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2025 Annual Review & Outlook

Erratic tides

Early risks mark New Year start

Journal of Commerce
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S&P Global


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Journal of Commerce

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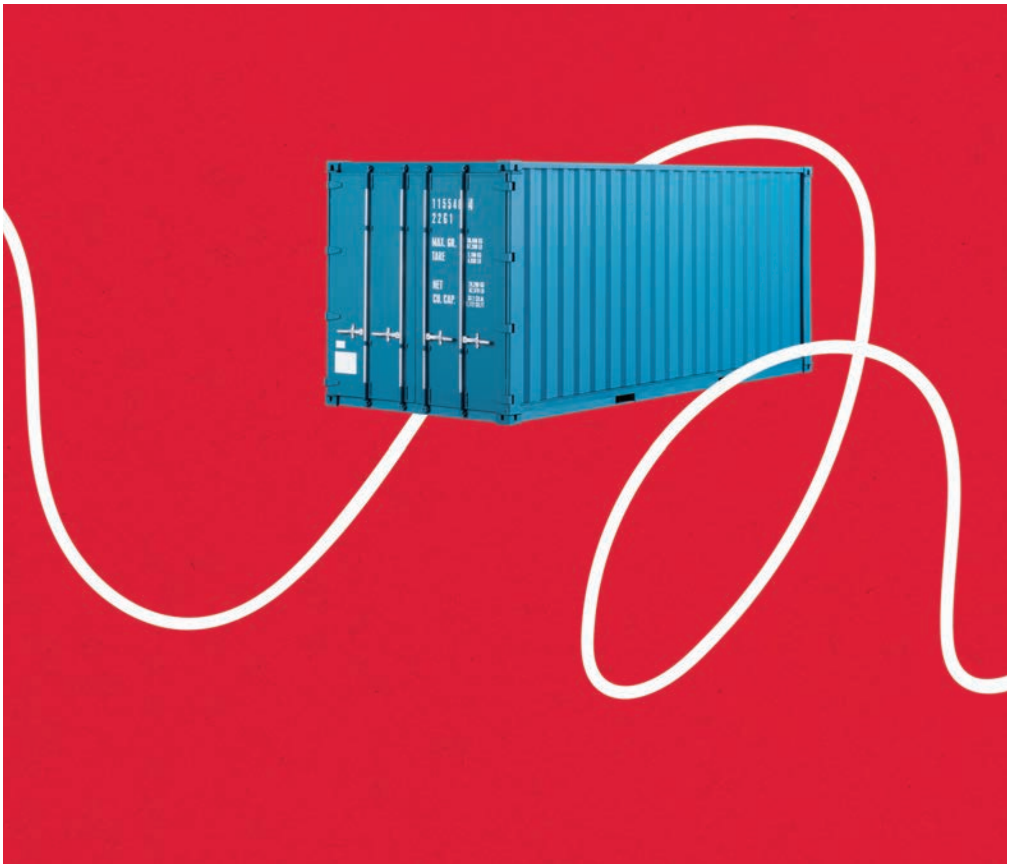

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Ringing in the risk

By Mark Szakonyi

There is little buffer capacity if something goes severely wrong in early 2025.

The New Year is kicking off with multiple bangs. Fifteen days in, the International Longshoremen's Association (ILA) will strike, unless there's a late Christmas miracle or container lines capitulate, knowing that Donald Trump will back labor when he's sworn into office five days later.

Even if a strike at US East and Gulf coast ports lasts just an hour, there will still be modest disruptions. Amid mounting fears of a strike, in the days ahead of the Jan. 15 deadline, truckers will evacuate containers, US Class I railroads will stop accepting exports and marine terminals will no longer accept empty container equipment, as they did before the expiration of the Oct. 1 contract.

That three-day strike reduced effective capacity by tying up ships on the trans-Atlantic and trans-Pacific trades and throwing transshipment hubs out of whack. Rippling through north-south trades, the work disruption also compounded congestion at key ports along the east of coast of South America.

Most US East and Gulf coast ports reduced the strike-associated ship backlogs in several weeks, but a longer work stoppage this time around could challenge even the most efficient marine terminals. There is plenty of cargo coming down the pipe. US retailers aren't expecting to let up on pulling through a surge of imports until early spring at the soonest, according to the latest Global Port Tracker.

Five days after the tentative contract deadline expires, Donald Trump is set to begin his second term and can trigger his threatened US tariffs on Chinese goods on day one by citing security issues. Trump's other threat of a 25% US tariff on Mexican and Canadian goods shows not even near-shoring is safe from his reach.

Even if Trump holds back on unleashing higher US tariffs on goods from China and other trading partners in his first 90 days in office, the specter that provoked multiple waves of varying degrees of frontloading ahead of the tariffs imposed in his first term will hang over all US trades.

Meanwhile, on Feb. 1, two new shipping alliances will launch simultaneously. The industry's attention will be focused on the rollout of the Gemini Cooperation, the alliance between Maersk and Hapag-Lloyd, as it will be the most ambitious hub-and-spoke network the industry has seen. Gemini's strategy has been tested using a "digital twin" in the hypothetical, but not physical world.

The Premier Alliance will launch its own network on the same day, without former THE Alliance partner Hapag-Lloyd. Overlapping Gemini's hub-and-spoke network will be the more conventional, direct networks of Premier, composed of Ocean Network Express (ONE), HMM and Yang Ming and the OCEAN Alliance, which launches in April. With its strong lead in tonnage, Mediterranean Shipping Co. no longer needs an alliance partner for its February launch but is striking slot-sharing pacts with the Premier alliance and Zim Integrated Shipping Services, nonetheless.

"While operational disruptions from fleet deployment on [Gemini's] routes may not be immediately apparent in the first three to four voyages, I believe port operational capabilities will be tested," said analyst Heather Hwang, team leader of market intelligence analysis at South Korea-based LX Pantos.

The concentration of ultra-large container ships at hub ports will require Gemini to tap more feeder vessels than before, which, coupled with potentially higher volumes caused by US tariffs, will challenge transshipment hubs from the onset, Hwang said.

The launch of new alliances will take out a significant amount of capacity, even if for only a few weeks, said Alphaliner senior analyst Jan Tiedemann.

"Ships will have to be emptied of cargo, filled again, change services, wait for phase-in into their designated new service," he said. "They will miss sailing windows and skip ports to catch up."

There is little buffer capacity if something goes severely wrong in early 2025. Just 0.5% of the fleet was idled as of late November, according to Alphaliner. Through most of 2026, the analyst forecasts container lines will receive 100,000 to 200,000 TEUs monthly in capacity from shipyards after successfully absorbing new tonnage in 2024. Carriers have little incentive to start scrapping.

"In times of frequent trade disruptions, better hold on to the tonnage you have," Tiedemann said. "It might come in handy."

Whatever the source of disruption, the container lines can be expected to capitalize on the opening to seek higher rates, as they did in the final weeks of December. Carriers usually seek price increases before the lull in shipments due to Lunar New Year celebrations, but they've been rewarded by pushing harder and faster on those increases, most recently in the wake of Red Sea diversions.

While carriers may seek general rate increases (GRIs) and get none or just a portion of the amount sought, they are setting their aims higher. In a small sign of this more aggressive approach to dynamic pricing, no carrier in 2023 was seeking more than $1,000 per FEU in terms of early and mid-month GRIs filed with the US Federal Maritime Commission. Now, four of the eight top carriers operating on the trans-Pacific trades are seeking upwards of $3,000 per FEU twice a month.

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Erratic tides

Early risks mark New Year start

By William B. Cassidy

A strong but slower expanding US economy is signaling strong growth of import volumes at least until spring and no letup of the air cargo boom, while raising hopes of some semblance of a surface freight recovery.

The specter of labor strife and new tariffs, along with strong sales, is driving US retailers to keep imports surging through the spring, according to the Global Port Tracker report from Hackett Associates and the National Retail Federation, released in early December. On a year-over-year basis, Global Port Tracker projects volumes to rocket 12% in January before dipping 4.1% in February due to a difficult prior-year comparison. US imports in March and April will rise 12.7% and 6.6%, respectively, according to the report.

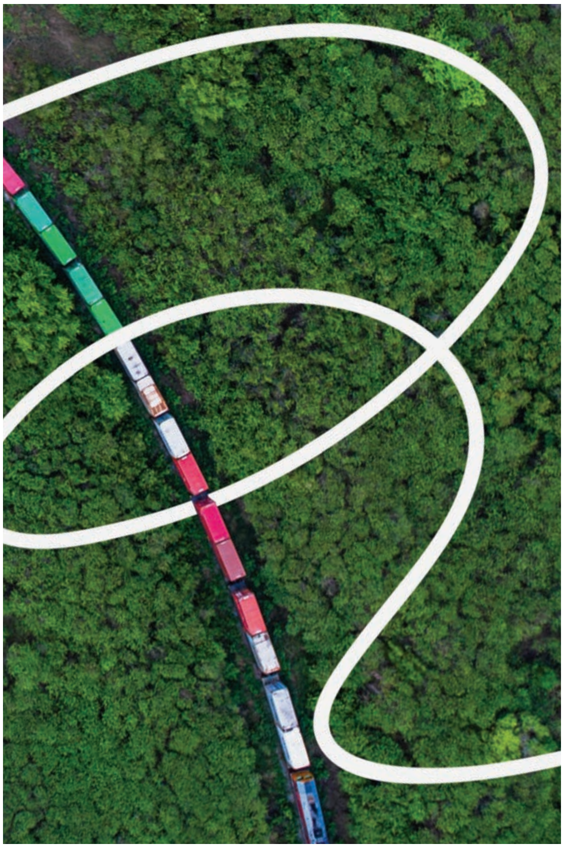
Although next year will start strong, based on the polling of National Retail Federation members, the rest of the year might be weaker than last year. *Journal of Commerce* parent company S&P Global in September forecast total US imports to slip 4.4% in 2025, excluding the impact of any new tariffs. US retail sales will inch up next year by 1.8% compared to a 1.1% expansion in 2025, according to Fitch ratings.

According to the most recent data available from PIERS, a sister product of the *Journal of Commerce* within S&P Global, US imports climbed 15.3% in November, the fourteenth consecutive month of year-over-year gains and the sixth straight month of double-digit percentage increases.

November also marked the nineteenth consecutive month that US imports exceeded 2 million TEUs. If the NRF forecasts come to fruition, December imports will break the pandemic-era record of 19 straight months.

A rush to beat tariffs imposed by President-elect Donald

Klaus Vedfelt / Getty Images and bfk92 / Getty Images



S&P Global in September forecast total US imports to slip 4.4% in 2025.

Images on this spread: Background: Klaus Vedfelt / Getty Images and vehicles: Shutterstock.com

Trump and a strike at US East and Gulf coast ports could sap capacity in the short-term, but encouragingly, the overall outlook for vessel capacity is robust. Container lines, for example, are set to deploy a record level of capacity in January — nearly 1.5 million TEUs — between Asia and the US, according to maritime intelligence provider eeSea.

"Once we get to January, whether it's on the political front, the labor front, the alliance shake-up, everything is coming fast," Sanjay Tejwani, CEO of consulting firm 365 Logistics, told the *Journal of Commerce*, referring to the new container carrier alliances launching in February.

Rarified air

If shippers do get in a pinch, they'll likely find it even more difficult and more costly to turn to air cargo transport rather than ocean shipping. More than 12 months of double-digit percentage growth in air cargo demand that has outstripped available capacity is combining with constant waves of disruption is forcing shippers and their service providers to better plan their use of air freight. Chinese e-commerce giants Temu and Shein have fueled much of the growth even as the US and other countries look at tightening up de minimis levels.

Usually regarded by ocean shippers as an emergency option, air cargo is seeing a greater volume of non-essential products to get around container shipping challenges, a move that comes at a substantial cost to shippers. For example, average air cargo rates from Asia to North America hit a 2024 high of $6.61 per kilogram in early December, according to the Baltic Air Index. Shippers are changing their behavior as a result.

"The closing months of 2024 could have been very messy again for shippers, but we are not hearing that," he said. "That's not because the volumes are not there, or the flights are not full, it is because everything, overall, is being managed better," said Niall van de Wouw, chief air freight officer at rate benchmarking platform Xeneta.

The International Air Transport Association (IATA) forecasts air cargo volume growth will decelerate to an expansion of 6% in 2025, roughly half the clip seen in 2024. New capacity will also enter the market at a slow rate, with IATA expecting a 6.4% increase compared to a 9.6% expansion in 2024.

Driving through the doldrums

On land, US truckload demand and rates have been anything but volatile. Total truck volumes for the first 10 months of 2024 were 0.7% below the same period in 2023, according to the trucking ton-mile index produced by Jason Miller, Eli Broad professor of supply chain management at Michigan State University.

The American Trucking Associations (ATA) For-Hire Truck Tonnage Index, based on freight volumes hauled by both truckload and less-than-truckload (LTL) members of ATA, was up 3% from January in October, but the index was choppy and volatile throughout 2024. In October, the index was up 1.2% from September but flat year over year, according to ATA data.

Comparatively, truck capacity has been plentiful, as reflected by low spot rates and contract pricing. Shippers reported only occasional market tightness — most often in Southern California, where port volumes absorbed some excess capacity — and no real trouble finding trucks.

Capacity is tighter in the LTL sector, which saw the number of terminals, trucks and drivers shrink after Yellow, then the third-largest LTL provider, went bankrupt in 2023. That company's shutdown eliminated about 10% of US LTL capacity. With capacity still tight heading into 2025, LTL carriers are pushing increases in the mid- to upper double-digit percentage range in annual contracts.

“Once we get to January ... everything is coming fast.”

“We are at a transitional point in the market,” Ryan Hammett, director of market intelligence and insights at third-party logistics company C.H. Robinson Worldwide, said at the Traffic Club of Chicago Transportation & Logistics Customer Forum in November.

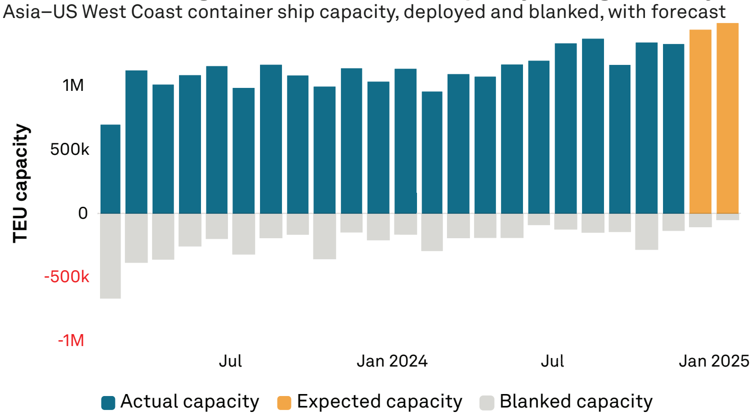
“We've been stuck at the bottom of this freight cycle for more than two years now, but there are signs things are changing and we're moving from a period of oversupply into a little bit more balance,” Hammett said of US truckload capacity.

Steady on the rails

International intermodal volumes enjoyed a boost last year because of surging freight to the US West Coast, rising by double-digit percentages. Total inland point intermodal (IPI) volumes will end the year between 8.91 million to 9.1 million units, according to a *Journal of Commerce* forecast based on data from the Intermodal Association of North America (IANA).

Carriers increasing trans-Pacific vessel capacity through January

Asia–US West Coast container ship capacity, deployed and blanked, with forecast



Notes: as of Dec. 5, 2024

Source: eeSea

A potential shift of cargo back to the East and Gulf Coasts following a finalized longshore contract would put downward pressure on international intermodal growth. If that were to happen, total international intermodal traffic could be flat to slightly down in 2025 across North America. Assuming a gradual shift back to the East Coast, IPI volumes in 2025 will be between 8.9 million and 9.1 million units, according to the *Journal of Commerce* forecast.

Domestic intermodal volume grew in 2024 as well, although only by mid-single digit percentages year over year. Given the amount of available container capacity available, another single-digit percentage increase in 2025 could be on the horizon.

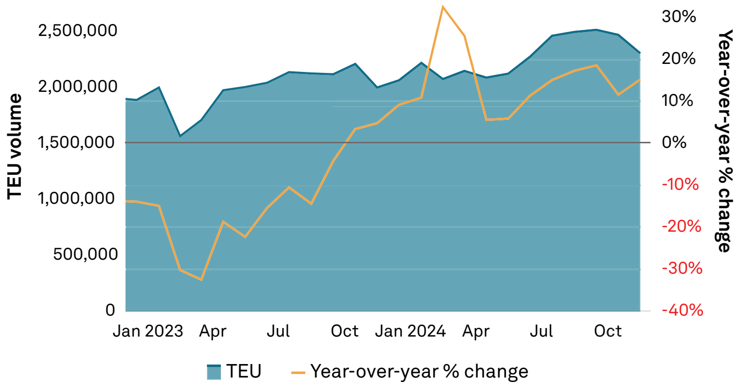
The rise in domestic intermodal volume was a tale of two markets. Demand to move freight out of Southern California was robust in the second half of 2024, but outside the West Coast, growth was minimal or non-existent. Domestic intermodal volumes are set to expand 3% to 4% year over year in 2025, according to the *Journal of Commerce* analysis.

Fueling a freight recovery

For the past three years, an uptick in US freight demand has often seemed only a few quarters away, but a catalyst for stronger growth has consistently failed to materialize. Ongoing cuts to the US federal funds rate, perhaps coupled with tax cuts, may provide such a catalyst.

Double-digit US import growth streak continues in November

Total containerized US imports, in laden TEUs, with year-over-year change



Source: S&P Global

It's unclear when or how much the US economy and freight demand — which, as the past two years have demonstrated, are not always closely linked — will strengthen in 2025. The inflation rate has slowed, but consumer prices and home mortgage rates remain comparatively high.

Mortgage rates are not linked directly to the US federal funds rate, but to the 10-year US Treasury bonds. Cuts to the funds rate by the US Federal Reserve don't immediately move those bonds. Still, lower mortgage rates are seen as a much-needed catalyst for freight volumes.

Logistics executives hope freight demand will increase even if the overall economy slows, as predicted. The inverse has taken place over the past two and a half years, as the US economy avoided a recession while experiencing a shortfall in freight demand.

S&P Global forecasts US real GDP expansion will drop from 2.7% in 2024 to 2.1% in 2025. Encouragingly, shipper sentiment is showing signs of improving, boding well for 2025 volumes, according to the BlueGrace Logistics Confidence Index.

The percentage of shippers surveyed by BlueGrace that had a positive view of revenue growth for the next quarter increased from 66% to 68% for the first quarter of 2025. More importantly, the share of respondents with a negative view of revenue growth dropped from 15% in the previous survey to 9%. The data points to a complex environment where "optimism is present, but caution prevails," BlueGrace said.

That caution may be warranted when it comes to freight driven by US manufacturing. US production continued to contract in Decembe, S&P Global said in its Dec. 17 US manufacturing purchasing managers' index (PMI) report.

"To really say that the market is turned, we're going to have to see manufacturing come back," said Vince Paperiello, senior vice president of intermodal at STG Logistics. "We're going to have to see housing starts coming back."

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Executive Commentary

Agriculture Transportation Coalition

Peter Friedmann

Executive Director
www.agtrans.org

In its July 17, 1996, edition, *Journal of Commerce* deemed the Agriculture (Ocean) Transportation Coalition (AgTC) "the principal voice of agricultural exporters in US transportation policy." Today, 28 years later, AgTC members are found in every commodity; in every US state and Canada; and now include exporters, importers, truckers and forwarders.

Our founding mantra still holds true today: "There is nothing we produce in agriculture and forest products here in the US that cannot be sourced elsewhere in the world. If we cannot deliver affordably [and] dependably, our global customers will find those new sources, and we will lose those customers."

Thus, in 2025 we continue our pursuit of dependable affordable transportation.

In 2025, rail cargo theft must be aggressively addressed by federal law enforcement agencies and courts, particularly when state jurisdiction proves unable or unwilling. Availability of equipment, such as empty containers and chassis, must be increased in rural areas where much agriculture originates.

Additionally, allowable truck weights must be increased — ours are the most restrictive in the world, making transport of heavy cargo such as agriculture and forest products more expensive and less efficient than what foreign competitors pay. There must also be clarification that cargo moving by rail under ocean contract is subject to Ocean Shipping Reform Act (OSRA) law and regulation.

The Federal Maritime Commission should continue to implement its post-OSRA role as a "consumer protection agency" — US exporters and importers being the consumers whose interests should always be the commission's primary concern.

We are grateful for the FMC's user-friendly complaint process, as it is accessible and affordable to shippers. The "incentive principle" must be protected, i.e. detention and demurrage may only be charged when it is possible to deliver or collect the containers. In addition, a new process is necessary to assure scrutiny of requests to waive the 30-day notice for rate increases/surcharges.

Contract rates should remain negotiated by carriers and shippers, but the FMC must be willing to prevent unreasonable, abusive rate increases and surcharges. Advancing ocean carrier digitalization and communication is also essential so that shippers are timely, accurately and continually informed of essential carrier and terminal operations such as ship arrival, terminal openings and loading windows.

"The Federal Maritime Commission should continue to implement its post-OSRA role as a 'consumer protection agency' — US exporters and importers being the consumers whose interests should always be the commission's primary concern."

Peter Friedmann

The Andersons

April Zobel

Profit Center Manager
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In our industry, earning the title of "shipper of choice" is about far more than securing competitive rates or filling containers. It signifies a commitment to fostering trust and collaboration with carriers, service providers and partners. Reliability lies at the heart of this designation. We know that carriers prioritize those who consistently meet their commitments — whether it's ensuring cargo readiness, providing accurate documentation or adhering to agreed timelines. Demonstrating operational dependability establishes a foundation for long-term partnerships.

Equally important is adaptability. If the industry has learned anything in 2024, it's that the maritime landscape is dynamic, with unforeseen challenges being the new normal. A shipper of choice works collaboratively to navigate these uncertainties, offering solutions that minimize disruptions for all parties. Disruption seems like the theme of 2024, and I do not have much confidence that 2025 isn't a carbon copy. The willingness to be nimble and innovative with partners and seeking win-win solutions will often earn favor of priority and solutions-based actions.

Finally, treating logistics partners as true collaborators rather than transactional entities is critical. Investing in shared success through streamlined processes, joint problem-solving and even informal relationship-building reinforces trust and cooperation. Our partners are more than outside sales teams, they are comprised of numerous individuals who support the movement of our containers. Investing in learning how best to interact with those individuals will prove worthwhile. The unpredictable nature of this business can often drive people away from taking ownership for solving undefined problems; however, I have found that problems are the gateway to opportunity — the opportunity to be the resource for trusted partners to turn to.

"The maritime landscape is dynamic, with unforeseen challenges being the new normal. A shipper of choice works collaboratively to navigate these uncertainties, offering solutions that minimize disruptions for all parties."

April Zobel

American Cotton Shippers Association

Michael Symonanis

Chairman, Transportation and Insurance Committee
acsa-cotton.org

In the increasingly competitive global market, US cotton exporters face significant headwinds. Brazil — now the largest cotton exporter globally — continues to challenge the US in key markets, and our ability to navigate a struggling containerized shipping system is vital to sustaining export volumes. Unfortunately, US container shipping performance has not returned to

"Timely issuance of clean ocean bills of lading and consistent CRW notifications will be essential to guarantee smoother operations across the supply chain, ensuring US containerized exports, such as cotton, remain competitive against foreign competitors."

Michael Symonanis

Executive Commentary

> “Policymakers are now looking to require importers to track the owners of inputs into manufacturing goods to satisfy importing trade remedies, preferences and controls. This change could have an enormous impact on how companies source, leverage free trade agreements and comply with US trade laws.”
>
> Eugene Laney

> “We need a better solution than dynamic pricing.”
>
> Lori Fellmer

American Association of Exporters and Importers (AAEI)

Eugene Laney

President and CEO
www.aaei.org

For over 50 years, the practice of determining an item’s country of origin and utilizing the principal of “substantial transformation” to help make this determination has been standard practice for many US importers in the context of trade compliance. Currently, an item that was made or grown in one country then substantially transformed into a new product in a second country is considered as having originated from that second country. New trade policies being considered in Washington, DC, would add a layer on top of substantial transformation in determining the country of origin.

Policymakers are now looking to require importers to track the owners of inputs into manufacturing goods to satisfy importing trade remedies, preferences and controls. This change could have an enormous impact on how companies source, leverage free trade agreements and comply with US trade laws.

These changes could have the following impacts:

Complex sourcing: Adding rules of ownership will make it more difficult for companies to make crucial sourcing decisions, essentially making it difficult in deciding whether friend-sourcing or near-sourcing completely inoculates companies from trade compliance risks.

Impotent free trade agreements: Rules of ownership could make current and future free trade agreements impotent, essentially making it impossible to determine whether a product qualifies for preferential treatment.

Increasing compliance costs: Companies will need to purchase new technology that provides supporting documents and data to prove that their products meet ownership requirements.

In the midst of these policy proposals, companies are looking to adopt three practices to remain compliant: leveraging technology, using artificial intelligence to stay informed and to know their supply chain; taking a strategic approach to data for the management of physical things, leveraging the internet of things and other tools to learn more about where an input is sourced and by whom; and nearshoring and re-shoring supply chains to meet customers where they are, avoiding compliance risks areas.

pre-pandemic levels, with issues around physical movement, data integrity and infrastructure responsiveness remaining obstacles to optimal operations.

For ACSA members, the top disruptors in the supply chain are centered on operational and visibility gaps. The ongoing fluctuation in cargo receiving windows (CRW), driven by vessel schedule instability, is a persistent challenge. These windows — including early return dates and cutoffs — are frequently shifted without sufficient notice, creating downstream impacts on rail, truck and terminal operations.

Additionally, gaining real-time visibility of changing conditions between marine terminals, ocean carriers, truckers and shippers remains elusive. Without accurate, synchronized data across these touchpoints, operational efficiency suffers.

Intermodal operations present their own set of challenges. Meeting vessel cutoffs and avoiding missed bookings are ongoing concerns, as is the increasing number of containers arriving at ports such as Los Angeles and Long Beach without bolt seals intact. Ensuring secure cargo and maintaining control over these complex movements is critical to minimizing risk.

Looking forward, we must focus on improving collaboration between all parties — shippers, carriers, terminal operators and regulators. Successful partnerships will drive efficiencies and reduce delays across the cotton export supply chain.

Our expectations for improvement are pragmatic but firm. We must see enhancements in schedule reliability, reduced shipment splits and rolls, and better data alignment between key players. Timely issuance of clean ocean bills of lading and consistent CRW notifications will be essential to guarantee smoother operations across the supply chain, ensuring US containerized exports, such as cotton, remain competitive against foreign competitors.

BassTech International

Lori Fellmer

Vice President, Logistics and Carrier Management
www.basstechintl.com

Historically, a shipper could request a quotation from an ocean carrier and, if accepted, the rate would be memorialized in a public tariff or filed in a confidential individual service contract.

Slowly but surely, ocean carriers have abandoned the publication of usable freight rates in a tariff. At the same time, they have also avoided service contracts with shippers who are only able to offer relatively small volume commitments.

Today, shippers are directed to ocean carriers’ online (registration and login required) quotation tools. These inquiries typically yield rate offers that are dynamically derived, considering not only the usual parameters — origin, destination, commodity — but also timing and size of a shipment and, certainly, the identity of the inquirer. The rate offers are typically made on a take-it-or-leave-it basis and subject to immediate booking. If accepted, the rate is memorialized in a “micro” service contract, valid for that shipment only and subject to terms and conditions that are likely to include penalties for cancellations or changes.

Executive Commentary

Sound good? For an urgent, one-off shipment, it might be.

But if ocean transportation is meant to properly support a company's trade, a shipper will need to review costs and services from various providers and then secure some reasonable access at a predictable cost for longer than the span of a single shipment.

Relegating businesses that are procuring essential ocean services to the same dynamic pricing habits that serve rideshare and concert ticket sales will never satisfactorily support the many businesses involved in international trade — or their customers, including consumers.

While the regulations that obligate ocean common carriers to maintain public tariffs may seem to have become antiquated, the stated purpose (§ 520.1(b)) to permit "shippers ... to obtain reliable and useful information concerning the rates and charges that will be assessed ... for their transportation services" has not.

We need a better solution than dynamic pricing.

Innovative Beauty Group

Audrey Ross

Trade and Compliance Manager
www.innovativebeautygroup.com

At TPM24, Lars Jensen highlighted the coming few years as a period of "de-globalization." With an increase in regional conflict and a web of sanctions, there will be increasing challenges in global shipping. He closed this reflection by saying "The more complex the supply chain becomes, the more opportunity." Companies taking an approach of agility seem to be developing a regional approach to their manufacturing, shipping and distribution. Call it nearshoring, friendshoring or sureshoring, intentionally designing your supply chain has become de rigueur in the current crisis climate.

There is no single solution to address the instability, it takes a varied approach dependent on intensely understanding your business, values and goals.

These design maneuvers could include region-specific transportation RFQs, expanding multimodal shipping options, mixing and matching freight forwarders to local distributors, diligent monitoring of external disruptions to yield a more agile response, maintaining an internal freight barometer to mitigate fluctuating market pricing, and alternative Incoterms and risk-sharing.

Overall, the essential requirement to realize opportunity in this fluctuating landscape is a high-performance team. Build a diverse team and focus on the unglamorous work of implementing methodical processes and adopting the behaviors of continuous improvement. Complexity requires a prudent approach, not a reactive one. In 2025, we must finally acknowledge that firefighting does not equal problem-solving.

> "We need elected officials to focus on policies that are strategic and will support hard-working American families, not policies that will drive inflation and price increases again."
>
> Matthew Shay

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>
> Kenneth O'Brien

> "Overall, the essential requirement to realize opportunity in this fluctuating landscape is a high-performance team."
>
> Audrey Ross

National Retail Federation

Matthew Shay

President and CEO
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Supply chain issues will be front and center for the retail industry in 2025. The biggest challenges will be a

Gemini Shippers Association

Kenneth O'Brien

President and CEO
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Writing this on the eve of the US presidential election, it is hard to predict the fortunes or challenges we will encounter in 2025. The uncomfortable reality for supply chain leaders is that much of what impacts our business is outside our direct control. The second- and third-order effects of global events routinely impact our daily operations.

For example, was it possible to infer probabilistic causation that increases in liner pricing in 2024 would result from a conflict between Israel and Hamas, the Houthis' subsequent closing of the Red Sea, the rerouting of ships around Africa and the resultant reduction in global effective capacity?

While it is unlikely that anyone could have predicted this chain of events, it is crucial to understand that adept managers should have built resilience into their supply chain to counter these impacts.

Resiliency, the ability to withstand or recover swiftly from adversities, is crucial to supply chain management. Can we cultivate resilience to counter challenges that are yet to be defined or encountered? Are our transportation partners prepared and capable of offering suitable solutions? How can we take steps to fortify our resilience?

American psychologist Abraham Maslow's law of instruments characterized a cognitive bias involving over-reliance on familiar tools. It states, "If all you have is a hammer, everything looks like a nail."

Supply chain leaders can no longer rely solely on their traditional tools to navigate the challenges of the future. Addressing second- and third-order problems demands a deeper understanding of first-order issues in geopolitics, economics and customer psychology. Our collective journey to combat climate challenges necessitates new tools to implement decarbonization strategies. To construct resilient supply chains, we must embrace new technology tools including prescriptive analytics and artificial intelligence to enable autonomous, real-time, data-driven decision making.

Supply chain resiliency can only be achieved by retooling for the future. This job will take more than a hammer.

potential port labor strike, the threat of significant new import tariffs and potentially codifying existing tariffs to pay for an expiring tax bill. These challenges could have a significant impact on the US economy and increase inflation again.

Most immediate is the ongoing port labor negotiations between the International Longshoremen's Association and US Maritime Alliance. With the contract extension set to expire on Jan. 15, there are concerns that the parties will not reach an agreement, leading to another strike — potentially longer than October's. The parties must agree upon a contract that allows for US port modernization to improve global competition.

Retailers are also preparing for potential significant tariff increases as a new universal and China-specific tariff are being contemplated. These tariffs will raise costs for retailers and others that rely on the global supply chain for finished products and intermediate goods and will lead to significant price increases for consumers. Congress is also considering legislation that could revoke China's Permanent Normal Trade Relations status, again leading to higher tariffs on consumer goods. Tariffs are an important tool, but they must be used in a strategic manner, not broadly based.

We also have the expiration of the Tax Cut and Jobs Act in 2025. Retailers benefited from the lower tax rate and will pursue quick reauthorization. However, there are efforts by some who want to codify existing tariffs to pay for the package. Again, tariffs will drive inflation and price increases and will result in job losses.

