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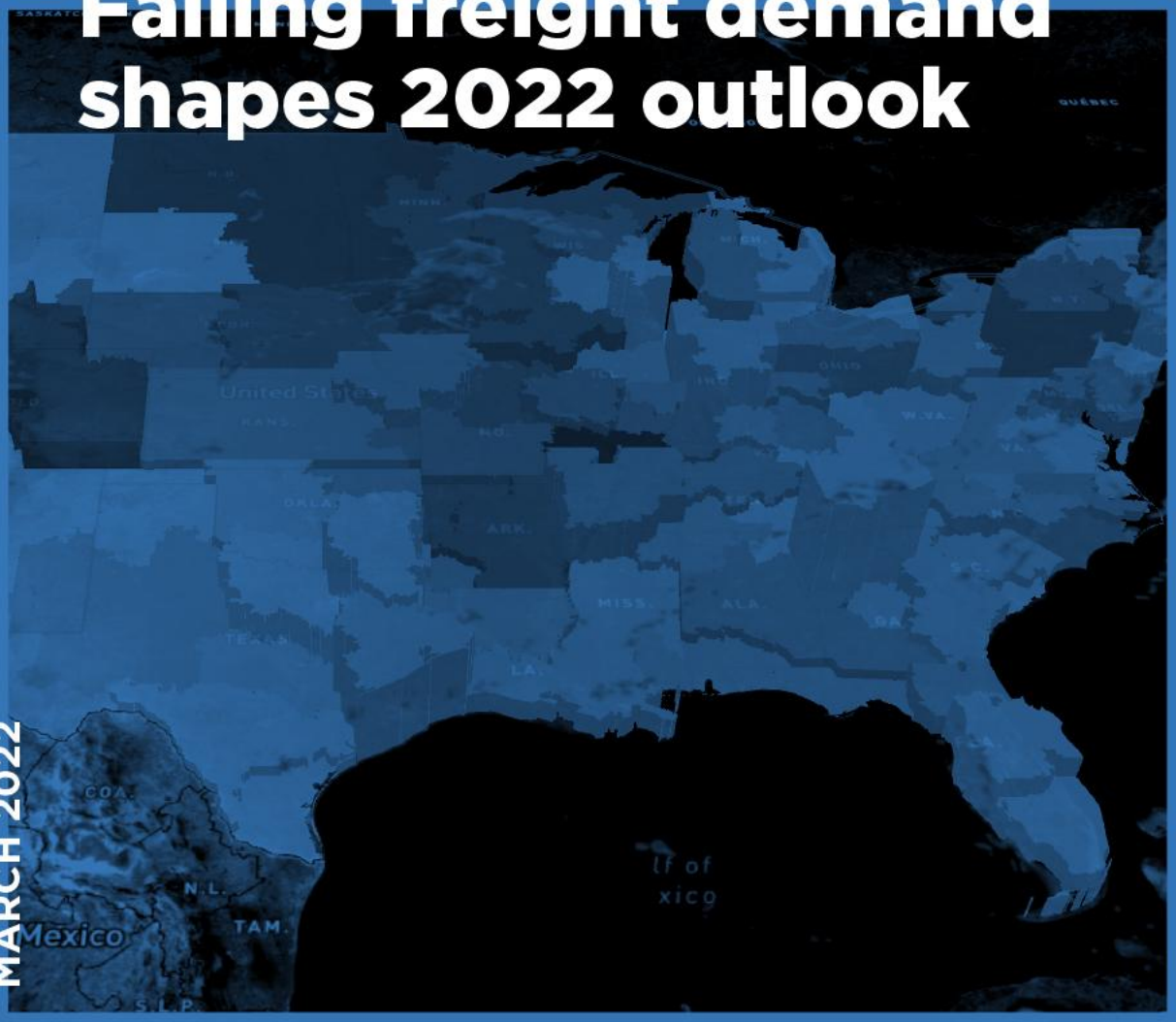
Falling freight demand shapes 2022 outlook



MARCH 2022

WHITE PAPER

Falling freight demand shapes 2022 outlook

If you haven't read the article that FreightWaves' CEO Craig Fuller wrote last week titled, "Just 3 years after 2019 trucking bloodbath, another is on the way," we recommend starting there.

In this report, we add to the discussion with additional SONAR highlights and what a coming downturn in the freight market means for other modes.

The truckload market has come under pressure as consumers are not only faced with significant inflationary pressures but also a shift back to services and experiences after purchasing goods for the past 24 months. Volume levels and rejection rates are at their lowest level in over 18 months, causing spot rates to plummet despite higher fuel costs. Rising insurance, maintenance and fuel expenses are squeezing carriers' margins in the face of falling revenue, which foreshadows a bleak near-term future for the market.

