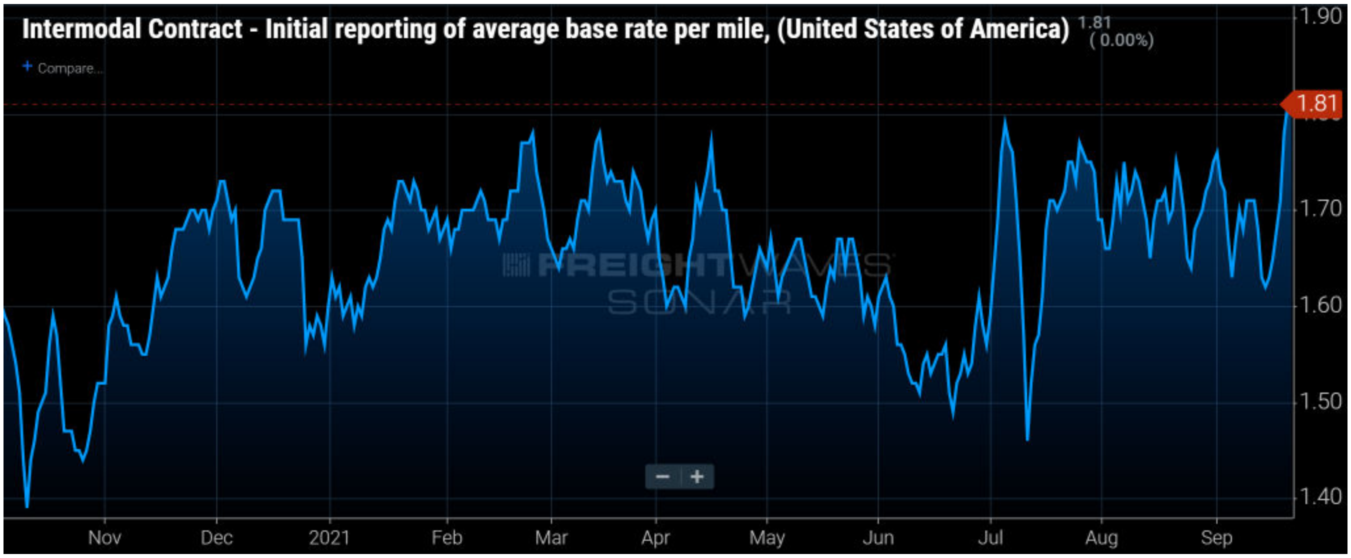


Chart: FreightWaves, SONAR. Average nationwide intermodal contract rates, not including fuel surcharges

Domestic Intermodal spot rates are higher y/y in each of the densest domestic intermodal lanes. Intermodal spot rates are clearly not competitive with truckload in the Los Angeles to Dallas lane. The fact that there are widespread y/y increases in intermodal spot rates make it likely that contract rates will rise further in the coming year.