Despite these issues, retailers are doing everything they can to ensure consumers have access to high-value products at affordable prices. We need elected officials to focus on policies that are strategic and will support hard-working American families, not policies that will drive inflation and price increases again.

Thermo King

Claudio Zanframundo

President, EMEA Truck, Trailer & Bus and Global Marine, Rail & Air
www.thermoking.com

The supply chain in 2025 will demand both resilience and innovation. With geopolitical uncertainties likely to persist, we are proactively mitigating the risks through dual sourcing and by maintaining buffer inventories. These measures ensure we can consistently manufacture and deliver refrigeration and HVAC equipment aligned with our customers' demands, despite external disruptions.

Longer transit times due to rerouted shipping lanes have underscored the importance of strategic adjustments to the supply chain. We've increased raw material and component inventories and, where feasible, are sourcing closer to the point of use. Sustainability remains a priority, so while we are supporting global customers, sea freight remains our preferred shipping method. As trade lane constraints impact lead times, effective planning has been instrumental in maintaining operational efficiency under these conditions.

Sustainability extends beyond logistics to encompass our entire product lifecycle. For years, cradle-to-grave impact assessments have been integral to our New Product Development program. Every design undergoes rigorous reviews for material selection, durability and recyclability. As a brand of Trane Technologies, Thermo King's annual ESG reporting reflects commitment to environmental responsibility and transparency in Scope 3 emissions reductions.

Our approach reflects our broader commitment: enabling a resilient, sustainable cold chain that meets the evolving needs of global customers.

Cold chain integrity is a priority, especially as perishables increasingly move across global trade lanes — rising 2% to 3% annually due to growing demand for proteins, meat, fruit and vegetables. As the demand is increasing, we are responding to customer needs to have sustainable solutions to reduce emissions. Enhancing efficiencies across shipping lines, intermodal and stationary applications reduce food loss and carbon emissions.

By aligning strategy with adaptability and sustainability, Thermo King is well-positioned to thrive in the dynamic supply chain environment of the future.

"Longer transit times due to rerouted shipping lanes have underscored the importance of strategic adjustments to the supply chain."

Claudio Zanframundo

Retail Industry Leaders Association

Brian Dodge

President
www.rila.org

The past year has continued to prove that there is no "new normal" in retail supply chains, as the landscape is continually changing — and retailers are evolving their operations to meet what's next.

With a second Trump administration on the horizon, retailers are planning around significant uncertainty in global trade. While leading retailers assess their sourcing footprints on an ongoing basis, upcoming seismic changes to tariffs and trade relationships could have a tremendous impact on the economy and consumer purchasing power. Geopolitics continue to influence supply chain decisions, including uncertainty in the Red Sea, South China Sea and elsewhere.

Cargo theft continues to climb precipitously, with two-thirds of large retailers reporting an increase in cargo theft incidents in the past year. Lawmakers and the Department of Transportation have begun to address the malignant issue with new regulations and proposed legislation, but the next Congress will need to take up the

"We set out every year to reward those carriers that supported us in previous years versus launching multiple pricing bids and moving cargo to providers in a transactional manner."

Brian Dodge

Executive Commentary

Signify

Greg Boyle

Director, Global Sea Freight
www.signify.com

Over the past few years, ocean carriers have transformed into one of two types of carriers. On one side, there are carriers that are in it for the long term and can see the impending capacity booms and busts that bring temporary supply/demand imbalances. They understand that the container industry is a roller coaster of supply shortages and surpluses (with a supply record breaker on the horizon).

Then there are the other carriers that are living in the (very) short term. They seem to lack the basic business skills required to create customer relationships and long-term win/win objectives. They are not interested in their customers' priorities or what challenges their customers are facing. They look for almost any incident so they can claim it is a black swan event and increase prices to see what will stick. These carriers have become skilled in the art of price gouging, akin to when a hurricane hits and the local gas station owner quadruples prices. Some would say "who can blame them?" as there is no real pricing oversight authority in international container shipping (Federal Maritime Commission and EU competition committee aside), but it brings to mind some very large corporate failures from the past — such as Lehman Brothers and Enron — who eventually found themselves overly reliant on short-term results.

For us, we will continue to partner with the shipping companies that fall in the "former" category. They act with integrity, maintain moral principles, display a sense of fairness and have ethical responsibility baked into their everyday behaviors. They share a long-term commitment to creating solid partnerships that look to promote win/win outcomes. We will be able to succeed long into the future with carrier partners that reflect these values.

> "There are carriers that are in it for the long term and can see the impending capacity booms and busts that bring temporary supply/demand imbalances. They understand that the container industry is a roller coaster of supply shortages and surpluses."
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> Greg Boyle

bipartisan fight to close this multibillion-dollar theft pipeline.

Advanced technology solutions are helping retailers make smarter, more precise decisions about inventory strategy, network optimization and transportation planning. Much of 2024 featured a lot of hype around artificial intelligence, but retailers have distilled real-world applications and pilots are starting to yield some impressive results. In turn, leaner and more efficient supply chains can help increase sustainability gains and reduce transport emissions.

Succeeding amidst all of these issues requires an ecosystem of trusted partners. Top-performing retailers will continue to focus on building and maintaining their ecosystems. Changing alliances, increased capacity and global uncertainty may drive fluctuations in ocean shipping rates — and contract lengths — and the trucking industry remains troubled but hopeful heading into 2025.

There were a fair amount of supply chain disruptions in 2024, but by now, retailers have amassed a robust playbook of contingency plans that have reliably maintained the flow of goods that American consumers need and want in 2025 and beyond.

SanMar

John Janson

Vice President, Global Logistics
www.sanmar.com

When we look at what it means to be a shipper of choice, it is quite simple: we believe that business is personal, and we look at our logistics business relationships with a long lens. We contract with key carriers that can meet or exceed our delivery requirements. In contracting, we want to ensure our volume is meaningful to the carrier and that we establish strong relationships at all levels between our companies. We focus on being a good steward of the carriers' drivers and of their assets, and we pay our bills. In exchange, we expect our partners to honor our agreement for pricing and capacity.

We set out every year to reward those carriers that supported us in previous years versus launching multiple pricing bids and moving cargo to providers in a transactional manner. Partnership is rewarded, and our expectations are that partnership will be returned. No one could have anticipated the challenges we faced in 2024. As we look to 2025, while still unable to predict market uncertainty, I am confident that continuing to be a shipper of choice will safeguard SanMar and ensure our customers prosper.

> "We set out every year to reward those carriers that supported us in previous years versus launching multiple pricing bids and moving cargo to providers in a transactional manner."
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Welmed

David Pearlman

Vice President, Logistics and Inventory Management
www.welmed.us

The largest challenge for international supply chains in 2025 will be navigating the geopolitical winds currently blowing through the global landscape. These winds are creating turbulence beyond normal business disruption and are endangering the livelihood of many American firms.

A trade war only works if you can provide the production capacity, business conditions and distribution infrastructure previously provided by your vanquished enemies. If you can't (at a reasonable cost), you've made a terrible decision. In the case of the current trade war with China, the US has made terrible decisions for several years — and the trend continues.

Manufacturers import things for

> "Punitive tariffs often do not provide the underlying benefits espoused by its cheerleaders, but rather simply inflate end-user costs and contribute to many small and midsize businesses struggling to sustain their businesses and service their customers."
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> David Pearlman

Executive Commentary

a wide variety of often compelling reasons. Nearshoring presumably attempts to account for some of them while providing a populist smokescreen of nationalism. Punitive tariffs often do not provide the underlying benefits espoused by its cheerleaders, but rather simply inflate end-user costs and contribute to many small and midsize businesses struggling to sustain their businesses and service their customers. New Section 301 duties imposed in late 2024 increased costs on some medical supply items 100%, doubling the cost of goods sold in a matter of 15 days.

The notion of "just build your factory in the USA," is shockingly naïve and simplistic. Protectionist propaganda like this does nothing more than to stoke political tension rather than provide any serious economic argument. Instead, supply chain resiliency should become the priority for any global business. Having a supply source in multiple countries, not just China, is a smart start; however, it takes time to locate optimal options, train new staff and build trusting relationships.

SMEs, also faced with high interest rates on investment, must make difficult decisions regarding how to navigate the current protectionist environment. Many will right size their businesses, having the opposite effect than what the populists desire.

"Red meat exporters have recently experienced an increase in theft losses, especially when containers are shipped through California to ports on the West Coast and when shipments are trucked to customers in Mexico."

Dan Halstrom

US Meat Export Federation (USMEF)

Dan Halstrom

President and CEO
www.usmef.org

Similar to many US industries, pork and beef exporters anxiously await conclusion of the new longshore workers' contract on the East and Gulf coasts. While the majority of waterborne red meat exports depart the United States off the West Coast, East and Gulf coast ports are also critically important for serving our international customers. About 45% of pork exports and nearly 30% of beef exports utilizing ocean freight are shipped from East or Gulf coast ports, including shipments to Europe, the Middle East, Caribbean, and Central and South America. In 2024, red meat exports moving through these ports were valued at about $100 million per week, so any type of interruption will be costly for our industry.

Another major issue of concern is cargo theft and security. Red meat exporters have recently experienced an increase in theft losses, especially when containers are shipped through California to ports on the West Coast and when shipments are trucked to customers in Mexico. Because red meat shipments are perishable and strictly regulated, cargo thieves don't even have to be successful for exporters to suffer major losses. Even when the product is not stolen, a broken container seal can often force its destruction. The US Meat Export Federation has worked with our member companies and industry partners to bring greater attention to this issue, and we are hopeful that the uptick in cargo theft incidents can be reversed in the coming year.

The US red meat industry has spent decades building a reputation as a reliable supplier of pork, beef and lamb throughout the world. To maintain this status, we need smooth port operations and heightened security on key transport routes.

Wine and Spirits Shippers Association (WSSA)

Alison Leavitt

Managing Director
www.wssa.com

In the last few years, the opening of each ARO commentary could begin with "What a difference a year makes." Déjà vu this year, once again proving that stability in the logistics market seems to have gone the way of the dodo. The high level of global risk due to war, labor and politics drives shipping volatility, creating a wide variety of supply chain challenges in 2025.

"Volatility is currently the rule and not the exception, making it increasingly difficult for importers and exporters to plan and budget with any certainty."

Alison Leavitt

We entered 2024 expecting a "normal" year, with overcapacity and relatively stable rates and services. The unexpected events unfurled from the attacks in the Red Sea by Houthi rebels, to the ongoing war in Gaza and beyond, to the International Longshoremen's Association (ILA) labor strike. Volatility is currently the rule and not the exception, making it increasingly difficult for importers and exporters to plan and budget with any certainty. This submission is prior to the US presidential election, but the threat of import tariffs and potential cancellation of the 5-year suspension of the retaliatory tariffs under the World Trade Organization civil aircraft cases create additional uncertainty, along with the pending ILA contract resolution and potential for another strike.

The list of unknowns goes on with the upcoming changes in the ocean carrier alliances. Schedules and agreements are still being worked out as we attempt to formulate solid contracts for 2025. As a global shipping association, our goal is to navigate the uncertainties, control what we can, and explore and communicate all options to our members. Our area of beverage alcohol is also evolving, with the no- and low-alcohol products growing and wine consumption declining, proving once again that change is inevitable. What we do know is that international trade will go on as it has for hundreds of years. Resiliency is the goal and solid relationships with our carriers — whether they be steamship lines, domestic truckers, transload operators or affiliated trade associations — are essential. Expertise in all levels of logistics is more valuable than ever.


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Mutually assured disruption

Continued volatility to keep container line profits on course in 2025

By Greg Knowler

The big picture: Container carriers remain in robust financial health after a highly profitable year, and that profitability looks set to continue through 2025, with a series of geopolitical factors soaking up supply and driving demand. Despite a glut of capacity on the water, Suez Canal diversions and healthy volumes — especially on the trans-Pacific — will keep vessel supply tight, and analysts predict this will lift annual fixed-rate agreements above 2024 levels on the major east-west trades out of Asia.

With Maersk and Hapag-Lloyd leaving the 2M and THE alliances, only the Ocean Alliance will remain unchanged.
MartinLueke / Shutterstock.com

A look back: At the end of 2023, the container shipping industry was staring at a bloated order book, as well as excess inventory, rising inflation and a cost-of-living crisis in major destination economies, all of which pointed to a drop in demand for imports from Asia in 2024. But longer transits around southern Africa to avoid attacks on commercial ships in the Red Sea quickly absorbed excess tonnage, and shippers began advancing orders and building up safety inventory, leading to early peak seasons on both the trans-Pacific and Asia–Europe trades. Bottlenecks at hub ports in Asia and Europe consumed additional capacity, and as space tightened further, carriers began to cut weekly space allocations, pushing shippers to the spot market where short-term rates hit levels not seen since the COVID-19 pandemic. Carrier profitability soared and maritime consultancy Drewry has estimated container shipping will report a pre-tax profit of $50 billion this year, up from $28 billion in 2023. While it is a fraction of the $298 billion recorded in 2022, the carriers will enter an uncertain 2025 in solid financial health. However, the steep rise in profit was not accompanied by a corresponding improvement in service levels. Port congestion was an issue through much of the year even as the Red Sea diversions became baked into Asia-Europe and Asia-US East Coast routes. Schedule reliability averaged just over 50% in the first 10 months of the year, according to data from Sea-Intelligence Maritime Analysis.

A look ahead: The threat of higher US import tariffs and a potential second strike by dockworkers on the East and Gulf coasts are expected to drive additional frontloading of US-bound cargo, while an early Jan. 29 start to Lunar New Year festivities in Asia and ongoing Red Sea diversions will likely prompt EU importers to advance orders. In other words, all signs point to continued strong demand and capacity constraints on the major east-west trades that will keep rates elevated, virtually guaranteeing carriers a strong first quarter and potentially setting up an early peak season similar to 2024. Container shipping analyst Clarksons estimates nominal fleet capacity growth will slow from over 10% in 2024 to 5% in 2025 against an estimated 18% increase in TEU-mile demand in 2024 and 3% growth in 2025. Still, carriers have had a lot of practice flexing capacity to match demand in the past few years, so cargo owners can expect tight space on ships out of Asia and an elevated spot market to push up contract rates. Banking and financial services firm HSBC said it expects trans-Pacific and Asia–Europe contract rates to rise significantly in 2025, a dynamic that is likely to once again test shipper-carrier relationships. For shippers, however, building flexibility into those annual contracts to withstand the volatile markets will be crucial.

> All signs point to continued strong demand and capacity constraints that will keep rates elevated.

The next inflection: On top of ongoing uncertainty, cargo owners will navigate an extensive shakeup in carrier operations from early 2025. In February, Maersk and Hapag-Lloyd will exit the 2M and THE alliances, respectively, to officially launch the Gemini Cooperation; former 2M member Mediterranean Shipping Co. will commence its own standalone network; and the remaining members of THE will rebrand as the Premier Alliance, leaving only the Ocean Alliance unchanged. The Gemini partners have promised 90% on-time vessel performance in their new hub-and-spoke network, a standard that, if delivered, would be a significant improvement from the abysmal service levels seen in recent years and introduce a welcome competitive element to carrier negotiations.

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Rule of threes

Tariffs, ILA tension, early Lunar New Year boost Q1 trans-Pacific forecast

By Bill Mongelluzzo

An early and extended peak season pushed trans-Pacific imports up 17.7% through November.
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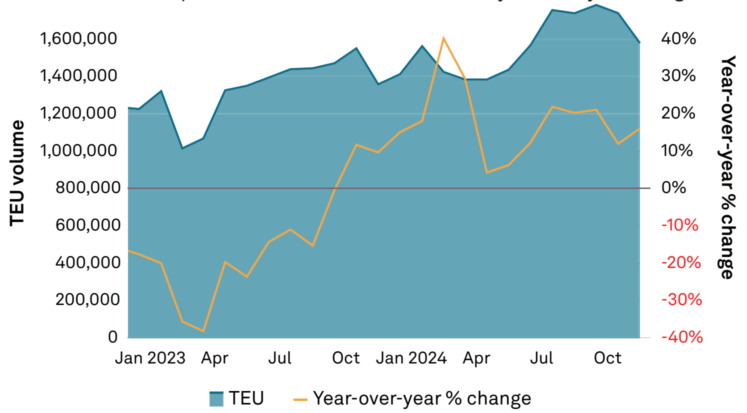
The big picture: The eastbound trans-Pacific rebounded in a big way last year, and although growth is expected to moderate in 2025, frontloading of spring merchandise ahead of tariffs threatened by US President-elect Donald Trump and an early Lunar New Year should keep cargo volumes and spot rates elevated into the first quarter. Carrier on-time performance in the busiest US trade lane continued to languish throughout 2024, with no noticeable improvements foreseen as geopolitical turmoil continues to disrupt global shipping patterns.

A look back: US importers began to frontload fall and holiday shipments in June, two months earlier than usual, and the peak shipping season in the eastbound trans-Pacific continued through the end of the year, two months later than usual. The extended peak season occurred as importers rushed to get ahead of the initial expiration of the International Longshoremen's Association (ILA) contract covering dockworkers up and down the East and Gulf coasts in October, the early Lunar New Year on Jan. 29, 2025, and the threat of tariffs by the incoming Trump administration. As a result, US imports from Asia spiked 17.7% in the first 11 months of the year, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. In turn, spot rates increased to near-pandemic levels and remained elevated through November and into December. Short-term pricing from Asia to the US West Coast averaged $4,626 per FEU through mid-December, more than triple the average rate of $1,519 per FEU recorded for the full year in 2023, according to Platts, also part of S&P Global.

US imports from Asia grow for 14th straight month in November
Containerized US imports from Asia, in laden TEUs, with year-over-year change



Source: S&P Global

And with inflation steadily declining and interest rates edging lower following rate cuts by the Federal Reserve, consumer demand was expected to remain at record levels through the end of the year.

A look ahead: Retailers and other importers entered the new year facing the triple threat of a possible second strike by the ILA, with its extended contract set to expire on Jan. 15; damaging tariffs on China, Mexico and Canada threatened by the new administration; and the early start to Lunar New Year, when many factories in Asia close down for a few weeks. These events, which prompted continued frontloading of imports, were projected to keep import volumes elevated at least through January. According to a December forecast from the National Retail Federation, US imports will rise 12% year over year in January, fall 4.1% in February as factories in Asia close for Lunar New Year, and jump 12.7% in March, when factories return to full production. Carriers and their customers anticipate that the hostilities in the Red Sea that have steered shipping away from the Suez Canal to the much longer and costlier route around the southern tip of Africa for more than a year will continue for some time to come, and they have adjusted their supply chains accordingly.

The next inflection: The big unknown for the trans-Pacific in 2025 is Trump's threatened tariffs, which are steeped in uncertainties. Will there be an across-the-board tariff on US imports from all countries, and even higher tariffs on imports from key trading partners such as China, Mexico and Canada? Will the tariffs become effective on day one of the new administration, or will they be phased in over a period of several months? Most retailers say they have frontloaded sufficient inventory to get them through the first quarter, but planning import volumes and supply chains beyond that point remains problematic.

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A difficult sell

Spot volatility, slower volume growth to weigh on trans-Pacific contract rates

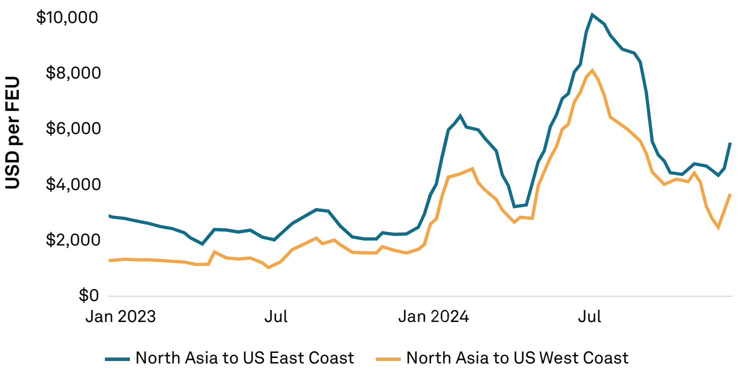
By Bill Mongelluzzo

A look back: Midsize US importers signed 2024-25 service contracts, most of which will expire on May 1, with rates of about $1,500 to $1,700 per FEU from Asia to the US West Coast and about $1,000 per FEU higher to the East Coast. At the time of those negotiations, average spot rates were about $2,820 per FEU to the West Coast and $3,340 per FEU to the East Coast, according to Platts, a sister product of the *Journal of Commerce* within S&P Global. However, short-term pricing was extremely volatile in 2024, peaking at $8,100 per FEU to the West Coast and $10,100 per FEU to the East Coast in July, before dropping to $3,000 per FEU to the West Coast and $4,600 per FEU to the East Coast by mid-November, according to Platts. As the year came to an end, spot rates in mid-December jumped back up to $3,700 per FEU to the West Coast $5,500 per FEU to the East Coast. Spot rates, also known as freight all kinds (FAK) rates for forwarders, were kept elevated this past year due to strong, sustained demand for US imports from Asia.

A look ahead: Carriers in late December launched preliminary negotiations with the largest big-box retailers for the 2025-26 service contracts that generally run from May 1 through April 30, 2026. This timeline is in line with contract negotiations in past years. The big-box retailers normally wrap up their contracts by late February, with midsize and smaller retailers following in March and April and non-vessel-operating common carriers (NVOs) concluding their agreements in April and early May. Initially, the big-box retailers are focusing on the new carrier alliances taking effect in February to ensure that their core carriers are able to offer them the capacity and port-pair coverages they will need in 2025. If not, the largest importers will have to negotiate with other carriers and NVOs to fill out their schedules going forward. The largest retailers still intend to wrap up pricing in their 2025-26 contracts in February.

Trans-Pacific spot rates climbing from late-November lows

Container spot rates from North Asia to US West and East coasts, in USD per FEU



Source: Platts, S&P Global

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The big picture: Shippers and carriers in the eastbound trans-Pacific are entering negotiations for their 2025-26 service contracts facing unusually volatile conditions. Spot rates, which normally have an impact on the spring negotiations, remain higher than in past years. But this year, the spot market may have less impact on contract negotiations than external factors, including stretched vessel capacity thanks to ongoing the Red Sea crisis, the likelihood of punishing US tariffs on Chinese goods and the restructured carrier alliances launching Feb 1.

The next inflection: Retailers are seeking greater clarity on potential new and increased tariffs, which should emerge shortly after President-elect Donald Trump takes office, and in plenty of time to gauge the impact on prices and consumer demand for the second half of 2025. This will allow retailers to plan their product sourcing before they wrap up service contract negotiations. Given that import growth is expected to fall far short of the 17% seen in the first 11 months of 2024 and trans-Pacific capacity continues to grow, carriers this spring will be hard pressed to significantly increase service contract rates over 2024-25 levels, if they achieve any increase at all.

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Last year, Asia-USWC contract rates for midsize shippers were approximately $1,500 to $1,700 per FEU.
Daniel Wright98 / Shutterstock.com

Contingent calm

Restabilized trans-Atlantic facing dual strike, tariff threats

By Greg Knowler

The big picture: After a steep decline in 2023, westbound trans-Atlantic trade volumes came roaring back in 2024. Still, the accompanying rise in rates was marginal compared with the huge increases seen in the main trades out of Asia, as excess capacity depressed prices until carriers began shifting vessels to the more lucrative ex-Asia lanes. Going into 2025, the supply-demand balance appears to have been reasserted, and cargo owners can expect greater rate stability, with more predictable disruption-driven price hikes.

A look back: By the time Auld Lang Syne heralded the start of 2024, average spot rates from Europe to North America had sunk to record lows of close to $500 per FEU, according to rate benchmarking platform Xeneta. But after a weak January, US import demand began to pick up, with year-over-year growth recorded in eight of the following nine months on the North Europe–US trade and Mediterranean–US volumes rising in every month of 2024. Through November, imports from North Europe and the Mediterranean rose 7.7% and 13.6%, respectively, from the same 2023 period, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. The rising volume lifted average North Europe–US East Coast spot rates through April, but even with steady demand during the historically slow summer months, excess capacity dragged down pricing. It was only when carriers closed several services and transferred capacity to the more lucrative trades out of Asia and shippers began frontloading cargo in the buildup to the International Longshoremen's Association (ILA) strike on the US East and Gulf coasts that rates began to rise again, reaching a 2024 peak of about $2,700 per FEU in early October, according to Platts. But even with the removal of 91,100 TEUs in capacity from the trade in the first 10 months of 2024 — an 8.2% year-over-year drop, according to Alphaliner — that peak was short-lived. By mid-November, average short-term pricing had fallen to $2,200 per FEU.

A look ahead: With supply and demand largely in balance, the westbound trans-Atlantic trade lane has returned to its traditionally stable state. But that tranquility is threatened by US President-elect Donald Trump's promise to raise import tariffs, as well as a potential second strike by the ILA. The products moved on the trans-Atlantic are dominated by industrial equipment, vehicles, pharmaceuticals, and wine and spirits, limiting the ability for US importers to frontload on a large scale. But with the removal of capacity by the carriers, any advancement of orders to avoid disruption will quickly fill all available space and raise rate levels. And if rising volume meets labor action at US East and Gulf coast terminals, bottlenecks will soon build at the busy import gateways, tying up capacity, extending transit times and exerting additional upward pressure on pricing.

The next inflection: The trans-Atlantic trade over the past few years has seen a disconnect in the traditional supply-demand balance, with excess capacity offsetting rising volume and curbing rates. But carriers have grown adept at flexing capacity to cater to volatility in demand, and with the shifting of vessels to the trades out of Asia and replacement of larger ships with smaller units, cargo owners can expect their fixed-rate commitments to go up in annual contract talks and any disruption on the westbound trade to be quickly reflected on the spot market.

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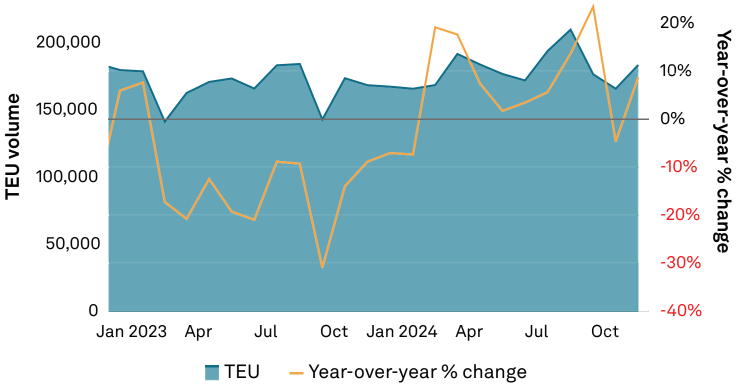
Imports from North Europe grew 7.4% through October, while volumes from the Mediterranean rose 3.8%.
Steve Allen / Shutterstock.com

Trans-Atlantic imports rise 7.7% through November
Containerized US imports from North Europe, in laden TEUs, with yoy change



Source: S&P Global

Taking the long way

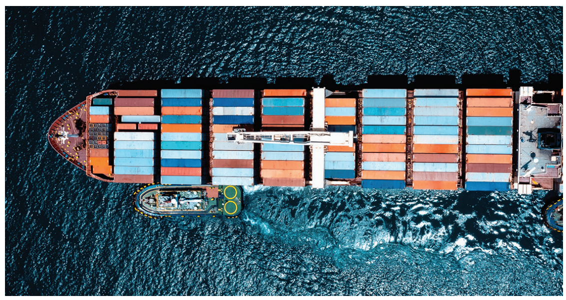
Red Sea to dominate Asia-Europe ocean trade again in 2025

By Greg Knowler

The big picture: The Red Sea crisis will continue to impact service levels, rates and shipper-carrier relationships on the Asia–Europe trade for the foreseeable future. While the diversion of vessels away from the Suez Canal starting in late 2023 came as an unpleasant surprise for shippers — and a welcome relief for heavily oversupplied carriers — the industry enters 2025 with the longer voyages firmly established in ocean schedules.

A look back: As 2023 drew to a close, carriers were bracing for battle with a familiar foe: overcapacity. The container ship order book had grown to almost 30% of the in-service fleet and new, larger ships were steadily sailing into service on the Asia–Europe trade. A precipitous rate decline appeared to be virtually guaranteed, and carriers were preparing to blank sailings, slow steam, and idle and scrap ships to manage capacity. But Houthi militant attacks on commercial shipping in the Red Sea completely flipped the supply-demand picture, forcing carriers to divert vessels around southern Africa — sending spot rates through the roof and all prior capacity management plans out the porthole. To offset the longer route adding about two weeks to transit times, carriers deployed everything that could float, which in turn caused severe port bottlenecks at both ends of the Asia-Europe corridor, further reducing effective capacity. European importers advanced orders from Asia to try to mitigate delays, which led to an early start to the peak season, quickly filled all available capacity and saw carriers slashing agreed volume allocations while charging huge premiums to guarantee loading. The peak season also came to an early end, but even as volumes slowed into the fourth quarter, the longer voyages continued to disrupt schedules and kept short-term rates well above prior-year levels. Through mid-December, spot rates from Asia to North Europe averaged $5,067 per FEU, nearly four times the $1,312 per FEU average recorded for the full year in 2023, according to Platts, a sister product of the *Journal of Commerce* within S&P Global.

A look ahead: When carriers can resume Suez Canal transits is the single largest question mark hanging over the Asia–Europe trade going into 2025. It will determine the structure of annual contracts, rate levels, shipper transportation costs, seasonal cargo flows and carrier profitability. Carriers have penciled in a return to the Red Sea for the second half, and some analysts are also using that as a baseline for their market outlooks, but the reality is that no one knows. Should the mid-year prediction be correct, it will immediately see the estimated 10% of excess capacity soaked up by the diversions around Africa returned to the market and rate levels will quickly come under downward pressure. That pressure, however, may not be as severe as initially thought, with cash-rich carriers vowing to pull hard on several levers at their disposal to limit the capacity overhang. In addition, carriers are expected to increase scrapping, with an estimated 3.4 million TEUs of capacity over 20 years old, increased blank sailings that can quickly withdraw capacity and growing numbers of idle vessels. Shipowner association BIMCO projects Asia-Europe headhaul volume will grow between 3% and 4% against capacity growth of 6.7% in 2025.



Asia–Europe spot rates in 2024 were nearly four times higher on average than in 2023.
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The next inflection: While the Red Sea diversions look set to prevail, at least through the first half of 2025, volumes on those ships will be impacted by weak underlying economic growth in Europe. The region's manufacturing sector is stuck in recession, with the EU's major economies facing uncertainty over persistent core inflation, policy directions and geopolitical conflicts that are dampening the near-term outlook. Although European consumer confidence is edging higher, it remains significantly below pre-pandemic levels and will have a direct influence on retail sales and freight demand.

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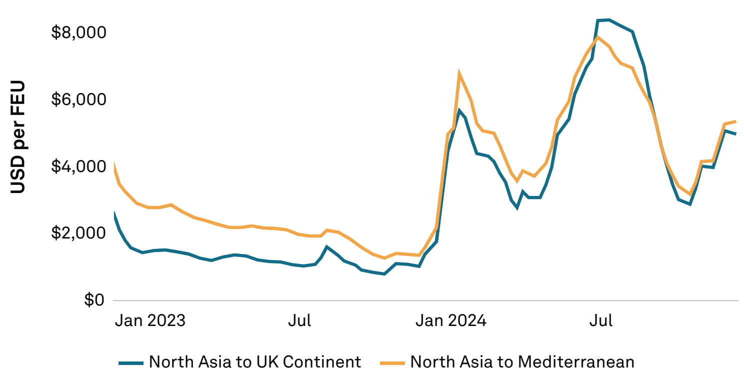
Red Sea crisis keeps Asia-Europe rates well above 2023 levels
Container spot rates from Asia to N. Europe and Mediterranean, in USD per FEU



Source: Platts, S&P Global

Hazy forecast

US policy uncertainty clouds MPV/HL outlook

By Susan Oatway

The big picture: The security crisis in the Red Sea and drought conditions in the Panama Canal get all the headlines, but it's the new trade lanes needed to adjust for these disruptions that are boosting ton-mile demand and squeezing capacity in the multipurpose and heavy-lift (MPV/HL) sector. Those dynamics are expected to keep MPV/HL rates at current levels through the first quarter of 2025, but as new tonnage from the competing container and roll-on/roll-off (ro/ro) sectors hits the water, non-heavy-lift MPV rates are likely to weaken.

A look back: The increase in project cargo demand that most market players expected 12 months ago failed to materialize, with total seaborne dry cargo demand rising just 0.8% in 2024, according to S&P Global Market Intelligence. However, increased ton-mile demand caused by ongoing draft restrictions in the Panama Canal and the Red Sea crisis diverting vessels away from the Suez Canal kept tonnage availability tight and charter rates elevated throughout the year. As of November, the latest month for which data is available, daily charter rates for 12,500-deadweight ton (dwt) "F-Type" ships stood at $13,157, up 12.8% from the beginning of the year and 7.8% from the same month in 2023, according to the Toepfer Multipurpose Index. This was 43% below the pandemic peak recorded in July 2022 but still twice the pre-COVID average.

