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2021 FREIGHT FORECAST

FREIGHTWAVES FREIGHTINTEL RESEARCH

Executive Summary

The societal and economic challenges of 2020 have constructed a positive outlook for transportation in 2021.

It would be an oversight to kick off a 2021 outlook without addressing the structural changes to supply and demand as a result of what 2020 materialized into. A number of fundamental changes to consumer activity, industrial production, housing starts and federal stimulus are just a few of the major buckets that have driven one of the most significant nationwide levels of freight volatility.

The traditional 67/33 split of services/goods moved closer to 60/40, which was a tailwind for the transportation market as spending on goods creates more freight than services. This was in part due to a strong housing market on the back of de-urbanization. In addition, e-commerce's already strong secular trend accelerated through the period as the nation stayed home while still purchasing goods for delivery, enhancing the outlook for final-mile delivery. And while 1H20 was shrouded with the uncertainty of the pandemic, 2H20 revealed growth through the measure of the Purchasing Managers Index (PMI), which is a strong leading indicator headed into 1H21. In spite of all of the volatility in freight markets, freight demand finished strong and sets up 2021 for a positive start.

Conversely, but also favorably, capacity had been challenged headed into 2020 and was exacerbated throughout the year on the back of pandemic fears and caution around the acquisition of capital assets. "Creating a new trucker" proved challenging throughout the pandemic in part due to health concerns — and in part due to the generous levels of federal aid. While asset purchases have ramped back up the timeline of capacity, catching back up to demand is a lagging trend that is revealing pricing leverage across the transportation market in a time when spot market volatility has left many shippers seeking increased stability in capacity provisioning.

Asset-based full truckload carriers should expect to continue to see positive pricing trends and loads for service acceptable capacity while LTLs should expect to continue to see FTL spill over on top of their already strong pricing dynamics, revealing attractive economics and growth trends throughout 2021.

Intermodal is expected to be positive as the industry and asset pools grow, but will have to deliberately navigate the best fields to play on as e-commerce growth is a headwind around the fringes for its relatively lower service models (in comparison to FTL or LTL). However, a growing surface transportation market with capacity constraints should serve intermodal well in totality. Air freight forwarding and international maritime should benefit from less uncertainty and volatility as the decisions around the deployment of very heavy capital assets require an acceptable level of confidence in cash flow opportunity.

The pace of technological and data driven adoption continues to accelerate.

While the trends around technology and data were strong headed into 2020, the uncertainty and volatility throughout the year further underscored the need for an even heightened level of adoption across the space. Digital freight-matching systems, supply chain visibility, highly efficient autonomous inventory storage systems, multi-technology integration platforms, real-time benchmarking data and asset tracking are just some of the secular plays at work driving innovation in the space. The vast amount of readily available venture capital further propels the efficacy of investment in technology, which we anticipate to be one of the most significant industrywide, high-impact trends over the next decade, above and beyond that which had been enjoyed through the first two decades of the century.

We anticipate a snapback of deal activity in 2021, revealing heightened levels of capital markets activity.

Capital markets remained resilient, albeit relatively quiet, throughout 2020 with a collection of deals put on hold, bankers seeking market equilibriums for COVID adjustments and creditors underwriting fairly unique notes. With an expectation that market fundamentals throughout 2021 will be both favorable and relatively stable, we expect a heightened level of M&A, public equity capital markets activity and refinancing. This increased level of financial firepower through either direct investment, lower financing costs or driving of post-acquisition synergies could reveal a more aggressive operating landscape in which market participants gain more volume and pricing leverage, in addition to an increased ability to invest in organic growth.

The FreightWaves 2021 Freight Market Outlook is a comprehensive overview of the intellectual capital provided to subscribers.

This report encompases the full breadth and depth of the FreightWaves Market Intelligence platform, including Passport Research and our market experts team. The insights generated are the product of a deep bench of domain experts backed by the proprietary data and analytics housed in SONAR. The combination of these intellectual capital assets, real-time data feeds, broad industry network and dissemination through our media platform to the ecosystem are unparalleled. These assets underpin our mission to provide transparency around the volatility and uncertainty surrounding the future of freight markets. Our team of market experts, research analysts and editorial staff provides these proprietary views on the future of the market to support planning and decision-making for operating companies in the space. We hope you find this forecast intellectually stimulating, insightful and actionable.

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Housing and construction

Construction was anticipated to be a bright spot in 2020 and fulfilled expectations. The market was and will continue to be constrained by limited lots, available labor and material prices, in addition to any paths of uncertainties tied to COVID-19. Existing home inventory levels are tight and adding upward pressure on prices, especially for entry and mid-level homes. The shortage of existing homes on the market makes the typically pricier new builds more appealing. Nonetheless, those who have retained employment throughout the pandemic are taking advantage of historically low mortgage rates that will indeed persist through 2021.

Residential construction will be the primary driver of growth for overall spending, while nonresidential will struggle due to the lack of demand for office spaces, lodging and recreation. However, there may be select opportunities for growth within the nonresidential segment from the highway and street projects throughout the year. Warehousing and distribution centers will likely be another growth area as businesses continue to adapt to an e-commerce environment and get closer to final consumers.

The Southern and Midwest regions will be hot spots for residential construction growth throughout 2021 as more Americans migrate from the high cost of living areas such as California and New York. Many of those who remain in the exodus zones will opt to exit the pricey metropolitan areas and take advantage of the work-from-home lifestyle away from large populations. It should always be noted that the effects of construction don’t end at materials being hauled to the construction site, but there are downstream effects of consumers filling up those new and existing homes with new appliances, furniture and other goods that will add to freight volumes through the year. There will likely be significant delays for many with consumer-facing durable goods orders through at least the first quarter of 2021.

Labor

Many of the trends set in place through the end of 2020 are making their way into 2021. One of the most concerning areas comes from employment opportunities. This will be the country's main headwind amid the virus containment through at least the first half of 2021. Jobless claims hovered at stubbornly high levels throughout the three quarters of the year and showed little improvement throughout the final quarter of 2020.

The current decline for employment is a general overview. Like other segments of the economy, there will be areas of growth amid overt weakness. Business services, construction, transportation and warehousing will likely be development areas throughout the year, while some hospitality and leisure segments struggle to gain traction. Current COVID-19 cases are hitting restaurants and other in-person service industries hard, especially in states mandating more harsh restrictions. It will be a tale of two consumers through much of 2021, those who can adapt to the remote work lifestyle and those struggling with prolonged or permanent job loss.

Industrial

The momentum building for manufacturing through the latter half of 2020 will persist in the coming months. The Institute for Supply Management (ISM) Purchasing Managers' Index (PMI) showed that the manufacturing segment expanded throughout the final months of 2020. Further, the new orders component rose above the 50-point growth threshold consistently. Growth for new manufacturing orders typically leads to more production downstream, especially when backlogs begin to build up. The employment component ended the year in a growth trend but will be one of the main constraints to overall production.

Respondents note that business is more robust than expected and that there has been increased demand, but COVID-19 levels create employee shortages, causing a bottleneck. COVID-19 not only eased business spending plans but added a layer of difficulty with actual production within many factories. Outbreaks can cause operations to slow down drastically or shutter production altogether. This causes backlogs and delays for many segments that were already in a weaker standing. Commodity prices have the potential to be much more of a factor in manufacturing compared to 2020.

This segment was not in a strong growth trend pre-pandemic and overall growth has been tepid per the industrial production index. Though there is some momentum building for manufacturing going into 2021, the pace will not be overt. Segments closer to consumers, such as automotive and appliances, will fare better than those farther upstream. Quarterly growth is still below year-ago levels for overall industrial production, but there is a constant recovery trend in place. The overall momentum will likely be slow but should persist into 2021, with staffing being the significant operational efficiency to meet vendor demands. The ongoing rise for orders and production within the manufacturing segment will lead to more flatbed activity in 2021, along with increasing residential construction.

Consumer spending in 2021 is likely to be a tale of two halves (though strong throughout)

The first half of 2021 is likely to look a lot like the second half of 2020 in our opinion from a consumer spending perspective. The second half of 2021, on the other hand, is likely to be characterized by a bonanza of demand for consumer services unlike any we have seen in decades. Consumers, after being locked down at home for approximately a year and a half are likely to spend eye-popping amounts on services in the second half of 2021 and in 2022 once vaccinated in sufficiently large numbers.

That is what we mean by a tale of two halves. In the first half of 2021, consumers are likely to prioritize spending on durable goods and e-commerce just as they did in the second half of 2020, while services spending of all kinds (i.e., travel, leisure, entertainment, hotels, restaurants and bars) is likely to remain weak and depressed until widespread vaccinations are commonplace in the United States (likely in Q2 or Q3 of 2021).

Also, the second half of 2020 is an apt comparison for 1H 2021 because it was similarly characterized by generous government stimulus, high unemployment (but well off of peak levels), high COVID-19 case counts and the total shutdown or partially-closed nature of many services businesses weighing on their ability to generate anywhere close to normalized revenue.

Looking back, 2020 was a wild year with high volatility in terms of quarter-to-quarter performance of key economic metrics, with the second quarter of 2020 marking the trough in economic activity, followed by a sharp rebound through the end of the year. The exit rate of growth in the fourth quarter ended on a strong and high note and we believe the momentum should gather steam heading into 2021.

Traditionally, consumer spending makes up about 70% of the overall U.S. economy (and about 40% of overall exposure to for-hire truckload in the U.S. by our estimates). Within that 70%, historically two-thirds of consumer spending comes from services, while approximately one-third is derived from goods (both soft and durable) — in other words, the type of stuff that gets transported in trucks.