A drop in freight demand could have an initial neutral to positive impact on intermodal volume and service levels before intermodal volume ultimately declines. An initial intermodal volume boost could come from reduced congestion and better container turn times, which would lead to improved container availability. In March, intermodal demand held up while dry van demand declined. As more time passes, the intermodal and dry van segments will be in greater alignment, which could lead to overcapacity in intermodal as well.

The ocean market is a little better insulated from the boom and bust cycles that the truckload market faces. This is because there are a limited number of carriers that control ~90% of the market. Demand on the ocean hasn't faced a slowdown but the market faces increased geopolitical uncertainty as well as shutdowns in the largest exporter in the world.

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

LAX-DAL	$2.84 (-$0.02)
CHI-ATL	$3.83 (-$0.19)
PHL-CHI	$2.87 (-$0.09)
ATL-PHL	$3.72 (-$0.07)
DAL-ATL	$2.87 (+$0.06)
DAL-LAX	$1.82 (+$0.05)
National[2]	**$3.34 (-$0.08)**

Freight volume index (weekly change)

Atlanta	544.64 (-2.3%)
Ontario, CA	531.93 (-1.3%)
Harrisburg, PA	417.83 (-5.2%)
Dallas	409.66 (+0.8%)
Allentown, PA	363.95 (-3.2%)
Los Angeles	351.57 (-4.1%)
National	**13,486.83 (-1.2%)**

Tender rejection rates (weekly change)

Atlanta	12.01% (-148 bps)
Ontario	5.33% (-44 bps)
Harrisburg	18.84% (-153 bps)
Dallas	11.22% (-83 bps)
Allentown	16.82% (-231 bps)
Los Angeles	5.33% (-44 bps)
National	**14.56% (-156 bps)**

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[1] FreightWaves TRAC spot rates
[2] Truckstop.com's national average spot rate

Truckload market faces a tough outlook as volumes and rates fall while operating expenses rise

The truckload market entered the first quarter with a roar, as tendered volume remained above even the record-setting highs of 2021 throughout most of January and February. Despite the Omicron variant of COVID-19 making waves and mounting inflationary pressures, retail sales were strong throughout January, helped by a falling unemployment rate, wage gains and a rise in discretionary spending power. Shippers also contributed to growth during the first two months of 2022, since many of them front-loaded their freight during a "quieter" shipping period so as not to compete for capacity in a noisier season. Given the capacity challenges faced in early 2022, this strategy paid off handsomely.

In March, however, the truckload market began to show early signs of fragility. Tender volumes began to soften at a time when retailers are usually stocking their shelves in preparation for the summer. Part of this trend was caused by existing inventory piling up at record levels due to a mixture of panic-buying and congestion along the supply chain. Other, more severe headwinds began to have an impact: a slowdown in Chinese exports caused by the government's "zero-tolerance" COVID policy; the Russia-Ukraine crisis that is causing ripple effects on the global supply chain; a spike in the price of crude oil that is sending fuel prices into an upward spiral – to name a few.

Looking ahead to Q2 2022, a reduction in retail spending seems inevitable. In addition to a broader shift in spending from goods to services such as restaurants and entertainment, consumers will divert more of their income to the gas pump and the grocery store, not to mention rising housing costs. Weak consumer demand in tandem with a surplus of existing inventory will lead to lower freight volumes across the board. A flood of new entrants into the truckload market, which we are currently witnessing, will make matters worse as volumes soften and spot rates continue to fall. In short, a high tide of carrier bankruptcies is on the horizon; novice owner-operators are more likely to sink than swim.



Chart: FreightWaves SONAR. Outbound Tender Volume Indices: 2022 (blue), 2021 (green) and 2020 (orange)

The Outbound Tender Volume Index (OTVI), which measures national freight demand using shippers' requests for capacity, was up by an average of 5.18% year-over-year (y/y) throughout the

months of January and February. Since OTVI accounts for both accepted and rejected tenders, it doesn't necessarily display true freight volume levels because of the inclusion of rejected tenders. After adjusting OTVI by the Outbound Tender Reject Index (OTRI), accepted tender volumes were up by an average of 10.14% y/y over that two-month period.

Yet during this unseasonable run, early warning signs were gathering, threatening to pop the truckload market's bubble. In January, the Consumer Price Index (CPI) reported its highest yearly increase since February 1982 (an annual rate of 7.5%). Gasoline prices in the month were already up by 40% on a y/y basis. The subsequent developments in the Russia-Ukraine crisis and the West's accompanying sanctions on Russian oil drove gas prices up even further.

On the domestic side, warehousing space continues to command a premium, since current vacancies are virtually nonexistent. Consequently, inventory is increasingly spilling out of warehouses and into retailers' back rooms. Given the prohibitive costs of warehouse floor space, this shift could appear prudent financially. It is, however, a risky bet on the sustainability of demand for retail goods. With inflationary pressures mounting on consumers, a slowdown in retail spending is likely if not unavoidable.