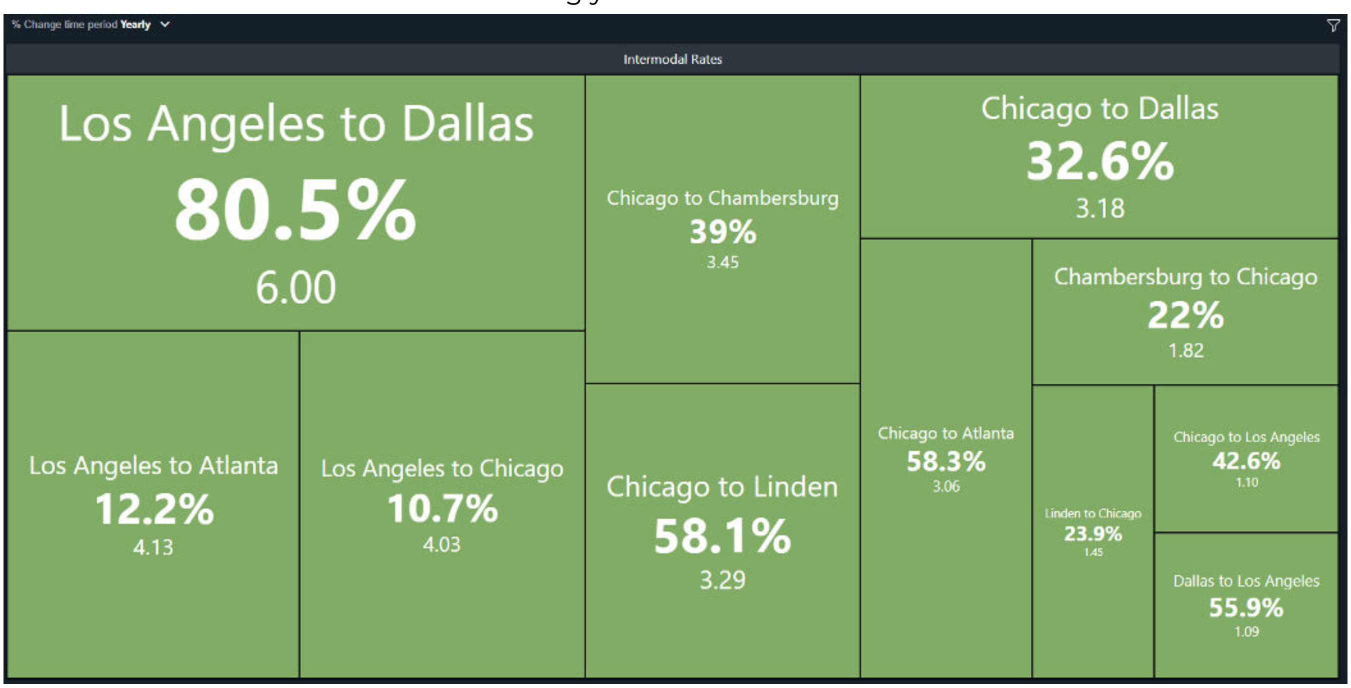


Chart: FreightWaves, SONAR. Tree map showing intermodal spot rates to move 53' containers door-to-door, including fuel surcharges.

Unfortunately, international intermodal volume (which primarily consists of 40' and 20' containers) has not seen improvement in recent weeks in a manner similar to domestic intermodal. It is easy to see international intermodal volume is constrained based on [Hapag-Lloyd's most recent service advisory]() update, which details severe delays both offshore and dwell at terminals as well as equipment shortages throughout North America.

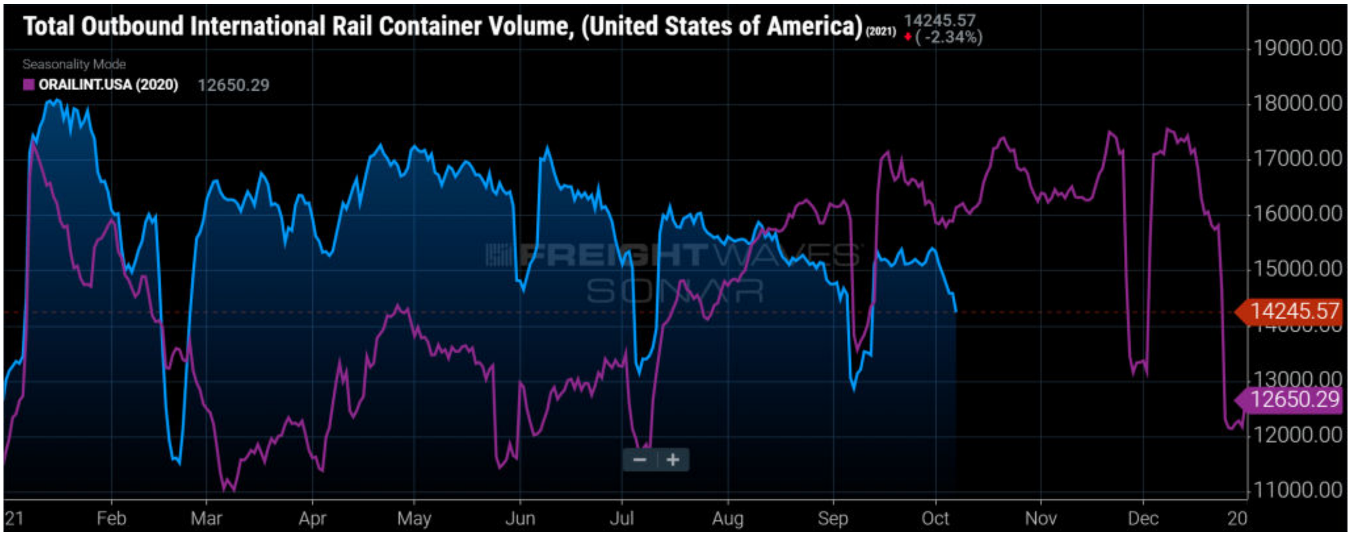


Chart: FreightWaves, SONAR. Total outbound international intermodal containerized volume is shown for 2021 and 2020 in blue and purple, respectively.

The outbound Los Angeles lanes are driving the month-over-month decline in international intermodal volumes.