A look ahead: If US President-elect Donald Trump delivers his agenda as promised, energy production and generation-related general cargo demand could shift dramatically. But questions remain as to which of Trump's stated policy goals — which include repealing Biden administration rules for power generation and weakening methane emission standards for the oil and gas sector — will actually be implemented. For now, forecasts for project cargo remain strong across both the energy and construction sectors, with the growing power needs of datacenters expected to drive additional freight volumes. Of the 5,216 energy-related projects currently under discussion globally, just 19% have reached final investment decision, according to an October report from the Energy Industry Council. The remaining 81% equates to a significant amount of potential cargo in limbo, adding to the uncertainty for project cargo demand and further discouraging newbuild vessel orders beyond capacity replacement. Demolition levels are also expected to remain subdued as cargo demand is high enough to keep overage tonnage employed despite increasing carbon taxes and related regulations. Given the existing order book of 175 MPVs and conservative estimates for newbuilding investment, the MPV/HL fleet is forecast to grow an average of just 1.7% per year through 2026, according to a *Journal of Commerce* analysis that accounts for potential order slippage, additional new orders and demolition sales.

The next inflection: Outside investment for project carriers is scarce, primarily because future project cargo flows are so difficult to predict. This could lead to a further tightness in heavy-lift capable modern tonnage over the next few years and a corresponding rise in charter rates for this vessel type. Of particular concern for some shippers is a lack of newbuilding deck carriers, vessels particularly suited for moving large, heavy pieces of equipment including modules. For non-heavy-lift breakbulk shippers, the avalanche of container ships, bulk carriers and ro/ro vessels being delivered over 2025 and 2026 will keep competition for their cargoes high, likely weakening MPV rates.

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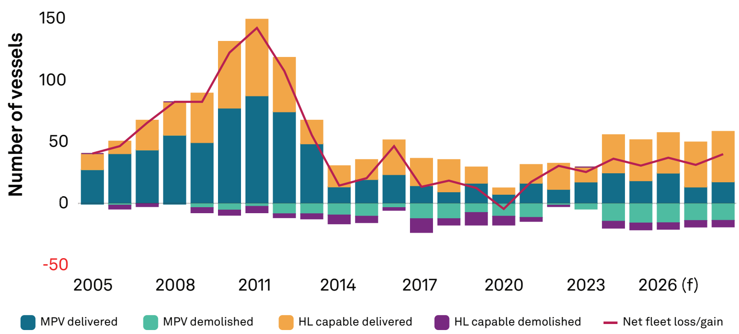
Total seaborne dry cargo demand ticked up just 0.8% in 2024.
Paullawat / Shutterstock.com

MPV/HL fleet growth to average 1.7% per year through 2026

Multipurpose and heavy-lift vessel capacity delivered vs. demolished, by numbers of vessels, with net fleet loss/gain



Notes: Heavy-lift capable maximum combinable lift >240mt SWL
Data as of November 2024

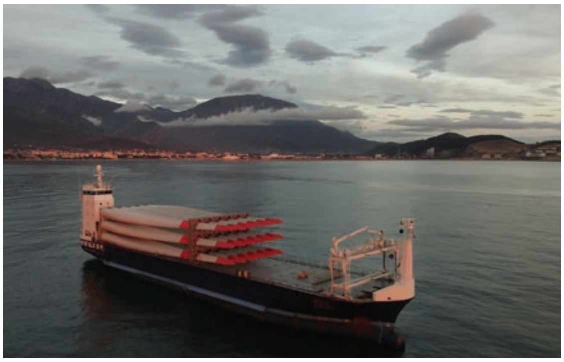
Source: Journal of Commerce, S&P Global

Subject to the wind

Project cargo optimism buffeted by policy ‘unpredictability’

By Janet Nodar

The big picture: A massive slate of energy, infrastructure and industrial projects in the US, including chip manufacturing, liquefied natural gas, power generation, carbon capture, wind energy and more, is fueling optimism among project cargo logistics providers. However, uncertainty around potential changes in government funding, focus and regulations, including the threat of new tariffs, are tempering that optimism, particularly for projects related to clean energy.



Projects related to renewable energy such as solar and wind may be delayed or canceled by the Trump administration.
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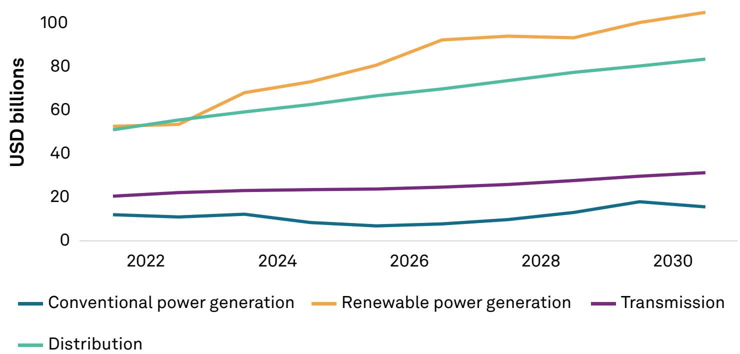
A look back: As a range of energy and manufacturing projects gained traction in 2024, project cargo shippers and forwarders sounded downright chipper. “Things are breaking loose,” one shipper told the *Journal of Commerce*. Many US projects had been galvanized by billions of dollars in tax credits, grants and loans made available by the Biden administration, including $369 billion in Inflation Reduction Act (IRA) funding, $412 in Department of Energy (DOE) loan authorizations that includes some IRA funds and $39 billion in CHIPS and Science grants intended to boost investment. New chip manufacturing projects worth nearly $450 billion had been announced by mid-2024, according to the Semiconductor Industry Association. Capital spending in North America on just renewable power generation was expected to reach $73.2 billion in 2024, $80.9 billion in 2025 and $92.5 billion in 2026, according to forecasts compiled by S&P Global, parent company of the *Journal of Commerce*, prior to the US presidential election. Capital spending on conventional power generation, including nuclear and gas, was forecast at $8.6 billion in 2024, $7.1 billion in 2025 and $8 billion in 2026. The projects supported by this spending will take years to roll out, but many supported by Biden-era funding could be slowed, thwarted or redirected by policy changes imposed by a second Trump administration.

Renewables dominate current, future power investment
North American energy generation investment, actual and forecast, in USD billions



Notes: Forecasts made prior to 2024 election.
"Conventional" category includes gas, coal, hydropower, oil and nuclear. "Renewable" includes solar and onshore and offshore wind.

Source: S&P Global Commodity Insights

A look ahead: US energy and climate regulations and policies are expected to shift with the incoming administration, although the magnitude of that shift is still unknown. “The most likely trajectory for the next four years is one of looser regulation, tighter trade restrictions and championing of fossil fuels,” noted a report from S&P Global Energy View. While a true repeal of the IRA is not possible, Congress can undo, modify or slow-walk some portions of the program. DOE loans are more vulnerable, as billions in allocated funding were still tied up in pre-closure negotiations when Donald Trump won the election, according to Kenneth Hansen, a partner in the projects group of Norton Rose Fulbright. Trump’s eventual Secretary of Energy — he has nominated oil industry executive Chris Wright — can cancel DOE applications that have not reached closing provisions status for any reason, Hansen told the *Journal of Commerce*. Once contracts are signed, awards are difficult to pull back, but as things stand now, there are “strong reasons for being concerned that [this funding] is at risk,” he said.

The next inflection: Breakbulk and project cargo shippers are also bracing for potential effects from Trump-era tariffs. While costs matter, a more fundamental concern is “unpredictability,” said a project shipper who asked not to be identified. Project supply chains take years to establish and can’t be reconfigured quickly in response to increased import tariffs. Some manufactured pieces take two years from design to completion and are manufactured in specialized yards around the world. “We can’t navigate around the tariffs,” the shipper said. “The companies that can make what we need are in the single digits, and it’s a manufacturing base that does not exist in the US.”

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In Perspective

Strike dominoes

By Lars Jensen

With the negotiations between the International Longshoremen's Association (ILA) and the US Maritime Alliance being stalled for the past month, and with President-elect Donald Trump having voiced clear support for the ILA's position, it is time to revisit the domino effects pertaining to a potential strike from Jan. 15.

There are domino effects to be contemplated not only during a strike but also before and after.

The risk of a strike itself — irrespective of whether it happens or not — has already led to some US importers moving products earlier than they otherwise would have. But this effect is now tapering off as we are approaching a point of no return. For cargo from Asia to the US East Coast, the transit time is typically four to five weeks depending on routing with some slightly faster and some slightly slower. With the strike only four weeks away, this means there is no longer the option here to avoid the potential strike.

Rerouting the cargo via the US West Coast is still feasible, but with transit times of two to three weeks, this window is also rapidly closing. The same applies to cargo coming from South America and Europe, where the window for moving cargo before January 15th is coming to an end unless bookings are placed within a week.

A ripple effect on this is, of course, a larger pressure on warehousing than what would otherwise have been the case for cargo being frontloaded.

These were the dominoes which had already been toppling prior to the potential strike.

If the strike goes into effect, the immediate impact — as we also saw during the three-day strike in October — is that we will see vessels anchor up outside major US East and Gulf coast ports. We will also see some cargo discharged in alternate locations. In October, some cargo was discharged earlier than planned at US East Coast ports to get the cargo off the vessel before a strike, and some was discharged into regional hubs such as Freeport and Kingston. We are likely to see the same pattern unfold this time.

Then come the dominoes following the initial port closures. When vessels anchor up, this means they also do not return to their origins. This will lead to capacity declining in Europe with a lag time of two to three weeks and Asia with a lag time of four to five weeks. This effect was also seen following the October strike, but given that the strike only lasted three days, the effect was relatively manageable. Should the strike last longer, this gives rise to significant drops in export vessel capacity on the headhaul trans-Atlantic trade in the first half of February, and in Asia this will impact export capacity toward the end of February.

If the strike is relatively short — say a week or so — the impact, especially in Asia, should be manageable as well. This will be at the tail-end of the seasonal downturn after Lunar New Year, but a more protracted strike will lead to capacity shortages well into March when demand tends to pick up again. A more protracted strike would furthermore impact the equipment availability in Asia, as during the strike there will be no repatriation of empty containers from the US East Coast back to Asia. This would then become a problem during March as well, but only if the strike is relatively protracted.

A more protracted strike will lead to capacity shortages well into March, when demand tends to pick up again.

New networks, new risks

Another domino impact, which we did not have in October, is that this disruption hits right as the new alliance networks are to be phased in. This will result in significant operational disruptions to the networks, also beyond what can already be expected. Phasing in the new networks involves shuffling hundreds of vessels out of their current service rotations and into new ones, and those can also involve vessels being shuffled to or from US East Coast services. As such, there can be additional ripple effects on trades not directly calling strike-impacted ports at all.

A quick look at the volumes handled on the US East Coast shows that every day of a strike will take approximately six days to clean up in terms of the congestion impact in the ports. In broad strokes,
that is also what we saw back in October.

All in all, a strike — especially a protracted one — will create substantial issues for US importers and exporters. As the window is now closing in terms of moving cargo prior to such a strike, the best approach at this point is for those importers and exporters to explore what they can do to nurture an environment wherein a deal is made between the union and the terminals, hence preventing the strike from happening.

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Imports through LA-LB port (pictured) grew more than 25% for three straight months in 2024.
Robert V Schwemmer / Shutterstock.com

Coastal seesaw

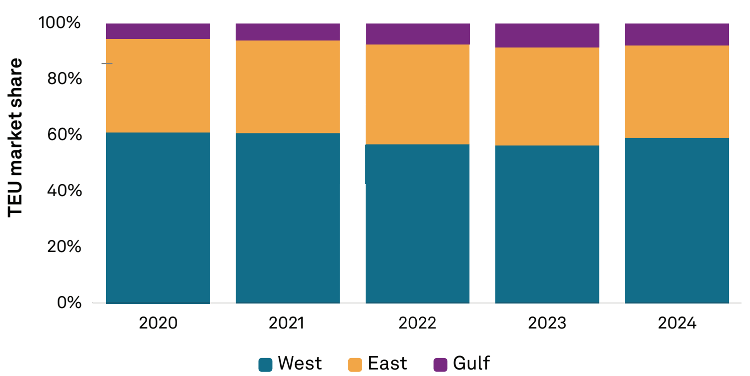
Tariffs, Suez resumption could crimp US West Coast share gains

By Bill Mongelluzzo

The big picture: US West Coast ports lost some of their share of imports from Asia in 2022-23 during the protracted contract negotiations between the International Longshore and Warehouse Union and West Coast employers. The tables turned in 2024, when East and Gulf coast dockworkers engaged in contentious contract negotiations of their own, and discretionary cargo returned to the West Coast. The main challenge facing West Coast ports entering 2025 will be to mitigate the rail container backlogs that inevitably occur during peak periods when import volumes exceed the railroads' designed network capacity.

A look back: The lengthy and contentious contract negotiations between the International Longshoremen's Association (ILA) and employers on the East and Gulf coasts drove a large volume of discretionary imports to the West Coast in 2024. Frontloading of imports continued last fall in anticipation of threatened tariffs under a second Trump administration this year. In the first 11 months of 2024, West Coast ports handled 59.2% of US imports from Asia, up from 56.5% in 2023, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. The Northwest Seaport Alliance of Seattle and Tacoma was the first gateway to experience severe congestion last summer due to diversion from Canadian ports, which contended with now-resolved labor issues. The ports of Los Angeles and Long Beach experienced a 25%-plus year-over-year increase in import volumes for three consecutive months, spawning terminal congestion and extended rail container dwell times. However, the BNSF and Union Pacific railroads had worked through those backlogs by year end.

West Coast ports retake Asia import share amid ILA talks
Market share of US containerized imports from Asia by coast, Jan.-Nov.



Source: PIERS, S&P Global

A look ahead: West Coast ports were relatively fluid entering 2025 and have sufficient capacity to handle the lower cargo volumes forecasted for 2025. When the ILA reaches a contract settlement this year, discretionary cargo is expected to return to the East and Gulf coasts. That means cargo flows should return to the normal seasonal trends throughout the year. The main challenge for West Coast ports will be mitigating peak inland point intermodal (IPI) volumes next fall. The industry has come to expect some level of disruptions when IPI traffic surges during peak periods, but port stakeholders learned valuable lessons from the epic meltdowns of the COVID-19 pandemic, and future disruptions should be less intense and shorter than before.

The next inflection: Whereas 2024 was a banner year for US West Coast ports, the pendulum could swing back to the East and Gulf coast ports in 2025. If Trump's threatened tariffs on China push even more production to Southeast Asia and the Indian subcontinent in 2025, the China-dependent West Coast gateways will lose market share to East Coast ports, which are better suited geographically to handle imports from those regions. If and when hostilities in the Red Sea cease and vessels return to the Suez Canal, West Coast ports could lose additional share.

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Here we grow again

Capital upgrades ready USEC ports for another year of growth

By Michael Angell

US East Coast ports handled a nearly 10% jump in imports through November with minimal congestion.
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The big picture: US East Coast ports remained largely fluid throughout 2024, even as container volumes exceeded expectations and crises including a multi-week closure in Baltimore and a three-day coastwide strike impacted operations. The ability to withstand the various shocks, along with ongoing capital upgrades, suggests ports are prepared to handle tariff-related cargo surges that may occur in 2025.

A look back: Strong consumer spending and frontloading amid concerns over the deadline for a new longshore labor agreement drove import volumes through US East Coast ports higher than expected in 2024. The Port Authority of New York and New Jersey, for example, saw imports shoot up 14.1% through November, a significant acceleration from the 3% growth it had forecast for the year. New York-New Jersey's inbound volumes were also boosted by the diversion of containerized cargo from the Port of Baltimore during its second-quarter closure following the collapse of the Francis Scott Key Bridge. Total import volumes through the US East Coast rose 9.5% year over year in the first 11 months of 2024, the fastest growth rate for a comparable period since 2021, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. But from an operational perspective, the three-day strike by the International Longshoremen's Association (ILA) in early October merely resulted in a temporary backup that was cleared within a week or two at most ports. Savannah and Charleston ports also dealt with episodic ship congestion during 2024 due to the high volumes and berth closures due to maintenance.

A look ahead: With the incoming Trump administration threatening to levy tariffs across all imported goods, East Coast ports could see another strong year in 2025, but they should be well prepared to absorb extra volumes thanks to numerous capacity upgrades. CMA CGM's primary marine terminal in New Jersey, for example, will open a new berth in 2025, allowing the carrier to increase deployed capacity on services calling the busiest East Coast port. A total of six new cranes are in various stages of installation at New York-New Jersey marine terminals that will allow for the handling of larger ships in 2025. Further south, the Port of Virginia completed a railyard expansion in 2024 that will increase intermodal capacity at its Norfolk marine terminal by 25%. Virginia is also set to complete dredging its harbor down to 55 feet in 2025, allowing the port to handle ultra-large container ships. Charleston's port also boosted its effective container capacity via a deal it struck with the ILA to fully utilize the Hugh K. Leatherman terminal. Services operated by Maersk, Mediterranean Shipping Co. and Zim are now calling at Leatherman. Rail capacity from Leatherman is also set to increase with the mid-2025 opening of the adjacent Navy Base Intermodal Facility, which will provide a more direct connection to South Carolina's inland ports.

The next inflection: In addition to any vessel backlogs resulting from a second potential ILA strike on Jan. 15, a major test for the East Coast marine terminals will be their ability to handle the revamped carrier networks debuting in 2025. The Gemini Cooperation of Maersk and Hapag-Lloyd will be moving a large share of its volumes through APM Terminals' facility in the Port of New York and New Jersey. MSC and Zim, meanwhile, will shift their vessels away from APM to MSC's jointly operated Port Newark Container Terminal.

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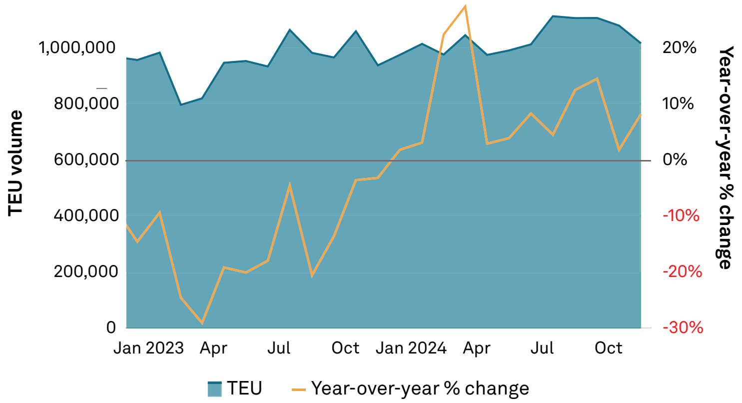
US East Coast imports growing at fastest rate since 2021

Containerized imports through US East Coast, in laden TEUs, with yoy change



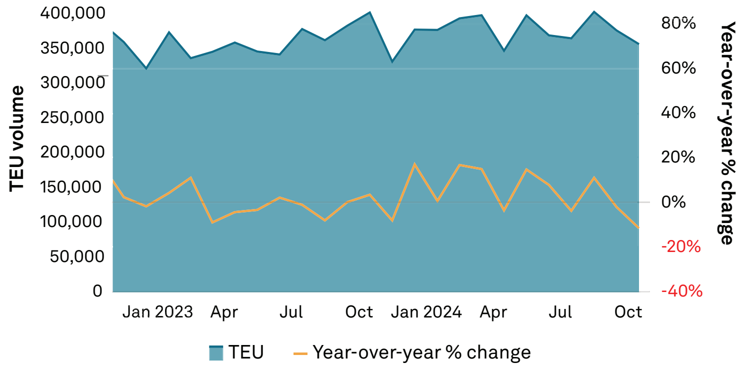
Source: S&P Global

Essential enhancements

US Gulf Coast ports expanding to handle continued volume growth

By Michael Angell

US Gulf Coast volumes bounce back after slight decline in 2023
Containerized imports and exports through US Gulf Coast ports, in laden TEUs, with year-over-year change



Source: PIERS, S&P Global

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A look back: Port Houston continues to be the region's preferred gateway, with containerized imports rising 9.3% in the first 11 months of 2024, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. That year-to-date growth has significantly outstripped the 1% total volume growth forecast in Port Houston's 2024 operating budget, as well as the 7.9% growth rate for the Gulf Coast region as a whole. Despite a hurricane and a CrowdStrike outage, both of which shut the port down for several days, and a three-day coastwide dockworker strike, Houston's two marine terminals remained fluid, evidenced by low container dwell and truck turn times throughout the year. The ports of Mobile and New Orleans saw container imports grow 4.2% and 4.8%, respectively, through November. Amid the import growth, ocean carriers have added more container services to the US Gulf Coast. Maersk, for example, resumed its TP20 service between Asia and Houston in March 2024, thanks to higher container demand. Zim Integrated Shipping Services also added its first north-south container service to the Gulf Coast, with calls at Houston and Mobile.

The big picture: US Gulf Coast ports have seen higher-than-expected container volumes as consumer spending remained resilient during 2024 and shippers brought in cargo ahead of the deadline for a longshore labor strike. With volumes likely to increase again in 2025, new port infrastructure across the region should help maintain fluidity throughout the coming year.

A look ahead: Houston has already started testing its first appointment system for drayage drivers, and the port hopes to increase voluntary participation to over 70% before mandating its use sometime in 2025. Houston's container handling capacity is set for a boost with the expected mid-2025 completion of the first half of Project 11, a widening of the port's shipping channel that will allow an additional 1,400 vessels of all types to call the port each year. The completion of a major phase of Project 11 coincides with the installation of three new cranes at Houston's Bayport Container Terminal, with another eight on order for a new berth. Mobile will be able to handle increased volumes in 2025 with the addition of two new cranes at its container terminal last year. The port is also furthering its intermodal access, with plans announced in 2024 for the development of the North Alabama inland port, served by CSX Transportation and catering to the state's manufacturing sector. Mobile also plans to open another inland port in Montgomery, Ala., early this year.

The next inflection: Mobile will also increase vessel capacity in mid-2025 with the end of its harbor modernization project, which will deepen the port to 50 feet and allow easier passage for large vessels. Mobile also announced the fourth expansion of its container terminal, which will eventually bring its capacity to over 1 million TEUs per year. New Orleans will also start work this year on its new terminal, the 2 million-TEU Louisiana International Terminal, after receiving $300 million in federal grants, with a goal of receiving its first ships in 2028.

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US Gulf Coast imports rose 7.9% through November after a 7.7% drop in the same 2023 period.
Brandon Bell / Getty Images

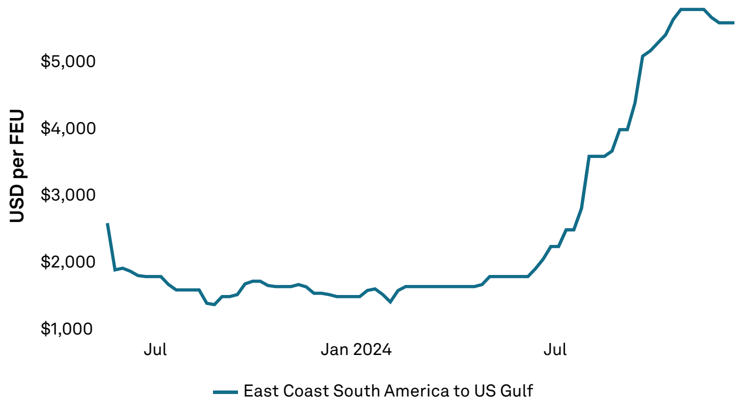
Unleashing growth

Rising north-south trade hinges on fluid ports, vessel capacity

By Laura Robb

The big picture: A combination of growing demand, port bottlenecks, and vessel and equipment shortages pushed 2024 rates from the East Coast of South America to the US to their highest level since the COVID-19 pandemic. This year, the inter-Americas trade is poised for more growth, but that growth will likely come with congestion at South American ports and tight capacity on northbound services from the East Coast of South America that keeps rates elevated.

Northbound South America–US spot rates spike in H2 2024
Container spot rates from East Coast South America to US Gulf, in USD per FEU



Source: Platts, S&P Global

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A look back: Freight demand on the north-south trade connecting Latin America with North America increased in 2024, but actual volume growth was hindered by port congestion and a lack of available vessel space. Total container volumes between the US and the Caribbean, Central America and South America rose 4.3% in the first 10 months of the year, with northbound shipments up 3.8% and southbound volumes up 4.8%, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. Growing import demand in South America and poor vessel schedule reliability resulted in tight capacity for imports to the East Coast of South America throughout the year. At the same time, infrastructure projects at multiple ports in Latin America aimed at attracting additional volumes reduced operating capacity at those gateways. Vessel delays caused by the International Longshoremen's Association (ILA) strike, which shut down all US East and Gulf coast ports for three days at the beginning of October, further exacerbated vessel bunching at South American ports. That, in turn, worsened existing equipment shortages, as ports and container carriers prioritized clearing the backlog of ships over repositioning empty containers inland for exporters. Some carriers opted to divert ships to lesser-used ports and/or blank sailings to keep ships on schedule, which further reduced effective vessel capacity on the trade and resulted in rolled cargo. Steady growth in rates accelerated in the lead up to the ILA strike, with average spot rates from the East Coast of South America to the US Gulf Coast peaking at $5,800 per FEU in late October, more than double the rate recorded just three months prior and up 251.5% from the same week in 2023, according to Platts, also part of S&P Global. Those rates have since cooled, but only slightly, settling at $5,600 per FEU in the three weeks ended Dec. 13.

ECSA–USGC spot rates soared from $1,800 per FEU in June to $5,800 per FEU in late October.
byvalet / Shutterstock.com

A look ahead: Shippers moving cargo on the inter-Americas lane can expect to see further volume growth in 2025, potentially reflected by increased attention and capacity from carriers. Demand for US-made products in South America continues to increase, with petrochemicals offering another source of substantial southbound volume growth. The implications of a second Trump presidency remain unclear for trade policy, but the change in administration — particularly the threat of universal tariffs on US imports — could increase costs. However, if President-elect Trump imposes much higher tariffs on imports from China, this could prompt US importers to shift some sourcing to Latin America, increasing north-south volumes. Another potential spanner in the works for intra-Americas shippers are the still-unresolved contract talks between the ILA and port employers on the US East and Gulf coasts. If an agreement is not reached by Jan. 15, the union will strike again, and if East and Gulf coast ports are closed for any meaningful amount of time, congestion and equipment shortages in South America are likely to flare up again.

The next inflection: With demand already growing and Trump tariffs potentially accelerating the nearshoring of US imports, the north-south trade is positioned for long-term growth. However, that growth remains dependent on ports expanding and carriers flexing up vessel capacity and equipment supply to handle the rising volumes.

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US reefer imports from South America grew 11.8% through September.
Shutterstock.com

Cold spring

Reefer market growth expected to continue in 2025

By Laura Robb

The big picture: Amid increased demand for equipment and projected market growth, the refrigerated (reefer) container market is positioned to see increased competitiveness in 2025. With the looming threat of operational interruptions from ongoing port labor negotiations, time-sensitive reefers could bear the brunt of work stoppage impacts. Meanwhile, extended transit times around Africa are putting further pressure on equipment availability.

A look back: The reefer market experienced some upward support in 2024 as global trends put pressure on the cold chain. Analysts noted an increase in demand for reefer cargo during the year, particularly for agriculture exports from South America. US reefer imports from South America grew 11.8% year over year in the first nine months of 2024, including a 17.6% jump in August, according to PIERS, a sister product of the *Journal of Commerce* within S&P Global. In addition to increases in demand for fresh cargo, the cold chain market has been supported by the growing pharmaceutical and chemicals sectors. Meanwhile, the diversion of vessels away from the Red Sea and resulting longer transits have tied up sought-after reefer equipment. The threat of labor stoppages at US East and Gulf coast ports also led some to shifts in shipping patterns, as concerns about time-sensitive cargo being abandoned at ports during a strike prompted shippers to consider alternative solutions before the initial Oct. 1 negotiation deadline. The brief strike by the International Longshoremen's Association (ILA) had marginal ripple effects on equipment availability as cargo was delayed during the interruption. Other port stoppages were brought on by severe weather in Asia, including several typhoons that have impacted vessel flows.

A look ahead: Reefer shippers using US East and Gulf coast ports will keep a close eye on the next ILA strike deadline on Jan. 15, as perishable cargoes are particularly vulnerable to spoilage during delays of any kind. Also of concern will be the impacts of sweeping tariffs threatened by US President-elect Donald Trump. Those tariffs, if enacted, could result in shifting sourcing patterns for dry goods, but this may not be an option for certain reefer shippers, who would be forced to either eat the additional costs or raise prices to pass those costs on to their customers. Weather patterns are always a factor in reefer trade, and as climate patterns become increasingly unpredictable, shifted harvest timelines could further strain equipment availability in 2025. Still, analysts expect the market to remain largely stable in the coming year, with equipment availability easing as South American beef exports wane.

> Reefer shippers will be keeping a close eye on the next ILA deadline, as perishable cargoes are vulnerable to spoilage.

The next inflection: As in dry container trade, one of the biggest unknowns going forward for reefer shippers is when the Red Sea will become safe enough for carriers to resume transiting the Suez Canal. Extended voyages around southern Africa are currently tying up both reefer equipment and vessel capacity, and a resumption of the Suez Canal routings would immediately release that supply back into the market, putting downward pressure on rates.

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In Perspective

A tough nut to crack

By Jeremy Masters

The industry has, in recent years, produced some eye-popping profits.

It hasn't always been that way. For a very long period since the advent of containerization, carriers made very poor average returns on investment.

The consolidation of the industry after the 2016 demise of Hanjin Shipping started to tip the scales more in favor of the carriers, but the COVID-19 pandemic and the Red Sea crisis with their attendant implications for capacity demand exceeding supply, opened the door to mega returns, albeit temporary.

The cyclical nature of the business has not changed — and it would not be surprising to see some red ink next year — but we have reached a point now where the big carriers can look forward to good long-term returns on investment and investor parties outside the industry taking note.

There are limited routes to ownership, however. The most obvious observation is that the barriers to entry are now high to starting a new carrier, particularly if the aspirant wants to acquire new capacity and operate in the major east-west container trades.

Even if a new carrier emerges, with the possible exception of the Premier Alliance, it is unlikely that the other consortiums would entertain a new entrant. Slot charters may be possible, but a new entrant would have to bring sufficient tonnage to the table that Mediterranean Shipping Co. and the three consortiums would see it in their interest to cooperate.

It's difficult to imagine a new entrant to the industry being able to buy into the top echelons.

The bill to get to critical mass is massive. Fourteen 24,000-TEU ships to support a single Asia–Europe loop will cost approximately $3.5 billion at current newbuilding prices. Secondhand ships could be targeted, but older vessels operating conventional fuels are going to be an increasing issue in many trades. The charter market is expensive and particularly constrained in the larger, newer-built sizes.

Then there is the matter of operating such large ships. Running a carrier is a complex task and expertise will be required in general management, finance, marketing and sales, vessel operations, container management, etc., some of it in multiple geographies.

Buying a major stake in an existing top 10 carrier is a possibility, avoiding an injection of new disruptive capacity. But if a controlling interest is desired as well as freedom from government incumbrances, then the list of potential targets will likely be small or even nil.

Of course, if red ink really starts to flow among the major carriers, the selling price will tend to be more reasonable and home country governments and other interests will have to be more flexible, although their preference will undoubtedly be to find a domestic solution.

A more viable approach might then be to enter regional trades by launching a new carrier or buying existing ones, and then stealthily advance into deep-sea route. For example, an entrant could serve intra-Asia routes first before expanding to regional trades such as in intra-East Mediterranean and the Black Sea. A new entrant could then launch a deepsea service between the two trades once operations are stable and could go on to gradually connect more markets with the same formula.

Existing carriers have employed similar techniques but from the top down, with the main trades driving regional acquisitions or setting up regional networks to strengthen the overall network.

Venturing into the territory of the carriers outside the top 10 may be more financially manageable and more easily achievable but it doesn't necessarily offer a competitive edge. For the more risk-accepting investors, the route to more rapid penetration and high returns would be to bring a new business model to the market.

One area that is ripe for a disrupter is the ongoing conflict between carriers and their clients in the selling/buying of assured future space at an assured rate. Any carrier that can present a reliable, flexible model that ties both sides in will attract not just regular business but also some degree of speculative hedging business.

The bottom line is that the biggest carriers are in a very strong position now and it's difficult to imagine a new entrant to the industry — even a cash-rich one — being able to buy into the top echelons. There is still room, however, to enter the regional trades in a substantive way and to build outward. Alternatively, for those prepared to challenge the existing commercial model there could be a very successful future.