Looking forward to Q2 2022, a continued decline in tender volume should be expected. With the rising cost of transportation and fuel, freight will flow at a slower rate. The volume of retail goods is similarly expected to decline since, according to February's release of the Logistics Managers' Index, levels of existing inventory are at all-time highs. After two years of record spending on goods, consumers are beginning to take advantage of an ease in pandemic-related restrictions and are shifting their spending habits back to services and experiences.



Chart: FreightWaves SONAR. Outbound Tender Reject Index: 2022 (blue), 2021 (purple) and 2020 (green)

Early in the first quarter, tender rejection rates appeared to be normalizing around a baseline of roughly 20%. Throughout Q4 2021, OTRI averaged close to 21%, meaning that carriers rejected over 1-in-5 contracted loads in favor of higher rates in the spot market. During January and the first half of February, OTRI similarly averaged close to 21%. In the middle of February, however, rejection rates began to decline, hovering around 19%. At the time, contract rates were hitting record highs, enticing carriers to comply in their contracted lanes.

March saw a precipitous fall in tender rejections over consecutive weeks. Not only did contract rates continue to rise, but freight volume started to soften in a period when shippers typically ramp up their orders in preparation for the summer. As such, there were fewer opportunities for carriers to seize in the spot market and the associated gamble of seeking them, especially given that contract rates were already so elevated, lost its luster. OTRI is currently at 14.9%, leaving many carriers and shippers alike wondering how low rejections can fall.

Throughout 2019, when a wave of new capacity flooded the truckload market amid tepid volume levels, OTRI averaged just over 6%. Right now, a wave of new capacity is flooding the truckload market amid declining volume levels. History might very well repeat itself and OTRI could accordingly fall to single-digit levels.

In early January, drivers were slower to return to the road in the post-holiday season, preferring to extend their vacation after a year of record profits. Spot rates in that month spiked to record highs due to the diminished capacity. Contract rates, which were fairly slow to catch up to the truckload market in 2021, were up by over 25% y/y at the beginning of February. Consequently, carrier compliance improved and fewer loads went into the spot market.

Since February, contract rates have continued to rise. Contract rates, which are the base linehaul rate excluding fuel surcharges and other accessorials that are included in spot rates, are sitting at $2.93 per mile, off from the all-time high of $2.97/mi set four days prior.



Chart: FreightWaves SONAR. Truckstop.com national dry van all-in spot rate per mile (blue, right axis) and initially reported dry van contract rate per mile (green, left axis)

Meanwhile, spot rates have fallen dramatically from their record-setting peaks. Truckstop.com's national average spot rate, which includes fuel surcharges and other accessorials, currently sits at $3.42/mi. Although spot rates are up more than 8% on a y/y basis, they are down over 10% from January's peak and will continue their decline into Q2.

This downward trend in spot rates should be a major red flag to carriers, particularly smaller and newer fleets that are active purely within the spot market. Prices for used trucking equipment soared in 2021, meaning that new entrants to the industry are dramatically overpaying for equipment. On a y/y basis, the cost of 3-year-old equipment is now up by 94%, while the costs of 4- and 5-year-old equipment are up by 104% and 111%, respectively.

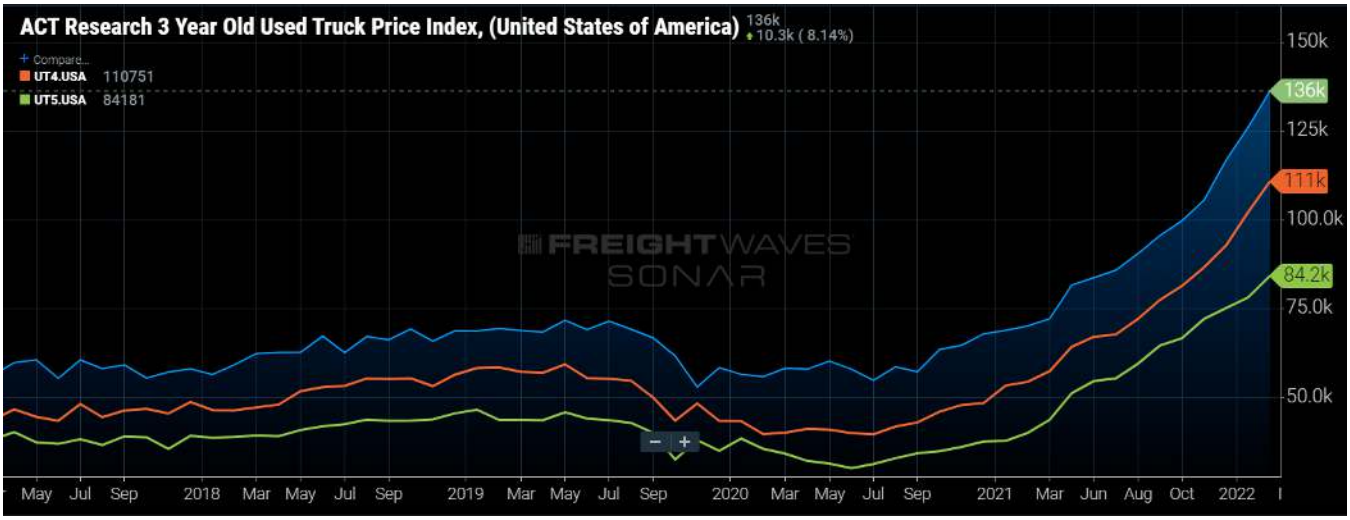

Chart: FreightWaves SONAR. Used Class 8 truck prices: 3-yr old (blue), 4-yr old (orange) and 5-yr old (green)