In 2020, the traditional ratio or split between services and goods experienced a sharp mix shift toward goods (and away from services) due to the factors we mentioned above. The traditional 67%/33% split of services/goods blew out to closer to 60/40, with goods accounting for 40 cents of every dollar of consumer spending. We expect mean reversion and for this split to return to closer to its long-run average in the second half of 2021, which will weigh on goods spending (and therefore truckload load volumes and demand).

The wild card here that is difficult to account for is that the overall economy should grow at a much brisker and accelerated pace in 2021, particularly as a $2 trillion stimulus package may be in the cards now that Democrats control Congress, and as the labor market recovers, the overall population is vaccinated and demand for services explodes. In other words, while the mix of goods relative to overall consumer spending is likely to fall in 2021, the question is whether goods spending can still muster to achieve a flat to modestly up level of year-over-year growth in spending because the U.S. economy is forecast to grow by about 5%. We are not sure but feel that a modestly positive growth rate for goods spending in 2021 would be a solid and encouraging result for transportation (and truckload in particular) because common sense would dictate that there was likely some degree of pull forward in demand for goods in 2020 with a majority of consumers stuck inside.

Turning to the major macro variables that analysts watch closely and that indicate the overall health of the U.S. consumer, most appear to be in good shape. For example, the savings rate is way up, which not only allows for latent demand growth should it come down, but it also means consumer balance sheets are in better relative shape. Also, overall discretionary income and spending power is up due to contributions from stimulus. The unemployment rate at about 7% is still very high by historical standards, but way off of the peak and should continue to come down, and likely quickly, as the world is vaccinated. Credit Suisse expects the unemployment rate to reach parity with its “natural rate” of at or below 5% by 2022. Consumer confidence has experienced a V-shaped rebound since the spring 2020 trough and is hovering at high levels.

We said that we felt consumer spending would be a tale of two halves because while it should be good and positive and strong for the whole of 2021, it may get really good in the back half of 2021 as pent-up demand for services explodes. While an undoubtedly positive outcome for U.S. economic growth, social stability and the labor market, it could be a mixed bag for truckload in the second half of 2021 due to the drag from the mix shift back to services we described above.

In terms of 2021 forecasts for key economic and consumer spending metrics, the table below from Bank of America Securities’ macroeconomists is likely to provide a benchmark for a reasonable range of overall expectations. Bank of America Securities is forecasting 2021 real GDP growth of 4.6% and consumer spending growth of 4.3% (see Figure 1).

In terms of freight mix for truckload, without a doubt we believe that demand for many categories such as home goods, furniture, fitness equipment, pools and consumer packaged goods (CPG) like groceries and household goods — many of the big winners from 2020 — are likely to at a minimum plateau and probably experience a modest downdraft as the world recovers. The former categories such as home goods and furniture are likely to be more dependent on housing and the overall direction of interest rates (which we think is up) than on a reopening of the services economy in the U.S. There is also likely to be a positive tailwind for carriers of more consumer cyclical and industrial-related products (e.g., autos and auto supplies).

E-commerce is likely to still grow from 2020 in terms of absolute dollars, but we believe that its penetration of overall consumer spending is likely to stagnate and peak temporarily as the world reopens and consumers go back to shopping at brick-and-mortar retailers. Most, if not all, of the share gains for e-commerce will likely prove permanent in our view and the fact that penetration rates were pulled forward by several years will prove an ephemeral headwind as new consumer habits are likely ingrained by now. As far as any carriers with heavy or outsized exposure to e-commerce or final mile, it will likely be another great year but not a generational one like in 2020.

On the whole, we believe that the overall strength of the truckload market is likely to peak sometime around mid-2021 (in terms of the dominant underlying trend for spot rates). 2020, though certainly aided by exorbitant fiscal stimulus, did prove one long-held truism — the American consumer is resilient, nearly impossible to break and he or she will continue to spend almost regardless of the circumstances (even including the biggest quarterly drop in real GDP in 90 years since the Great Depression).

For-Hire Trucking and Freight Brokerage Forecast

Table 1 – Year-over-year Performance of Key Trucking Metrics

Metric	Q1	Q2	Q3	Q4
Tendered Load Volumes (OTVI.USA) y/y	6.42%	2.91%	39.31%	55.02%
Tender Rejection Rate (OTRI.USA) y/y	13.5%	26.0%	371%	278%
Truckstop.com Spot Rates	-1.4%	-12.9%	28.8%	29.4%

Capacity

We expect some capacity to be added back to the market this year with Class 8 orders accelerating (see Figure 2) well above replacement levels in the fourth quarter of 2020. The November and December orders will not be fulfilled until June at earliest, meaning it will be difficult for carriers to add to their fleets outside of the used truck market. This growth will also be inhibited by the challenging recruiting environment that will persist well into 2021 (see Figure 3) as driver schools will not be able to fully reopen while COVID-19 cases are elevated. Depending on the success of the vaccine, we do anticipate a gradual increase on the supply side, combined with an increase of contracted rates, will help moderate spot market prices throughout the year.

Pricing

We expect contract and spot prices to move closer together this year with a stronger potential for crossover in the back half depending on how quickly the virus is controlled. This will be a product of increasing contract rates (+5-8% in 2021) and slowly cooling spot rates. Spot rates spent the second half of 2020 well in excess of contracted rates. With nearly 1-in-4 loads being rejected over a six-month period (see Figure 4), shippers have realized their loss of leverage in the marketplace. Contract rates were also depressed coming off a very soft 2019, which also contributed to the higher rates of rejection in 2020. Demand is not expected to soften significantly in the first half of 2021, which will also help maintain elevated spot market rates through what is traditionally a softer period.

Volume

Volumes are expected to remain above previous year levels through most of the first half of 2021, with inventory replenishment still being an issue (see Figure 5). Inventory levels ran low for many goods, especially in the home goods and furniture category thanks to spiking demand (see Figure 6). E-commerce is also expected to retain a lot of its momentum through the first half of the year with many people still spending most of their time in the house. Import volumes were unseasonably strong through the last few months of the year (see Figure 7), supporting a stronger than average first quarter and the continuing need for inventory. We expect some correction in the second half of the year as warmer weather — and hopefully a receding virus — pushes people to spend more money on services versus goods. A full return to 2019 volumes (see Figure 8) is not expected.

Sentiment

Broadly speaking across the trucking industry, sentiment in the first half of 2021 remains exceptionally bullish. The comps in the first half of the year are much more favorable for the industry entering the year with extremely tight capacity, soaring volumes and favorable freight rates.

Elevated consumer spending and potential for further stimulus with the Biden administration, wide sales-to-inventory spreads and the need for inventory replenishment are all bullish signs for the trucking industry. The rate at which consumer spending normalizes and demand shifts from goods back to services as the COVID-19 vaccine is distributed could pose a headwind for freight.

Large carriers believe that any headwinds in the first half will be due to limited drivers to seat trucks as opposed to freight volumes or rates. Carriers are making adjustments to offset this headwind, however strong new Class 8 truck orders leading into 2021 show that carriers remain optimistic about seating trucks and are willing to invest in their fleets.

Regulatory

The regulatory issues heading into 2021 aren't as prevalent as in 2020 when the Drug and Alcohol Clearinghouse random testing was implemented and AB5 decisions in California, IMO 2020 and ELD mandates have all passed.

The largest regulatory risks are unknown due to a new administration taking power in Washington, leading to new heads of the FMCSA and Department of Transportation. Insurance and the ongoing COVID-19 pandemic seem to top the lists of regulatory issues possible in 2021.

Congress has already begun the discussions of raising the minimum insurance level that truckload carriers have to carry, moving from the $750,000 currently required to $2 million. The House of Representatives passed the Moving Forward Act on July 1. Under the new administration and Congress, the proposal may have new life and if passed could have large implications for owner-operators.

New rules set in place for the COVID-19 pandemic, including relaxing HOS restrictions and relaxed CDL requirements for new drivers, will be impacted as the vaccine is widely distributed. As the vaccine is widely available, the new administration will be faced with keeping the relaxed regulations or to revert to previous regulations.

Miscellaneous

Many unknowns still exist regarding how quickly the COVID-19 virus gets under control. A vaccine, warmer weather and herd immunity will all play a role in reducing cases throughout the year. The speed of these impacts and how quickly restrictions are lifted will determine how quickly the economy will shift a percentage of its spending back into services, eroding some of the goods demand that has lifted the freight market in 2020. Just like there were many unknowns around what happened when people spent more time at home and shifted to a remote work lifestyle, many questions remain around what the economy will look like when the post-COVID-19 era begins.

Weather Forecast

Long-range forecasts by the Climate Prediction Center have the current La Niña pattern persisting into the summer of 2021 before moving into a neutral scenario. La Niña patterns typically mean active hurricane seasons in the Atlantic basin along with warm and dry conditions in the Southwest. Last year was almost the consummate example as the Atlantic basin produced 30 named storms and record-breaking drought spurred wildfires across California.

Hurricanes are one of the most disruptive natural disasters in the freight world, leading to disruption in shipping patterns as well as capacity when there is significant damage to infrastructure. The good news is this hurricane-friendly pattern should be on its way out by the time hurricane season is in full bloom, but there are still questions around the exact timing.

The Southwest may have to wait a while before any long-term relief is present in terms of dealing with drought, but there is optimism that this pattern will break before the next wildfire season. The positive news from this pattern is that it tends to lead to a more predictable harvest schedule over a wetter El Niño pattern, which tends to impact the general freight market in April through June.