The joke used to be that you could make a small fortune in container shipping by starting with a big one. Today, there really is the possibility of going the other way.

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Executive Commentary

AAL Shipping

Kyriacos Panayides
CEO
www.aalshipping.com

The maritime industry must adopt multifaceted approaches that leverage both immediate efficiency improvements and investments in alternative fuels. Recognizing that there is no “silver bullet” for carbon neutrality, the sector should implement measures such as slow steaming and high-performance hull coatings to lower emissions in the immediate future while setting a course for greater emissions reductions with investment in alternative fuels — such as our methanol-ready Super B-Class vessels. For this, however, the infrastructure needs to be built up and the fuels more readily accessible.

Meanwhile, cross-industry cooperation and collaborations with entities such as the Smart Freight Centre help establish emissions monitoring standards and research into alternative fuels, propelling companies closer to net-zero targets.

However, for the industry to make sustainable progress, coordinated governmental support is essential. Investment in alternative fuel infrastructure and transparent regulatory frameworks will enable technological advancement. We therefore continue to support frameworks such as the EU Emissions Trading System (ETS) and FuelEU Maritime regulations as they provide structure, transparency and incentive for a greener industry. With clear, supportive policies, the maritime industry can align today’s gains in fuel efficiency with tomorrow’s net-zero ambitions.

> “For the industry to make sustainable progress, coordinated governmental support is essential. Investment in alternative fuel infrastructure and transparent regulatory frameworks will enable technological advancement.”
>
> Kyriacos Panayides

The maritime industry is already fully engaged in the decarbonization challenge, and significant capex is being allocated to meet the ambitious plans in the set time frame. Yet, it is still not clear what future alternative fuel the global maritime fleet will depend on. The infrastructure and supply chain is not yet in place to ensure adequate availability and coverage outside the main regional hubs. Price and cost for conversion is also still challenging for operators to maintain a competitive position. We expect and hope that these areas are addressed in the coming years.

AD Ports Group

Ross Thompson
Group Chief Strategy & Growth Officer
www.adportsgroup.com

Resilience is the biggest challenge that container ports and terminal operators will likely face in 2025. In an era of geopolitical and macroeconomic turbulence, the ability to anticipate or react quickly to major swings in demand will be a defining test for global ports and terminal operators.

Ports and terminal operators must position their businesses to quickly seize unexpected changes in demand brought on by regional conflict and macroeconomic disruptions that affect maritime shipping routes and substantially alter global trade flows.

Amidst such uncertainty, transport, trade and logistics companies that own instead of lease port and terminal infrastructure are better positioned to react and leverage sudden changes in global trade flows.

AD Ports Group’s owned-asset infrastructure in the Arabian Gulf was an advantage in 2024 that allowed our group to respond quickly to the surging business resulting from the geopolitical tensions in the Red Sea. Such resilience has become a necessity for ports and terminal operators worldwide that want to grow in an increasingly volatile global market.

The speed of change in our industry is likely to increase in 2025 as more container terminal concessions change hands and integrated companies look to match their terminal portfolios to their wider supply chain strategy, while spreading the risk from supply chain disruptions.

To sum up, I would recommend ports and terminal operators retool their businesses to build maximum operational flexibility into their business models, leveraging owned assets when possible, to succeed in a volatile market environment.

> “In an era of geopolitical and macroeconomic turbulence, the ability to anticipate or react quickly to major swings in demand will be a defining test for global ports and terminal operators.”
>
> Ross Thompson

AMA Capital Partners

Peter Shaerf
Managing Director
www.amausainc.com

The race for accelerating the decarbonization picture continues unabated.

With liquefied natural gas (LNG) as a prominently featured alternative fuel, we are seeing the top three operators — Maersk, CMA CGM and Mediterranean Shipping Co. — dominating the dual-fuel market, accounting for over 60% of the order book.

For example, CMA CGM has ordered 150 dual-fueled ships since 2017. In addition to this pioneering order book, the company is retrofitting two conventional ships to methanol propulsion.

Just recently, MSC initiated a $2 billion newbuilding program for a dozen 11,000-TEU dual-fueled vessels in China at an estimated cost of $170 million per vessel. Not just limited to the big three, Hapag-Lloyd announced a $4 billion, 24-ship order for dual-fuel vessels, and Pacific International Lines has ordered five 9,000-TEU dual-fueled units.

The quantity of LNG propulsion ships being ordered is staggering, now at more than 2.2 million TEUs as of November 2024. This is close to six

> “While the order book is the largest it has ever been in terms of TEU capacity, the need for new tonnage is exacerbated by the aging of the fleet.”
>
> Peter Shaerf

times the amount ordered by TEU capacity in 2023.

While the order book is the largest it has ever been in terms of TEU capacity, the need for new tonnage is exacerbated by the aging of the fleet. Over 3 million TEUs of capacity is now 20 years of age or older, and more stringent emission regulations are being put in place.

Again, we will look for a robust freight rate environment to remain in place. While the liner companies have profited greatly in recent years, there is always a boom-and-bust nature to the overall liner profitability picture.

Liner profitability and the willingness — even desire — of the major banks and Chinese leasing companies to embrace the decarbonization agenda is making the transition not only attractive, but almost necessary for the major operators.

BBC Chartering

Ulrich Ulrichs

CEO
www.bbc-chartering.com

Trade is increasingly being challenged globally by wars, piracy, environmental rules, or situations such as the Panama Canal drought and Houthi attacks on vessels navigating to or from the Suez Canal. The latter events took out considerable capacity for ocean transportation globally, as transit times between Asia and the Atlantic coasts of the Americas, or Asia and Europe, got notably longer. As there are still only very modest newbuilding orders, the shortage of specialized tonnage will, over time, be increasingly felt by operators, cargo owners and freight forwarders looking to get transportation capacity for their projects.

More and more environmental rulings, especially concerning emissions, cause additional costs and taxes. So far, this has been mostly related to Europe, but other regions/countries in the world are following suit. With this comes a steadily growing administrative burden, impacting overhead costs of vessel owners and operators. These additional costs must be recovered from clients.

Yet, the biggest challenge which all breakbulk operators must cope with is that of having highly qualified and motivated staff at all levels and in all departments and locations. It is of paramount importance to recruit skilled people who are interested to work in this special sector. Shipping needs to demonstrate how attractive it is to work in this highly international industry. Career opportunities need to be highlighted, and training programs advertised. It would be a good start if more people understand what an essential role shipping plays in everyone's daily life.

> "The biggest challenge which all breakbulk operators must cope with is that of having highly qualified and motivated staff at all levels and in all departments and locations."
>
> Ulrich Ulrichs

Digital Container Shipping Association

Thomas Bagge

CEO
www.dcsa.org

As the maritime industry approaches 2025, container lines, ports and terminal operators are poised to enhance collaboration and address long-standing challenges. Larger vessels, a feature of the industry since the 1990s, continue to demand advanced infrastructure and operational strategies. This established trend now aligns with a powerful shift toward digital transformation, driving the industry toward greater efficiency, transparency and connectivity.

The growth in container capacity and larger ships has heightened the need for automation, data sharing and predictive analytics. Key digital standards, such as the Digital Container Shipping Association's Operational Vessel Schedule, play a crucial role in improving scheduling accuracy and reducing idle times, forming a foundation for collaborative improvement in port operations. This momentum underscores a shift toward smarter logistics hubs, where automation and artificial intelligence are set to enhance berth and yard management and optimize last-mile logistics. Standards such as just-in-time shipping aim to improve vessel arrival times, potentially reducing fuel consumption by 15% and advancing sustainability targets.

Member-led digital standards implementations are expected to triple in 2024, with a projected 100% increase in API call volumes from October 2023 to 2024, underscoring a strong demand for more agile, interconnected systems. This digital drive is complemented by a broader commitment to sustainability, supported by the adoption of alternative fuels and low-emission technologies.

Digital adoption is also gaining traction through supportive regulatory environments. With electronic bill of lading adoption currently at 5%, clear legal frameworks could raise usage to 100% by 2030, streamlining trade and supporting sustainability goals across the industry. DCSA's State of the Industry Report 2024 – Insights on Digital Evolution in Container Shipping highlights how momentum and collaboration are advancing the maritime sector toward a more connected, efficient and resilient future.

> "With electronic bill of lading adoption currently at 5%, clear legal frameworks could raise usage to 100% by 2030, streamlining trade and supporting sustainability goals across the industry."
>
> Thomas Bagge

Florida Ports Council

Mike Rubin

President and CEO
www.flaports.org

The ability to finance priority seaport infrastructure to address issues of resiliency and efficiency remain top challenges facing seaports. Lessons learned from past supply chain crises created by the pandemic,

> "Additional recurring funds should be allocated to on-port infrastructure projects to help with supply chain resiliency and efficiency projects."
>
> Mike Rubin

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labor unrest or weather issues have led to a growth in port and terminal investments at US seaports. The ability to address these investments to meet the needs of US consumers is key to job creation and economic stability.

Florida seaports have invested millions in priority infrastructure projects to "Seas the Opportunity" provided by these challenges. These investments support 1.2 million jobs, almost $200 billion of commercial activity and a $62 return for every $1 invested.

Congress has created several discretionary programs to invest in seaport infrastructure. The problem with these discretionary programs is they often entail additional federal rules and regulations that are burdensome and don't enable adequate planning and efficient use. Congress should consider similar treatment of seaport infrastructure as provided to roads and airports. Similar to those federal programmatic allocations, funds could be assigned to states under a statutory formula to ensure annual allocations of funds. The Harbor Maintenance Trust Fund has been amended by Congress to allocate federal dollars to harbor maintenance projects at donor and energy ports. Additional recurring funds should be allocated to on-port infrastructure projects to help with supply chain resiliency and efficiency projects.

Transportation costs remain a significant portion of the costs of consumer goods. The impact of inflation is not only felt in consumers' pockets, but also in construction and maintenance costs of seaport infrastructure. We must increase federal investments in this nation's seaports to address issues of supply chain resiliency and efficiency.

"By being open to learning from each other, we can adopt best practices that make sense for the situations and conditions at our respective ports."

Simon Aynsley

Gulftainer

Simon Aynsley

Chief Commercial Officer
www.gulftainer.com

Recent major disruptions, coupled with congestion stemming from geopolitical tensions, have established a new normal for the global shipping and port operations landscape. We may continue to feel the effects of this situation through 2025 and beyond. As dockworkers express concerns over automation's potential to diminish job opportunities, the risk of further labor disruptions remains a significant factor. Operators, in turn, are increasingly wary of these disputes as they drive up operational costs.

In this context, the adoption of advanced digital technologies is expected to accelerate across the industry. Smart port initiatives hold the promise of enhancing operational efficiency through real-time monitoring and predictive analytics. However, this technological shift may be met with resistance from labor unions globally.

Additionally, escalating geopolitical tensions have the potential to keep the supply chain and logistics industry in a state of uncertainty. These tensions can damage vessels, inflate operational and insurance costs, and cause delays or vessel bunching. This bunching exacerbates port congestion, negatively impacting operators' efficiency while imposing financial burdens in the form of detention and demurrage charges, which can contribute to rising inflation.

Moreover, as traditional ports become congested, shipping companies may resort to rerouting cargo to less-congested facilities such as the Khorfakkan Container Terminal in Sharjah, United Arab Emirates, or Jubail Container Terminal in Saudi Arabia. These offer an alternative gateway and feeder and land bridging solutions via Momentum Logistics. These less-congested ports will help in avoiding delays and reducing supply chain costs.

"Governments and regulators can also help by implementing carbon pricing mechanisms, offering subsidies, establishing fair regulations and introducing uniform rules to provide clear guidance for the shipping industry actors."

Fulvio Fracassi

Georgia Ports Authority

Griff Lynch

President and CEO
www.gaports.com

Market conditions can change quickly, and ports must flex to match cargo volume demands. That's why the Georgia Ports Authority (GPA) plans for and maintains a 20% buffer in extra capacity to absorb cargo surges and ensure business resiliency. Port infrastructure is a long-term investment and construction timeline. GPA has $4.2 billon planned in new port capacity and inland connections in the next 10 years to meet future growth. This investment comes on the heels of $3.27 billion in investments since 2012 to increase port capacity. Capacity at the Port of Savannah will increase from 7 million TEUs today to 12 million TEUs in 2030. Storage space on terminal is another key option for customers to easily manage their supply chain speed and cost control. GPA opened a new $200 million 100-acre storage facility called Garden City Terminal West in June 2024, with 1 million TEUs of capacity for long-term storage in the Port of Savannah. Ports are gateways to inland markets, so investment in new locations is required.

"Market conditions can change quickly, and ports must flex to match cargo volume demands."

Griff Lynch

Halifax Port Authority

Fulvio Fracassi

President and CEO
www.porthalifax.ca

Ports, terminal operators and container lines provide supply chain security. By seamlessly working together, we deliver goods and materials needed for everyday life around the world.

But getting this job done has complexities. Geopolitical challenges upend traditional trade patterns and impact vessel scheduling. New trade alliances form, and lines adjust their ports of call. Through this period of transition,

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new opportunities inevitably emerge. As an interconnected ports community, we need to be prepared to act on them.

To navigate today's uncertain environment, address challenges and seize opportunities, the Port of Halifax is tapping four areas of universal port interest: partnerships, data initiatives best practices and sustainable decision-making.

Data investment is crucial. Data informs decision-making and helps track key metrics customers demand such as container dwell time. We've seen important investments in data through National Trade Corridor Funding in Canada to support the steady and fluid movement of cargo through Halifax and other ports.

By being open to learning from each other, we can adopt best practices that make sense for the situations and conditions at our respective ports. In the Port Innovators Network (PIN), an international forum of ports from three continents, ports come together to regularly exchange perspectives and experiences.

Across all these activities, sustainability provides the foundation. Through defined strategies and action plans, ports can better explain our responsible approaches to business, our instrumental role in local and national economies, and our deep contributions to communities where we operate.

House of Shipping

Martin Kaalund

Global Chief Finance Officer

www.housefshipping.com

The maritime industry faces significant challenges in meeting decarbonization targets set by the International Maritime Organization (IMO) aimed at reducing its share of 3% global greenhouse gas emissions.

> "When the dust settles, new connectivity created by the upcoming alliance changes will allow us to reach more global ports than ever before."
>
> Martin Kaalund

To comply with IMO regulations, shipping companies can optimize their fleet operations by using low-sulfur fuel oil; installing scrubbers; investing in new vessels that are powered by clean fuels such as liquefied natural gas (LNG), liquefied petroleum gas, methanol or any other compliant fuels; and implementing other measures to improve vessel operational efficiency. Shipping companies may also choose to retrofit or demolish non-IMO compliant vessels.

Collaboration is key, as all stakeholders — including shipping companies, shipbuilders, fuel suppliers, engine manufacturers, technology providers, cargo owners and financiers — need to create a unified front. Other tools, such as enhanced training and awareness programs for crew members and artificial intelligence to optimize

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vessel performance, can further reduce carbon footprint.

Governments and regulators can also help by implementing carbon pricing mechanisms, offering subsidies, establishing fair regulations and introducing uniform rules to provide clear guidance for the shipping industry actors. The development of global infrastructure that enables the use of lower carbon and cleaner fuels at ports can also boost such efforts.

If the recent trend of the global shipping order book is taken to be an indication, then the industry is already moving in the right direction. This year, methanol ships account for ~21% of the order book while LNG ships account for ~33%. In the container segment alone, ~55% of vessels ordered are LNG powered. However, most of these ships will be dual-fueled, and could still be operated using conventional fuels if regulations permit.

By working together, stakeholders can ensure that challenges such as decarbonization and the need to transition to cleaner energy sources are met.

Jon Monroe Consulting

Jon Monroe
President
www.jonmonroe.com

Volatility and uncertainty are at an all-time high in trans-Pacific trade. As we approach the new year, our perspective on ocean carriers and supply chain management is set to evolve significantly. Two key developments to watch are the impending International Longshoremen's Association (ILA) contract deadline and carrier schedule alterations due to shifting alliances.

> "Whether justified or not, ILA President Harold Daggett is firmly committed to halting the progress of automation in the industry. The pressing question is whether ocean carriers will concede to the ILA's demands."
> Jon Monroe

Whether justified or not, ILA President Harold Daggett is firmly committed to halting the progress of automation in the industry. The pressing question is whether ocean carriers will concede to the ILA's demands. This issue will be one of the first significant challenges of 2025 and heavily influence how carriers navigate the year ahead. Carriers may have little motivation to compromise, as allowing a strike could give them the leverage to increase shipping rates. With rising operational costs and market dynamics at play, the stakes are high, and both sides will need to carefully consider their strategies. As this conflict unfolds, it could reshape the landscape of labor relations and operational practices in the maritime sector.

The second critical issue will be how carriers navigate the transition into the new alliance structure. Mediterranean Shipping Co. and the Gemini Alliance are pursuing distinctly different strategies; while these approaches aren't mutually exclusive, one could set a precedent that influences the other alliances. These changes could create a disruptive environment until the transition is complete.

On one hand, MSC is banking on a substantial fleet to offer fast, direct services. However, this strategy raises questions — haven't we seen this before? MSC seems to overlook the importance of schedule reliability, possibly counting on disruptions to bolster profitability. This reliance on a high-volume, low-reliability model may ultimately backfire if customers prioritize consistency and dependability over speed. As the alliances evolve, it will be fascinating to see which strategies prevail and how they shape the future of maritime logistics.

In contrast, Gemini is aiming for over 90% schedule reliability, likely seeking to attract shippers through consistent service with minimal disruptions. Their new offering relies on a hub-and-spoke model, utilizing terminals that they own and control. MSC has expressed skepticism about this approach, which raises the question: do they doubt its feasibility, or do they simply hope to see it fail?

Jacksonville Port Authority (JAXPORT)

Eric Green
CEO
www.jaxport.com

The container industry is set to experience perhaps one of its most significant shifts in the last decade as shippers and ocean carriers adopt to alliance changes set to take effect in 2025. The musical chairs will result in new partners and new ship rotations.

One example is the Gemini Cooperation, the partnership between Hapag-Lloyd and Maersk. When Gemini brings its new North America Shuttle service to JAXPORT next year, it will provide transshipment service linking Cartagena, Colombia, with Miami and Jacksonville. The service promises increased schedule reliability over traditional models by streamlining port calls.

When the dust settles, new connectivity created by the upcoming alliance changes will allow us to reach more global ports than ever before.

On the landside, one challenge consistently facing ports is the ability to stay ahead of capacity constraints as cargo volumes into the East Coast continue to grow. Shippers and ocean carriers want to know if US ports can provide the facilities, equipment and inland transportation options to stay ahead of throughput.

That is why we continue to prioritize strategic growth. Currently, we are handling about 50% of the container volumes we will be able to handle when our major growth projects at Blount Island wrap up next year. We know the growth is coming, and we are not waiting until we become congested to build the capacity.

> "When the dust settles, new connectivity created by the upcoming alliance changes will allow us to reach more global ports than ever before."
> Eric Green


Connecting today with tomorrow.
At the Port of Vancouver, we're making connections through innovation and collaboration with our customers. By connecting people, places, and data through technology initiatives for operational efficiency and resilience, we facilitate Canada's trade with the world together.
portvancouver.com
PORT of vancouver

Executive Commentary

Konecranes

Michael Poltrack

Sales Director, Americas,
Port Solutions
www.konecranes.com

In 2025, the maritime industry will face significant challenges such as adapting to stricter environmental regulations, managing increased automation and digitalization, handling larger vessel sizes, and addressing supply chain disruptions. Additionally, the industry will need to focus on improving energy efficiency and reducing carbon emissions to meet global sustainability goals.

Key areas of focus should include environmental regulations, cybersecurity, technological integration, supply chain disruptions, capacity management.

Konecranes is well-positioned to lead with its sustainable strategies and focus on low-carbon, energy-efficient solutions. Digitalization enhances predictive maintenance, ensuring compliance with ISO 27001 and IEC 62443 cybersecurity standards.

Governments and regulators play an essential role in enabling the maritime industry to achieve these targets. Clear, global regulatory frameworks are necessary to standardize emission reductions and provide consistent guidelines. Financial incentives, such as subsidies, tax breaks and grants, can motivate the adoption of green technologies. Investment in necessary infrastructure, such as alternative fuel supply networks and green ports, is also crucial. Increased funding for research and development will drive innovation, particularly through public-private collaborations that can yield breakthrough solutions. Through these combined efforts, ports and terminals can effectively meet ambitious decarbonization targets.

Coupling sustainability and technology is a wider effort within the entire supply chain, governmental regulations and commercially available technological advancements that extend the realm of a traditional original equipment manufacturer. Konecranes has demonstrated a profound dedication to integrating sustainability into its operations and the solutions it provides to the industry to contribute to reducing environmental impacts in the port equipment sector. Capitalizing on digitalization for predictive maintenance and emphasizing cybersecurity standards, Konecranes exemplifies its commitment to eco-efficiency and setting industry benchmarks for sustainable practices.

LOGISTEC

Sean Pierce

CEO
www.logistec.com

Taking a North American view, successfully finalizing the International Longshoremen's Association contract in January, if not before, will be important in terms of setting the tone for port fluidity along the East and Gulf coasts early in 2025. With respect to Canada, the same theme applies. I am hoping we will have both Canadian and USA contracts settled and in the rearview mirror. Secondly, ramping up investment in

The Lambos Firm, LLP

Carol Notias Lambos

Partner
www.thelambosfirm.com

The major challenges facing container lines, ports and terminal operators in 2025 will be a continuation of the supply chain challenges experienced in 2022. Entrenched behaviors are obstacles to reasonable solutions for supply chain choke points, and increased incoming container capacity will exacerbate these challenges. Avoiding or easing terminal congestion will require planning and stakeholder outreach. All participants in the supply chain must examine their role in hindering or facilitating cargo flow and offer mitigation strategies to prevent choke points.

Such strategies should include extended hours for off-terminal cargo receiving and storage facilities operators to provide greater flexibility for motor carriers. In turn, motor carriers should encourage drivers to work during extended facility hours to prevent terminal delays caused by too many motor carriers seeking terminal access at the same time. These initiatives can be accomplished with sharing data to provide predictive information on best terminal access times and the availability of warehouses or other off-terminal cargo storage facilities.

Additionally, decarbonization requirements will present challenges to the maritime industry because of the expense involved in replacing existing fleets of container-handling equipment and the limited market availability of alternative equipment. While terminal operators may be ready and willing to explore, test and evaluate zero-emission technologies for container-handling equipment, unless and until those technologies are proven to work in the operational environment, wide scale deployment will be impossible.

Moreover, regulators must understand that there is limited availability of government-provided financing for such equipment. Federal grant programs that may provide subsidies are generally limited to equipment built in the United States. Unfortunately, most of this equipment is manufactured outside of the US. Any government mandates for decarbonization must consider the impact on the efficient operation of the nation's port and the supply chain.

"The industry will need to focus on improving energy efficiency and reducing carbon emissions to meet global sustainability goals."

Michael Poltrack

"While terminal operators may be ready and willing to explore, test and evaluate zero-emission technologies for container-handling equipment, unless and until those technologies are proven to work in the operational environment, wide scale deployment will be impossible."

Carol Notias Lambos

"Forward-looking companies will seek to reinvent — enabled by sustainability and adoption of cutting-edge technologies — to create the future."

Sean Pierce

Executive Commentary

decarbonization while becoming more technology driven will be required by all industry stakeholders in 2025, but particularly port operators and their port authority partners.

More specifically, forward-looking companies will seek to reinvent — enabled by sustainability and adoption of cutting-edge technologies — to create the future. This is difficult to accomplish, because if done properly, it includes all aspects of the company and touches every employee, customer and the world they operate within. Simply put, sustainability and technology fit hand in glove as mutually enabling elements often coming together in a way not previously envisioned at the outset. It's a process that takes not only innovation but commitment from everyone.

Thirdly, ports and terminal operators will need to find ways to bring new value to customers and partners. This must be accomplished on the back of investment in new process initiatives driving equipment innovation, new technologies and sustainability, all with an eye to customer expansion.

LOGISTEC is on this path, and while we see challenges, we will lead this reinvention in 2025.

We are executing our plan in the geographies we serve today while preparing for the future.

Global trade patterns continue to shift due to geopolitical tensions, impacting transit routes and costs. Climate change, including sea level fluctuations in the Panama Canal and recent hurricane seasons, are influencing future planning. The recent US election and proposed tariff program will have an impact on trade and may affect import volumes, creating uncertainty for operators.

Although the unpredictability of global events makes it challenging for port and terminal operators to secure volume commitments, these types of situations often lead to the most innovative solutions.

Maryland Port Administration - Port of Baltimore

Jonathan Daniels

Executive Director,
Maryland Port Administration
www.mpa.maryland.gov

There is nothing more important than strong collaboration between ports, terminal operators and ocean carriers. As ships increase in size and are accommodating higher volumes of containers than ever before, it's critical that those entities successfully work together to plan, design and build facilities that anticipate growth and provide for efficient terminal flow that allows for easy access in and out.

It's not only thinking about the

> "As cargo volumes increase and larger ships enter our harbors, it's becoming more difficult to meet the changing needs of ocean carriers and cargo owners without prudent infrastructure investment planning."
>
> Jonathan Daniels

Executive Commentary

berth. It's about creating an integrated transportation network within the fence lines of the terminal that effectively links to the transportation network outside those fence lines. When you achieve this, you have a seamless flow of logistics connectivity.

As vessel capacity increases, newer builds are testing the limits of older container storage yards. Ports are struggling to keep up with the need to increase capacity. It's not as simple as constructing a new container terminal.

Ports and marine terminals must be creative and go up instead of out. There is limited waterfront property zoned for maritime use within major international gateways. As cargo volumes increase and larger ships enter our harbors, it's becoming more difficult to meet the changing needs of ocean carriers and cargo owners without prudent infrastructure investment planning.

Ports are significant economic generators for the cities and states they reside in. It's mission critical to make certain that we are preparing and planning correctly today for tomorrow's needs.

"The efficient movement of cargo is much more than getting goods from Point A to Point B: it is a vital part of the global economy."

Lauren Gleason

Massachusetts Port Authority (Massport)

Lauren Gleason

Port Director
www.massport.com

Staying competitive in the global marketplace is an ever-changing challenge, but all types of economic investment in port infrastructure have proven to be an effective means of success for ports as they face pressures of modernization. The necessity of a strong cargo and freight system is vital to our continued economic growth and development, and investing in our ports is imperative to their continued success.

Similar to all ports around the globe, the Port of Boston is the main artery of the entire region's consumer economy. The port is home to Conley Container Terminal, where over 250,000 TEUs of imports and exports pass through annually, serving as a vital catalyst for growth, investment and opportunity throughout New England.

Ports are a strategic solution for shippers, ensuring they receive the capacity and premium customer service they deserve. Boston's owner-operator model offers flexibility and quick decision-making, with the advantages of 7-day berth and labor availability, hourly carrier start times, and zero berth and landside congestion. Transportation partners that provide flexibility and outside-the-box solutions will be set up for the long-term.

The efficient movement of cargo is much more than getting goods from Point A to Point B: it is a vital part of the global economy. The important role that regional ports play in keeping entire regions – and ultimately, the entire country – connected to the American freight network is only growing in prominence as more businesses discover their speed, efficiency and efficacy.

Metro Group Maritime

Marcus L. Arky

CEO
www.mgmus.com

Change and uncertainty have defined our industry and tested our resilience, particularly since the pandemic. Relationships, regulations and revenue have all been affected.

In 2025, one major challenge for container lines will be managing detention and demurrage (D&D) billing as they navigate the new Federal Maritime Commission (FMC) rules.

These rules are reshaping the shipping business model, which is moving cargo and leasing their equipment. Ensuring smooth container circularity is essential for customer service and maintaining optimal efficiency. The FMC's rules, however, shifted the financial responsibility for D&D away from truckers and others directly handling container returns, removing a critical tool for managing equipment availability.

"With reduced financial incentives to expedite container returns, we may see a decline in network efficiency and other unintended consequences as a result of the FMC regulations."

Marcus L. Arky

These new rules and regulations have been largely untested, but potential supply chain disruptions could quickly reveal weaknesses. The industry is ceaselessly confronted with new operational challenges, and we should expect 2025 to be no different. With reduced financial incentives to expedite container returns, we may see a decline in network efficiency and other unintended consequences as a result of the FMC regulations.

The rules also strain and change long-standing relationships. For example, will shipping lines avoid invoicing D&D charges to customers, even if it weakens the incentive for timely returns? How should shippers approach D&D recovery from truckers? How will truckers respond to the new regulatory environment? In the coming year, these questions will likely demand answers.

Adapting to the FMC's new framework will be essential, and the process is still underway. Legal and financial professionals have a crucial role in simplifying and streamlining these evolving practices and mitigating the effects of the next shock to global supply chains.

"Any new regulations should recognize that the electric and hydrogen infrastructure needed to support reduced emissions, both at the ports and in the region, is years away from being realized."

Steve Hennessey

Pacific Maritime Association (PMA)

Steve Hennessey

President and CEO
www.pmanet.org

As we look to 2025, the West Coast maritime industry has incredible potential to chart a course marked by growth and innovation, but we have significant hurdles to clear to fully realize our potential.

Reversing multi-year market share loss continues to be a top priority. In 2024, we began to see the reversal of a 20-year downward trend at the San Pedro Bay port complex. We are confident that continued progress in winning back cargo can be accomplished by demonstrating service reliability that meets the needs of shippers and consumers.

PMA members and other supply chain stakeholders are also concerned about additional air quality regulations at the San Pedro Bay port complex that could have long-term operational implications. Any new regulations should recognize that the electric and hydrogen infrastructure needed to support reduced emissions, both at the ports and in the region, is years away from being realized. It is also vital that any proposed regulations not directly or indirectly cap cargo volumes — this would send economic shockwaves throughout the national supply chain.

PMA is also ensuring our coastwide contract continues to be honored by both parties. The contract, in place through July 2028, delivers world-class wages and benefits, as well as the right of terminal operators to invest in modern technology, including automation.

To support our workforce and member companies, PMA is ramping up training programs to prepare International Longshore and Warehouse Union (ILWU) members for the longshore jobs of the future. Our new training center at the Port of Los Angeles provides areas for upskill and reskill training, including the maintenance and repair of automated equipment.

There is great promise for the future of West Coast ports, which account for nearly 10% of America's GDP and support millions of jobs and businesses nationwide. As stewards of West Coast ports, PMA is focused on ensuring this economic engine continues to thrive.

North Carolina Ports

Brian E. Clark

Executive Director
www.ncports.com

US East Coast ports will face complex challenges in 2025, driven by shifting ocean carrier alliances and trade dynamics.

After losing cargo to East and Gulf coast ports following pandemic-related supply chain disruptions, US West Coast ports are increasing their market share of imported goods, a trend that is expected to extend into early 2025. But our team remains optimistic as people, businesses and investment dollars continue to pour into the Southeast, evidenced by the increased demand for near-port sites that can support heavy manufacturing operations and import distribution growth. The port operators who remain focused on servicing this growth and increased demand by investing in both infrastructure and customer relationships will be most successful in the long term. North Carolina Ports has not only made significant infrastructure improvements to deliver best-in-class productivity, but industry partners and stakeholders continue to develop near-port solutions for both dry and reefer cargo as well.

Ocean carrier alliance changes and realignment will also cause disruptions in the first quarter of 2025. New strings and service models could lead to disrupted schedules and equipment flows while the transition takes place. Port operators must be vigilant in ensuring they are not an added pain point during this transition period by optimizing operational efficiency, cargo visibility and port capacity, especially as larger container ships are deployed — such as the 15,000-TEU class vessels that will call on the Port of Wilmington once the new shipping alliances are operational.

As we navigate the changes that 2025 will undoubtedly bring, we remain committed to delivering value to all our stakeholders, guided by our core principles of safety, people, integrity, service and teamwork.

"The port operators who remain focused on servicing this growth and increased demand by investing in both infrastructure and customer relationships will be most successful in the long term."

Brian E. Clark

Port of Montreal

Paul Bird

CCO
www.port-montreal.com

We expect East Coast ports to face a number of challenges in 2025 and beyond. It goes without saying that the labor disruptions — both the International Longshoremen's Association affecting the US East Coast, which is only operating on a short-term contract extension, as well as the strike at the Port of Montreal — is putting a lot of pressure on the established supply chains. This will continue to have impacts on North American economies and consumers, as key industries such as pharmaceuticals, automotive and agriculture rely heavily on these ports. This has also caused East Coast ports to face increased competition with their West Coast counterparts. Some cargo has already been diverted to the West Coast, and this shift could lead to long-term changes in shipping patterns and market share, not always in the best interests of the beneficial cargo owners and the final users of the supply chain.