Since smaller carriers more frequently purchase used equipment compared to larger carriers (that generally purchase new equipment from OEMs), they are exposed to inflationary pressures in the market. But rising equipment prices aren't the only headwind that smaller carriers are facing, especially those that are active predominantly in the spot market, with limited access to contract rates. Smaller carriers are facing the rising cost of fuel that larger enterprise carriers can leverage in negotiations, purchasing fuel at wholesale prices (and sometimes even lower)

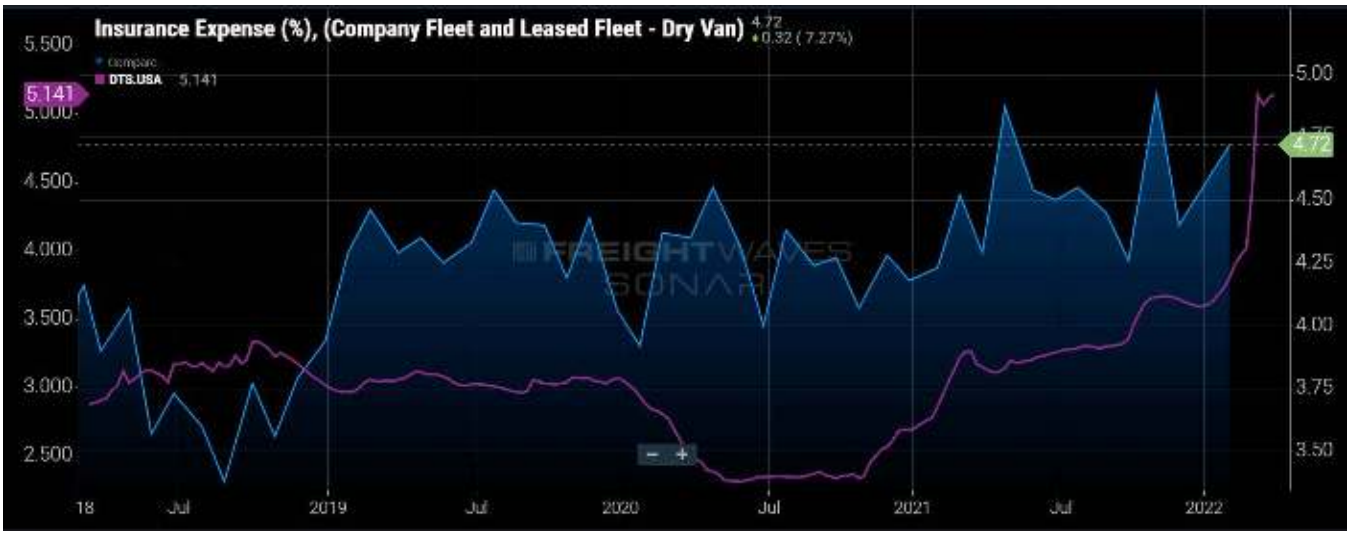

Chart: FreightWaves SONAR. Insurance expense as a percentage of revenue (blue, right axis) and actual truck stop diesel prices (purple, left axis)

Rising fuel prices are putting the squeeze on smaller carriers that have enjoyed lofty margins over the past 18 months. As rates decline, so does revenue, but fuel, the second-largest expense for a carrier behind labor, has increased to its highest level in the past five years.

Fuel isn't the only increased cost that carriers are faced with. Since mid-2018, insurance costs as a percentage of revenue have risen steadily, and are now just off the highest level in the dataset. While revenue levels are at record highs, insurance expenses as a percentage of revenue indicate that

those insurance expenses are rising faster than revenue. Now that revenue numbers are likely to decrease due to the rapid decline in spot rates, carriers are faced with another challenge that will squeeze margins.

Maintenance costs are facing a similar phenomenon, all of which lead to a relatively bleak outlook for smaller carriers that entered the industry within the past year, chasing elevated rates but generally unprepared for a slowdown in the truckload market.

Circling back to used equipment prices, if carriers do determine it best to shutter operations in the coming months, they may be able to fetch profits on the used equipment they have purchased. Traditionally, it takes six months from a slowdown in the truckload market for the equipment market to start pricing in the slowdown.