In other areas of the country, expect higher probabilities for flooding across portions of the upper Mississippi this spring, with temperatures staying near or above average for most of the southern tier throughout the year.

Intermodal Forecast

Capacity

In 2021, the domestic truckload-based intermodal providers will likely meaningfully increase the size of their container fleets (the closest measurement we have to a true domestic intermodal capacity measurement). Those expansions would come in contrast to 2020, a year with one of the most modest domestic container size increases in recent memory. So domestic intermodal capacity, at least in terms of container count, should rise in 2021.

In addition to a larger industry container fleet size, the existing container fleet will likely be utilized more efficiently as the year progresses, leading to a further increase in container availability and intermodal capacity. Container fleet utilization, or "container turns," should improve in 2021 as the lane imbalance issues experienced in 2020 become less severe as the East Coast ports recover some market share (see Figure 9).

While there should be greater container availability in 2021, what is less clear is whether congestion issues near ports and rail terminals will play as prominent a role in 2021 as they did last year and whether intermodal service levels will be strong enough to take (or even maintain) market share in lanes that are highly competitive with truckload.

Pricing

Annual domestic intermodal contracts should renew at significantly higher rates (in the high single digits to double digits depending on lane) when they are repriced in 2021. Intermodal bid season is weighted toward the early months of the year and the direction of rates, relative to the prior year, generally follows the market conditions of the prior fall's intermodal peak season as well as the current competitive dynamics with truckload. In 2021's case, the prior intermodal peak season was characterized by an unusually strong import-driven freight surge, a longer-than-normal seasonal peak, congestion at the West Coast ports, tight labor availability and a tight truckload market. Those issues created additional costs on many fronts that intermodal providers needed to bear in order to meet customer commitments; as contracts with shippers are renegotiated, intermodal providers will attempt to recover those incremental costs. Additional evidence of coming contract rate increases include the recent exorbitant intermodal spot rates on eastbound lanes (see Figure 10) and the tick up in intermodal tender rejection rates (see Figure 11), which, unlike in truckload, are normally fairly negligible.

Demand

Intermodal demand in early 2021 appears destined to remain at an elevated level, as it had been in late 2020, based on the near-term outlook for containerized imports (see

Figure 12) and shippers' desire to replenish still-thin retail inventory levels (see Figure 13) quickly. In fact, some ocean shipping lines have announced capacity expansions on trans-Pacific services, which suggest that the shipping lines are expecting a continued surge in import volume. Plus, import volume at the U.S. ports is not expected to experience its typical seasonal slowdown for Chinese New Year as some companies plan to work through the holiday to satisfy demand.

But the intermodal demand outlook becomes much more uncertain when considering the summer months and beyond (see Figure 14). Intermodal freight is highly consumer oriented and, as with other consumer-heavy industries, it is unclear whether the distribution of the COVID-19 vaccines will lead to a major shift in consumer behavior back to travel/services/experiences and away from goods spending (and particularly durable goods spending) that made 2020 such a strong year for freight demand.

Therefore, if vaccine distributions go roughly according to plan (a big if), it appears likely that intermodal demand will dissipate some throughout the course of the year (while year-over-year comps get more difficult). The counterpoints to that outlook include the potential for vaccine distribution to be delayed (which could lead to another year in which goods have command of consumers' wallets) and the numerous factors that remain in consumers' favor (record consumer wealth levels, near-zero interest rates, record stimulus packages and an improving employment outlook).

Miscellaneous

Two of 2020's most common news topics could have a lasting impact on intermodal: the acceleration in the growth of e-commerce and household relocation away from the dense mega-cities. Vaccines or not, it seems unlikely that consumers will fully return to shopping in person after experiencing the convenience, speed and time savings associated with e-commerce. E-commerce creates challenges for intermodal since the same-day or next-day service that customers expect requires goods located at local fulfillment centers close to consumers. Local housing of goods near consumption points is less compatible with intermodal than storing goods at large warehouses near major rail terminals. The trend in which the long-term impact is less clear is whether the San Franciscos of the world are past their prime as remote work becomes commonplace. Still, when the fastest-growing towns in the U.S. are once unheard of places like South Jordan, Utah, and Meridian, Idaho, one has to wonder whether intermodal will lose share against the greater flexibility offered by truckload.

Ocean/Maritime Forecast

Capacity

Ocean carriers exhibited extreme discipline when it came to managing capacity in 2020 through the use of “blank” sailings. When the initial economic shutdowns began due to the global pandemic, carriers were able to quickly respond by either removing vessels entirely from service in a trade lane or by skipping a port or multiple ports during a vessel rotation to keep demand relatively elevated for the next vessel to make a specific port of call. At one point in the second quarter of 2020, an estimated 11% of container ship capacity was idle.

According to Sea Intelligence, as of mid-January, ocean container carriers have announced just five blank sailings on the trans-Pacific and seven on the Asia-Europe route for the Chinese New Year (CNY), Feb. 12-26, a period when demand is expected to slow dramatically as China and a few other countries in East Asia celebrate a national holiday. For comparison, last year there were 73 CNY blank sailings on those routes (excluding canceled sailings attributed to the COVID-19 outbreak). In 2019, there were 67. CNY capacity reductions on the Asia-West Coast route for this year are currently just 2.1%. Asia-East Coast reductions are just 3.6%. In sharp contrast, the average CNY reductions in 2016 and 2019 were 20.4% and 19.2%, respectively. Even though there is still some time to make the announcements of blank sailings, when Greg Miller of American Shipper asked a Maersk spokesman whether it would announce further blank sailings during CNY, the ocean carrier didn’t answer the question directly but responded, “We continue to see demand strength in North American customers as a carryover from the extended peak of 2020. We’re in close communications with them and our intention is to support their needs and those of our U.S. exporters as we approach CNY.”

According to Alphaliner, a total of 25 giant megamax container ships were ordered in Q4 last year, nudging the boxship order book-to-fleet ratio to just above 10% for the first time in a long time. The order book-to-fleet ratio now stands at just over 10% with 2.4 million twenty-foot equivalent units (TEUs) on order versus an extant fleet of 23.91 million TEUs. Still, we think that the ongoing transformation of the U.S.-China trade relationship will pose challenges for ocean liners trying to rightsize capacity on the trans-Pacific services, and to the extent that East Asian countries subsidize their exports by building ships, we think there will be a structural drag on box rates.

Demand

According to its World Economic Outlook for 2021, the International Monetary Fund expects global GDP growth of 5.2%, and the World Trade Organization expects global goods trade to expand by 7.2%. As of mid-January, there is a significant amount of demand pent up in the system resulting from a number of different factors — most notably disruptions from COVID-19 that have caused container equipment shortages and a pull forward of demand from importers attempting to rebuild inventories that were diminished during 2020. So with no detectable letup in demand, industry analysts are now predicting congestion, delays, equipment shortages and higher rates to continue at least through Chinese New Year and possibly through the end of Q2.

For Q3 and Q4 of 2021, the many global economic factors that persist will play an enormous part in what occurs for ocean container demand in the second half of the year. With COVID-19 cases continuing to rise, threatening further economic shutdowns, growing geopolitical tensions between certain countries (i.e., the U.S. and Iran, India and Pakistan, China and Taiwan) that could result in a potential conflict and threaten global trade routes, as well as any further "black swan" events that could arise between now and then, it is reasonable to expect that demand may be disrupted on the back side of this year. Also, the large inventory levels that U.S. importers seem to be building also pose a significant threat to demand on the back side of this year.

Pricing

The discipline ocean carriers exhibited in 2020 in managing capacity allowed them to achieve the highest spot rates in recorded history on many major trade lanes. For U.S. importers moving a majority of their shipments on what is known as the trans-Pacific eastbound, spot rates increased over 200% (more than $2,600) per forty-foot equivalent unit (FEU) from China to the West Coast and increased just over 100% (more than $2,500) from China to the East Coast. Since demand has been pulled forward a bit from importers looking to build inventories and preempt against further possible uncertainty, these rates are not likely to change very much between the beginning of 2021 and CNY. This puts a majority of the leverage in the hands of ocean carriers when negotiating annual fixed-rate contracts, so contracts are likely to be signed at historically high levels heading into the 2021-22 contract season. With many importers still uncertain about the consensus outlook for the economy in 2021, some may choose to pay higher rates to ensure that their cargo receives some form of guaranteed space, while others may look to sign more short-term contracts to buy themselves some time in hopes that rates decrease significantly in the latter half of 2021.

Air Cargo Forecast

Capacity

Air cargo's story in 2020 diverged from the story of air passenger travel in 2020. Cargo volumes were down in 2020, but nowhere even close to as low as air passenger figures. At the low point in April 2020, IATA reported that air cargo tonne kilometers (CTKs) flown were down about 25% when compared to 2019. And by September, IATA reported that air cargo volumes had only declined 8% when compared to 2019. Since air cargo traffic has remained essential during the global pandemic, it has been supported by global supply chains transporting medical and personal protective equipment and pharmaceuticals.

For these reasons, in conjunction with many indicators related to overall economic activity and manufacturing remaining relatively positive for 2021, air cargo's growth is primarily constrained by a lack of capacity in 2021, which is mainly due to the massive reduction in both short-haul and long-haul air passenger travel. IATA has reported that air freighters were used to their maximum in 2020 and were only able to squeeze out an additional 20% in capacity by adding new freighters and by increasing the average number of hours flown. In a typical year, about 50% of air cargo capacity is moved in the holds of passenger aircraft. However, most of that capacity was grounded in April, and even when some of that capacity was retrofitted to carry freight instead of passengers, in September capacity remained 25% lower than in the previous year.