Additionally, ports will need to continue to navigate shifts in global trade, especially those influenced by changes in production locations, as well as ongoing geopolitical issues affecting major shipping routes.

"This shift could lead to long-term changes in shipping patterns and market share, not always in the best interests of the beneficial cargo owners and the final users of the supply chain."

Paul Bird

Executive Commentary

"International cooperation, I believe, will eventually lead to the deployment of the world's first zero-lifecycle carbon emission container ships."

Mario Cordero

Port of Long Beach

Mario Cordero

CEO
www.polb.com

What does the maritime industry need to do to meet decarbonization requirements and what does the industry need from governments to meet those targets? Good questions. The answer is collaboration.

Collaborative efforts internationally — including port authorities and host cities, ocean carriers, terminal operators, cargo owners and labor, among other stakeholders — are critical to achieving decarbonization goals.

Many ports are working right now to forge relationships with counterparts in China and Singapore and around the globe to create green shipping corridors to decarbonize the world's busiest trade routes. Together, they are working to reduce emissions from shipping and port activities while addressing local impacts in their respective communities.

Such international cooperation, I believe, will eventually lead to the deployment of the world's first zero-lifecycle carbon emission container ships, which is to say no emissions are generated in the production, transport, storage or combustion of the fuel used.

Existing vessels will approach ports at lower speeds and operate on shore power while at berth. Ports and terminal operators will strive for zero-emission operations with cranes, cargo-handling equipment, and trucks powered by electricity and hydrogen.

More cargo containers will move from docks to inland destinations by train. Trains powered by zero-emission locomotives and stretching three to four miles long will reduce drayage truck trips, lessen congestion on local roadways, and alleviate the burden of cargo-related emissions on port workers and neighbors.

Decarbonization of cargo movement will not be inexpensive. Private-sector partners understand the need to contribute. Likewise, federal, state and local agency partners must support ports' vision for emissions-free trade with grants and other incentives.

We know what must be done to decarbonize global shipping, but only through close international collaboration will we achieve our goals.

"Achieving long-term decarbonization goals will require planning and collaboration across the maritime industry and support from the government."

Phyllis Saathoff

Port Freeport

Phyllis Saathoff

Executive Director and CEO
www.portfreeport.com

In 2025, managing the increased flow of containers and accommodating larger vessels will require ports to prioritize infrastructure optimization and sustainable investments. At Port Freeport, we are advancing several initiatives to address these needs and enhance our role in the supply chain. Our channel improvement and berthing expansion projects, scheduled for completion by the end of the year, are designed to accommodate larger vessels and streamline port operations. Additionally, introducing two new super post-Panamax cranes and enhancements to our road infrastructure will improve connectivity and efficiency.

Port Freeport is committed to sustainable growth in collaboration with our tenants and partners and will undertake a climate and clean air planning effort in 2025. We are actively increasing the use of electric equipment and upgrading electric infrastructure to enhance resilience against climate change. However, achieving long-term decarbonization goals will require planning and collaboration across the maritime industry and support from the government for technology development, regulatory alignment and investment incentives.

As we celebrate our 100th anniversary, our strategic investments position Port Freeport to tackle challenges, enhance efficiency and strengthen our role as a leader in sustainable port operations and connectivity, preparing us to advance US commerce into the future.

"[Partnership] is the best way to ensure we continue to move cargo as safely and efficiently as possible, improve infrastructure, make the most of technology without leaving workers behind and decarbonize global shipping."

Glyn Hughes

Port of Los Angeles

Gene Seroka

Executive Director
www.portoflosangeles.org

In 2025, a significant challenge facing our industry will be the ever-changing global landscape. Our ability to adapt was highlighted last year with impacts of the Red Sea attacks, drought conditions in the Panama Canal, and East and Gulf coast labor negotiations. A new US presidential administration portends additional change and may open the door to more tariffs and trade barriers. This post-globalization era is creating new headwinds that our industry must navigate.

As we face these realities, strengthening our partnerships and collaboration will be paramount. Ports, shipping lines, terminal operators, labor and all other links in the supply chain must continue to seize every opportunity to work together. This is the best way to ensure we continue to move cargo as safely and efficiently as possible, improve infrastructure, make the most of technology without leaving workers behind and decarbonize global shipping and the supply chain.

A prime example of the progress we are making on all these fronts is our collective work to advance green shipping corridors. Among these projects is the Green Shipping Corridor that the ports of Los Angeles, Long Beach and Shanghai are working on in partnership


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PhilaPort

Executive Commentary

with terminal operators, shipping lines, cargo owners, international organizations and government agencies. We are proceeding under a framework for demonstrating the safety and feasibility of deploying the world's first zero-carbon lifecycle container ship by 2030. Our partners include C40 Cities, a global network of nearly 100 of the world's largest cities working together to confront the climate crisis.

Rules-based trade fosters collaboration, and ports and the maritime industry have a proud track record of partnering for the greater good on which to build. In a rapidly changing world, our industry is uniquely positioned to lead the way for a more prosperous, secure and healthy future.

"Because tariffs can negatively impact port throughput, port communities must be vocal about the benefits of trade, the dependence of exports on imports and the need for thoughtful policies around the emotional issue of trade."

Jeff Theobald

Port of Philadelphia (PhilaPort)

Jeff Theobald

Executive Director & CEO
www.philaport.com

In 2025, three of the most important challenges that ports will face are tariffs, capacity and the unknown.

Regardless of who wins the US elections, tariffs will be a big part of the global political landscape. Because tariffs can negatively impact port throughput, port communities must be vocal about the benefits of trade, the dependence of exports on imports and the need for thoughtful policies around the emotional issue of trade. The only way to grow ports is through growing trade, and low tariffs is the best way to accomplish this.

The second key issue is capacity. Ports always need more land, especially ports located in major urban areas. They need better road and rail capacity, and so they must work with state and local governments to build better inland infrastructure. And they must have deeper water. The ships keep getting bigger, so ports must dig deeper and have the ability to handle the biggest ships that come to their port range. This is another issue that will be determined by upcoming elections, and ports must be ready to effectively communicate with elected leaders.

Finally, ports must be ready for the unknown. While no planning can be perfect, the strategic planning process can help get the port community on the same page, and it provides a road map across the decades. Another way to be ready for the unknown is to have a diverse base of terminals. Volumes may change among cargo modes, so it is better to have a variety of facilities: container, breakbulk, auto, liquid bulk and cruise. This diversity gives a port the flexibility to face the future with confidence.

Prince Rupert Port Authority

Shaun Stevenson

President and CEO
www.rupertport.com

The ability to accommodate increasing volumes while ensuring the efficient flow of containers is an enormous challenge for ports worldwide. At the Port of Prince Rupert, we recognize that our unique advantages as a largely greenfield port outside a large urban area could be leveraged to build a unique intermodal ecosystem integrating terminal operations, road and rail infrastructure, and large-scale import and export logistics capacity. Combined with a digital twin that establishes greater operational visibility and helps improve supply chain performance, the Port of Prince Rupert's vision for a self-contained intermodal ecosystem maximizing efficiency, reducing costs and minimizing environmental impact is well underway.

"Investing in supply chain efficiency and sustainability helps ports meet the challenges of increasing volumes and decarbonization targets."

Shaun Stevenson

Significant advancement is being made on the construction of CANXPORT, a transformative, new large-scale export logistics development providing expanded off-dock capacity for rail-to-container transloading. Ray-Mont Logistics will build and operate facilities on the 108-acre greenfield site, offering transloading capacity for 400,000 TEUs of agricultural, forestry and plastic resin products, with room to expand to other cargoes in the future.

CANXPORT directly links to the 1.6 million TEUs of capacity at Fairview Container Terminal via a 3 mile private-haul road and rail expansion, fully contained within the intermodal ecosystem. This reroutes transloading traffic away from public roadways, reducing the distance and emissions for each truck trip by approximately 75%. The electrification of transload facilities, optimization of rail and minimal truck drayage represent significant progress in decarbonizing Canada's export supply chains.

Evolving to meet customer demands includes the introduction of import logistics via the South Kaien Import Logistics Park, supporting the growth of Fairview Container Terminal. Shippers want to supplement inland point intermodal volumes with import transloading and warehousing at scale, enabling the Port of Prince Rupert to be a full-service gateway. Investing in supply chain efficiency and sustainability helps ports meet the challenges of increasing volumes and decarbonization targets.

"Strengthening shore leave provisions will advance seafarer recruitment and retention and assist shipowners in having the workforce needed to crew their vessels for the benefit of global trade and well-being."

Rev. Mark S. Nestlehutt

Seamen's Church Institute (USA)

Rev. Mark S. Nestlehutt

President and Executive Director
www.seamenschurch.org

One key challenge both liners and terminal operators face in 2025 is whether the tentative International Longshoremen's Association settlement will hold. If it does, the major labor challenge will have been resolved. However, the ongoing challenges will be how US ports employ new technologies to remain competitive with European and Asian ports, and if US port operations can expand by adopting additional shifts or 24/7 schedules to increase capacity.

On the other side of the labor equation are the seafarers that crew the container vessels. The COVID pandemic profoundly impacted how seafarers see their role within the industry and led to an exodus of seafarers. This resulted in a growing labor shortage as seafarers evaluated issues such as separation from family, internet access, safety and training around new fuels and technologies, and access to shore leave. As the industry endeavors to recruit employees in their late teens and early twenties, there is a stark difference between that generation's expectations and those of their parents' generation.

Of the 16 proposed amendments to the Maritime Labour Convention, 2006 — known as "the seafarers' Bill of Rights"— two address expanding the current provision regarding shore leave while in port. Proposal #3 is a joint amendment proposed by both seafarers' and shipowners' groups, while Proposal #14 is an amendment proposed by 26 countries. Despite the differences, the goal of each proposal is to reduce challenges for seafarers to be granted shore leave while in port. Studies conducted during and since COVID have noted mental health decline when shore leave is not available for extended periods of time, as well as the positive impact shore leave has on mental health and overall crew morale.

Strengthening shore leave provisions will advance seafarer recruitment and retention and assist shipowners in having the workforce needed to crew their vessels for the benefit of global trade and well-being.

Shey-Harding Executive Search

Susan Shey Dvonch
Managing Partner
www.shey-harding.com

From a recruiter's perspective, the major challenges facing container lines, ports and terminal operators in 2025 may include a competitive job market; candidates' reluctance to relocate; and the necessity for organizational culture, values and team dynamics to align with candidate expectations.

As of this writing, US unemployment remains low, resulting in a candidate-driven job market where job seekers for key leadership positions have a distinct advantage in the hiring process. As is common in the maritime industry, the pool of highly qualified candidates for executive and specialized roles is limited, requiring employers to be flexible, assertive and swift in attracting top talent. In response, the port and terminal sectors have become increasingly competitive in terms of compensation and benefits.

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Notably, the port sector — which has been traditionally averse to offering bonuses and executive benefits due to state or local restrictions — is now beginning to embrace such elements, creating a significant advantage in recruitment.

In today's market, candidates are increasingly unwilling to relocate for jobs due to factors such as family commitments, cost of living differences and high mortgage rates.

This trend presents several challenges. Smaller job markets often require attracting candidates from outside the area because the local talent pool is limited. Some roles are inherently not well-suited to hybrid or fully remote work models. Many employers require executives to be onsite, even when the position could be performed remotely.

"While salary and hybrid work options are important in recruitment, job challenges, strong leadership and a positive organizational culture are key to attracting and retaining top talent."

Susan Shey Dvonch

While prospective employees naturally seek roles with increased responsibility and earnings, they also want assurance that the team dynamics and organizational culture align with their expectations. In the public sector, insights into these dynamics can be gained through public meetings, news coverage about the organization and its leadership, and one's network of industry contacts.

Candidates consistently seek exceptional organizations. While salary and hybrid work options are important in recruitment, job challenges, strong leadership and a positive organizational culture are key to attracting and retaining top talent.

SeaCube Container Leasing

Robert Sappio
CEO
www.seacubecontainers.com

As we look ahead to 2025, uncertainty and global volatility will remain our constant companions. Geopolitical risk is top of mind in almost every board room, and with good reason. The freedom of navigation we all took for granted — and that has underpinned explosive global trade growth — has been challenged in ways not seen in 80 years. Global maritime choke points such as the Suez Canal, the Black Sea and even portions of the South China Sea are being contested, with no easy resolutions in sight. Power competition and outlaw actions by non-state actors threaten stability on trade routes viewed as safe and stable. If left unchecked, these issues will continue to drive network disruption and inefficiencies for supply chains and global maritime networks.

We also face growing threats and uncertainty from contentious labor negotiations in locations around the world. Competition between nations and global tariffs remain an unknown under a new US administration, and carrier alliances are set for massive realignments in the first half of 2025.

In 2024, we adapted to these realities and will need to do so again. We must be clear-eyed in scenario planning and business modeling. In 2024, massive amounts of new vessel tonnage were absorbed into the network, necessitated by congestion, disruptions and vessel reroutings. The order book for new vessels remains at near-record highs. Along with those ships, the container shipping industry required a record number of new shipping containers to support trade growth and network disruption. Over 7.3 million TEUs of dry containers will be produced in 2024, a new record. Even in 2021, during the height of the COVID-19 pandemic, only about 6.5 million TEUs were produced. All these vessels and containers, and perhaps more, will be needed in 2025 to support today's realities. Following a record year in 2024, new container production would be expected to moderate to more historical annual levels in 2025. However, the outlook remains very much in doubt.

History makes clear that the only constant is change. If we are all to be good stewards of the industry, we will need to think more about risk management and scenario planning. Relationships with partners will also be more important than ever. The only thing harder than working with partners is working without them.

"If we are all to be good stewards of the industry, we will need to think more about risk management and scenario planning."

Robert Sappio

Toepfer Transport

Yorck Niclas Prehm
Head of Research
www.toepfer-transport.com

Despite a year of resilience, the global shipping industry has yet to overcome its key challenges. While markets have demonstrated remarkable strength, the ability to adapt does not negate the underlying causes of these issues.

Primary challenges persist, including:

Supply chain disruptions: The ongoing impact of geopolitical tensions, regional conflicts, labor shortages and strikes has continued to disrupt supply chains, leading to delays, congestion at ports and an imbalance in equipment and tonnage availability.

Environmental regulations: New international regulations require shipping companies to invest in cleaner technologies, adapt fuel sources or retrofit existing fleets, which will result in significant operational costs.

Port congestion and infrastructure strain: Major ports, particularly in Asia and the United States, have encountered significant congestion due to increased demand, labor shortages and strikes, and infrastructure limitations. This has resulted in delays and inefficiencies.

"In 2025, we must accelerate the pace of the inevitable, significant adaptation. To achieve this, all stakeholders must prepare to make their fair contribution."

Yorck Niclas Prehm

Digitalization and cybersecurity

risks are significant concerns for the industry. As the industry moves toward digital transformation to improve efficiency and tracking, there is an increased risk of cyberattacks, which underscores the necessity for robust cybersecurity measures and investment in digital infrastructure.

Each of these challenges affects both operational efficiency and profitability. In 2025, we must accelerate the pace of the inevitable, significant adaptation. To achieve this, all stakeholders must prepare to make their fair contribution. Our business is driven by results on balance sheets, and we must ensure that all parties are prepared to make their fair contribution. The next leap(s) forward require industry-wide measures to fairly distribute the high costs involved.

The outlook for the MPP Index and breakbulk sector is positive for 2025. A moderate order book, combined with very promising demand indicators, indicate good earnings for carriers and shipowners. This will further enhance their abilities to tackle and overcome the current challenges.

Other operational techniques can also lower fuel consumption and emissions without significantly impacting delivery times. Owners and operators would also need to implement robust emissions tracking and reporting mechanisms to ensure transparency and accountability in meeting decarbonization targets.

"Ports and terminal operators need to make strategic investments, maintain a customer-first approach and deliver operational flexibility to remain competitive in the coming year."

Barbara Melvin

South Carolina Ports Authority

Barbara Melvin

President and CEO
www.scspa.com

We have all navigated tremendous challenges this past year, including re-routings due to global conflict, unanticipated weather events and the first work stoppage on the US East and Gulf coasts in 50 years.

The shipping industry will continue to face many of the same issues that we saw in 2024, causing shippers and ocean carriers to divert cargo or implement blank sailings. As an operating port, we encourage shippers and ocean carriers to stay the course so we can all resume normalcy and fluidity quickly after an event.

For much of 2024, we had the added challenge at the Port of Charleston of working through toe wall construction, which limited a berth at Wando Welch Terminal. We implemented creative operational solutions for our customers, including a virtual vessel queue to save carriers time, a unique 0100 start time and the ability to call on different terminals to work ships faster.

We also had to find a way forward to reopen Leatherman Terminal under a new labor model. Navigating these challenges together allowed us to come out the other side — smarter, stronger and ready to grow.

Beyond operational excellence, ports must continue to invest in critical port infrastructure to remain competitive, particularly the top 10 US ports. Shippers and ocean carriers want reliable, productive service, and that requires that we deliver the equipment, cargo, workforce and intermodal connections to efficiently move cargo.

SC Ports is proactively investing in port infrastructure to support the booming Southeast market. Major rail infrastructure expansions are underway, including more rail and cargo capacity at Inland Port Greer, and a new rail yard that will be dual served by CSX and Norfolk Southern at the Port of Charleston.

We reopened Leatherman Terminal in September, bringing an additional 700,000 TEUs and a 1,400-foot berth back online for the US East Coast port market. With expansions planned or underway for our three container terminals, we are on the cusp of having 10 million TEUs of capacity in Charleston Harbor.

Ports and terminal operators need to make strategic investments, maintain a customer-first approach and deliver operational flexibility to remain competitive in the coming year.

UTC Overseas

Marco Poisler

COO, Global Energy and Capital Projects
www.utcoverseas.com

The maritime industry faces a critical challenge: meeting ambitious decarbonization targets while maintaining operational efficiency and safety in a complex global environment. Artificial intelligence and autonomous technologies offer significant potential to reduce fuel consumption and emissions across global fleets. However, the industry struggles with effectively implementing these technologies due to the unique characteristics of maritime operations, regulatory hurdles and the need for substantial infrastructure changes.

"The fragmented nature of the maritime industry often leads to siloed technological advancements. Creating standardized protocols for AI systems and data sharing across the sector would accelerate innovation and improve overall efficiency."

Marco Poisler

To address this challenge, we propose two key recommendations:

Develop AI systems that augment human expertise: Rather than aiming for full automation, focus on creating AI tools that enhance human decision-making in critical areas. For instance, AI can provide real-time route optimization considering weather patterns, currents and port congestion, while human operators make final judgments based on their experience and unforeseen factors.

This approach leverages AI's strengths in data processing and pattern recognition while maintaining the irreplaceable human intuition and adaptability crucial in maritime operations.

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Establish industry-wide standards for AI implementation and data sharing: The fragmented nature of the maritime industry often leads to siloed technological advancements. Creating standardized protocols for AI systems and data sharing across the sector would accelerate innovation and improve overall efficiency. This could involve developing a common platform for sharing anonymized operational data, standardizing AI interfaces across different types of vessels and equipment, and establishing clear guidelines for AI-assisted decision-making processes.

To support this transformation, we call on government and regulatory bodies to update regulations accommodating AI-assisted and low-emission vessels, implement carbon pricing mechanisms incentivizing investment in eco-friendly technologies, and fund R&D in maritime AI and clean propulsion technologies.

Vancouver Fraser Port Authority

Peter Xotta

President and CEO
www.portvancouver.com

How do you best ensure stability in an ever-changing world?

It's a question we find ourselves asking more and more after several turbulent years for West Coast ports. At a glance, national and international issues that have impacted ports in our region in recent years include disruptions to the Suez and Panama canals, uncertainty over supply chain labor relations, yo-yoing consumer demand for imported goods, and extreme weather impacting inland supply chains.

"One of our focuses is enhancing stability and reliability by ensuring infrastructure and supply chain relationships are strong to support a rapid recovery."

Peter Xotta

They say to never let a good crisis go to waste. At the Port of Vancouver, one of our focuses is enhancing stability and reliability by ensuring infrastructure and supply chain relationships are strong to support a rapid recovery.

The importance of this work was demonstrated last summer when port terminals were able to quickly recover following almost back-to-back disruptions to rail service caused by wildfires and a labor dispute.

Collaboration and planning between railways and port operators, as well as infrastructure investments, were key to this rapid recovery. As competitors worked together, CN and CPKC quickly resumed rail service, and the right terminal equipment was available. This included work at Deltaport and Centerm, helping the port have three record days for rail production in late August, averaging 80,000 feet a day and helping clear potential congestion.

Looking forward, we continue to progress a range of projects that we hope will further insulate the container sector to unexpected shocks. This includes expanding the port's Active Vessel Traffic Management system, assessing short-sea shipping, improving supply chain visibility and progressing Roberts Bank Terminal 2.

In short, with the unexpected now expected, we are focused on building relationships and infrastructure we believe the Port of Vancouver requires to remain a stable and reliable gateway that can thrive in uncertain times.

"As container volumes grow, ports will need even closer coordination with shipping lines, logistics providers and land transport services to manage the flow of goods in and out of the port."

Christian Sur

Unique Logistics

Christian Sur

Executive Vice President
www.unique-usa.com

Geopolitical tensions — including trade wars, tariffs and regional conflicts — will continue to be major challenging factors facing container lines and port and terminal operators in 2025. These tensions can and will disrupt established supply chains, cause delays and increase costs.

Despite challenges, global trade will continue to grow to add pressure on port capacities and efficiency without adequate infrastructure upgrades. Many ports will need significant improvements to accommodate larger vessels and increased volume flow. As container volumes grow, ports will need even closer coordination with shipping lines, logistics providers and land transport services to manage the flow of goods in and out of the port.

Labor issues — as we have seen multiple times in 2024 in all parts of the world — will likely continue in 2025. Chronic labor shortages are exacerbated by an aging workforce and difficulty attracting younger workers and will add to already strained employer and union relationships. Additionally, with demand for real-time tracking and transparency becoming more essential at every step of the supply chain by clients, all operators will need to invest in digital solutions.

Aside from external factors impacting the industry, realignment of major ocean carrier alliances beginning in February 2025 will bring challenges and adjustments for all users of carrier services. The expectation is for new and existing members of alliances to implement varying strategies to protect their market share, which in turn should provide varying opportunities for shippers.

To comply with steeper decarbonization requirements, vessel owners and operators will need to widen their slow steaming practices and adopt

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Green alert

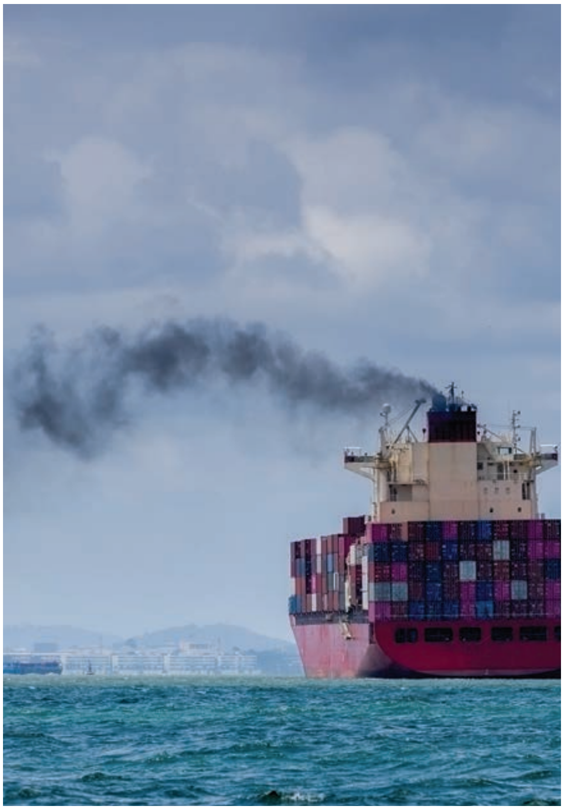
Suez diversions, lack of IMO agreement put 2030 emissions targets at risk

By Greg Knowler

The big picture: The need to narrow the price gap between fossil fuels and cleaner alternatives is the single most important challenge facing the maritime industry as it strives to meet interim emissions targets on the way to reaching net-zero by 2050. Making renewable energy more competitive will drive up investment in clean technologies and scale up sustainable fuel production, but it relies on increased government support to bridge the operational cost gap of transitioning to alternative energy sources.

A look back: Most ocean carriers have set their targets for achieving net-zero emissions at 2040 or 2045, but to achieve those ambitious goals, they must first hit the interim emissions targets of the International Maritime Organization (IMO) that require a 20% cut — striving for 30% — by 2030. That's going to be difficult, however, given a lack of clarity around which green fuel or fuels will be supplied at an adequate scale to power the global fleet. That uncertainty has been evident in recent container ship orders, with 80% of the 1.7 million TEUs in vessel capacity ordered in the first 10 months of 2024 capable of sailing on methanol or liquefied natural gas (LNG), according to Sea-web, a sister company of the *Journal of Commerce* within S&P Global. And even as carriers hedged their ship order bets on fuels for which they have been able to secure supply agreements, carbon dioxide emissions rose sharply in 2024. Starting in late 2023, the diversion of vessels around southern Africa due to the Red Sea crisis added two weeks and over 2,000 nautical miles to voyages that normally would have transited the Suez Canal. The combination of these longer voyages, higher sailing speeds necessary for ships to maintain their schedules and resulting port congestion in Asia and Europe caused greenhouse gas (GHG) emissions to return to the peak levels recorded in 2008, according to data compiled by rate benchmarking platform Xeneta.

A look ahead: The rising emissions are a worrying development for the IMO as pressure builds from across the maritime supply chain for it to adopt and roll out midterm measures, including the establishment of a global fuel standard for marine fuels and a global pricing mechanism for GHG emissions. With 176 member states — all with different agendas — the IMO tends to move at a glacial pace when adopting global regulations, but with just five years to reach 2030 emissions-reduction targets, it no longer has that luxury. Legal text for the midterm measures must be thrashed out and approved at the next Marine Environment Protection Committee meeting in April 2025 so measures can be implemented in October if the maritime industry is to have any hope of achieving its 2030 targets.



Approximately 80% of container ships ordered through October are capable of sailing on methanol or LNG.
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> The IMO tends to move at a glacial pace, but with 2030 emissions targets looming, it no longer has that luxury.

The next inflection: A return to the shorter Suez Canal route — which is by no means assured in 2025 — would give the maritime industry a significant leg up in its efforts to meet its looming GHG targets. Carriers would immediately slow down ships, drastically reducing fuel consumption, and the release of additional capacity would allow them to send large swathes of older, less-efficient tonnage to the demolition yard. But ultimately, closing the yawning gap in pricing between traditional and alternative fuels with a polluter-pays mechanism that taxes GHG emissions and places all carriers on the same playing field, whatever future fuel pathway they decide to sail down, is the only way the industry can meet those targets.

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Executive Commentary

"Canada must be competitive not only in offering feasible investment prospects, but by demonstrating our commitments to fluidity in supply chains through solid labor contracts."

Bruce Rodgers

Canadian International Freight Forwarders Association (CIFFA)

Bruce Rodgers

Executive Director
www.ciffa.com

In order to shore up freight infrastructure, the federal government needs first to develop a national plan/strategy around its significant trade gateways and commit dedicated funds to that strategy through budget allocations. For example, the National Trade Corridors Fund (NTCF) helps fund infrastructure projects in Canada. This merit-based program is designed to help infrastructure owners and users invest in the critical assets that support economic activity and the physical movement of goods and people in Canada.

An initial investment of $1.9 billion over 11 years (2017-18 to 2027-28) was allocated for the NTCF in 2017. So far, several key areas have been prioritized: increasing the fluidity of Canada's supply chains, relieving supply chain congestion at Canadian ports, and most recently, advancing supply chain digitalization. Launched on February 13, 2023, this targeted call for proposals prioritized projects that will strengthen Canada's digital infrastructure to enhance the efficiency and reliability of our transportation supply chains.

But drawing on private-sector investments will also play a part, and Canada must be competitive not only in offering feasible investment prospects, but by demonstrating our commitments to fluidity in supply chains through solid labor contracts and government processes which prioritize key trade lanes, making trading with Canada a streamlined process. Governments must also work to ensure they cut regulatory red tape on approvals processes while building resiliency into infrastructure. Forecasting and coordinating growth projections are also instrumental.

"The ailing port and maritime sectors should be a major concern to the new US administration."

Anil J. Vitarana, Ph.D.

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More companies are turning to enhanced automation in their logistics operations, leveraging technology to reduce operating costs and improve efficiency.

Artificial intelligence, blockchain and the internet of things are increasingly being applied to boost productivity and enhance transparency and traceability within supply chains. By using robotic process automation and the optimization of data management using business intelligence tools, US logistics companies are striving to stay ahead of their global competitors. Amazon leads the rankings very comfortably, and six other US companies — C.H. Robinson, J.B. Hunt, UPS, GXO

"Improved coordination between regulatory authorities and industry stakeholders is essential to minimize disruptions and ensure that regulatory changes support international trade."

Nicolette van der Jagt

CLECAT

Nicolette van der Jagt

Director General
www.clecat.org

The need for global harmonization of Preloading Advance Cargo Information (PLACI) guidelines is becoming increasingly urgent for international freight forwarders, particularly those managing shipments between Europe and other global markets. The recent implementation of the European Union's Import Control System 2 (ICS2) — designed to reinforce customs risk management and enhance security of goods entering the EU — now requires operators to submit detailed cargo information earlier. This applies to all deep-sea and short-sea cargo discharging, transshipping or passing through the EU, Northern Ireland, Norway, Switzerland and foreign cargo remaining on board.

For maritime carriers, the deployment window for ICS2 Release 3, which can be granted by national customs authorities, ran from June 3, 2024, to December 4, 2024. Industry associations, including those representing freight forwarders, play a key role in supporting the sector's readiness for this transition. Inaccurate or incomplete data submissions under ICS2 can lead to the rejection of Entry Summary Declarations (ENS) by European customs authorities, or trigger risk mitigation referrals, which can delay shipments and disrupt supply chains. Non-compliance with ENS requirements may also result in penalties. To avoid such issues, freight forwarders must ensure they collect and submit accurate, complete data from their clients that meet varying regulatory requirements.

One effective way to address these challenges is through multiple filings, where ocean carriers and freight forwarders submit different parts of the ENS. This not only helps avoid delays but also allows freight forwarders to maintain control over house-level data, safeguarding commercially sensitive information and mitigating disruption.

For global companies, dealing with differing PLACI requirements across regions presents significant operational challenges. These discrepancies highlight the urgent need for global alignment to reduce complexity and improve efficiency for operators managing compliance with multiple regimes. Harmonizing PLACI regimes would simplify compliance, reduce bottlenecks and ensure smoother flow of goods across borders. Additionally, improved coordination between regulatory authorities and industry stakeholders is essential to minimize disruptions and ensure that regulatory changes support international trade.

Executive Commentary

National Customs Brokers & Forwarders Association of America (NCBFAA)

Jose D. (JD) Gonzalez
Board President
www.ncbfaa.org

Similar to their importer and exporter clients, customs brokers, freight forwarders and NVOs feel the increasing physical constraints of insufficient freight infrastructure at our nation's airports and land border crossings.

Most US airports with large cargo operations were designed when 40-foot truck trailers were the biggest, and now the standard size is 53 feet. These larger trucks choke entry gates and streets leading to airport cargo facilities. If these infrastructural constraints are allowed to continue, they will lead to heightened security risks, delay time-sensitive products and adversely impact shipping costs.

In May 2024, President Joe Biden signed the Federal Aviation Administration Reauthorization legislation into law. This includes $19.35 billion for airport infrastructure improvement grants which will help to tackle airport truck congestion. In addition, the General Accountability Office started a large-scale assessment of US air cargo operations, including a section on truck delays and lack of infrastructure.

Similarly, increased truck traffic along US borders with Mexico and Canada is testing the physical limits of land-border port infrastructure. High-traffic land border ports, such as Laredo, TX, require a continuous funding stream analogous to the long-established Harbor Maintenance Fund for seaport infrastructure investments.

In 2023, Rep. Henry Cuellar (D-TX) introduced the Land Port of Entry Modernization Trust Fund Act. This legislation will establish a trust fund to construct new ports of entry, expand and improve existing ports of entry, buy inspection technology, and hire Customs and Border Protection officers. The Department of Homeland Security (DHS) will also establish the Land Port of Entry Modernization Oversight Board to advise DHS on how to use the trust fund and to review trust fund expenditures. US customs brokers and freight forwarders endorse this necessary infrastructure trust fund.

"Customs brokers, freight forwarders and NVOs feel the increasing physical constraints of insufficient freight infrastructure at our nation's airports and land border crossings."

Jose D. (JD) Gonzalez

Logistics, Expeditors International and Ryder — join the list of the top 20 global logistics companies.