Falling freight demand could alleviate intermodal congestion before ultimately hitting intermodal volume.

As highlighted above, it has become increasingly likely, based on SONAR data and industry anecdotes, that the domestic truckload market is headed for a major demand-driven correction akin to what the industry experienced in 2019. One question that arises from that thesis is how will that impact domestic rail intermodal.

In short, it could have a neutral or even positive short-term impact on volume before it has a negative volume impact. An initial drop in demand could actually improve loaded intermodal volume because congestion at/near the ports and rail terminals has been one of the primary volume constraints since mid-2021 (along with the related issues of container and chassis availability). With less demand, containers should become more available for shippers and delays should become less common as intermodal service becomes more "truck-like" – the ultimate intermodal service objective.

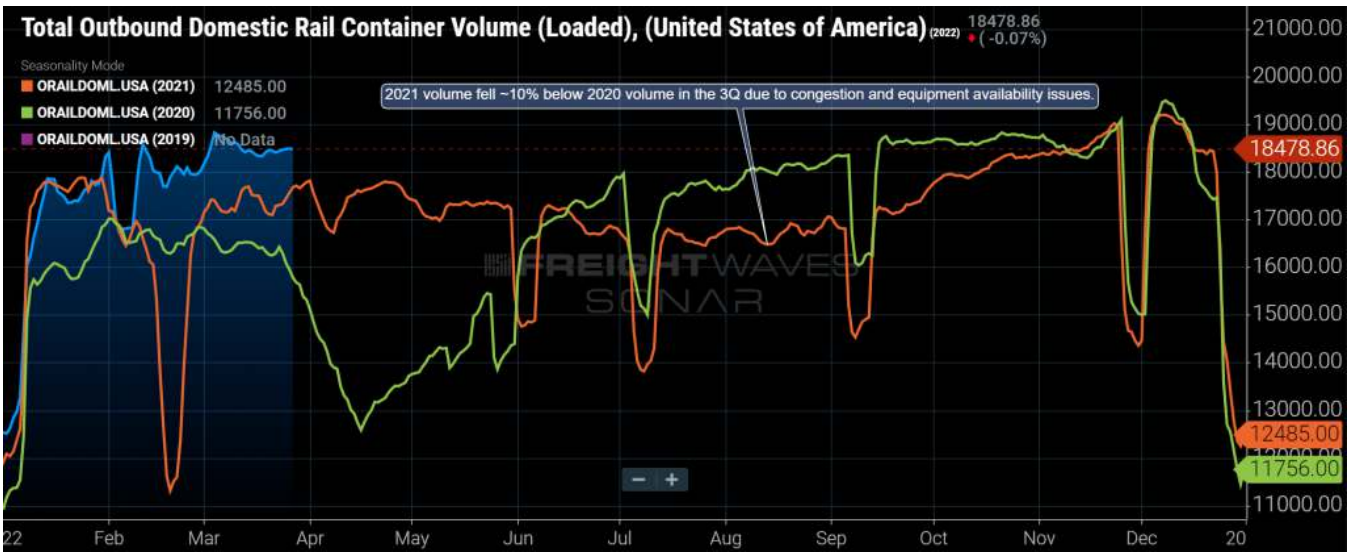

Chart: FreightWaves SONAR. Despite ample intermodal demand last year (2020 volume in orange in above chart), intermodal congestion and equipment availability issues impaired volume in mid-2021 before improving later in the year, creating a U-shaped volume chart.