For 2021, we can expect that this problem will persist at least until widespread vaccinations occur and passenger travel picks up.

Demand

Once the final numbers are in for 2020, IATA expects that overall air cargo volumes to have fallen 20% from 2019 levels along with a 9.2% decrease in global goods trade as reported by the WTO. However, in 2021 global goods trade is expected to expand by 7.2%. Therefore, IATA expects overall air cargo demand to recover in 2021 to pre-COVID levels somewhere around March or April. IATA cited both the improving economic backdrop and the essential role of air cargo in distribution of COVID-19 vaccines as primary reasons for the recovery in 2021 to 2019 levels. It is also worth noting the substantial growth in e-commerce business that has arisen from an economic shift in many people working from home and spending more time at home as a result of the global pandemic. For that reason, it is expected that the growth in e-commerce will also play a significant role in global air cargo demand for 2021.

Air cargo demand could also benefit from U.S. importers choosing to further de-risk their supply chains from any increasing tensions between the U.S. and China by moving to countries deeper in Southeast Asia as well as the Indian Subcontinent. If this trend continues, air cargo could assist importers by providing more certainty around transit times from countries that lack the necessary infrastructure to move the volume of cargo that some of these importers require.

Pricing

However, this also led air cargo load factors to all-time high levels for the month of November. This combination has led to elevated air cargo revenues that have helped provide some relief to some airlines when passenger revenues have all but collapsed.

While capacity in 2020 experienced a record low year, air cargo rates presented some relief for many air cargo carriers, especially freighter-heavy companies. However, overall operating revenues for the air transport industry declined more than 60% in 2020. While available cargo tonne-kilometres (ACTKs) fell 22.4% y/y in October and 20% in November, a combination of reduced capacity from passenger aircraft and an increase in time-sensitive cargoes such as personal protective equipment (PPE) associated with the pandemic, e-commerce shipments and an increase in time-sensitive goods that shifted from ocean containers to the air, forced air cargo rates to unprecedented levels. According to the Transportation Air Cargo Index, during the peak of air cargo rates in May 2020, the average per kilogram (kg) rate from Shanghai to North America rose to $12/kg. Through the end of the year, the lowest average rate achieved on this lane was $4.36/kg, but as demand increased through the holidays and the end of the 2020, the average rate now stands at $8.34/kg.

Based on air passenger demand remaining depressed at least through the first half of 2021, coupled with increased demand for COVID-19 vaccine-related shipments, the continuation of strong e-commerce sales and the continuation of many workers operating remotely, we believe that air cargo rates will remain elevated vs. 2019 levels. However, with many passenger aircraft now retrofitted to accommodate freight known as “preighters,” it is unlikely that we will see rates as high as we did at the peak and tail end of 2020, unless another “black-swan” type of event were to occur or further lockdowns were to have a significant impact on capacity and/or demand.

Supporting Materials – Macroeconomics/Consumer

Figure 1 - Economic Forecast Summary

Economic forecast summary

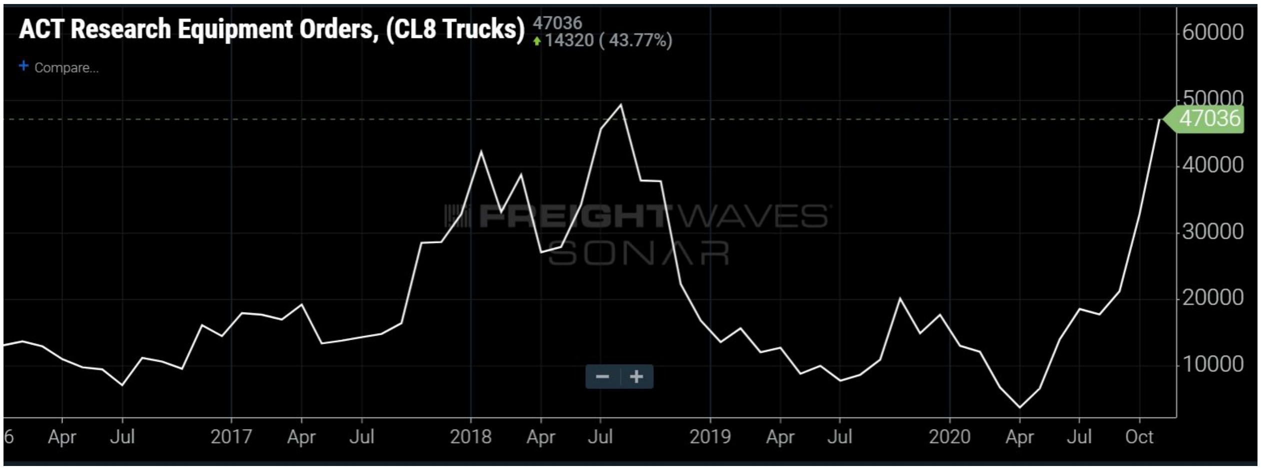
Real Economic Activity, % SAAR	2Q 20	3Q 20	4Q 20	1Q 21	2Q 21	3Q 21	4Q 21	1Q 22	2Q 22	3Q 22	4Q 22	2019	2020	2021	2022
Real GDP	-31.4	33.1	5.0	1.0	7.0	5.0	5.0	1.7	1.7	1.7	1.7	2.2	-3.5	4.6	3.0
% Change, Year Ago	-9.0	-2.9	-2.3	-0.8	10.9	4.5	4.5	4.7	3.3	2.5	1.7				
Final Sales	-27.9	26.5	3.8	0.9	6.2	4.7	4.7	2.1	2.1	2.1	2.1	2.2	-2.9	3.7	3.2
Domestic Demand	-28.5	29.6	4.1	1.1	6.2	4.6	4.6	2.0	2.0	2.0	2.0	2.3	-2.7	4.3	3.1
Consumer Spending	-33.2	40.6	4.0	1.0	7.0	5.0	5.0	2.0	2.0	2.0	2.0	2.4	-3.8	5.0	3.2
Residential Investment	-35.5	62.3	25.0	5.0	10.0	8.0	8.0	5.0	5.0	5.0	5.0	-1.7	5.4	12.5	6.2
Nonresidential Investment	-27.2	21.8	6.3	1.5	4.0	3.0	3.0	2.0	2.0	2.0	2.0	2.9	-4.5	3.3	2.4
Structures	-33.6	-15.8	-5.0	0.0	2.0	1.0	1.0	2.0	2.0	2.0	2.0	-0.6	-10.7	-5.2	1.7
Equipment	-35.9	66.6	15.0	1.0	4.0	3.0	3.0	2.0	2.0	2.0	2.0	2.1	-5.6	7.9	2.5
Intellectual Property	-11.4	6.0	3.0	3.0	5.0	4.0	4.0	2.0	2.0	2.0	2.0	6.4	1.0	3.0	2.8
Government	2.5	-4.9	-3.0	0.0	3.0	3.0	3.0	1.0	1.0	1.0	1.0	2.3	1.0	0.1	1.8
Exports	-64.4	60.5	15.0	-2.0	6.0	6.0	6.0	5.0	5.0	5.0	5.0	-0.1	-13.2	3.4	5.4
Imports	-54.1	93.1	12.5	0.0	4.0	4.0	4.0	3.0	3.0	3.0	3.0	1.1	-10.1	7.0	3.4
Net Exports (Bil 12$)	-775	-1016	-1034	-1046	-1046	-1045	-1044	-1041	-1037	-1033	-1029	-918	-903	-1045	-1035
Contribution to growth (ppts)	0.6	-3.1	-0.3	-0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	-0.2	-0.1	-0.6	0.1
Inventory Accumulation (Bil 12$)	-287.0	-4.3	55.0	65.0	100.0	115.0	130.0	105.0	80.0	55.0	30.0	48.5	-79.3	102.5	67.5
Contribution to growth (ppts)	-3.5	6.6	1.1	0.2	0.6	0.3	0.3	-0.4	-0.4	-0.4	-0.4	0.0	-0.6	0.8	-0.2
Nominal GDP (Bil $, SAAR)	19520	21158	21490	21633	22078	22437	22788	22971	23164	23364	23564	21433	20932	22234	23266
% SAAR	-32.8	38.0	6.4	2.7	8.5	6.7	6.4	3.2	3.4	3.5	3.5	4.0	-2.3	6.2	4.6
Key Indicators															
Industrial Production (% SAAR)	-42.6	42.5	6.5	3.6	3.5	3.6	3.6	2.9	2.6	2.6	2.6	0.9	-6.9	4.3	3.0
Capacity Utilization (%)	66.0	72.1	73.3	73.7	74.1	74.4	74.8	75.1	75.4	75.7	76.0	77.8	71.8	74.3	75.6
Nonfarm Payrolls (Avg mom change, 000s)	-4427	1322	302	225	700	500	400	350	250	175	175	178	-777	456	238
Civilian Unemployment Rate (%)	13.0	8.8	6.8	6.6	5.7	5.2	5.1	4.9	4.7	4.6	4.5	3.7	8.1	5.7	4.7
Civilian Participation Rate (%)	60.8	61.5	61.5	61.5	61.5	61.7	62.0	62.2	62.3	62.4	62.4	63.1	61.8	61.7	62.3
Productivity (% SAAR)	10.6	4.9	0.0	-0.7	1.1	1.3	1.4	1.3	1.2	1.2	1.2	1.7	2.9	1.5	1.3
Personal Savings Rate (%)	25.8	16.1	13.6	14.8	12.3	12.1	12.0	12.0	12.0	11.9	11.7	7.5	16.3	12.8	11.9
Light Vehicle Sales (Millions SAAR)	11.3	15.3	15.8	15.8	15.9	16.1	16.2	16.3	16.3	16.3	16.4	17.0	14.4	16.0	16.3
Housing Starts (Thous. SAAR)	1079	1440	1516	1517	1525	1500	1459	1493	1538	1568	1599	1295	1380	1500	1550
Current Account (% of GDP)												-2.2	-3.6	-3.9	-2.6
US Budget Balance ($bn, Fiscal Year)												-984	-3132	-2440	-1450
Inflation															
GDP Price Index (% SAAR)	-1.6	3.5	1.5	1.7	1.5	1.6	1.4	1.5	1.7	1.8	1.8	1.8	1.1	1.6	1.6
% Change, Year Ago	0.6	1.1	1.1	1.2	2.0	1.6	1.5	1.5	1.6	1.6	1.7				
PCE Chain Prices (% SAAR)	-1.6	3.7	1.6	1.9	1.7	1.6	1.4	1.6	1.9	2.0	1.9	1.5	1.2	1.7	1.7
% Change, Year Ago	0.6	1.2	1.2	1.4	2.2	1.7	1.7	1.6	1.6	1.7	1.9				
Core PCE Chain Prices (% SAAR)	-0.8	3.5	1.4	1.3	1.5	1.7	1.7	1.8	1.9	2.0	2.0	1.7	1.4	1.6	1.8
% Change, Year Ago	1.0	1.4	1.4	1.4	1.9	1.5	1.6	1.7	1.8	1.9	1.9				
CPI, Consumer Prices (% SAAR)	-3.5	5.2	2.1	2.6	2.0	1.7	1.5	1.8	2.1	2.1	2.1	1.8	1.2	2.1	1.8
% Change, Year Ago	0.4	1.3	1.2	1.5	2.9	2.1	1.9	1.7	1.7	1.9	2.0				
CPI ex Food & Energy (% SAAR)	-1.6	4.4	1.7	1.5	1.7	1.8	2.1	2.2	2.2	2.2	2.2	2.2	1.7	1.8	2.1
% Change, Year Ago	1.3	1.7	1.6	1.5	2.3	1.7	1.8	1.9	2.1	2.2	2.2				