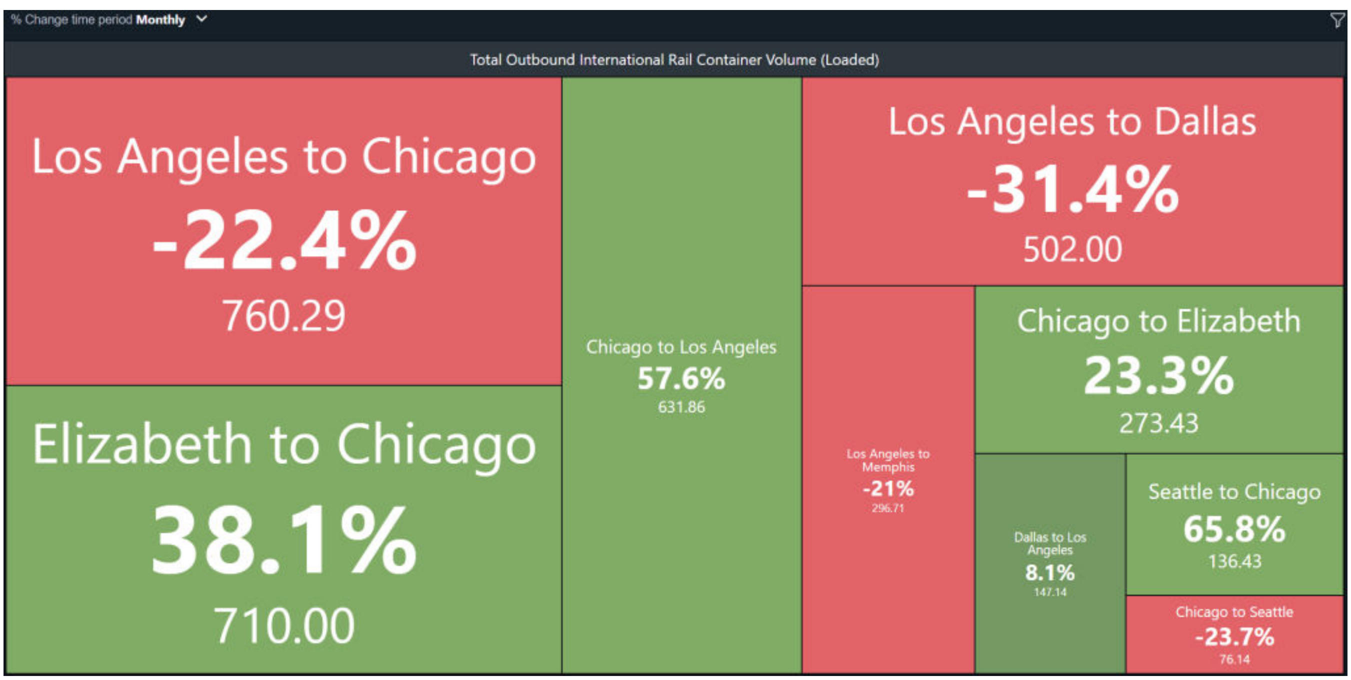


Chart: FreightWaves, SONAR. Tree map showing the average daily international intermodal volume (loaded) in each of the above lanes during the past week and their respective month-over-month changes.

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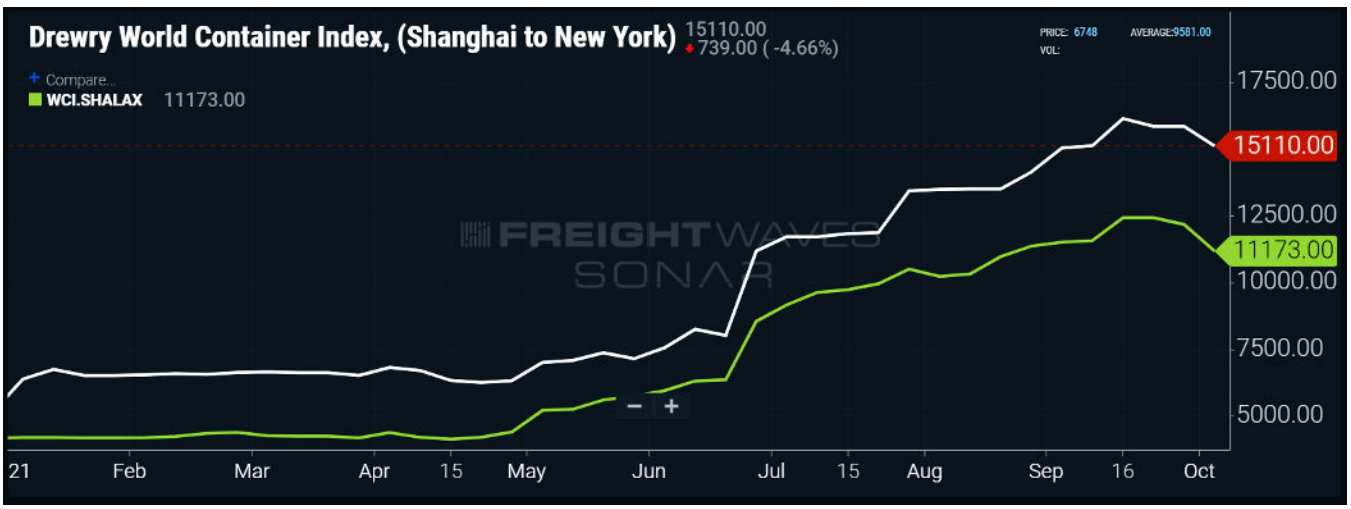
The energy crisis within China threatens freight demand, while maritime spot rates slide through Golden Week.