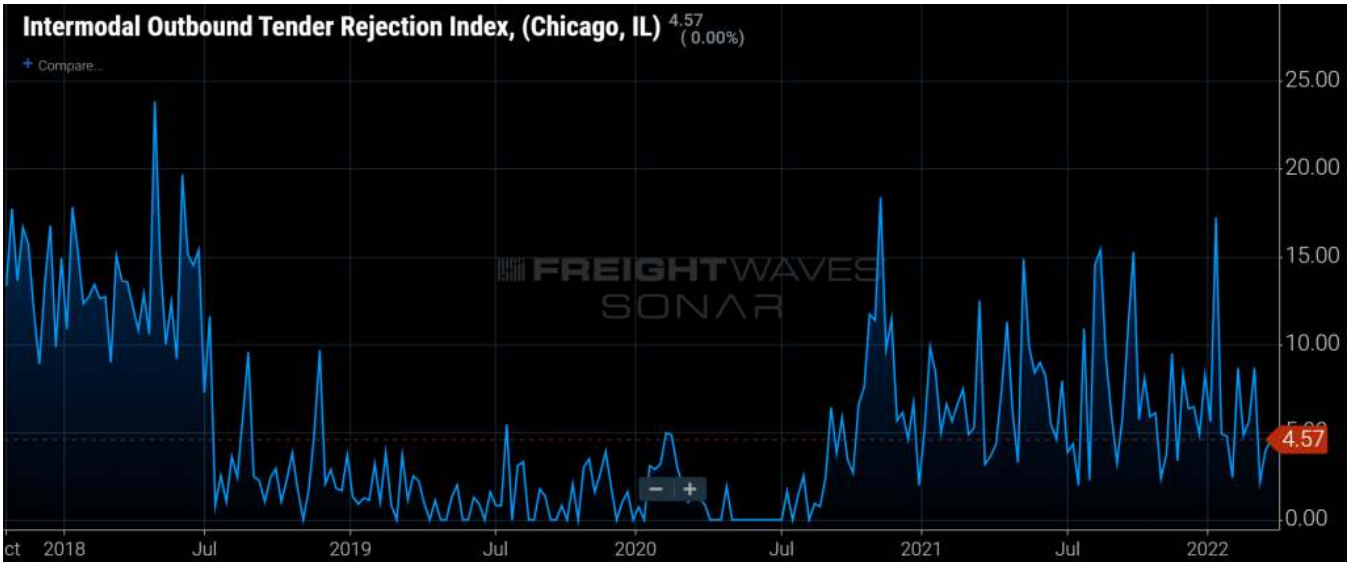

Chart: FreightWaves SONAR. 2019 was a weak year for freight demand. That year, few intermodal tenders were rejected, as shown above, with Chicago outbound tender rejection rates in the low-single digits. That is an indicator of solid service that shippers could experience again amid more muted demand going forward.

However, once rail network fluidity has improved to an acceptable level (service levels that are consistently "truckload plus one day" or domestic intermodal companies turning their equipment closer to two times per month), intermodal volume will have no place to hide from the drop in overall freight demand. Significant portions of what moves in intermodal containers are the same retail and home goods that consumers will cut back on as they look for ways to compensate for inflation in the price of essentials. Therefore, we consider the recent drop in truckload demand to be a forward-looking indicator of what is to come with intermodal volume.

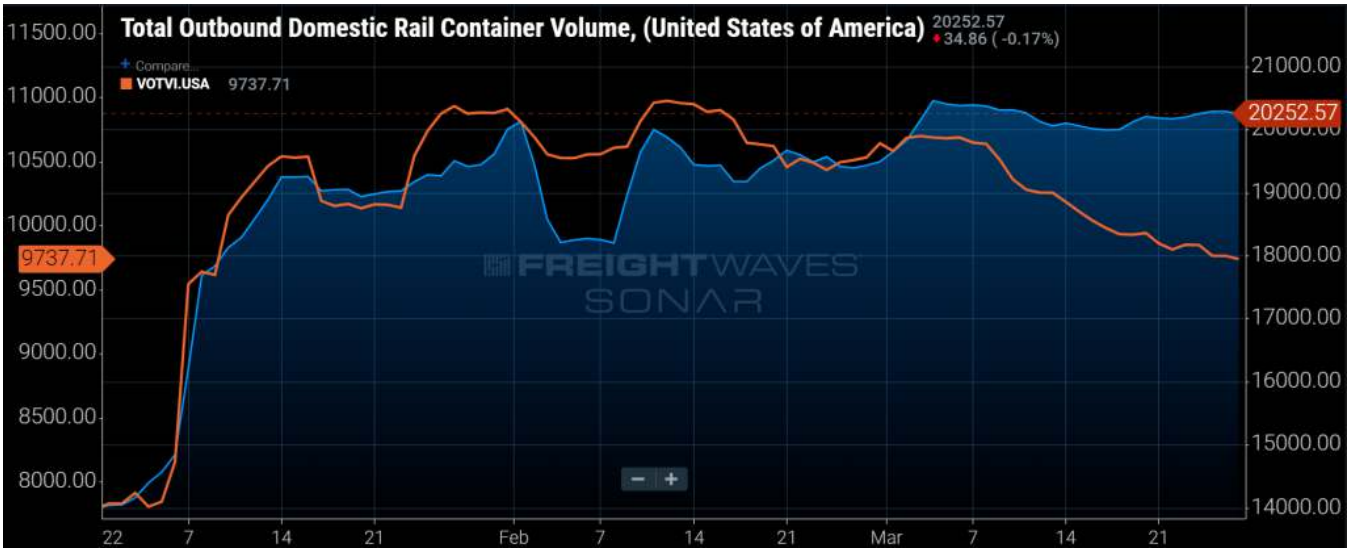

Chart: FreightWaves SONAR. Containerized intermodal volume (blue line above) has been flattish in March, holding up much better than dry van tender volume (orange line above), which has steadily fallen.

A weaker truck market will also create greater modal competition for the same domestic loads that would otherwise move via rail intermodal. A softer truckload market will impair domestic intermodal carriers' ability to take contract rates ever higher. Earlier this year, it seemed likely that domestic intermodal rates could again rise by double digits in 2022 (on top of double-digit rate increases in 2021). Now, weak freight demand in March makes that less likely. In light of our more cautious outlook for the overall freight markets, the pricing guidance that Hub Group provided to analysts (mid-single digit pricing in 2022, with low-single digit price increases later in the year) no longer appears sandbagged to us.