Shaded regions represent BofA US Economics Research forecast
Source: BofA US Economics Research

(Source: Bank of America Securities)

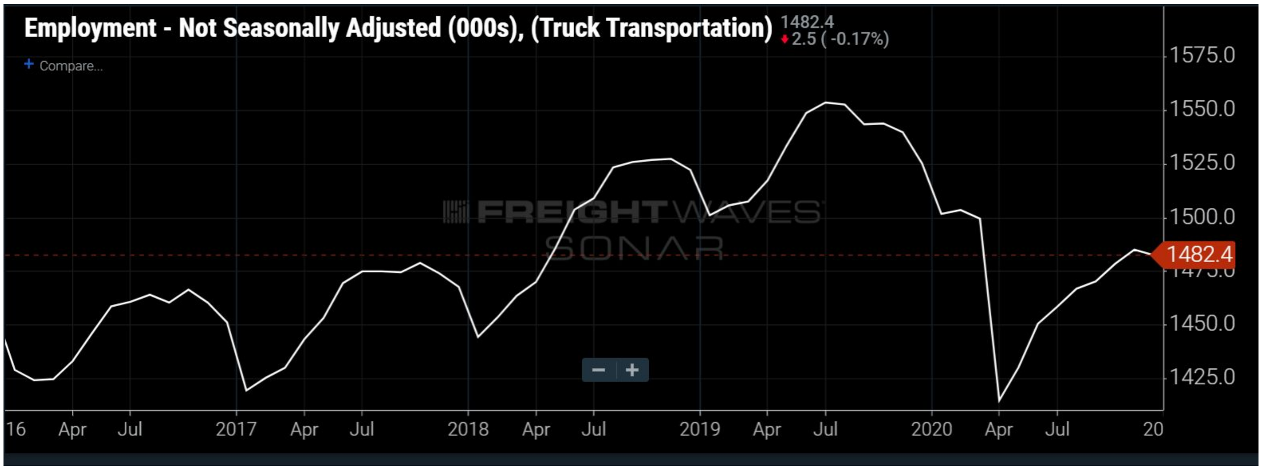
Supporting Materials – Trucking

Figure 2 – Class 8 Truck Orders



SONAR: ORDERS.CL8

Figure 3 – Non-seasonally Adjusted Truck Transportation Employment

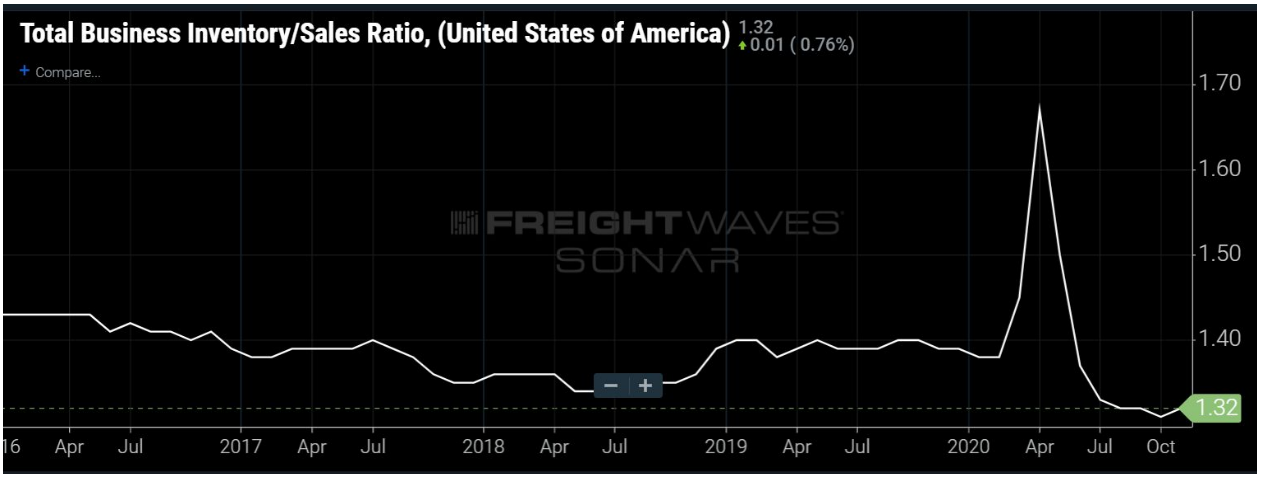


SONAR: EMPN.TRUK

Figure 4 – Outbound Tender Reject Index

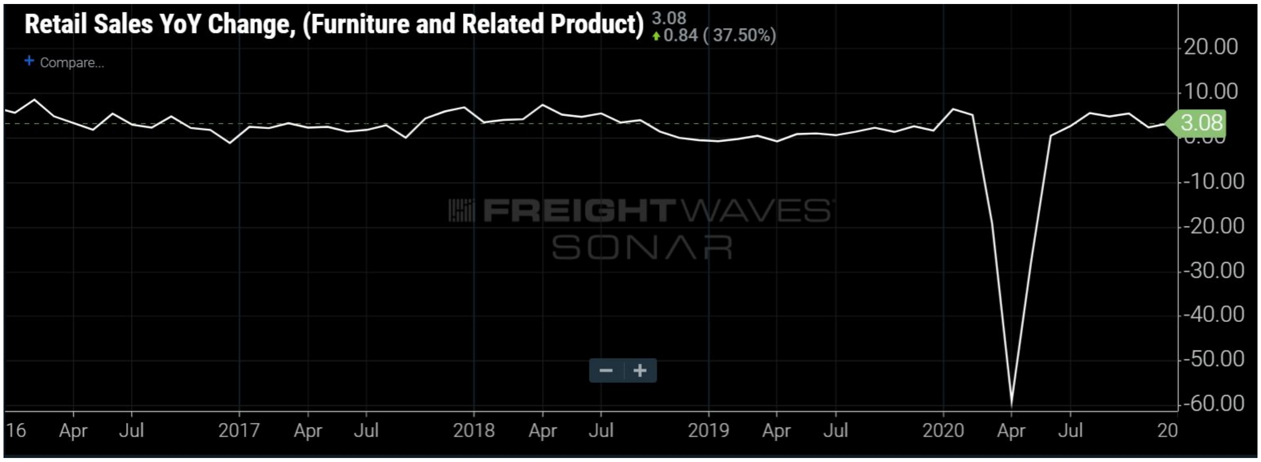
SONAR: OTRI.USA

Figure 5 – Total Business Inventory-to-Sales Ratio



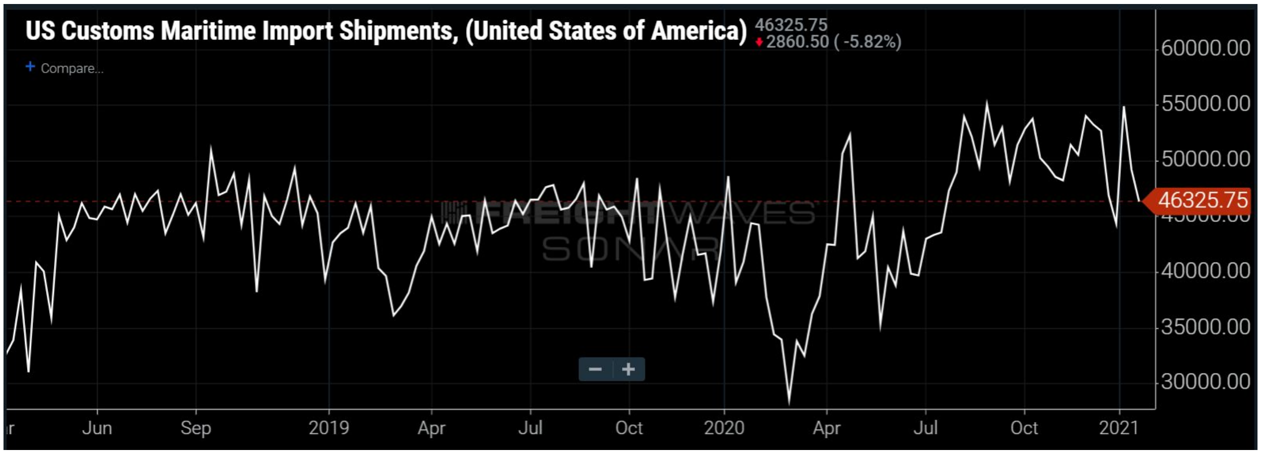
SONAR: TBIS.USA

Figure 6 – Furniture (And Related Products) Retail Sales y/y Change



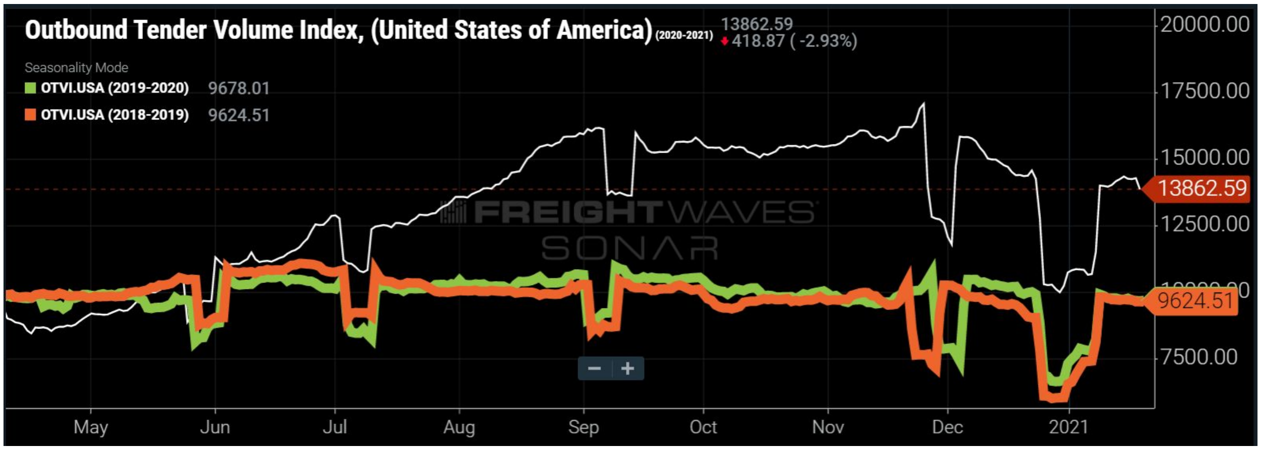
SONAR: RESLG.SOFA

Figure 7 – U.S. Customs Maritime Import Shipments Past Five Years



SONAR: [CSTM.USA]

Figure 8 – Outbound Tender Volume Index; 2020-2021 (white), 2019-2020 (green), 2018-2019 (orange)



SONAR: [OTVI.USA]

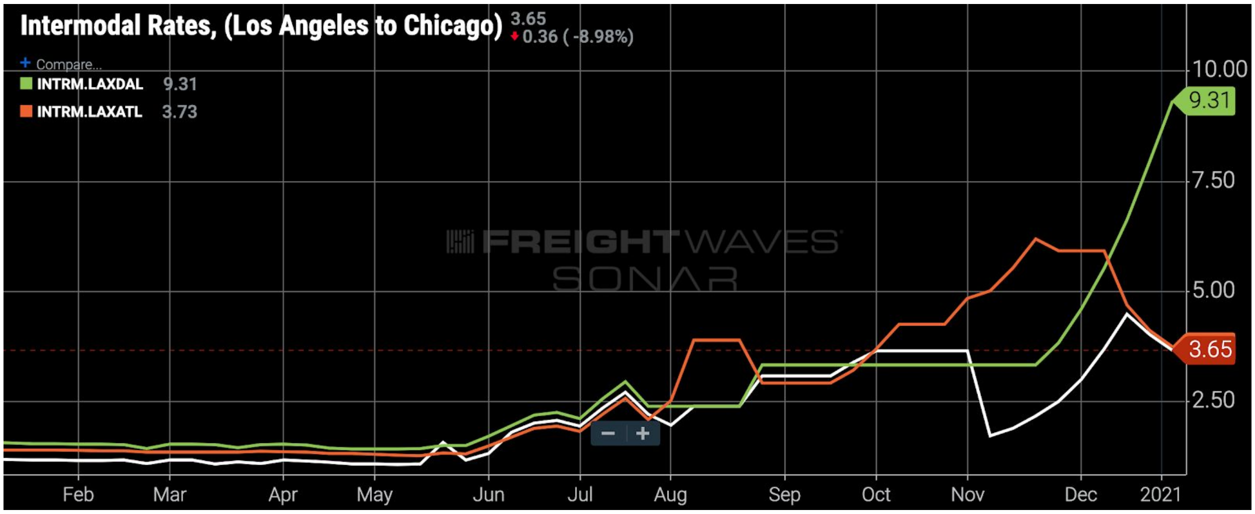