But what about the maritime sector? "Major ports need to invest in resilience, new technology and green infrastructure to ensure the stability of global markets and the sustainability of the shipping industry" said Martin Humphreys, lead transport economist at the World Bank. The Container Port Performance Index (CPPI), developed by the World Bank and S&P Global Market Intelligence, ranks 405 global container ports by efficiency.

According to the 2023 CPPI rankings, no US port is listed in the top 50. Charleston (No. 53); Philadelphia (No. 55); Everglades (No. 65); Miami (No. 74); Boston (No. 75); Wilmington, NC (No. 81); New York-New Jersey (No. 92) and Jacksonville (No. 99) are in the top 100. Major US ports such as Baltimore (No. 189), Virginia (No. 301), Houston (No. 312), Long Beach (No. 373), Los Angeles (No. 375) and Savannah (No. 395) trail badly.

Alphaliner provides a consistently updated ranking of the 100 largest container/liner operators. No US company is listed in the top 20. The largest US operator, Matson, comes in at No. 28 with a meager market share of 0.2%. Others listed include Seaboard Marine (No. 39), Great White Fleet (No. 48), Dole Ocean Liner (No. 49), Tropical Shipping (No. 52), Crowley (No. 57), Pasha Group (No. 59), King Ocean (No. 80) and Del Monte (No. 91). The combined market share of all US operators falls short of 2%.

The ailing port and maritime sectors should be a major concern to the new US administration. Supply chain woes add to price increases in retail and consumer products and consequently to inflationary pressure. Attacking foreign-flag liner operators or using the Federal Maritime Commission's regulatory oversight will not resolve the problem; the weaknesses are within. Continuing to sidestep the issue by pandering to labor unions or protecting antiquated maritime legislation will only exacerbate the challenges faced by US importers and exporters.

North Atlantic Alliance Association (NAAAI)

Joe Saggese
Executive Managing Director
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"The more things change, the more they remain the same" goes the old saying. Ocean shipping is, for the most part, back to its pre-pandemic levels. However, demand for cargo has declined — contrary to prior expectations — and rates remain at profitable levels, even if capacity has not been fully utilized. Some may say this is odd based on past practices, but that's not the case. Ocean carriers quickly adapted to handling overcapacity during the pandemic, along with maximizing vessel utilization while earning record profits.

Demand in 2025 will be a test of the carrier's resolve to hold the line on rate levels while experiencing overcapacity — aside from the normal options to increase vessel capacity such as slow steaming, dry docking and skipping ports. Ocean carriers have one thing in common in that they weren't highly schooled on what was missing in previous decades — profits. Cargo shipping can be profitable, and pricing cargo at or above profitable levels is how you win. Chasing elusive market share or throughput is not.

Having experienced the excitement of extreme profitability, carriers are

"Having experienced the excitement of extreme profitability, carriers are reluctant to return to the days of death by 1,000 rate cuts. They will have to avoid chasing cutthroat rates or cutting their own throats as a matter of self-interest."

Joe Saggese

reluctant to return to the days of death by 1,000 rate cuts. They will have to avoid chasing cutthroat rates or cutting their own throats as a matter of self-interest.

While ocean carriers move in lockstep for the most part, let's hope this temporary paradigm shift in thinking on profits vs. market share will hold for the coming year(s). Stability in the market is welcome and needed. Cargo owners and manufacturers need stability in pricing, as do consumers. Will the industry hold firm on pricing, or will it return to the mentality that has long doomed its financial stability? It's hard to predict, but things do change sometimes.

"The re-election of Donald Trump — and his 'America First' agenda, if implemented as promised — can be expected to have a significant effect on the already high cost of goods imported into the US for importers, retailers and consumers."

Beth Ring, Esq.

Sandler, Travis & Rosenberg, P.A.

Beth Ring, Esq.

Senior Member
www.strtrade.com

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The Section 301 China tariffs of 25% on most products, as well as the Section 232 tariffs of 10% on aluminum and 25% on steel — implemented in the first Trump administration — were continued in the Biden administration with some slight modifications. If campaign promises can be relied upon, president-elect Trump is expected to raise tariffs of at least 10% on all imports and at least another 60% on Chinese imports. While there was a somewhat robust "exclusion" process for the 301 tariffs in place during the first Trump administration, those exclusions had expired without any renewal process during the Biden administration. However, it is unknown at this point whether the anticipated additional China tariffs will simply replace or be cumulated with those currently in place, and whether any new exclusion process would be made available by the new administration.

The punitive effects of the China tariffs may have at least partially materialized, at least with respect to US-based firms manufacturing and sourcing in China who were incentivized to move some, if not all, operations outside of China. It has been reported that between 2017 and 2023, China's share of US imports fell from 22% to 14%. This shift in supply chains, also driven by factors such as changing geopolitics, government incentives, labor supply and freight costs, has seen relocations to countries such as Mexico, India and Southeast Asia more than necessarily reshoring to the US, a trend that may further shift with rising protectionism in the US.

New York New Jersey Foreign Freight Forwarders & Brokers Association

Jeanette Gioia

President
www.nynjforwarders-brokers.org

Since COVID, the role of information in an effectively functioning supply chain has become increasingly apparent. The US government holds a natural leadership role and responsibility to facilitate digitalization and information sharing, particularly amongst the parties moving cargo through US sea, air and inland ports.

"How cargo information is moved has become just as important as the physical pickup and delivery of the freight itself."

Jeanette Gioia

It is especially critical to have accurate, real-time information if growing cargo volumes are to be managed within the framework of port resources. Without this, freight risks being stuck, ports get congested and costs quickly spiral out of control. Our membership of forwarders and brokers spend unnecessary time obtaining basic information to enable the pickup and return of export containers and the availability and empty return locations for import loads.

A good example of the practical role that government can play is that of the Federal Maritime Commission's (FMC) inquiry into the current and potential use of data in maritime transport. After considerable study, it recommended the establishment of a Maritime Data Transportation System to standardize key terminology and the transmission of real-time cargo status information to help achieve in-transit visibility for cargo retrieval and delivery.

Taking it one step further to provide an incentive for positive change, the National Shipper Advisory Committee (NSAC) to the FMC proposed that a rulemaking be initiated requiring ocean carriers to provide specific, timely container data elements while cargo is within their network. To the NSAC list should be added container appointment availability. Failure to provide these data would be considered an unreasonable practice. Our association hopes that the FMC will accept this recommendation. It will contribute to increased transparency and reduce current inefficiencies in obtaining basic information necessary to arranging freight release and delivery.

How cargo information is moved has become just as important as the physical pickup and delivery of the freight itself.

"In a time when completing a single project takes decades and cost overruns grow, America cannot afford unnecessary bureaucracy."

Tracy Zea

Waterways Council, Inc.

Tracy Zea

President and CEO
www.waterwayscouncil.org

Last year marked the 200th anniversary of the US Army Corps of Engineers' (USACE) Civil Works mission. It began in 1824 when our nation's fifth president, James Monroe, signed into law a bill to improve navigation on the Ohio and Mississippi Rivers. While USACE projects have always been large and complex, the Civil Works program has slowly evolved over time to incorporate new regulations, policies, shifts from political pressures and unfortunately, cumbersome bureaucracy. Projects

Executive Commentary

> "Federal support for and investment in clean energy infrastructure at US ports, including via tax incentives, can help ensure the world's newest and greenest vessels are assigned to serve American ports."
>
> Joe Kramek

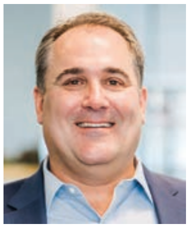
with such colossal impact on our economy and our communities can sometimes be politically sensitive. That is why the development and recommendation of a USACE project for Congressional authorization follows an extensive public planning process which ensures it is economically justified, environmentally acceptable and technically feasible. Since 1943, there have been executive orders (EOs) outlining requirements to ensure consistency with executive branch policies and other relevant requirements. The latest EO in place today was issued in 1981 and requires that before any USACE report, proposal or planning document is submitted to Congress, it is provided to the Office of Management and Budget (OMB) for approval. But over the last decade, OMB has broadened its interpretation to withhold nearly all information, including outyear funding needs and other information critical to Congressional decision-makers.

Mislabeling factual project information as "budget sensitive" has devastating impacts on the USACE's relationships with its partners and the public. The lack of objective information coupled with inconsistent communication has eroded trust in the USACE's ability to execute projects effectively. In a time when completing a single project takes decades and cost overruns grow, America cannot afford unnecessary bureaucracy. It is time for a new administration to revisit EO No. 12322 and address unnecessary hurdles that delay the economic benefits our nation needs.

World Shipping Council

Joe Kramek

President and CEO
www.worldshipping.org



The World Shipping Council sees several ways the federal government can shore up freight infrastructure.

Build more resiliency into the supply chain to prepare for inevitable future disruptions such as pandemics, strikes, weather, geopolitical tensions and other events that can impact global supply chains at any time. This could include stepped-up federal support for port infrastructure improvements, expanded inland transport capacity and more secure supply chains. The shipping industry's decades of investment in capacity was what enabled the sector to serve a surge of demand during COVID-19 and quickly reroute lines away from the Red Sea during attacks on private shipping there — without this extra capacity and carriers' willingness and ability to quickly adjust, the impacts would have been much worse.

Increase federal funding for research and development in new technologies, protocols and systems for shoring up freight infrastructure, whether by the private or public sector or both in partnership. This increased R&D funding could be deployed through the Departments of Transportation and Energy and their constituent agencies, the National Institute of Standards and Technology, US Navy, the 45 federally funded R&D centers or many other entities.

Support the infrastructure that will be required for shipping to continue and accelerate its transition to no- and low-greenhouse gas fuels, such as methanol, ammonia, hydrogen and others. Carriers already are investing billions in renewable-fuel vessels, with more than 500 scheduled to be operating globally by 2028. Federal support for and investment in clean energy infrastructure at US ports, including via tax incentives, can help ensure the world's newest and greenest vessels are assigned to serve American ports — creating jobs, investment and reduced emissions that improve health and quality of life for residents of communities near ports.

Gaining traction

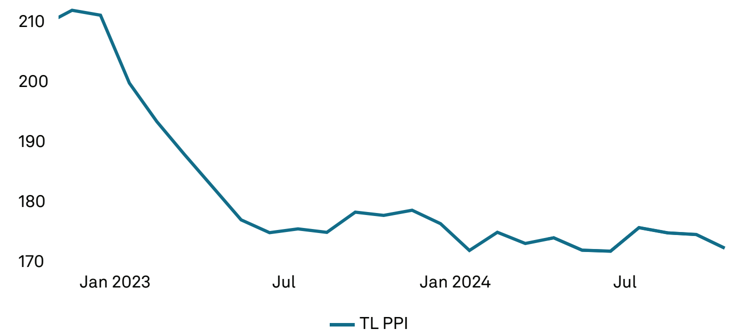
US truckload rates ticking up ahead of expected demand return

By William B. Cassidy

A look back: The US truckload market in 2024 continued to bounce along the bottom of an exceptionally long three-year downcycle in freight demand, with spot rates only starting to move upward in the third quarter. Contract rates flattened and inched upward in turn, with replacement rates in existing contracts starting to climb by October, according to DAT Freight & Analytics. But truckload capacity remained abundant despite deep cuts by large carriers and the exit of at least 35,000 smaller trucking companies since 2022. The large carriers in the *Journal of Commerce* Truckload Capacity Index group cut their internal capacity back to 2014 levels. However, there were still more than 93,000 carrier operating authorities on the books in October 2024 than there were in December 2019. With their volumes depressed, truckload carriers continued to diversify their fleets in search of new business, using dedicated and brokerage arms to augment lagging over-the-road revenue. Knight-Swift Transportation Holdings, the largest US truckload provider, continued its drive into the less-than-truckload (LTL) market, acquiring regional carrier Dependable Highway Express and buying more LTL terminals while also absorbing truckload carrier US Xpress Enterprises. But there was more than enough capacity in terms of trucks and drivers to haul available freight in 2024; if anything, there was a "freight shortage" that was still present late in the year.

A look ahead: Truckload carriers are optimistic about 2025, but they've been optimistic before, including in late 2022 and 2023. Expectations for stronger demand, most likely in mid- to late 2025, were shaping up late last year, as spot rates began to inch upward year over year, drawing contract rates behind them. But those expectations were built on uncertain economic sands. Much depends on how deeply and quickly the Federal Reserve continues to cut interest rates, and whether those cuts boost home buying and construction and US manufacturing orders and output. The impact of potential tax cuts and tariffs from the incoming Trump administration add to uncertainty. Many trucking executives expect a further round of capacity exits as smaller to mid-sized firms begin to crack under the combined pressure of low rates and higher operating costs. They're betting that more trucking companies will abandon the business, tightening capacity and helping them raise rates. But many small companies have withstood almost three years of falling volumes and rate pressure in a downcycle. As of October, average truckload selling prices, as measured by the US Bureau of Labor Statistics producer price index, had declined year over year in 21 of the previous 22 months. How many carriers are likely to fold now?

US truckload costs still stuck in neutral in late 2024
US long-haul truckload producer price index (PPI)



Notes: US BLS producer price indices are based on selling prices for trucking services

Source: US Bureau of Labor Statistics data, JOC analysis © 2024 S&P Global

The big picture: Truckload spot market rates began to slowly rise in the second half of 2024, putting upward pressure on contract rates. Truckload demand increased seasonally late in the year, but overall was flat, with US manufacturing still in the doldrums. Capacity remained loose, despite cuts. Despite uncertainty, freight demand is expected to climb over the course of 2025, pushing spot and contract rates up by the year's end.

Large truckload carriers cut their internal capacity back to 2014 levels last year.
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The next inflection: Pronouncements of an end to the "freight recession," have been issued several times, only to founder on the rocks of overcapacity and manufacturing contraction. Even months of rising US imports couldn't reverse the truckload market in 2024. As US manufacturing recovers, truckload capacity will tighten, likely in a steady fashion, pushing up truckload rates upward faster in the second half. But how markets will react in 2025 is far from clear.

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Elevated expectations

LTL carriers expanding networks to prepare for long-term growth

By William B. Cassidy

The big picture: US less-than-truckload (LTL) carriers are preparing for the next surge in demand, adding terminals and terminal doors even though freight demand is still tepid. They see demand for industrial freight and retail goods increasing in 2025 and believe there's not enough LTL capacity in the market to meet that demand. LTL rates began rising in 2023 and remain elevated, and that's unlikely to change in 2025, with carriers seeking additional price hikes in the mid- to high-single-digit percentage range.

US LTL carriers issued general rate increases ranging from 4.9% to 7.9% in Q4.
Karolis Kavolelis / Shutterstock.com

A look back: Yellow's shutdown in July 2023 unleashed an LTL shakeup that is still working its way through the market. It took most of 2024 for the 50,000 or so daily shipments handled by Yellow to find a new carrier, often a pricier one. Yellow auctioned off more than half of its terminals in 2023 and 2024, but 112 terminals remained to be sold in the fourth quarter. That spurred a realignment among the top LTL carriers. In October, LTL all-inclusive selling prices were more than 5% higher than in July 2023, prior to Yellow's abrupt exit, according to the US Bureau of Labor Statistics long-haul LTL producer price index (PPI). The LTL PPI was down 0.4% year over year in October, but those PPI selling prices, which include surcharges and other fees, were up 31% from December 2019. LTL carriers not only added terminals and equipment in 2024 but technology, too, as they strove to become more efficient, improve service and reach more customers ahead of the next wave of industrial freight.

A look ahead: Although volumes settled in the second half of 2024, a year after Yellow's shutdown, LTL executives remain optimistic about 2025. Their terminals were busy in the run-up to the holiday season and freight was flowing more efficiently through expanded networks. As larger carriers built out those networks and created denser freight lanes, smaller carriers felt pressure to acquire other companies to remain competitive. And the LTL sector will be increasingly competitive in 2025, with overall capacity still lower than it was in 2022. With the pool of industrial freight still limited, LTL providers will look to diversify through the addition of premium services. They will increasingly target smaller shippers typically served by third-party logistics providers. Changes to the National Motor Freight Classification, the basis for much of LTL pricing, expected in May will challenge smaller shippers, making awareness of shipment dimensions and weight even more critical.

The next inflection: The LTL sector will try to hold its ground on pricing until improvements in US manufacturing lift demand. In the fourth quarter, LTL providers issued general rate increases ranging from 4.9% to 7.9%. The first quarter is historically slow for LTL freight but any pull-forward in imports to avoid an early Lunar New Year, an East and Gulf coast port strike and potential tariffs from the new Trump administration could create additional demand. LTL carriers hope lower US interest rates and capital costs will pull US manufacturing out of contraction and generate more consistent volumes by mid-2025.

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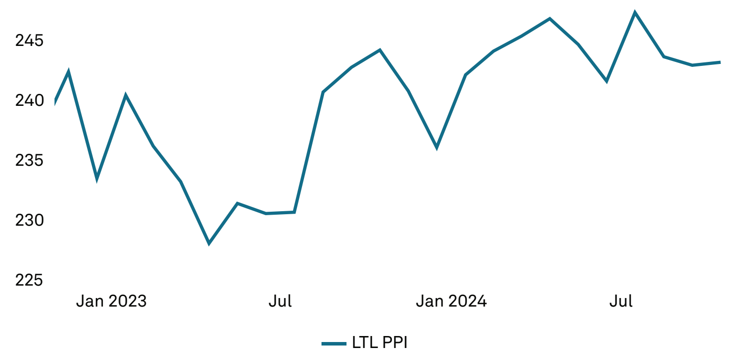
US LTL pricing slips yoy for first time in 10 months in October
US long-haul less-than-truckload (LTL) producer price index (PPI)



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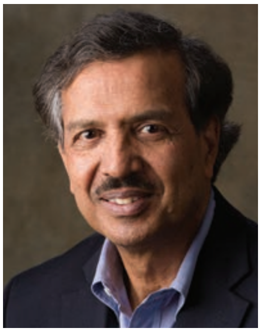
Source: US Bureau of Labor Statistics data, JOC analysis

In Perspective



A positive spin-off

By Satish Jindel

After generating operating margins of low single-digits and being the worst performer in the broader trucking industry for decades, the LTL industry in the last three years has generated double-digit margins, outperforming both the parcel and truckload segments.

With FedEx Corp. mulling the fate of its LTL unit, anything other than a spinoff will not generate the highest value for the shareholders. Given the market cap of ODFL and Saia, the most suited comparisons for a standalone LTL carrier, FedEx Freight would command a market cap of over $35 billion.

With just three pure LTL carriers — ODFL, Saia and XPO — in the public markets, there will be great investor appeal for the LTL market leader, which brings in about $10 billion in annual revenue.

The spinoff will also bring other positive changes to the LTL industry that will be welcome news for all its competitors. It will bring more shipper discipline for carriers to deploy pricing changes that take actual density of the shipments into consideration and give shippers reasons to get rid of bad shipping habits that have for decades added lot of cost for carriers with some of that getting built into pricing for all shippers.

Bad shipping habits will be gone, just as the former Big 3 of the LTL industry have all gone.

And pricing based on dimensional characteristics of the shipment as tendered instead of the product attributes will get more attention from carriers and shippers now that even the National Motor Freight Traffic Association (NMFTA) has proposed changes to its classification system that will go into effect in summer 2025.

In coming months, I see shippers paying greater attention to getting rid of bad palletizing habits that hurts better cube utilization of trailers, increase damages to all shipments and results in their shipment pricing being subsidized either by other shippers or the carriers. Bad shipping habits will be gone, just as the former Big 3 of LTL industry — Yellow, Roadway and Consolidated Freightways — have all gone.

It used to be that the barrier to entry in LTL was just a lack of terminals of the right size in the right location. In recent years, those barriers have expanded to include technology and talent. This change is already manifesting with more smaller LTL carriers being sold to other strategic buyers.

In the second half of 2024 alone, three smaller LTL carriers have been sold; DHE, the LTL division of Dependable Highway Express, was acquired by Knight-Swift Transportation in July, RMX Freight Systems was sold to Moran Transportation in October and Sutton Transport was sold to Pitt Ohio in December.

With LTL carriers consolidating and gaining more control over pricing, shippers will need to look for ways to be viewed as a desirable customer to their preferred carriers. They will also need to utilize information technology to gain an understanding of the needs of their customers on frequency of deliveries such that instead of shipping one pallet on three days of the week, they can send 3 pallets once a week.

In addition, shippers should look for ways to avoid accessorial charges for appointment deliveries or for detention via better communication with the consignee for delivery of the shipment and having more dock doors at the receiving or shipping docks at their warehouse facilities. These changes will help almost every shipper absorb higher rates while keeping total spend in check with the now unstoppable rollout of pricing based on density of the shipment as tendered.

Even if FedEx should delay a decision or decide not to spinoff FedEx Freight, the changes above will still occur, though they may take slightly longer. These changes will provide a strong tailwind to the LTL industry that should help the carriers continue to generate — and even improve on — double-digit margins.

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Jon Tetzlaff / Shutterstock.com

Tailwinds and unknowns

By Jason Miller

In 2025, the US trucking sector is poised to exit a prolonged, 10-quarter freight recession that started around the third quarter of 2022 that coincided with a broad-based downturn in domestic manufacturing activity.

Several factors underscore expectations for improved demand conditions. First, reductions in the federal funds rate that began in September will have had time to percolate through the economy. That should spur more investment in residential structures, e.g., single-family houses, which rose sharply starting in the third quarter of 2020 and then fell just as rapidly starting in the second quarter of 2022 as the Federal Open Market Committee (FOMC) raised interest rates.

Improved residential construction should spur more production for cement and concrete, lumber and wood preservation, veneer and plywood, and millwork, among other things, all sectors in which production has fallen since recent highs in early 2022.

Second, interest rate cuts, by reducing firms' financing costs, may encourage investment in industrial equipment and machinery, a sector that has seen a sharp downturn in manufacturing output since 2022. More investment in machinery should aid machinery wholesalers in bring the ratio of inventories to sales back towards more normal levels, which should spur more replenishment orders that should trigger greater demand for production of various fabricated metal goods like machine shops and turned screw products as well heat treating, sectors that have seen production continue to slide through 2024.

Third, lower interest rates should decrease consumers' costs for financing motor vehicle purchases, which should further stimulate demand. This should provide another tailwind for vehicle purchases above and beyond the increase observed in November, when light truck and SUV sales totaled 13.54 million units on a seasonally adjusted annual rate, the third-highest month ever. Increased sales of light trucks and SUVs should stimulate demand for motor vehicle parts, a sector that had seen a downturn in production in the second half of 2024 as dealer lots filled up with inventories.

All told, my best estimate is that we are exiting 2024 with freight volumes like those observed toward the end of 2019.

Concerning capacity, available data from the Quarterly Census of Employment and Wages suggests that trucking capacity is right around where it was in late 2019; these data

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are pointing towards the monthly survey data of trucking payrolls being over-estimated by around 2%, which would bring them in line with what was observed in 2019.

Examining the dynamics of the truckload spot market in 2024, demand and supply being around 2019 levels makes good sense given that we have seen more seasonal tightening in 2024 than in 2023 — albeit less than in 2019 — with shippers generally able to obtain capacity with limited routing guide failure.

The greatest wild card for freight demand is potential tariffs by the incoming Trump administration. It remains to be seen which — if any — tariffs are actually increased come January, which makes it more difficult to forecast freight conditions in the second half of 2025.

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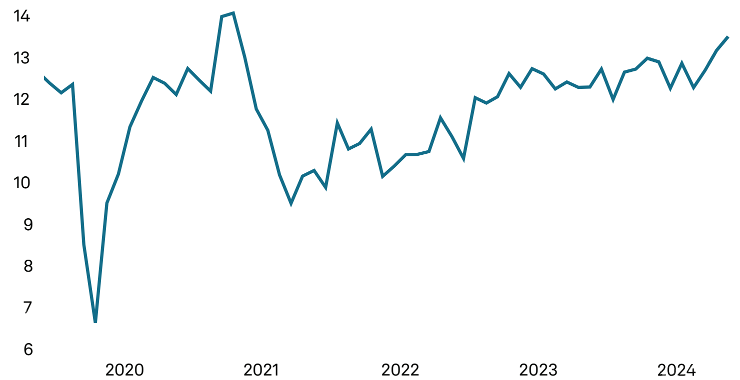
We are exiting 2024 with freight volumes like those observed toward the end of 2019.

Light truck sales strongest since April 2021 in November

US light truck sales, in millions of vehicles, seasonally adjusted



Source: US Bureau of Economic Analysis

Ground parcel costs fell 2.5% in Q3 due to higher discounts and lower average weights.
Karolis Kavolelis / Shutterstock.com

Pricing pull

FedEx, UPS to continue discounting parcel rates amid increased competition

By Cathy Morrow Roberson

The big picture: Large parcel carriers FedEx and UPS are discounting rates to attract volumes, while retailers are courting business-to-consumer (B2C) shipments by offering free delivery through subscription services. Shippers have spread volumes out among a number of carriers, which has also taken volumes from the large carriers. The more profitable business-to-business (B2B) parcel market is not expected to increase until manufacturing demand picks up.

A look back: FedEx and UPS struggled in the B2C last-mile market last year, and B2B parcel volumes remained muted due to weak global manufacturing activity. Shippers diversifying the number of carriers they use and increased competition from regional carriers, retailers such as Amazon, Target and Walmart, the US Postal Service and parcel management technology tools have forced FedEx and UPS to lower rates to regain lost volumes. According to AFS Logistics, the cost to ship a ground parcel declined 2.5% year over year in the third quarter 2024 due to higher discounts and lower average package weights. Those lighter parcels are often e-commerce related, which is the future of ground parcels, according to FedEx CFO, Bill Dietrich. "E-commerce is going to make up a large percentage, probably up to 90% of the volume growth of our ground network," Dietrich said at the November Baird Global Industrial Conference. "We just have to find the right cost structure to accommodate it." Despite automation investments that have lowered some operating costs, FedEx and UPS are struggling to compete within the B2C last-mile market. Protecting revenue per parcel is a priority for both carriers, but it conflicts with discounting rates to attract volumes.

A look ahead: Higher rates for 2025 went into effect as early as Dec. 23, 2024, with UPS' average rate increases of 5.9% followed by other last-mile carriers' rate increases effective in January. However, FedEx and UPS will likely continue to discount ground parcel rates because of the expected continuation of stronger B2C volumes. Amazon, Walmart and Target will benefit the most in terms, volume-wise, because of the expected increase in e-commerce demand and subscription services that each provide which also include free delivery services. B2C parcel volumes will continue to shift away from FedEx and UPS. B2B volumes may see some gains, but not much, at least for the first half of the year. According to Deloitte, manufacturers are expected to continue to face a challenging and uncertain business climate due to a combination of higher costs, potential policy changes following the US and global elections, and geopolitical uncertainty in 2025. Until manufacturing demand improves, FedEx and UPS will face a competitive B2C last-mile market in which lower rates are the norm. This assumes, however, that consumer spending will remain resilient. Year-to-date through October, US retail sales rose 2.4% from the same period in 2023, according to data from the US Census Bureau. But slowing economic growth and the uncertainty of a new presidential administration could result in a pullback in consumer spending this year.

> The last-mile market has become fragmented, benefiting shippers from a cost and capacity perspective.

The next inflection: Prior to the COVID-19 pandemic, shippers tended to split parcel volumes between FedEx, UPS and the US Postal System. Since then, however, the last-mile market has become much more fragmented, benefiting shippers from a cost and capacity perspective. But it has left FedEx and UPS trying to figure out how to profitably compete in the B2C parcel market while they wait for the B2B market to revive.

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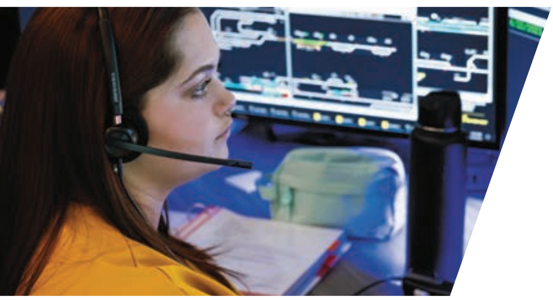

Chugging uphill

Strong 2024 sets international intermodal up for tough comparisons

By Ari Ashe

The big picture: International intermodal volumes grew by double-digit percentages in 2024 thanks to a surge in freight to the West Coast ports, but those higher volumes caused issues getting ocean containers out of terminals. Domestic intermodal grew at a slower rate, and while there were service disruptions to and from Southern California, the delays were not as severe as for international cargo.

A look back: Thanks to strong import growth in Southern California, international intermodal demand from the US Southwest to the Midwest, Southcentral and Southeast surged more than 30% year over year in the first 10 months of 2024, according to the Intermodal Association of North America. Lanes that benefitted include Los Angeles to Chicago, Dallas, and Memphis. With the heightened demand, some familiar service issues resurfaced. Dwell times for ocean containers leaving the ports of Los Angeles and Long Beach by train, for example, rose to a two-year high in September, according to the Pacific Merchant Shipping Association. There were also recurring delays on transfers inland at the Port of Tacoma, specifically for Union Pacific (UP) customers. Volumes of 53-foot containers on the same lanes climbed between 8% and 12% through October, leading domestic intermodal providers to institute their first peak season surcharges in three years. While the surcharges didn't rise to the level of $5,000 per container — like they did in 2020 and 2021 — spot market rates rose $500 to $750 per box in Los Angeles and surcharges of between $250 and $1,250 per load were assessed on select shippers who exceeded their contractual allotments. Other major developments included new expedited UP trains from Los Angeles to Chicago in March and Canadian Pacific Kansas City, CSX Transportation and Schneider National announcing a joint Mexico–US Southeast intermodal service in December.

> Intermodal wins when trucks are more difficult and more expensive to procure and rail service is reliable.

A look ahead: It's difficult to imagine international intermodal growing much more — if at all — on the West Coast in 2025. Volumes may grow more on the East Coast, especially once the International Longshoremen's Association agrees to a new coastwide labor deal. International intermodal rose on key inland lanes to Atlanta, Chicago, Memphis, Nashville, and the Ohio Valley rose but only about 5% to 7%, which means the upside for 2025 is higher on these lanes. Lower growth in domestic intermodal may mean volume grows again in 2025. The litmus test will be volumes in Chicago. While traffic from Los Angeles to Chicago grew, volumes from Chicago to Los Angeles and Oakland-Lathrop-Stockton were flat last year. Volumes from the Northeast, Southcentral and Southeast to Midwest were also flat year over year, including lanes such as Atlanta to Chicago, Dallas to Chicago, Elizabeth to Chicago, and Harrisburg to Chicago. As such, growing domestic intermodal in 2025 will necessitate winning more business on these lanes.

The next inflection: The strength of the trucking market will determine whether domestic intermodal can grow in the lanes that were flat in 2024. Intermodal wins when trucks are more difficult and more expensive to procure, rail service is reliable, and environmental goals must be met. For some shippers, three out of the four of those conditions have been met, but they're still using trucks because it's easy to find capacity. International intermodal passed its inflection, so growing on the East Coast while maintaining current volume on the West Coast would be a win in 2025.

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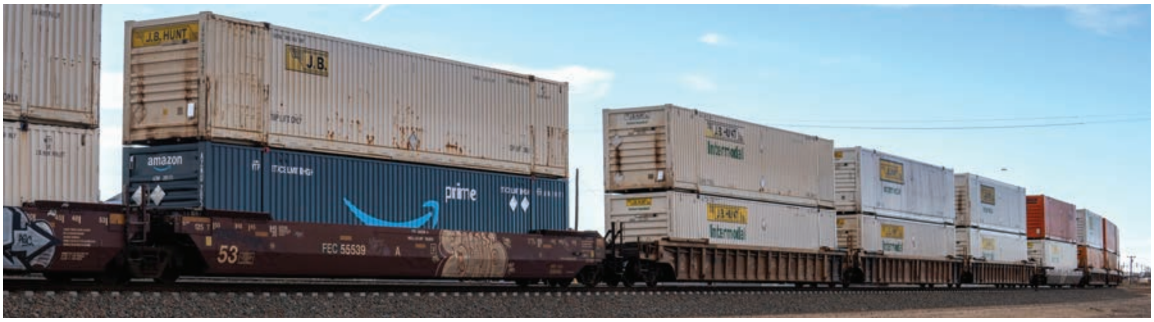

Domestic intermodal volumes out of the US Southwest grew 8% to 12% through October.
Summer_Wind / Shutterstock.com

Tracking the market

By Ted Prince

Looking ahead, the biggest unknown for the North American intermodal industry is whether a trade war may impact international cargo, which generates a majority of intermodal volumes. But with little clarity on the scope and scale of incoming tariffs, the best approach is to review the triptych of railroad duopolies: east, west and Canada.