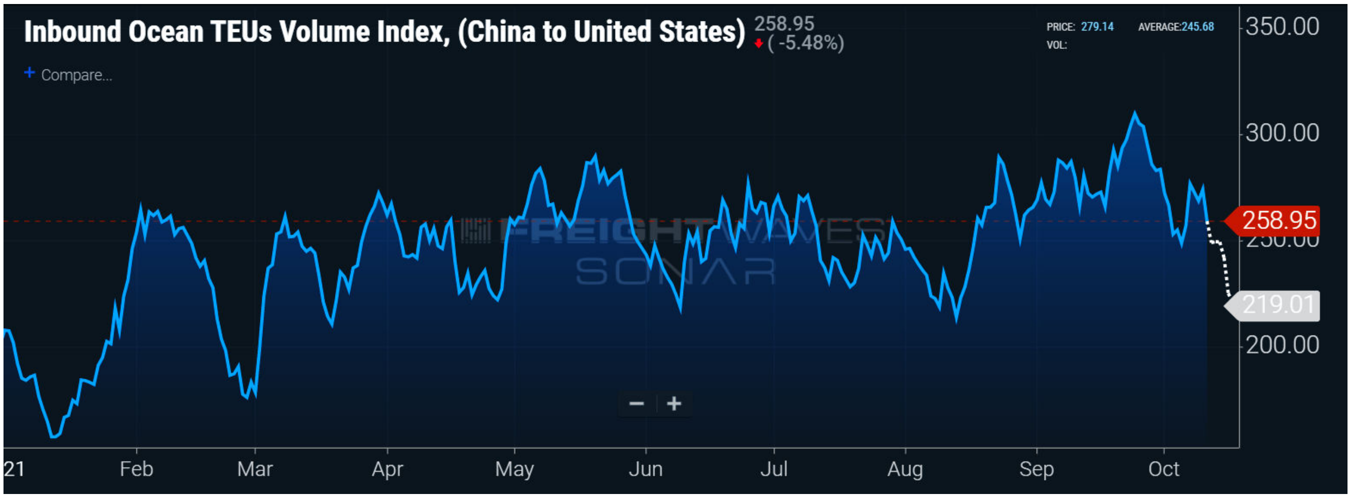
Eastbound trans-Pacific maritime spot rates posted yet another week of cooling, according to the Drewry World Container Index. The Shanghai to New York assessment fell to $15,110/FEU, a 5% drop w/w. The shorter Shanghai to Los Angeles assessment decreased 8% w/w, now residing at $11,173/FEU. The easing of spot rates along the trans-Pacific is fueled by metered production levels within China, resulting from the traditional Golden Week holiday. The holiday, which ran from October 1st to October 7th, usually means a traditional lull in maritime shipments, as manufacturing facilities in the region close up shop for the week-long holiday. While spot rates have dipped sequentially, it is no consolation for shippers, since the same indices were both below $5,000/FEU this time last year.