Supporting Materials – Intermodal

Figure 9 – Port Import Market Share: Los Angeles (white) and Long Beach (green)

SONAR: PIMS.USLAX, PIMS.USLGB

After losing share in recent years, the West Coast ports gained market share in 2020 due to shippers' need to get goods to market quickly. As inventories become replenished in early 2021, the East Coast ports will likely recover market share, which would be a headwind to intermodal volume.

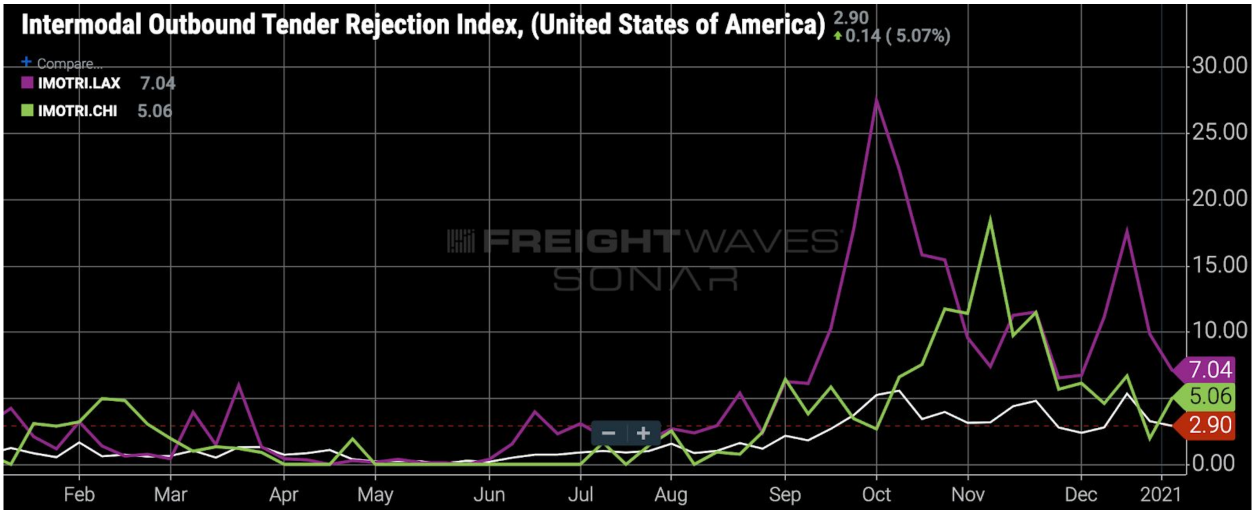
Figure 10 – Intermodal Spot Rates: LAX-CHI (white), LAX-DAL (green) and LAX-ATL (orange)



SONAR: INTRM.LAXCHI, INTRM.LAXDAL, INTRM.LAXATL

The Class I railroads instructed their intermodal partners to launch domestic intermodal spot rates on key eastbound lanes originating on the West Coast (i.e., L.A. to Chicago, L.A. to Dallas, and L.A. to Atlanta) into the stratosphere as they focused on reducing congestion levels instead of taking on additional volume. Those spot rate increases likely portend an increase in contract rates.