The eastern railroads, Norfolk Southern (NS) and CSX Transportation, offer similar product portfolios, starting with a strong base handling international ocean containers from both the west and east coasts. While the former offers length of haul, growth has historically come from the East Coast. This volume has been temporarily impacted by the International Longshoremen's Association (ILA) contract negotiations, just as previous concerns about the International Longshore and Warehouse Union (ILWU) contract prompted cargo diversions to the East Coast.

Both railroads have worked with ports to develop inland facilities that offer an alternative to trucking; however, there is a ceiling on how many of these can be developed. Since these inland ports are controlled by the ocean ports, they can only be developed in-state.

For domestic intermodal, there is the usual portfolio of parcel, less-than-truckload and truckload. In the truckload segment, both serve the bimodals, e.g., JB Hunt and Hub Group, as well as smaller intermodal marketing companies through shared domestic container fleets with Union Pacific: EMP (NS) and UMAX (CSX). However, unlike the western railroads, most of these customers ship on both railroads.

The Canadian railroads, Canadian National and Canadian Pacific Kansas City (CPKC) now operate in two spaces: east-west in Canada and north-south between Canada and Mexico. The former is straight up head-to-head competition, and the latter involves a plethora of alliances with western railroads and their allies.

Both railroads benefited from making western Canada a maritime gateway for US intermodal destinations; however, CN's Prince Rupert has been more of a game changer. Traffic diverted due to rail labor should eventually return due to the economic benefits.

For trans-border, CPKC has articulated a big plan, but it has infrastructure issues to resolve, such as capacity between Chicago and Kansas City. It also lives with the KCS legacy of viewing UP as a competitor, rather than their largest connection. The result has been a 15-plus year process of UP helping FXE (of which it owns 28%) achieve significant intermodal improvement. This traffic is heavily driven by auto makers, and the threat of a trade war looms large.

The western railroads are the largest and most interesting. Both have well established marine businesses. Southern California is the headwater of North American intermodal, not only for the intact intermodal, but the transloading of import cargo, accounting for roughly 80% of all eastbound domestic traffic. This business, a high percentage of which originates in Asia, and especially China, has the most to lose in a trade war.

There is also a concern that California is headed for implosion due to governmental regulation and the inability of the ports, who move nothing but money, to affect meaningful change. Both railroads have major projects in the Inland Empire, but it will be years before the results are known.

On the domestic side, both railroads have diverse portfolios, focused on growth, with UP having more Mexico trans-border options. The major difference is their approach to working with IMCs. UP's EMP and UMAX programs provide them the traditional rail-provided equipment. BNSF has no such program, relying on its bimodal partners to "fourth party" third-party business.

What is interesting to note is the impact of bimodal movement. Previously the major bimodals had exclusive agreements with either BNSF or UP. With the demise of the Pacer and "SPUD" legacy contracts UP has been able to effectively manage Hub and STG without the dreaded MFN provisions. In a world where perception is reality, BNSF had a much more difficult time managing JB Hunt, Knight-Swift and Schneider.

However, with Knight-Swift and Schneider moving to UP, BNSF was released from its obligation to maintain parity. BNSF could now allow JB Hunt to "cry havoc and let slip the dogs of war."

This has been an incredibly effective strategy during the recent freight recession. And, in a strategically brilliant move the two companies resurrected the Quantum brand as a premium service, complementing the base product, at a price level higher than the historical contract.

The industry is poised for a renewal of volume. There is certainly a great deal of capacity waiting to be redeployed. Beyond the traditional impact of fuel, trade, environment, labor and safety are all areas where governmental action can have disproportionate impact.

However, while tidal shifts will impact all, it is likely that partnership decisions will be the greatest determinant of winners and losers.

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Southern California is the headwater, not only for the intact intermodal, but the transloading of import cargo.

In Perspective

An intermodal imbalance

By Larry Gross

This somewhat artificial "sugar high" will eventually have to be repaid.

Last year proved to be a strong but turbulent year for North American intermodal. The sector was the recipient of a potent stew of exterior events, some entirely foreseeable and others truly of the "black swan" variety. Overall activity was up significantly, with North American intermodal originations growing 7.5% year over year through the first week of December, according to data from the Association of American Railroads (AAR).

The horsepower behind the gain came from the international side of the market. In the first 10 months of 2024, North American revenue movements of ISO containers jumped 15% above prior year, compared with a 3.1% gain in domestic containers and trailers, according to Intermodal Association of North America (IANA) data.

A mix of factors drove the gains in international intermodal, including strong retail activity that boosted imports and US West Coast ports gaining import share. One reason was clearly foreseeable: labor instability on the East and Gulf coasts that culminated in a brief strike that, while suspended for the moment, remains an issue for 2025.

But another big reason was the closing of the Suez Canal routing. The required routing around Africa added days and dollars to East Coast imports, changing the calculus for discretionary cargo. Any share shift from east to west constitutes an intermodal tailwind, as the lengths of haul to interior points from the West Coast are much longer and more intermodal-friendly than the more truck-oriented East Coast. Undoubtedly, another source of strength was cargo moving earlier than normal to beat the strike and, later, tariffs.

By contrast, domestic intermodal has been much more restrained. The domestic truck market that is a dominant force in intermodal activity, remained difficult, with slow growth in demand and too much capacity. The for-hire carriers that constitute the primary competition for intermodal were further stymied by freight shifting to private fleets.

From a geographic perspective, the US was the big winner in 2024, as Canadian markets were badly hurt by repeated labor disruptions. Through October, intra-US activity jumped 9.8%, intra-Canada loadings rose just 4.8% and movements crossing the Canada-US border slipped 2.9%. The Mexico market was extremely strong, with total activity surging by more than 30%, propelled by huge gains in the small but fast-growing domestic sector. However, this strength did not extend to the Mexico-US cross-border market, which declined year-to-date.

The intermodal system handled the surge reasonably well, without the service disruptions that were widespread during the COVID-19 pandemic. At the end of the year, average intermodal train speeds were a bit below normal, and container dwell times in the Los Angeles basin had been stretched. But the number of trains being held in terminals awaiting crews or locomotives was lower than normal, indicating that supplies of these critical inputs were more than adequate.

The outlook for 2025 appears to be somewhat constrained, particularly on the international side. The considerable volumes that ordinarily would have moved next year have likely been pulled forward into 2024. This somewhat artificial "sugar high" will eventually have to be repaid.

In addition, the huge growth differential between international and domestic in 2024 will not endure. The gap will need to be closed by some combination of slowing international volumes and accelerating domestic shipments.

The supply-demand balance for domestic truckload has been improving very slowly. Demand has is expected to continue rising, but a dramatic upturn does not appear to be in the cards.

Proposed actions under a second Trump administration could prove to be inflationary, including higher tariffs and large-scale deportation of migrants, many of whom are currently contributing to the workforce. The disruption could be considerable, and in the near term, this poses more of a downside risk than upside potential for 2025.

However, the shift from for-hire to privates appears to be over. This, plus a continued slow exiting of capacity, should help shore up trucking rates.

The improving situation in truckload will provide an opportunity for domestic intermodal. Railroads have lost considerable share since 2018 due to the implementation of PSR, followed by service disruptions and capacity crises during the pandemic.

A small green shoot was spotted in the third quarter of 2024, as domestic intermodal's share of US long-haul truck movements edged up to 6.1%, after spending over a year at 6.0%. This may be a harbinger of continued growth, or it could just be noise in the numbers. Time will tell.

Intermodal activity in the third quarter was just about equal to the average volume per quarter in 2017. In other words, the sector has seen zero growth in six years; this is a long-term problem.

As such, intermodal needs a competitive strategy that will enable it to thrive in both flush times and lean times. Getting service levels in order was a necessary first step, but by itself, this will be insufficient to drive growth. Further adjustments in price, service and accessibility will be required.

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Executive Commentary

ABH Consulting

Anthony B Hatch

Rail/Intermodal Analyst
NYC

My hope for the North American freight rail industry is for 2025 to be a lot less exciting than the past few years. Consider since 2022 the rails were held up as major players in the "Supply Chain Crisis"; held very public national labor negotiations, regularly scheduled but very contentious (and an actual strike in Canada, not to mention the effects of labor situations at the docks); endured the East Palestine derailment and its very public fallout. The rails' reputation cratered as they were considered inept, greedy and dangerous. To top it off, Norfolk Southern endured a vicious activist attack/proxy fight that if lost would have had huge negative implications for all of the rails – indeed all freight stakeholders.

What has been the rail industry's response? It was perhaps not as swift as could be hoped, but it was and is sustained:

Service levels have been restored with the hiring & training of crews

Major efforts have been made to restore stability on the labor front and three-fourths of the major US rails have signed perhaps half of their employees to new contracts – ahead of the next round of labor negotiations that began in November.

NS paid a lot of money to "make things right" in East Palestine and headed off the most extreme reactionary efforts to over-regulate

Defeated the activist funds, for now....

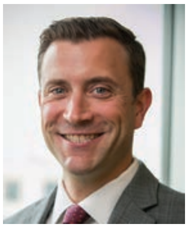
So, for 2025? It's time for the arrival of the "pivot to growth" first called for in 2020, before the pandemic. Skepticism is natural, short -term margin-focused investors (the "Cult of the OR") remain.

Most importantly, the lengthy freight recession also remains. This causes unneeded tension and a race between the rising tide and the impatient Cult. Who will win? It's critical for all stakeholders to keep the barbarians at the gate....

Association of American Railroads (AAR)

Ian Jefferies

President and CEO
www.aar.org



Intermodal presents a clear growth opportunity. Railroads can grow market share by capturing more truck traffic in intermediate mileage bands. Greater reliability and visibility will empower railroads to win this business, reducing emissions and infrastructure damage in the process.

As it stands today, however, railroads operate at a competitive deficit. While trucks are the largest customer of railroads and certainly pay taxes, they are also the biggest competitor for railroads and fail to cover the cost they impose on the highway system. This creates an unequal playing field and yields subsidies that distort freight markets.

"When roads are underpriced, for example, more freight traffic moves by

> "It's time for the arrival of the 'pivot to growth' first called for in 2020, before the pandemic."
>
> Anthony B Hatch

> "Trucking capacity is often strained, and highway congestion is here to stay. Railroads can alleviate these challenges and grow in the process."
>
> Ian Jefferies

Canadian National (CN)

Derek Taylor

Executive Vice President and Chief Field Operations Officer
www.cn.ca

At CN, we are committed to powering the economy by supporting global and North American supply chains through efficient rail transportation. We are focused on creating growth opportunities with our customers.

As we look to 2025, monitoring supply chain labor issues and mitigating any potential impacts will remain a priority, as will navigating proposed regulatory changes in surface transportation. Although most proposed regulations, such as restricting the length of trains, aim to address safety concerns, they could, in fact, have the unintended consequences of hindering rail safety, efficiency and the economy.

We believe it's possible to deliver for our customers without compromising safety. This mindset has enabled CN to operate trains, no matter the length, safely across the US and Canada while simultaneously improving safety, efficiency and resiliency across our network. Continued investment in advanced technologies, including automated safety systems that proactively scan our equipment and infrastructure, help us detect and correct issues before they become bigger problems. Coupled with extensive training at state-of-the-art facilities, our railroaders are equipped to operate trains of all lengths safely and effectively.

CN's scheduled operating model, implemented over 30 months ago, has proven to be most effective in enhancing our network's agility, velocity and resilience while supporting strong customer service levels. That's why this model dictates how we build the plan, run the plan and sell the plan. Sometimes that means running longer trains to help our customers move more goods safely and cost-effectively. Limiting train length would necessitate running more trains to move the same volume of freight, adding additional train starts and increasing customer delays and commuter delays at rail crossings. Rather than imposing restrictive limits, let's find solutions that prioritize both safety and efficiency — benefiting businesses, communities and the environment together.

> "Limiting train length would necessitate running more trains to move the same volume of freight, adding additional train starts and increasing customer delays and commuter delays at rail crossings."
>
> Derek Taylor

> "Potential service failures by transportation intermediaries must be addressed up front to help avoid uncertainty and additional costs."
>
> Hon. Steven R. Blust

road instead of by the largely unsubsidized private freight rail network," Tax Foundation noted in a recent report. This is only getting worse with dwindling gas tax revenues.

Congress should correct this by transitioning to a system that accounts for the weight and distance traveled by trucks and phasing out the gas tax. Lawmakers took a step in this direction in the last transportation bill, only for the US Department of Transportation (DOT) to slow walk a national pilot program. The DOT should advance the program to support further adoption.

Contrary to some policy hurdles, innovative technologies boost safety and efficiency and should be encouraged. Yet in many instances, policies governing rail diverge significantly from trucking frameworks, where technology is seen as an essential tool in reducing accidents. This dichotomy risks perverting the market over time.

There was a time when railroads and trucks argued over these policy matters. Not so today. Trucking capacity is often strained, and highway congestion is here to stay. Railroads can alleviate these challenges and grow in the process. For the full supply chain to thrive, modal equity can foster a better future.

Containerization and Intermodal Institute (CII)

Hon. Steven R. Blust
Past President
www.containerization.com

One of the greatest challenges facing US surface transportation in 2025 will be agreeing to and upholding last- and first-mile transportation arrangements in accordance with service agreements between ocean common carriers and shippers.

As a result of more than a decade of discussions and discontent concerning detention and demurrage (D&D), the COVID-19-induced "Great Congestion" prompted the US Ocean Shipping Reform Act of 2022. This included directing the Federal Maritime Commission (FMC) to establish regulations to address the issues.

After months of public comments and review, the FMC published the final rule on D&D, which became effective on May 28, 2024. The final rule specified that the billing party can only invoice the party for whom ocean transportation or storage was provided or the consignee to whom delivery of the cargo is to be made.

These provisions also specify that services that are performed by vendors, including motor carriers, are to

Executive Commentary

be held to ocean common carrier and shipper agreement/contract terms.

The impact on motor carriers and other service providers is that there is now a requirement for operational clarity and performance in contracts with billing and billed parties.

Door-to-door and seaport-to-seaport services should be straightforward as it relates to addressing service and cost responsibilities.

However, when transportation includes inland transportation to and from rail ramps or inland ports, where wheeled or grounded services may vary, responsibilities for last-mile services and costs must be clearly defined and executed accordingly. Potential service failures by transportation intermediaries must be addressed up front to help avoid uncertainty and additional costs.

Clarity in responsibilities contained in service contracts, accurate bills of lading and clear shipping instructions will be essential to ensure transparency for the parties involved.

With proper planning and clearly written service agreements, providers should succeed in meeting last- and first-mile service challenges.

CPKC

Keith Creel

President and CEO
www.cpkcr.com

Revitalizing growth in the domestic intermodal sector hinges on delivering reliable, truck-competitive service that consistently meets evolving customer needs. Strategic infrastructure investments, such as upgrading key transit routes and expanding capacities across crucial border gateways, are essential.

Emphasizing customer-centric approaches, reducing delays and integrating advanced technologies such as temperature-controlled containers ensure diverse and sustainable service offerings. By consistently exceeding trucking capabilities and fostering innovation, the intermodal sector can achieve superior service standards, driving growth and establishing a robust, competitive landscape poised for future advancements.

CPKC's strategy emphasizes customer-centric service, reduced border delays and sustainable alternatives to trucking, fostering a robust, competitive intermodal landscape poised for growth.

> "Revitalizing growth in the domestic intermodal sector hinges on delivering reliable, truck-competitive service that consistently meets evolving customer needs."
>
> Keith Creel

DAT Freight & Analytics

Dr. Chris Caplice

Chief Scientist
www.dat.com

It's been a good time to be a shipper.

Since spring 2022, average long-haul dry van contract rates have fallen by 23%, and spot rates have decreased by 36%. Most shippers had a primary carrier acceptance ratio north of 95% in 2024, and annual truckload RFPs have reliably produced significant year-over-year savings for almost three years.

But all signs point to a swing to carriers in 2025.

Markets move in cycles. You know it. I know it. But for transportation executives, the big issue this year will be convincing their CFOs and chief procurement officers that the gravy train is over.

Most C-suite types aren't experts in the ups and downs of truckload freight. Indeed, after years of savings, they may think you can run a bid and have a pricing advantage over carriers anytime. It was especially true after 2024, when transportation executives, certain the market would tighten early last year, were caught "crying wolf" after their RFPs produced another round of year-over-year savings. I was one of them.

The US truckload market is a complex, nonlinear system in which hundreds of thousands of players constantly interact. Yet the business cycle has been readily observable, if not totally predictable, for a long time. If your C-suite doesn't believe you, introduce them to a truckload pricing analysis for the decade or so before the pandemic. Benchmarking rates against the broader market is a better performance measure than year-over-year comps.

In 2025, truckload capacity will likely tighten, and rates will rise in ways that look similar to pre-pandemic times. It's still good to be a shipper. But this year will be more about finding savings opportunities in a hardening market — and clearly communicating it to your financial and procurement leaders.

> "For transportation executives, the big issue this year will be convincing their CFOs and chief procurement officers that the gravy train is over."
>
> Dr. Chris Caplice

DCLI

Lee Newitt

CEO
www.dcli.com

As the largest supplier of 53-foot domestic chassis in the US supply chain, DCLI has a clear, vested interest in supporting the growth of domestic intermodal as a transportation option for shippers. While our customers in this space will be the primary influencers of future growth, we are ready to support them when it comes.

Despite slowed growth in the intermodal market in recent years, we have continued to invest and prepare for the future. Since the pandemic, DCLI has increased the size of our 53-foot chassis fleet by more than 40%, bringing our total DCL53 fleet size to over 150,000 units. We have the capacity on hand to enable customer growth.

We recently completed the conversion of that entire fleet to radial tires to ensure safe and efficient operation when our chassis are used. The more than $125 million we have

> "Since the pandemic, DCLI has increased the size of our 53-foot chassis fleet by more than 40%,."
>
> Lee Newitt

invested in radial tires in recent years has also delivered significant environmental benefits, taking the equivalent of 18,000 cars per day off of the nation's roadways.

Finally, we are about to embark on our largest technology investment ever by outfitting our entire DCL53 fleet with GPS to help our customers optimize domestic chassis operations and bring greater visibility to our portion of the supply chain.

DCLI is ideally positioned to support customers with the largest, safest, and most road-ready chassis fleet in the market as they work to accelerate domestic intermodal growth in 2025 and beyond.

Intermodal Association of North America (IANA)

Joni Casey

President and CEO
www.intermodal.org

The North American intermodal market is divided into two segments: international, or the movement of import volumes from port to inland and back (aka Inland Point Intermodal); and domestic, or 53-foot domestic containers and trailers moving within the continent. While international has seen strong double-digit growth in 2024, domestic gains have been much lower.

With truckload growth also sluggish, moderate gains in domestic intermodal is not out of line. But for this segment to grow faster than long-haul trucking, the recipe is simple to state, although harder to achieve — grow intermodal market share.

Domestic intermodal's share of US long-haul dry-van and reefer truckload movements (500 miles or more) stood at 6.1% in the third quarter of 2024. This was up 0.1% from the second quarter but has stayed at this level for the last two years, well below the peak of 7.2% seen back in 2018. So what happened?

Some of the decline was deliberate. As railroads adopted the precision scheduled railroading operating model, networks were simplified and lanes with insufficient volume and too much complexity were eliminated. Intermodal trailer services were converted to container, resulting in some trailer users opting to return to the highway. In addition, there were some service issues during the post-pandemic surge.

With trucking capacity still relatively abundant and truck rates at very competitive levels, shippers seem to be content with the status quo. Intermodal must make a very compelling case to bring them back into the fold. A prerequisite is that customers need to regain confidence in the reliability of the intermodal service offering, and progress is being made on this front. But that is not sufficient by itself. Intermodal needs to devise the means to offer a wider array of over-the-road-comparable services with attractive door-to-door savings, new terminals and new lanes all contributing to the equation.

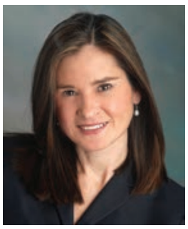
There is evidence of a turnaround as of the third quarter of 2024. Time will tell if this trend will continue and if domestic intermodal can fully regain its stride.

"With trucking capacity still relatively abundant and truck rates at very competitive levels, shippers seem to be content with the status quo. Intermodal must make a very compelling case to bring them back into the fold."
Joni Casey

IMC Companies

Donna Lemm

Chief Commercial Officer
www.imcc.com



As an industry, our greatest challenges include growing inland transit times, lack of visibility and unfair access to intermodal shipments due to chassis restrictions at many inland rail hubs in the United States.

Two decades ago, an inland point intermodal service offering boasted a five-day transit time from the West Coast to major intermodal hubs such as Memphis, Dallas and Chicago. Today, that same transit time exceeds 10 days. How are transit times increasing in an age of speed, just-in-time inventories and new technology innovations? The driver in these increased transit times is cargo bunching and longer trains fueled by even larger ships. The landside infrastructure cannot be upgraded effectively enough to handle 20,000-TEU-plus vessels discharging 10,000 TEUs of imports at a time.

Wheeled and partially wheeled rail facilities are still dependent on ocean carriers to provide chassis at terminals with their selected chassis providers. This is where intermodal shipments often get stuck when they arrive at the destination rail hubs. This is due to an insufficient supply, quality and accountability for chassis provisioning.

Our friends in Canada, Europe and Asia do not separate the chassis from the driver. This practice is embraced by grounded operations allowing drivers to ensure safe, quality chassis of their choice when moving containers in and out of the terminal. In the US, antiquated wheeled operations would surely benefit from an interoperable pool where chassis move freely within a system. Perhaps the immediate solution would support offering multiple chassis provider choices to CY/merchant haulage shippers and motor carriers when the train arrives and move away from this exclusive usage concept where the box coming in is married to a specific chassis provider. Here lies our opportunity to create real change for our industry. Solve the chassis problem, and US inland freight will move.

"In the US, antiquated wheeled operations would surely benefit from an interoperable pool where chassis move freely within a system."
Donna Lemm

Executive Commentary

NFI Industries

Brian Webb

President, Port Services
www.nfiindustries.com

The US surface transportation industry faces mounting cost pressures in 2025, with rates at historic lows while certain operational costs remain a stubbornly high climb from origin to shore. Smaller carriers with lower overhead and residual excess capacity from COVID-19 are driving prices down to meet demand, but this race to the bottom risks sacrificing service quality. Larger companies are responding by prioritizing excellent service, rationalizing fleet size and leveraging technology to reduce costs and remain competitive.

The driver shortage, both voluntary and involuntary, compounds these challenges.

Drivers are leaving due to pay that isn't keeping pace with the cost of living. Linehaul rates for independent contractors and licensed motor carriers aren't rising at the usual rates, leading to high turnover and reduced service quality as less experienced drivers are hired at lower wages.

To address these issues, the industry needs to offer broader service packages that allow customers to see their entire port-to-door expenses. This holistic approach can drive down overall costs through technology solutions, providing visibility and more efficient management by bundling multiple services with a single provider. Additionally, as smaller, lower-cost carriers close their doors, maintaining a high quality of service will be crucial, as the cost pendulum will eventually swing back toward those who can deliver value.

Consolidating operations in larger markets and bundling services that look at total supply chain expenses can reduce total spend without compromising service. By focusing on cost reduction more broadly for beneficial cargo owners, we can address both price pressures and the challenges posed by driver shortages — ultimately sustaining long-term competitiveness and service quality in the market.

> "As smaller, lower-cost carriers close their doors, maintaining a high quality of service will be crucial, as the cost pendulum will eventually swing back toward those who can deliver value."
>
> Brian Webb

Oliver Wyman

Adriene Bailey

Partner
www.oliverwyman.com

Intermodal (especially domestic) is the only avenue for US railroads to realize growth that meets or exceeds GDP/overall freight growth. Taking intermodal share from trucks is the largest untapped opportunity, but kickstarting this growth will take more than just higher truck prices or tighter truck capacity. Realistically, railroads must learn how to hold on to freight through truck cycles to ensure longer term growth.

If rail cannot convert truck freight at current 90%-plus on-time intermodal service levels, that tells us the industry needs the following:

New commercial structures: These structures should be in place alongside domestic container channel partners to drive more penetration in truck lanes where conversion is already possible. It's important to do this without destroying the economics of the existing business — how railroads and box operators structure deals and share information must evolve and mature.

New lanes/offerings: Oliver Wyman estimates there are 760,000 annual loads available in long-haul lanes with interchange — if railroads can fix their interchange performance. Rail intermodal could serve as many as 27 million out of the 41 million truckloads in lanes under 750 miles using the current terminal and railroad network.

Pricing made right: Truck rates move up and down much faster than railroads react. Therefore, margin is left on the table when truck rates rise, and volumes are sacrificed when truck rates fall. Fuel surcharges need to be reconfigured to a mileage basis. Ramp-to-ramp rates fail to account for individual shipper origin/destination locations. As length of haul shrinks, rail must be more targeted in ramp-to-ramp pricing to get door-to-door economics right for incremental volume.

Currently, capacity is not an issue — we estimate the domestic container fleet could handle 20% to 25% more loads. But the railroads and their channel partners must figure out how to do what's needed to pick up those boxes and put them to work.

> "As length of haul shrinks, rail must be more targeted in ramp-to-ramp pricing to get door-to-door economics right for incremental volume."
>
> Adriene Bailey

Norfolk Southern

Claude E. Elkins

Executive Vice President and Chief Marketing Officer
www.norfolksouthern.com

The biggest challenge facing US surface transportation in 2025 is the need for agile and adaptable operations in response to significant disruptions in the global supply chain, such as weather and geopolitical impacts. To tackle this, the industry must prioritize resilient networks through technological innovation, operational excellence and collaboration across the supply chain.

At Norfolk Southern, we see strong demand for intermodal services, which requires renewed collaboration and technological investment. By streamlining operations and enhancing customer partnerships, we can leverage capacity and present intermodal as a reliable, cost-effective and carbon-efficient alternative.

We also anticipate increased

> "The industry must prioritize resilient networks through technological innovation, operational excellence and collaboration across the supply chain."
>
> Claude E. Elkins

demand for integrated, multimodal solutions in the less-than-truckload (LTL) market. Commitment to reliability and innovation in routing and flexibility will help stabilize the LTL market as capacity rebalances. This collaborative approach will address the challenges of 2025 and position the industry for future growth.

> "Cross-docking and sortation centers can play a critical role in streamlining big and bulky returns, reducing handling times and costs for oversized items."
>
> Dennis Moon

Roadie

Dennis Moon

COO and Head of Operations
www.roadie.com

Handling large deliveries such as furniture and appliances has always been a challenge in logistics, but further improvements through the expansion of hub-and-spoke networks — as well as the integration of cross-docking facilities and sortation centers — can help meet this demand. Additionally, cross-docking and sortation centers can play a critical role in streamlining big and bulky returns, reducing handling times and costs for oversized items.

> "As Donald Trump prepares to come back into office, it is evident that the trade lanes and solutions of yesterday may not prevail tomorrow due to tariffs and political pressure."
>
> Ken Kellaway

RoadOne IntermodaLogistics

Ken Kellaway

Co-founder, president and CEO
www.roadone.com

The international import and export trade lane trends over the past 40 years have been built around West to East trade with China and many other Asia-based countries established as key trading partners, so it was critical for the US to have and established coastal infrastructure for trading. As Donald Trump prepares to come back into office, it is evident that the trade lanes and solutions of yesterday may not prevail tomorrow due to tariffs and political pressure.

As a result, Mexico has recently overtaken China as the US's largest trading partner. This has created a rapid need to expand the south to north trade infrastructure for cross-border trucking, transloading, warehousing and rail capacity out of Mexico and in major US border-crossing cities.

A massive roadblock in the rapidly expanding US-Mexico trade relationship is the strong threat of major tariffs on Mexico proposed by the Trump administration. These tariffs are being used as a mechanism to negotiate

Executive Commentary

illegal immigration at our southern border, and an attempt to keep manufacturing jobs within the US. The new administration needs to understand that this could have a major impact on both north and southbound trade, as it would likely lead to retaliatory tariffs and disrupt the flow of goods. The US today doesn't just create industrial jobs via manufacturing; it is made up of a robust, distribution-based economy that creates well-paying jobs and opportunities within the logistics industry, as well.

RoadOne IntermodaLogistics is a provider of end-to-end, single-source transportation solutions across North America, with a key focus on international and domestic US drayage, warehousing and transloading solutions, and dedicated fleet operations. Specializing in logistics, RoadOne has also developed robust capabilities to handle all domestic and cross-border freight within the United States-Mexico-Canada Agreement, making it an ideal partner for businesses seeking seamless movement of goods between the US and Mexico, even in times of political volatility.

TRAC Intermodal

Dan Walsh

President and CEO
www.tracintermodal.com

Continued progress in the intermodal space generally depends on several key tenets: ongoing investment to benefit customers; operational improvements to support evolving supply chain strategies; securing best-in-class talent; and further deployment of strategic technologies to operate as efficiently and effectively as possible.

"Commitment to making the highest-quality units available to customers and understanding what it takes to deliver on that promise is paramount."

Dan Walsh

One important area for investment is upgrading chassis fleets. In the last decade, TRAC Intermodal has invested more than $1 billion to expand and modernize its fleet. Commitment to making the highest-quality units available to customers and understanding what it takes to deliver on that promise is paramount.

Operational improvements can take the form of establishing close collaborations with industry partners to ensure sufficient equipment allocation for key markets. For example, TRAC is teaming up with rail partners to launch strategic safety reserve locations in designated markets that experienced demanding volume pressures in the past.

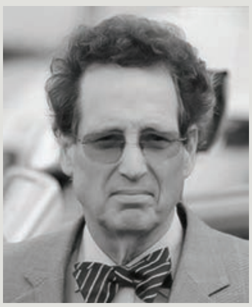
Technology upgrades can help improve inventory control and streamline business operations. TRAC is deploying world-class technology to track chassis with GPS and streamline business operations. This includes custom-built HELIX software to better engage customers, optimize assets and manage costs. As in so many other industries, deployment of artificial intelligence is also critical in intermodal. TRAC's RoadStar AI platform scans thousands of invoices each month from multiple vendors to ensure quality, cost and service are secured.

With a new year upon us, we are ideally positioned to capitalize on future demand. TRAC is eager to take the necessary steps and collaborate with industry partners to drive the next era of intermodal growth.

Truckstop

Noel Perry

Chief Economist
www.truckstop.com



In 2025, several key trends will shape the supply chain industry as it navigates evolving pressures and technological advancements.

First, the continued pace of automation is a major trend as businesses seek to streamline operations and reduce reliance on manual processes. Automation enhances efficiency and helps address labor shortages, which is crucial as supply chains strive for resilience and agility.

Second, regulatory trends will be critical to watch, as new rules around environmental sustainability, labor standards and safety are expected to influence supply chain practices. Compliance with these evolving regulations will likely require operational adjustments and may add to the cost structures within the industry.

Third, advancements in practical AI, particularly in capacity matching, are becoming increasingly impactful. AI-driven solutions can optimize routing, inventory management and demand forecasting, allowing companies to adapt quickly to fluctuating market conditions and better utilize available resources.

Finally, rising personal and sovereign deficits will add financial pressures to the supply chain, affecting both consumer spending and governmental support for infrastructure. This trend may lead to increased taxation and operational costs, compelling companies to find innovative ways to remain cost-effective.

Overall, these trends — automation, regulatory changes, AI progress and financial pressures — highlight the growing need for adaptable and efficient supply chain strategies in 2025.

"Rising personal and sovereign deficits will add financial pressures to the supply chain, affecting both consumer spending and governmental support for infrastructure."

Noel Perry

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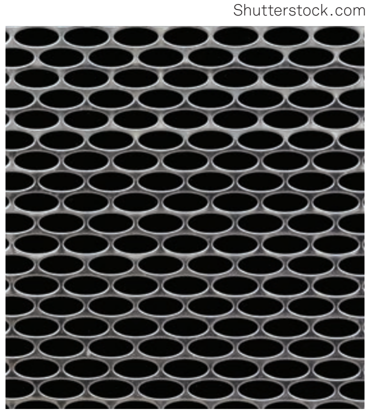

Executive Commentary

Trans American Trucking Service, Inc.

Craig McGraw

Vice President, Sales and Marketing
www.transamer.com

The biggest challenge facing the US trucking industry in 2025 is the driver shortage. This has been an issue in our industry for years, and it's expected to get worse due to an aging workforce, lack of younger recruits and increased regulatory measures. Many drivers are retiring, and younger generations are less inclined to pursue a career in trucking due to long hours, time away from home and the physical demands of the job.

To address this, the industry must prioritize driver recruitment and retention. Companies need to enhance compensation, offering higher wages, better benefits and improved working conditions to make the profession more appealing. Investing in driver well-being with things such as more home time, mental health support and safer working environments will also help retain experienced drivers.