Chart: FreightWaves SONAR. Average domestic intermodal contract rates in 1Q22 were 13% higher year-over-year. That pace of contract rate increase seems unsustainable in a moderating demand environment.

Ocean market doesn't suffer the same boom and bust as the domestic market due to limited market participants

The ocean market suffers fewer boom and bust cycles compared to the domestic truckload market because of the difficulty (cost) of entering the market as well as the majority of the market being controlled by a small number of large players. So while the domestic truckload and intermodal modes go through the boom and bust cycle every few years, the ocean mode is holding up rather well in comparison during this cycle.

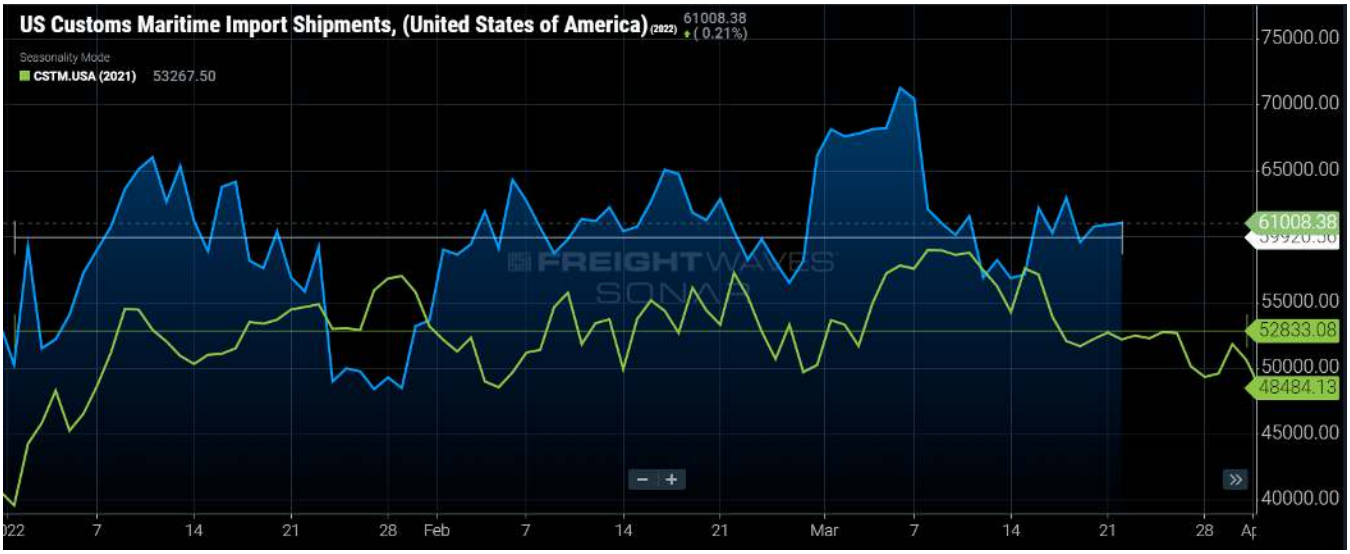

Chart: FreightWaves SONAR. Customs Maritime Import Shipments. 2022 (blue) and 2021 (green)

Import demand hasn't retreated despite a slowdown in domestic demand that occurred over the past month. Throughout the first quarter, U.S. Customs maritime import shipments, which are a combination of both containerized and non-containerized import levels, have maintained strength over 2021 levels, even with geopolitical risks in Europe and lockdowns in major port cities in China.

With only two full days left in the first quarter of 2022, the average import shipment level for the quarter to date has outperformed last year's levels by over 13%. Currently, import levels are more than 16% higher y/y.

Shippers had to react to a rapid shift in consumer purchases; they bought more physical goods, which led to depleted inventory levels and numerous stockouts. That has led to the outperformance in import shipment levels over the past quarter.

The risk to the ocean market is that inventory levels have been built back up to their highest levels of all time and consumer spending is slowing, with recent retail sales missing expectations. Consumer spending habits are shifting back to services and inflationary pressures are impacting consumers' wallets, limiting discretionary spending as prices of necessities like gasoline and food continue to rise.

Import shipments are also being aided by continued congestion at and around the ports. Ports like the Port of Charleston are experiencing dramatic levels of congestion that hadn't been felt throughout the entire pandemic until recently. Currently, there are more than 20 vessels off the coast of South Carolina's primary port.

The congestion, especially on the West Coast at the ports of Los Angeles and Long Beach, was nightly news for much of the year as more than 100 vessels were off the coast for weeks. During the first quarter, that number has improved, dwindling to its lowest level in more than six months.