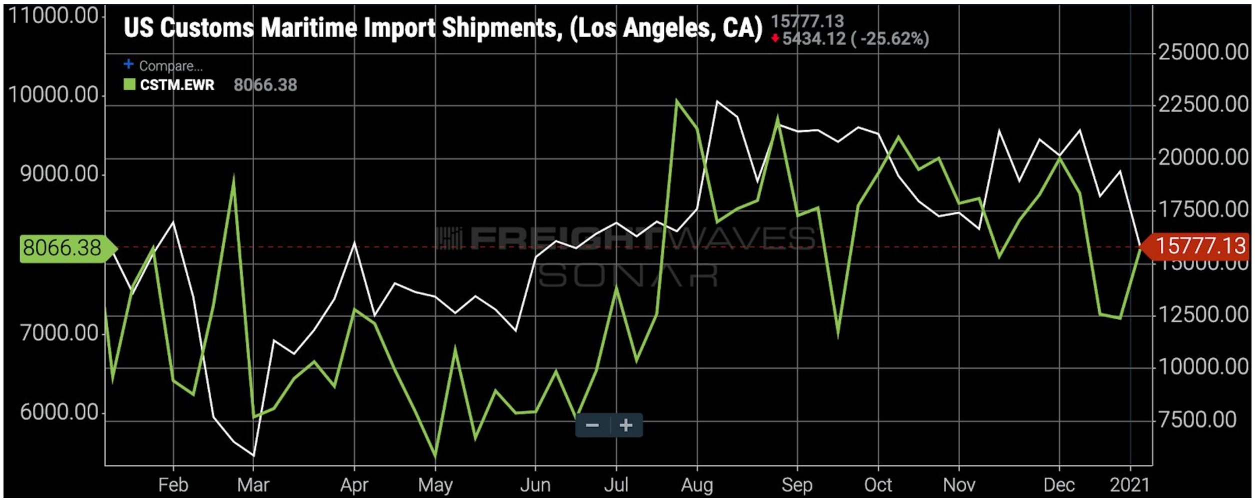
Figure 11 – Intermodal Tender Rejection Rates: USA (white), LAX (purple) and CHI (green)



SONAR: IMOTRI.USA, IMOTRI.LAX, IMOTRI.CHI

Normally negligible, intermodal tender rejection rates significantly ticked up from the LA and Chicago areas in 2020.

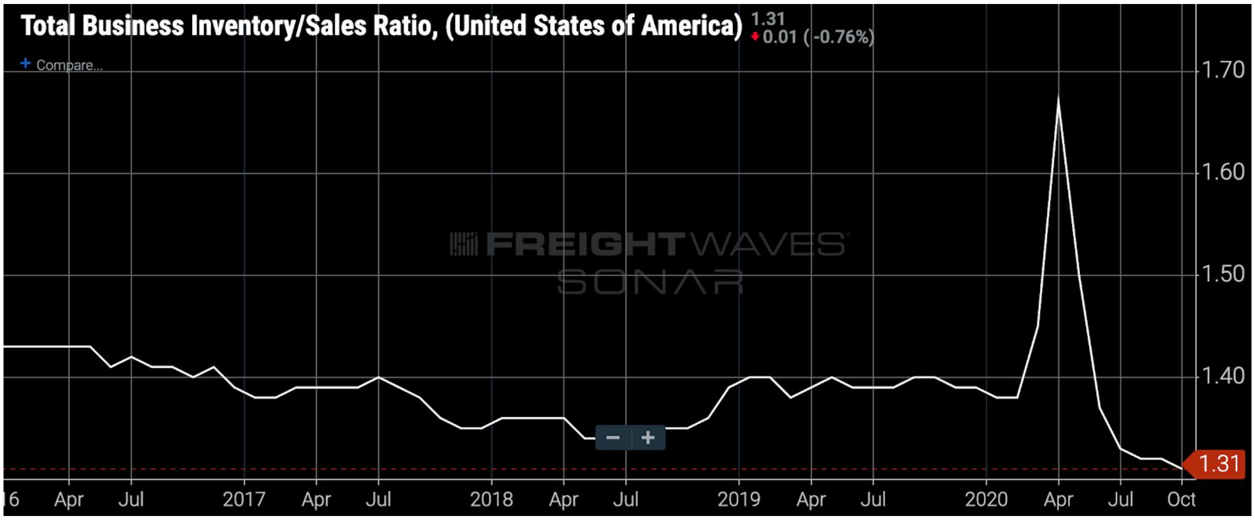
Figure 12 – U.S. Customs Maritime Import Shipments: Los Angeles (white), and Elizabeth, New Jersey (green)



SONAR: CSTM.LAX, CSTM.EWR

Maritime imports at key intermodal origin cities remain at an elevated level at the start of 2021, suggesting that near-term intermodal volume should remain strong.

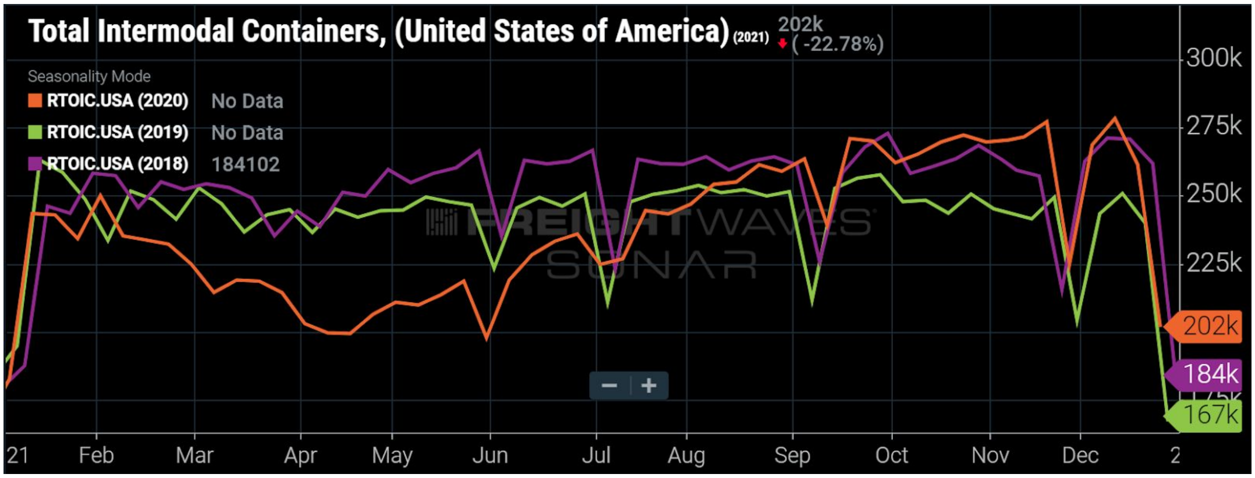
Figure 13 – Total Business Inventory-to-Sales Ratio



SONAR: TBIS.USA

Retailers' inventory levels remain in need of replenishment, suggesting that West Coast imports and West Coast intermodal originations should remain elevated in early 2021.

Figure 14 – Total Intermodal Containers: 2018 (purple), 2019 (green) and 2020 (orange)

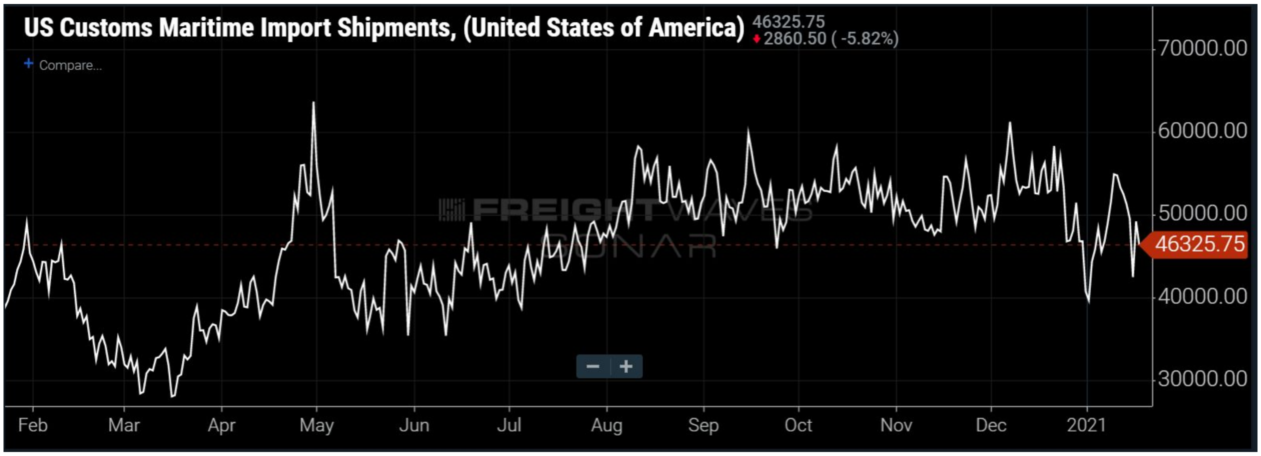


SONAR: RTOIC.USA Seasonality

2020 intermodal volume had been muted until the middle of last year before taking off. As vaccines are distributed, the opposite pattern may take place in 2021.