(Chart:FreightWaves SONAR, Drewry World Container Index Shanghai to New York assessment{White} compared to the Shanghai to Los Angeles assessment{Green})

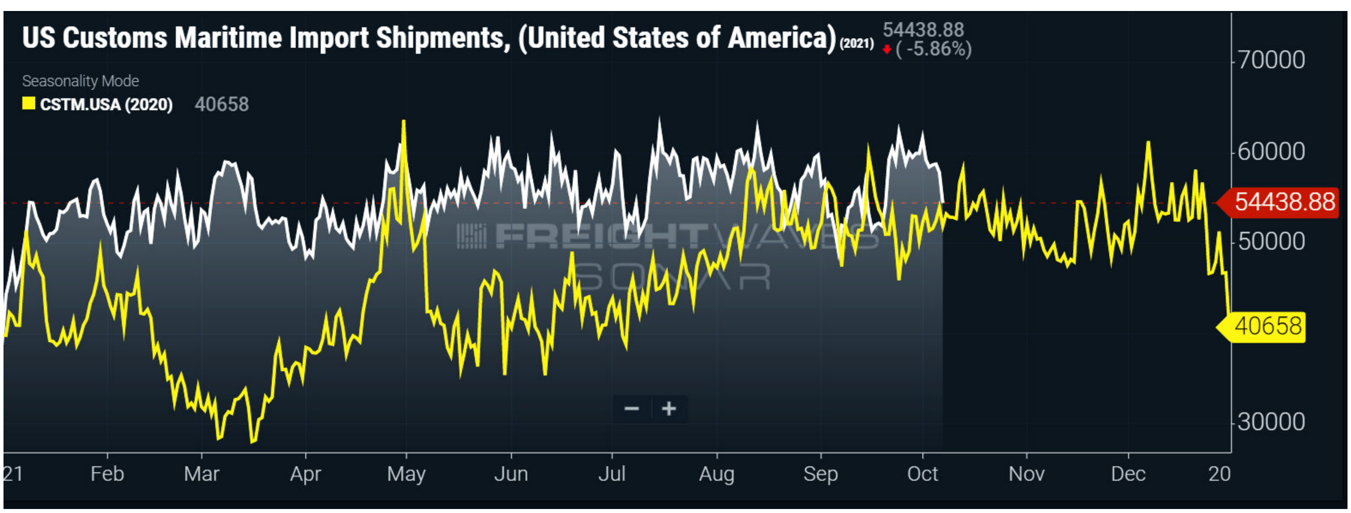
While manufacturing production undoubtedly fell because of the holiday, it remains to be seen how much of an effect the energy crisis within China is having on import demand. The acute energy shortage stems from increased levels of demand for highly energy-intensive processes, like the production of aluminum, steel, cement and manufactured goods, which subsequently sent the price of coal skyrocketing. Chinese authorities began metering energy usage in 20 provinces as their energy consumption began to eat into the nation's strict climate emissions standards. Among the 20 provinces under restrictions are Guangdong, Zhejiang and Jiangsu, which encapsulates the southern manufacturing belt of the region (which is heavily relied on by U.S. importers).

Sweeping electricity usage guidelines seem to target manufacturing and industrial facilities directly, as many have been forced to reduce operating days, and meter peak hour usage levels. The administration within the region has ordered coal mines to increase production by around 30%, as they continue to purchase energy supplies from the rest of the world. The heavy government response should lead to a relatively short-lived crisis. However usage limitations on energy-intensive sectors will remain in place for months to come.



(Chart:FreightWaves SONAR, Confirmed ocean TEU bookings originating in China and destined for the United States. Volumes are recorded by date of departure, with the dashed white line showing the next 7 days.)

Thus far, bookings confirmed to depart from China bound for the U.S. within the next seven days (dashed white line above) have posted a significant decline to 219 index points. The sharp reduction could be an indication that the energy crisis has begun to hamper production of export products, leading to a weakening in freight demand. The ripple effects of the energy crisis could continue to cripple sectors of the global supply chain that have been impaired for months, like the production and distribution of semiconductor chips for the wounded automotive sector. In the most recent week, Toyota confirmed that production at its Guangzhou and Tianjin facilities had already been impacted by power shortages and restrictions.



(Chart:FreightWaves SONAR, Containerized and non-containerized maritime imports shipments clearing customs YTD {White} compared to full year 2020 {Yellow})

The potential for an easing in freight demand due to the crisis in China comes at a time when all other indications point to continued tightness. Containerized and non-containerized maritime import volumes remain incredibly robust, as current levels are 2% above 2020 levels, and 25% higher than pre-pandemic 2019. Current levels are still yet to paint the full picture of import demand, as congestion and fluidity continue to impair the processing of imports. While 60 to 70 vessels remain at anchor in San Pedro Bay daily, 700,000+ TEU have yet to be accounted for.

According to the National Retail Federation (NRF), ports that were tracked handled 2.27 million TEU in August, the most recent finalized month. August's figures posted a 3.5% increase from July and an 8% increase y/y. August also tied March as the second busiest month since the NRF began tracking retail imports in 2002, second only to May, when 2.33 million TEU were tracked by the federation.

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