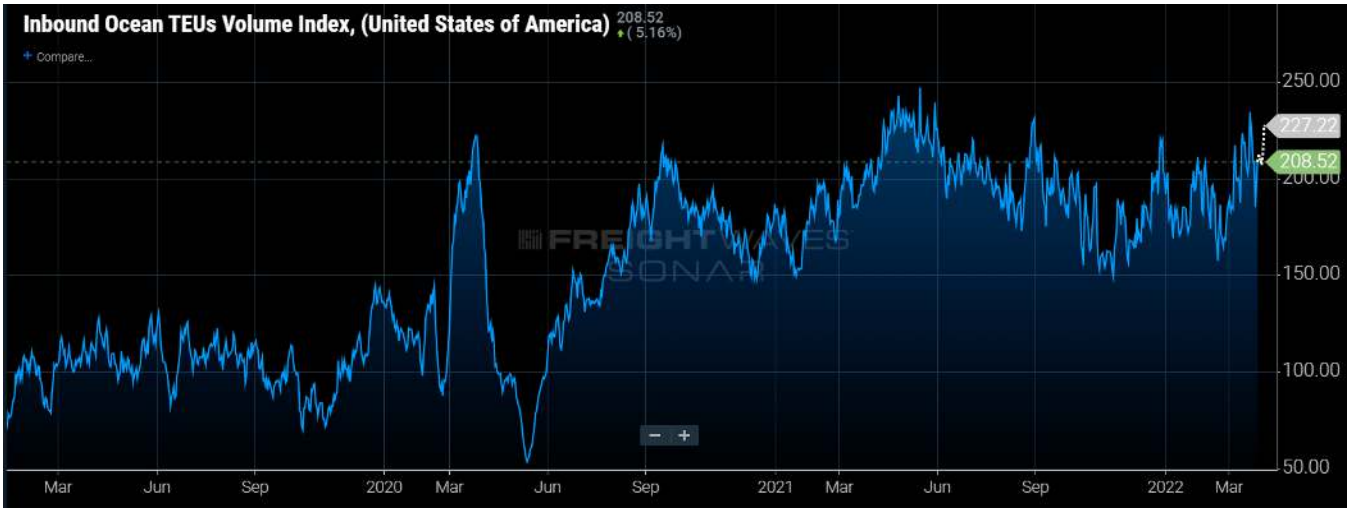

Chart: FreightWaves SONAR. Inbound Ocean TEU Volume Index. Confirmed bookings (blue) and 7-day forecast (white, dashed line)

While the import levels continue to boom, the outlook is still reasonably strong in the ocean market looking ahead to Q2. The Inbound Ocean TEU Volume Index (IOTI) for the U.S., which is based on confirmed bookings at the port of origin with the destination being a U.S. port, remains elevated compared to previous years and the seven-day outlook is expected to reflect continued growth.

Since IOTI is based on confirmed bookings and is indexed to itself dating back to the inception of the dataset in January 2019, the elevated levels indicate demand on the ocean is still relatively strong. Looking back to 2019 (the last downcycle in the truckload market), the ocean market suffered from depressed booking levels, especially in the back half of the year. That decline is largely a seasonal trend however, as both 2020 and 2021 suffered similar slowdowns in the final two quarters of the year.

Ultimately, the ocean demand for the next quarter isn't likely to fall off despite consumer demand slowing down. The downward movement is more likely to take place in the second half of the year, following seasonal trends. All of this is subject to change throughout the next quarter, but right now ocean demand is maintaining strength compared to previous years.

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Chart: FreightWaves SONAR. Drewry World Container Index: Shanghai to New York (blue) and Shanghai to Los Angeles (green)

Daily container spot rates saw some relief throughout the first quarter, but are still elevated compared to previous years. The Drewry World Container Index, which tracks the daily spot rate for a 40-foot container from Shanghai to New York, currently sits at $12,261/FEU, an increase of 88% over the past year. From Shanghai to Los Angeles, the rate is naturally cheaper, currently sitting at $9,926/FEU, but the increase over the past year is more extreme, up 137% y/y.

Ocean carriers, unlike the domestic truckload market, control container rates better than other modes due to the limited number of major competitors in the market. Additionally, ocean carriers are able to aggregate capacity in ways that suit their business needs. The timeline to add new ocean capacity (new vessels) is not only extremely long (year-plus lead times), but adding capacity is extremely expensive.

Now while spot rates are well off the highs, ocean carriers have been benefiting from higher contract rates, much like in the domestic truckload market.

The ocean market does have to deal with increased geopolitical risks and COVID-19 restrictions in China that are going to impact the market moving forward. Shanghai is under a two-tiered lockdown process, with the eastern part of the city being shut down from March 28 through April 1 and the western part of the city shut down from April 1 through April 5. Despite the port being open, port workers and truck drivers responsible for getting containers in and out of the Port of Shanghai are locked down and unable to work as highlighted by Lori Ann LaRocco.

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