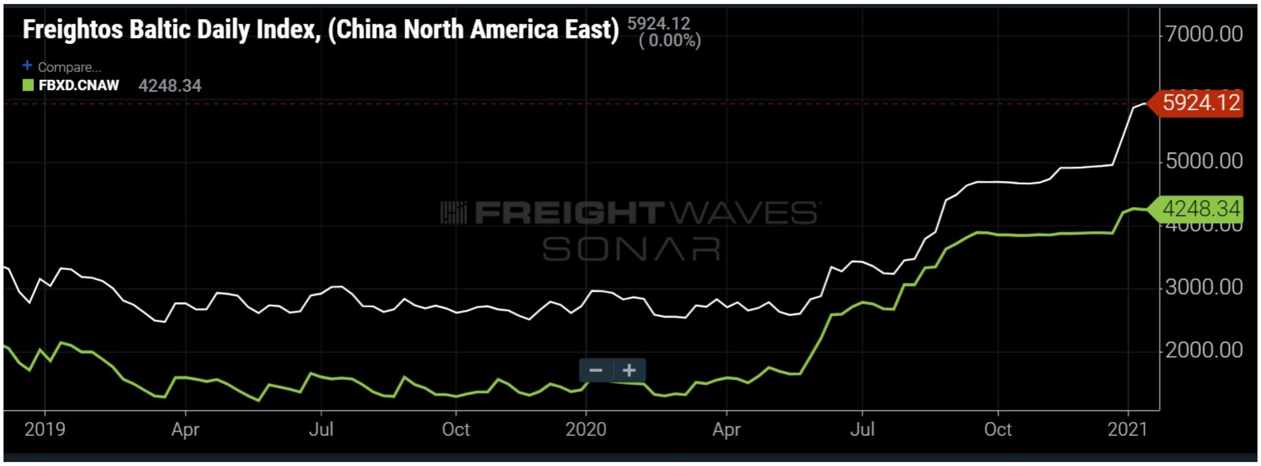
Ocean/Maritime

Figure 15 – U.S. Customs Maritime Import Shipment Volumes



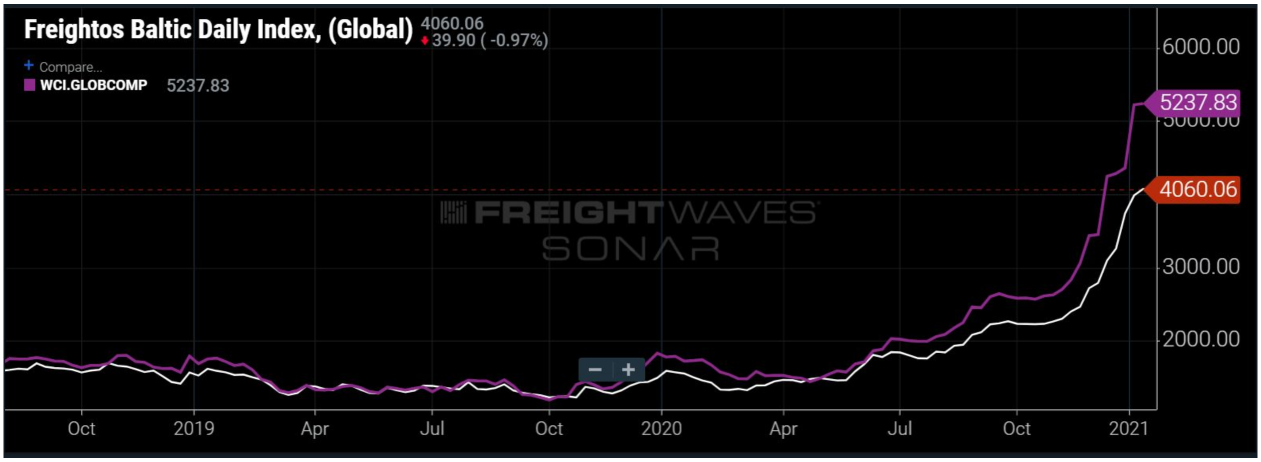
SONAR: CSTM.USA

Figure 16 – Freightos Baltic Daily Index: China to the U.S. West and East Coasts



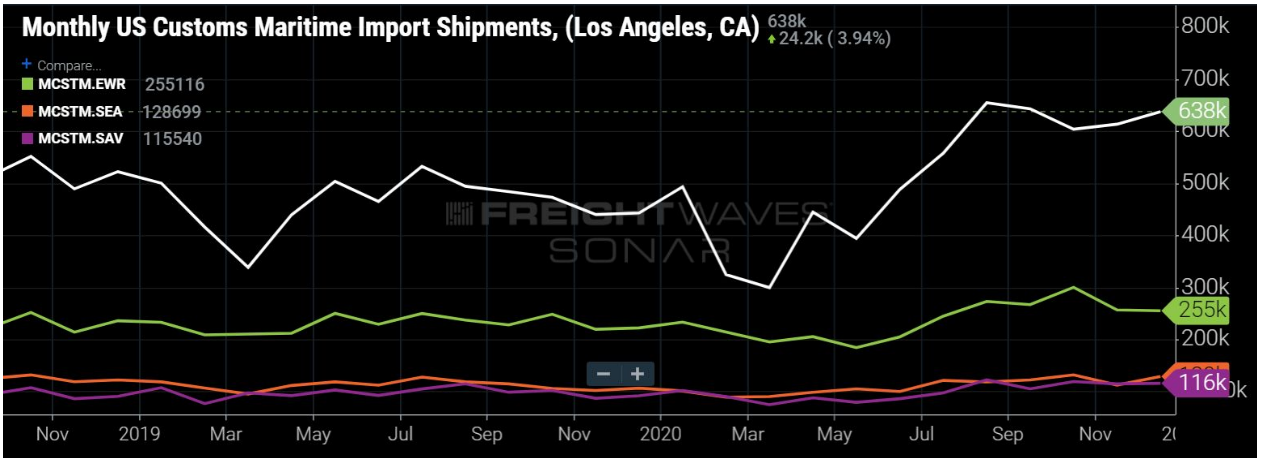
SONAR: FBXD.CNAE, FBXD.CNAW

Figure 17 – Freightos Baltic Daily Index: Global Trade



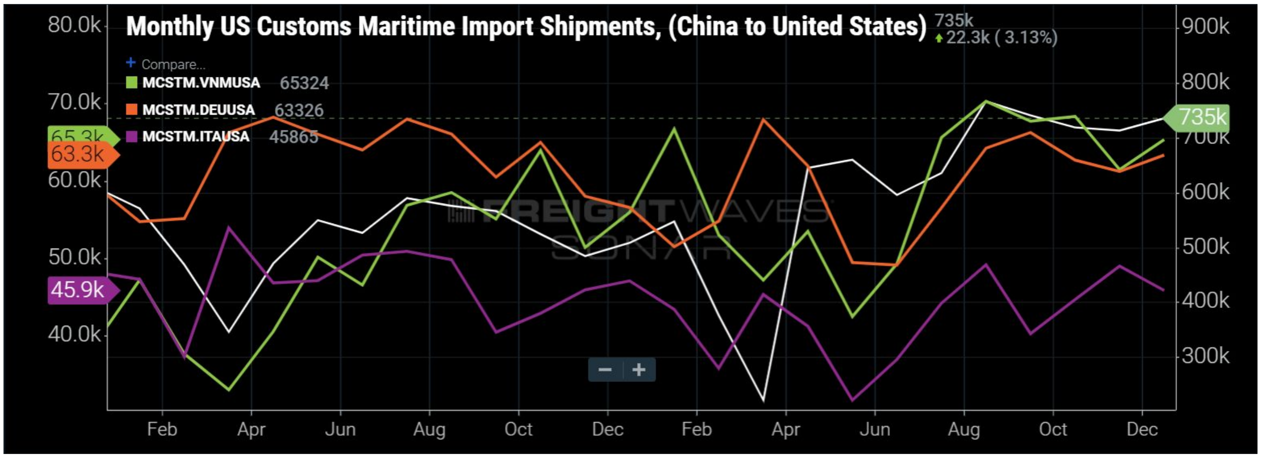
SONAR: FBXD.GLBL, WCI.GLOBCOMP

Figure 18 – Freightos Baltic Daily Index: Global Trade



SONAR: MCSTM.LAX, MCSTM.EWR, MCSTM.SEA, MCSTM.SAV

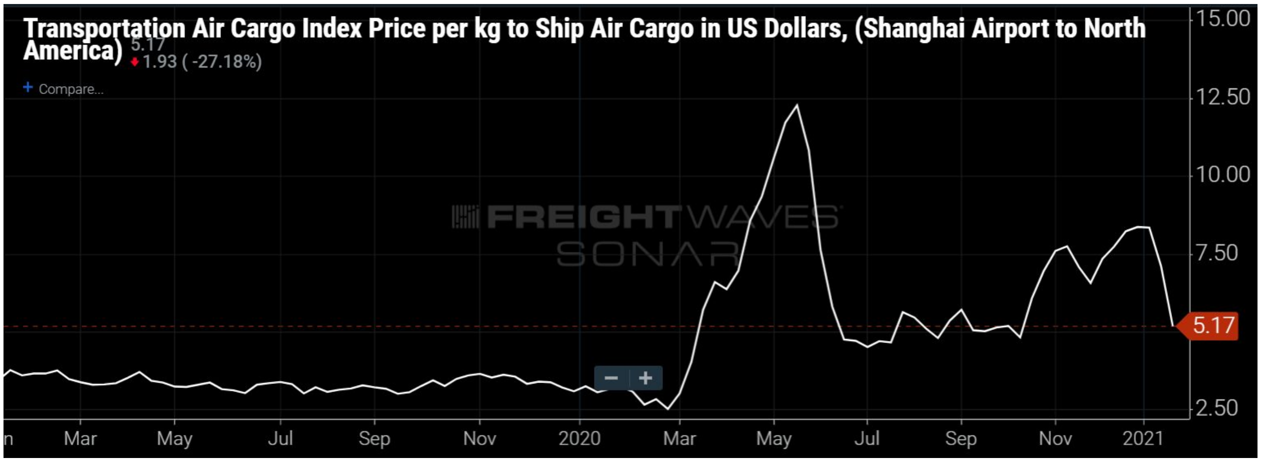
Figure 19 – Monthly Customs Import Shipment Volume: China to U.S., Vietnam to U.S., Germany to U.S. and Italy to U.S.



SONAR: MCSTM.CHNUSA, MCSTM.VNMUSA, MCSTM.DEUUSA, MCSTM.ITAUSA

Air Cargo

Figure 33 – Air Cargo Rates From Hong Kong to North America



SONAR: AIRUSD.PVGNOA

FreightWaves

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