At the same time, automation and technology can, in some areas, play a key role. While full autonomy may never happen, advancements in driver-assistive technology and autonomous trucking for highway driving can help reduce the labor shortage by improving efficiency and cutting back on the strain on human drivers.

Lastly, the industry must push for regulatory reforms that streamline training and licensing processes. One example would be lowering the age requirement for interstate drivers and supporting vocational training programs. By addressing these areas, the industry can overcome its driver shortage issue to the US economy.

> "The industry must push for regulatory reforms that streamline training and licensing processes."
>
> Craig McGraw

> "Relaxed or eliminated federal policies on emissions will be welcomed by the industry, yet globally and here at home, consumers and shippers still mandate cleaner Scope 3 emissions and net-zero targets. ."
>
> Jeff Tucker

Tucker Company Worldwide

Jeff Tucker

President and CEO
www.tuckerco.com

The most pressing issue facing the US freight industry in 2025 isn't just one issue, and not one of the many issues is easy to solve. Trump 2.0 will shuffle

Executive Commentary

> "As we move into the next chapter of our industry, we must have the tools needed to compete in an ever-changing transportation landscape and the ability to utilize technology to build a safer, stronger railroad."
>
> Jim Vena

Union Pacific

Jim Vena

CEO
www.up.com

The railroad industry and our entire sector must continue to lean into innovation and review developing technologies to examine if they will further our goal to improve safety and provide customers with the best, most efficient and cost-competitive products and solutions.

The history of our industry is one of growth and evolution. That history is reflected in the significant advancements made over the decades to improve safety, strengthen our infrastructure and build a highly skilled workforce. I am excited for the future and the promise new technologies hold to enhance safety, make our industry even more sustainable, and improve reliability and ease of doing business for our customers.

Seventy-five years ago, diesel locomotives replaced steam locomotives, enhancing safety and customer experience. Today, emerging technologies — some powered by artificial intelligence — hold the potential to revolutionize our industry once again.

As we move into the next chapter of our industry, we must have the tools needed to compete in an ever-changing transportation landscape and the ability to utilize technology to build a safer, stronger railroad. We must continue innovating how we work, using technology and new processes to provide great opportunities to our workforce while getting the most out of the infrastructure and assets that make up our networks and systems.

If our long history has taught us anything, it's that you can't — or shouldn't — hold back progress or stifle innovation, no matter how much you love the sight and sound of a steam locomotive.

priorities and change regulations. Notwithstanding that impact, let's focus on sustainability.

Relaxed or eliminated federal policies on emissions will be welcomed by the industry, yet globally and here at home, consumers and shippers still mandate cleaner Scope 3 emissions and net-zero targets. Freight, cars and buses emit nearly 30% of greenhouse gases in the US, so there will be friction, uncertainty and fewer solutions for shippers.

The US freight industry is expected to reach $1.67 trillion by 2030, with trucks handling 80% of that. Globally, freight demand is expected to double by 2050.

Significant friction is likely to exist between Trump administration efforts, global corporations, states such as California and New Jersey, the EU, and other mandates impacting vehicle manufacturing and usage of cleaner fuels.

How will manufacturers, truckers and shippers navigate the "climate" of Trump 2.0? Might Elon Musk's new closeness with the president-elect — and a potential Musk role in the Trump administration — soften this impact?

Will the oil industry see a boost in demand? Will the push for sustainability under Trump slow the shift toward cleaner emission vehicles, such as biodiesel, electric vehicles, hydrogen fuel cells and alternative fuels? Or will the market for these technologies and the many billions of dollars of investment in them continue to drive up demand?

Carbon dioxide reductions can be achieved through a comprehensive approach to freight service procurement and technological advances. Shippers have just begun using and experimenting with some of the tools in our belts to reduce emissions.

These big questions regarding sustainability initiatives within freight will keep investors, the oil industry, Wall Street, shippers, manufacturers, truckers, cargo lines and other transport providers on the edge of their seats, and with a close eye on their investment strategies.

> "As the industry continues to face these market headwinds in 2025, companies must zero in on factors they can control — optimizing costs, enhancing cash flow and meeting shipper needs with flexible, efficient solutions."
>
> Derek Leathers

Werner Enterprises

Derek Leathers

Chairman and CEO
www.werner.com

The biggest challenge facing US surface transportation in 2025 will be navigating the lingering effects of the unprecedented freight downturn, which has reshaped market dynamics and pressured operating margins across the industry.

To stay resilient, companies must adapt by focusing on cost efficiency and strategic investment. For Werner, this has meant implementing structural changes that reduce operating expenses while positioning us for sustainable growth.

Our emphasis on a diverse set of high-performing solutions — such as dedicated, one-way and cross-border services — has demonstrated adaptability and durability and allowed us to strengthen our position in a challenging market.

As the industry continues to face these market headwinds in 2025, companies must zero in on factors they can control — optimizing costs, enhancing cash flow and meeting shipper needs with flexible, efficient solutions. By staying the course with proven strategies and prioritizing investments that yield operational savings, we are not only prepared to weather the storm but to drive growth and secure our competitive advantage amid the evolving freight landscape.

Open spaces

Warehouse vacancies expected to fall from 2024 'peak'

By William B. Cassidy

The big picture: With a large number of industrial logistics and warehousing projects launched during the COVID-19 pandemic now complete and shippers destocking or rebalancing inventories throughout the year, warehousing space is widely available across the US. Still, solid increases in US imports kept demand positive last year and developers expect supply to tighten as volumes accelerate in 2025.

A look back: Shippers in the US had an easier time finding industrial warehousing and distribution space in 2024 as the Great Destocking of 2023 led to a widespread rebalancing of inventories in 2024. The average US industrial vacancy rate for manufacturing and logistics properties rose to 6.8% in the third quarter, the highest since before Covid but still slightly below the pre-pandemic average of 7.1%, according to real estate developer JLL. At the same time, the vacancy rate in Southern California's Inland Empire dropped 40 basis points to 7.4%, the first vacancy rate reduction in the region in three years, as more e-commerce firms and Asian logistics providers sought space, JLL said. Despite lower demand, average rents in the US remained stable, the developer noted, but rent increases are slowing. According to developer Prologis, logistics capacity built to increase resiliency during the early years of the pandemic is now being used by tenants to keep costs in line during the downcycle. Utilization is increasing, however, as an inflection point draws closer, and that will force decisions on warehouse users who will need new space if US manufacturing gains steam and freight demand rises. Even so, demand for logistics space is expected to remain soft in the near term.

A look ahead: How long the near-term softness forecast by Prologis and other developers lasts depends on growth in US manufacturing, increased consumer spending and the impact of disruptions such as the Red Sea crisis and a potential second longshore strike at US East and Gulf coast ports. Trade policy and tariff changes under a second Trump administration could also change the demand equation, but their impact is not yet clear. Prologis believes industrial logistics vacancy rates have peaked, and absorption rates for warehouse construction will increase as the US freight economy improves. As demand rises, rents are expected to follow. And the dynamics that drove warehouse expansion in the early 2020s haven't changed. Booming e-commerce volumes and expectations for faster end-to-end delivery of goods and inputs are still reconfiguring distribution networks, with more logistics facilities being built closer to end consumers. The rise of manufacturing in Mexico is also shifting distribution networks and needs, with new or expanded logistics facilities popping up along the US-Mexico border.

> Booming e-commerce and expectations for faster end-to-end delivery are still reconfiguring distribution networks.

The next inflection: A turning point in demand for warehouse and logistics facilities is expected in 2025, but it depends largely on higher US manufacturing output and increased consumer confidence and spending. Still, some warehouse providers started warning potential customers of tightening capacity and higher rents in late 2024, urging them to "act now" to avoid potential space shortages and position themselves for growth. As a result, some shippers will be looking to lock in storage and logistics capacity early this year.

email: bill.cassidy@spglobal.com

US industrial vacancy rates rose to 6.8% in Q3, the highest since the start of the COVID-19 pandemic.
Shutterstock.com

Executive Commentary

“Companies should be careful to select a platform that will not use their internal data to train public Generative AI models. Corporate data privacy should be a significant factor in selecting a platform to drive these benefits.”

Tom Barnes

319 Capital Partners

Tom Barnes

CEO
www.319capitalpartners.com

We have been hearing about generative AI and large language models for the past few years.

Although consumers and employees have been quick to realize the benefits of these technologies, large companies have been slower to implement these capabilities.

A significant factor which has delayed deployment in large organizations is the shortage of professionals that are experienced at implementing these technologies. Many people have a high-level understanding of the technologies, but few have actually delivered them at a larger scale.

Companies that have implemented these technologies have seen incredible benefits. Some of the areas that have significantly benefited include the use of generative AI in identifying patterns and finding correlations and turning unstructured data into structured data while facilitating access to information.

When new products are manufactured or shipped, determining the requirements relating to those products is made easier by quickly identifying attributes of the product and seeing what was done in the past with those types of products.

In a world where companies are drowning in data, specifically unstructured data and documents, it is difficult to find a way to organize it. Generative AI platforms can help find correlations between documents and facilitate the retrieval of data needed.

The combination of these two capabilities allows organizations to more readily organize not only their documents, but the data in their documents.

There are a few vendors out there with the necessary skills and platforms to facilitate the deployment of these efficiencies. When selecting a platform of choice, one needs to ensure that it is well vetted. Companies should be careful to select a platform that will not use their internal data to train public Generative AI models. Corporate data privacy should be a significant factor in selecting a platform to drive these benefits.

“In supply chain, this technology has contributed to a marked increase in the usefulness of data analytics, transparency and automation.”

Abe Eshkenazi

Association for Supply Chain Management (ASCM)

Abe Eshkenazi

CEO
www.ascm.org

Undoubtedly, 2024 can be characterized as the year artificial intelligence reached a tipping point, as experimentation with generative AI tools such as ChatGPT became widespread. But AI is revolutionary for more than just summarizing long articles and producing illustrations at

“The agility of these AI systems reduces manual effort while expediting the resolution process, allowing businesses to respond to challenges with unprecedented speed and accuracy.”

Bill Aldridge

Allport Cargo Services, a DP World Company

Bill Aldridge

President
www.allportcs.com

Artificial intelligence is revolutionizing container shipping by enhancing efficiency and offering valuable insights into shipping processes. One of the primary functions in which AI is best positioned to aid is in identifying and mitigating disruptions. With the ability to analyze various parameters such as origin, destination and historical data, AI can employ predictive models to flag potential disruptions early on. This capability not only provides estimated arrival times but also identifies risks such as strikes or congestion, ultimately facilitating better planning and more informed decision-making.

Additionally, AI-driven decision support systems are transforming how logistics professionals approach their work. These systems can analyze vast amounts of complex data in real time, suggesting alternative routes or modes of transportation when unexpected delays occur. This ability to provide real-time recommendations significantly speeds up decision-making processes that would otherwise consume considerable time and resources.

Moreover, the integration of generative AI and large language models enhances disruption resolution. Digital assistants can now offer real-time solutions for supply chain issues, thus optimizing the management of logistics challenges. The agility of these AI systems reduces manual effort while expediting the resolution process, allowing businesses to respond to challenges with unprecedented speed and accuracy. Our Infor Nexus Control Center and predictive analytics tools, combined with the ability to geofence, have already enabled Allport Cargo Services to deliver significant, tangible value to clients in the early part of this journey.

Looking ahead, AI is not just enhancing current practices but also future-proofing the maritime industry. As AI adoption continues to rise exponentially, we can expect significant advancements that may eventually lead to greater autonomy in supply chain operations. In conclusion, AI’s role in container shipping is pivotal, as it provides predictive insights, supports decision-making and automates complex processes, thereby transforming the landscape of logistics for the better. The potential of AI in this sector signifies a shift toward a more resilient, efficient and responsive supply chain infrastructure.

scale; in supply chain, this technology has contributed to a marked increase in the usefulness of data analytics, transparency and automation, all critical elements for supply chain visibility and predictability.

Visibility in supply chain has far-reaching implications for businesses and customers alike. For the food supply, knowing the provenance of the cinnamon in a jar of flavored applesauce could equal the difference between a healthy snack and lead poisoning; quickly pinpointing which supplier shipped the tainted onions garnishing a popular burger means stopping an E. coli outbreak before it spreads nationwide.

But AI is not just a boon for improving safety; it also increases efficiency. Big-box stores are using AI-powered systems to better understand and predict customer behavior. "Our [AI] engines are always learning, so we can optimize, increase demand or reposition inventory to higher selling regions," Walmart's tech blog explains. In other words, supply chain managers know not only what and when customers want to buy, but where those customers are located. Amazon uses AI to right-size packaging: the data is refined based on customer feedback, prior shipments deemed successful and keywords about the item; therefore, it's not just the size of the box or mailer that can be determined, but also the amount of cushioning required. Customization reduces waste.

In 2025, supply chain managers can employ AI-enhanced data analytics tools to create end-to-end visibility and predictability, ensuring a clear understanding of the entire chain, from raw materials to the end customer. Adopting this technology may require additional training or financial outlay, but the result — a more predictable supply chain of the future — will be well worth the investment.

"As the market continues to fluctuate, consolidation and shuttering of trusted carriers has created a critical need for transparency well into the process of choosing which carrier to trust with your shipments."

Brian Smith

Banyan Technology

Brian Smith

CEO

www.banyantechnology.com

Visibility has come a long way from the simple question of "Where's my truck?" or "Where's my shipment?" In today's market, businesses demand full transparency across every step of their freight execution process, from vetting carriers and tracking shipment movement in real time to managing documentation and leveraging data to augment decision-making.

As the market continues to fluctuate, consolidation and shuttering of trusted carriers has created a critical need for transparency well into the process of choosing which carrier to trust with your shipments. Understanding which carriers to use for various types of shipments, routes, delivery time frames and even verification of accessorials has increased the need for full-circle transparency.

Fortunately, data is available to help shippers make informed decisions about the carriers they choose. Having access to historical data and business intelligence via system dashboards for carrier performance, carrier cost and other critical selection factors increases the likelihood that freight is handled by a provider with the appropriate mode, capabilities and qualifications minimizing the risk of delays, damage or mishandling.

Beyond carrier selection for timely delivery, it's no surprise that real-time in-transit shipment tracking is becoming increasingly in demand. Many customers are requiring real-time tracking to manage their own supply chains and minimize inventories as businesses deal with increased costs and ongoing labor challenges. Real-time tracking provides visibility into precise delivery times and routes, allowing businesses to anticipate and react to any potential delays in their shipments and maintain optimal levels of inventory.

Additional requirements for visibility beyond the physical movement of goods include document management and financial reporting, which make accessing contracts to review carrier agreements, rate quotes and shipment details easier, ensuring businesses avoid billing discrepancies or payment errors to better manage costs.

Finally, having visibility into historical and real-time shipping data provides businesses with the insight they need to better manage costs and meet growing customer demands. With this enhanced visibility comes greater predictability. In the end, having the right carriers, correct shipment details and manageable costs to make informed shipping decisions is essential for maintaining efficient operations.

Bettaway Supply Chain Services

John Vaccaro

President

www.bettaway.com

Trucking companies face myriad challenges going into 2025. Costs for everything — from trucks to tolls to tires — continue to rise. As the driver population ages, recruitment and retention require even more creativity, innovation and investment. Customers continue to demand a high level of service, and carriers must invest in modern equipment and technologies to help shippers achieve their goals.

Yet perhaps the most pressing issue for trucking firms is the insurance challenge, driven by nuclear verdicts and the rising liability premiums that result.

We are under assault by plaintiff attorneys who, when a truck is involved in an accident, look for the

"We are under assault by plaintiff attorneys who, when a truck is involved in an accident, look for the deepest pockets they can find, regardless of fault."

John Vaccaro

Executive Commentary

deepest pockets they can find, regardless of fault. That's often the trucking company, the truck manufacturer or even the freight broker.

A recent study by the US Chamber of Commerce Institute for Legal Reform found the average size of verdicts over $1 million against trucking firms increased by 867% between 2010 and 2018. The study also reviewed 154 litigation verdicts from June 2020 to April 2023 and found the mean plaintiffs' award, combined with settlements, was over $27.5 million.

A new report by the American Tort Reform Organization revealed $6.8 billion was spent on over 77 million national and local legal service ads in 2021 alone. Additionally, over 15 million ads for legal services aired in 210 media markets across the US, totaling $971.6 million spent.

There are plenty of public service announcements about insurance fraud, but what about insurance claim abuse? These ads are conditioning the public to view trucks as litigation opportunities versus a crucial part of our economy and supply chain.

I'm not advocating that a responsible party in an accident should not be held accountable. Everyone harmed should be compensated and receive the highest levels of care. But the purpose is not to create generational wealth for plaintiff families, or to fund more billboards promising big paydays from trucker accidents.

"As AI continues to evolve, its impact on container shipping will only deepen."

Nimesh Modi

Book Your Cargo

Nimesh Modi

CEO
www.bookyourcargo.com

Artificial intelligence is reshaping the landscape of container shipping. By leveraging vast amounts of historical data, AI-powered algorithms can accurately predict future freight rates, enabling transparent and competitive pricing. This predictive capability empowers shippers to make informed decisions and optimize their supply chain costs.

Additionally, AI-driven platforms provide real-time visibility into the entire shipping journey. From the moment a container is picked up to its final destination, shippers can monitor its status, identify potential delays and proactively address issues. This level of transparency reduces uncertainty and improves overall supply chain efficiency.

Furthermore, AI is optimizing various aspects of container shipping operations. By automating routine tasks such as documentation processing and customs clearance, AI significantly reduces human error and accelerates the overall process. It also enables the identification of potential bottlenecks and inefficiencies, allowing for timely interventions and proactive problem-solving.

As AI continues to evolve, its impact on container shipping will only deepen. By embracing AI-powered solutions, shippers can unlock new levels of efficiency, cost effectiveness and reliability — ultimately strengthening their competitive edge.

BuyCo

Carl Lauron

CEO
www.buyco.co

Container shipping is a complex, manual-intensive practice. With businesses striving to enhance efficiency and cut costs, digitalization is essential. Artificial intelligence stands as a transformative force in this space, enabling the shift from paper-based, email and spreadsheet processes to automated, data-driven workflows.

One of AI's contributions is standardizing varied data formats across carriers, shippers and freight forwarders. This lays the groundwork for seamless digital processes, which benefits several critical operations: processing booking confirmations to initiate tracking, streamlining updates for ocean rates, conducting automated freight audits by digitalizing freight and detention and demurrage invoices, enhancing document consistency checks, and detecting shipment risks through pattern recognition.

"The pace of AI's development makes it difficult to predict which processes will see the most automation next, but its evolution is undeniable."

Carl Lauron

While blockchain has shown limited potential — electronic bills of lading being its most viable application — AI's flexibility opens up broader possibilities, from operational support to potential full automation. The pace of AI's development makes it difficult to predict which processes will see the most automation next, but its evolution is undeniable.

Container visibility has been a pioneering step in shipping automation, and answering the essential question, "Where is my cargo?" is set to become a commodity service. However, accurate inland ETA remains challenging due to the trucking industry's fragmentation and regulatory limitations such as Europe's General Data Protection Regulation. The focus of visibility will shift from tracking to collaboration, monitoring "who does what by when" for comprehensive control over shipments.

Automation goes beyond visibility; while human oversight is necessary for managing disruptions, many operations can be automated. This includes automating vessel selection and booking tasks, optimizing CO2 routing, container tracking across carriers, and automated handling of documents and invoices.

With AI's rapid advancements, container shipping is poised for a future where automation underpins seamless, efficient operations.


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Executive Commentary

C.H. Robinson

Arun Rajan

Chief Strategy and Innovation Officer
www.chrobinson.com

Generative artificial intelligence is a compelling new development in freight tech because of its ability to perform processes across the life cycle of a load, unlocking levels of automation never achievable before.

Generative AI is often associated with reading and generating text, similar to a chatbot. There's a place for that. But because it can mimic human cognition, its more powerful uses in the logistics industry are performing time-intensive tasks that would otherwise be manual, deriving value from unstructured data and amplifying the expertise that lies within people.

For example, generative AI makes it possible to create tools that handle customer transactions originating in email. A load tender coming in through a transportation management system, a website form or an app could be automated years ago. The information to execute it is there in nice, organized fields filled in by the customer. But if a shipper sends an email, it might just say, "Can you move 10 extra loads for me on Monday?" and a knowledgeable person would have to handle that.

> "[Gen AI's] more powerful uses in the logistics industry are performing time-intensive tasks that would otherwise be manual, deriving value from unstructured data and amplifying the expertise that lies within people."
>
> Arun Rajan

Now, you can build a generative AI tool that connects information in the email, detects what's missing, knows how to fill in the blanks because your people trained it and makes smart decisions. Then it can perform the task of turning a load tender into an order for that customer's unique freight.

The customer is served in seconds instead of hours. They can get better speed to market, more competitive pricing, the best-fit carrier and more advantageous appointments for pickup and delivery. Their account team is also freed up to do more strategic work.

Multiply that across many steps in the shipping process, performed thousands of times a day. Ultimately, generative AI can inject incredible efficiency into global supply chains and drive change on a massive scale.

CaDi Systems

Justine Kruger

Co-founder and Director
www.cadisystems.com

The supply chain, logistics and maritime industries are experiencing a surge in innovation driven by new technologies, particularly in the realm of carbon management. However, many companies remain hesitant to fully embrace these systems, such as a carbon transaction management system (CTMS), due to fears around cost, compliance and complexity. These fears are compounded by common mistakes, such as incomplete data collection, manual tracking and poor integration planning.

Accurate CO2 emissions tracking offers significant benefits, including cost savings, regulatory compliance and improved sustainability. Yet, many organizations struggle with inefficient processes, outdated tools and inconsistent or fragmented data. This lack of real-time visibility into carbon footprints prevents companies from fully realizing the advantages of advanced visualization and automated tracking tools.

The integration of carbon management systems into existing supply chains holds enormous potential for improving productivity and efficiency. Companies that successfully adopt these technologies can expect smoother operations, clearer insights and stronger positioning in a rapidly evolving regulatory environment. Moreover, the future of carbon management will be shaped by those who proactively address sustainability trends, adopt innovative solutions and prioritize long-term gains over short-term challenges.

Despite fears of operational disruption and high costs, those who take the plunge into carbon management technologies will ultimately gain a competitive edge, ensuring compliance, improving their carbon footprint and fostering a more sustainable and efficient future for their operations.

Taking a longer-term approach to selecting a complete CTMS will future proof your investment in sustainable carbon solutions. A system that not only calculates and predicts carbon emissions for cargo movements, but also aims to offset Scope 3 emissions with complete offset, inset and credit management. Integrated carbon accounting and reporting capabilities will not just help you achieve environmental goals but also give your business the competitive advantage.

> "The future of carbon management will be shaped by those who proactively address sustainability trends, adopt innovative solutions and prioritize long-term gains over short-term challenges."
>
> Justine Kruger

CBRE

Blaine Kelley

Executive Vice President
www.cbre.com

The US industrial warehouse market continues to stabilize with demand softening just as the development pipeline pauses. After a three-year run-up, rental rates have flattened, as taking rents have declined while landlords focus on occupancy.

Supply chain visibility into operational costs lacks accuracy, especially in the form of real estate forecasting and market insights. Frequently, operational leaders face "mark to market" rent resets driven by property owners, leading to 50% price increases. Additional operating expenses are now fully passed through and have increased drastically during this recent expansion. For logistics companies, these resets directly affect margins.

> "Property developers will have to capitalize non-traditional improvements such as material-handling systems and robotics in order to attract sophisticated clients."
>
> Blaine Kelley

Going forward, use of predictive

real estate cost analytics and forecasting technologies will provide the planning savvy and visibility currently missing in the process.

Given the forecasted 18% annual growth for warehouse automation, we expect a significant impact on the industrial real estate sector in two key areas.

First, building design will have to adjust. Retailers and e-commerce companies will push for taller buildings, more electric infrastructure and heavier structural and mechanical systems to house robotics, sortation systems, and ASRS modules. The traditional "four walls and a roof" design will become obsolete. Speculative development will have to take all of this into account going forward.

Second, property developers will have to capitalize non-traditional improvements such as material-handling systems and robotics in order to attract sophisticated clients. This is uncharted territory for them and will require their financial partners and lenders to enter into a new domain of financial risk with more agility and understanding.

Looking to 2025, consumer demand is expected to remain steady, leading to continued growth and expansion. Investment in automation will stretch the industry and predictive cost modeling will be imperative to achieve operational success.

> "AI can be applied not only for data analysis but also for data connectivity, which is a prerequisite."
>
> Gisli Herjolfsson

> "The next frontier in future-proofing pharma supply chains, particularly for delivering a new wave of treatments, will require innovations that enable end-to-end visibility, reliably tracking shipments from production to patient down to the unit level."
>
> Jaakko Elovaara

> "Beware of solutions that claim to solve broken processes with AI alone rather than addressing core issues."
>
> Brian Glick

Chain.io

Brian Glick

Founder and CEO
www.chain.io

In 2025, the hype around artificial intelligence will begin to crystallize into practical applications. We'll see a wave of pilot projects evolve into full-scale implementations, but also watch as non-essential AI uses get filtered out due to costs and environmental impacts.

Data quality will take center stage in logistics, as smarter systems demand consistent, high-quality data for effective, real-time communication. This shift echoes the EDI transition of three decades ago, when typewriters vanished from workflows. Email will become the "new typewriter" holding back seamless operations. Beware of solutions that claim to solve broken processes with AI alone rather than addressing core issues.

A notable shift next year: shippers, not carriers or forwarders, will likely drive the most impactful AI innovations. To unlock AI's full potential, data must flow across functions such as marketing, finance and planning. Carriers and forwarders will provide essential data, but transformative insights will come from shippers and software providers who see the complete logistics landscape.

Controlant

Gisli Herjolfsson

Co-founder and CEO
www.controlant.com

While pharma companies are at the forefront of innovation in developing new treatments that stand to improve people's health outcomes, their supply chains often lag. Many still rely on outdated

coneksion

Jaakko Elovaara

Co-founder and CEO
www.coneksion.com

Nowadays, artificial intelligence algorithms can quickly and accurately analyze vast amounts of data, identifying patterns and making connections that would take humans significantly longer to accomplish. Especially in container shipping, this capability can be invaluable for predictive analytics, helping companies anticipate demand fluctuations and optimize routing. Additionally, AI facilitates process automation and minimizes manual intervention, ultimately boosting operational efficiency and enhancing supply chain performance. Enabling the constant flow and orchestration of these vast amounts of data, based on which AI algorithms can then deliver these advantages, requires efficient data connectivity solutions.

In fact, AI can be applied not only for data analysis but also for data connectivity, which is a prerequisite. There's a lot of raw data residing in various formats that can be made valuable; stakeholders often face challenges with data format mapping, primarily due to a lack of common data standards and outdated technology. Traditionally, data mapping processes have been labor-intensive and error-prone, requiring extensive manual input and oversight. Even now that common messaging and data standards have emerged (e.g., DCSA and SMDG), message conversion is considered a pain. This not only slows down operations but also increases the likelihood of mistakes, which can be costly in terms of time and resources.

Data connectivity solutions enhanced by AI, when combined with human domain expertise, enable companies to automate execution and visibility processes, streamlining operations and allowing them to focus on strategic decision-making, rather than getting bogged down in tedious mapping or integration tasks.

AI's capabilities are invaluable in logistics and container shipping, especially in data exchange, where timely, accurate information is vital. Its automation and optimization capabilities make it a game changer in container shipping, enhancing efficiency and supporting long-term business growth.

Executive Commentary

Descartes

Ken Wood

Executive Vice President, Product Management
www.descartes.com

Artificial intelligence is at the forefront of innovation discussions, especially in supply chain management. Advanced technologies for warehouse optimization, transportation, network design, B2B multi-party digital communication/collaboration and other areas can be difficult for companies to fully adopt, realize value potential and sustain due to challenges such as expertise, data quality and business adaptation. AI promises to make these tools more accessible and sustainable by driving automation, improving data quality, enabling machine learning and incorporating natural language interfaces and adaptable workflows. This innovation allows companies to deploy existing supply chain technologies more efficiently. The industry can then build on this agile foundation with emerging tools such as affordable internet of things, augmented reality, edge AI and robotics, creating a more resilient and responsive supply chain.

Large language model (LLM)-based AI technologies are powerful tools for expanding the adoption of applications and techniques already shown to improve supply chain operations and performance. As networks and applications adapt to LLM interactions and data accessibility increases, we'll see a broader use of AI agents in the supply chain. These agents will leverage existing applications, optimization engines and communication channels — enhanced by AI — to automate supply chain functions, all under the direction and supervision of human experts. These experts deeply understand business needs, customer expectations and AI-assisted supply chain analysis, guiding automation and ensuring optimal logistics operations.

Long-tail applications such as those related to complex B2B communications are another area where AI can offer powerful solutions. By streamlining cleansing, conversion and ingestion processes for both structured and unstructured data, AI can help make large-scale digital transformation and B2B integration projects much more achievable.

We have lots of technologies that have unrealized potential for transportation, warehousing, e-commerce, B2B communications, supply and demand management, and trade compliance. The list is long. AI is going to help unleash that potential.

> "By streamlining cleansing, conversion and ingestion processes for both structured and unstructured data, AI can help make large-scale digital transformation and B2B integration projects much more achievable."
>
> Ken Wood

technologies, fragmented systems and incomplete or inaccurate data, limiting visibility into the location and temperature of life-saving goods across the global supply chain.

For many, the global pandemic was a wake-up call to the urgency of digital transformation in supply chains, demonstrating that without real-time insights and automation, critical supply chains are at risk of costly disruption. Today, pharma leaders implementing real-time visibility technology are driving down costs, eliminating waste, increasing efficiency and safeguarding patient safety.

Sensitive and complex treatments such as cell and gene therapies and personalized medicine take up an ever-larger share of pharma's product portfolio. As the volume of these high-cost, high-complexity shipments rapidly grows, the only visibility that can future-proof the safety and sustainability of the pharma supply chain is real-time visibility.

Real-time visibility not only reduces waste but also provides a single source of truth through accurate and timely data, paving the way for automating processes subject to pharma's strict quality controls. The automation of data-driven decision-making also enhances resilience by decreasing dependency on labor and other resources that may fluctuate in availability.

The next frontier in future-proofing pharma supply chains, particularly for delivering a new wave of treatments, will require innovations that enable end-to-end visibility, reliably tracking shipments from production to patient down to the unit level. Implementing this technology at scale presents new challenges, especially when the ambition is to do it sustainably and without compromising the planet or patient safety. The reality is that without real-time visibility, costs, risks and waste will rise, and patients may miss out on groundbreaking new treatments.

DSV

Jesper Riis

COO
www.dsv.com

In 2025, visibility will no longer mean just tracking shipments in real time. It will evolve into a multi-dimensional view, where customers will expect the ability to monitor and analyze every aspect of the supply chain — from raw material sourcing to final delivery. At DSV, we are working hard to deliver on these expectations. This level of visibility enables quick adjustments when disruptions occur. Lead times will dynamically change daily, reflecting demand shifts and local/global supply disruptions. This is pivotal in times of geopolitical turmoil where flexible and resilient supply chains are key to mitigate changing trading patterns and new customer behavior. Predictability, on the other hand, will lean heavily on data and AI. It will mean not just forecasting demand but anticipating delays, risks and even consumer behavior shifts before they happen. In essence, it is about being proactive rather than reactive, ensuring a more resilient and agile supply chain.

> "In 2025, visibility will no longer mean just tracking shipments in real time. It will evolve into a multi-dimensional view, where customers will expect the ability to monitor and analyze every aspect of the supply chain."
>
> Jesper Riis

Executive Commentary

Dunavant

Chrissy Geibel
COO
www.dunavant.com

Visibility and predictability in the supply chain are increasingly critical as we approach 2025, driven by rapid technological advances, evolving consumer expectations and various industry disruptions. True visibility enables real-time monitoring of goods at every leg of the journey, leading to more accurate predictability. While we cannot predict every variable, we can leverage data to anticipate disruptions and develop proactive solutions.

Many companies rely on historical data for visibility and predictability, yet achieving real-time visibility and predictability across the supply chain remains challenging. Each organization captures data relevant to its needs, but is the data real time? Is it pertinent to others? For that matter, is it even shared? This integration of technology in the supply chain has improved connectivity while also introducing complexity. As we increase visibility — leg to leg or partner to partner — the differentiator lies in interpreting true, real-time data and making it meaningful and actionable for all stakeholders. It's no longer a simple connection, but a complex integration.

As technology progresses, visibility and predictability in logistics will continue to improve. However, regardless of the advances, our industry will always be a service-driven industry with human experience, connection and commitment as key value propositions.

> "Each organization captures data relevant to its needs, but is the data real time? Is it pertinent to others? For that matter, is it even shared?"
>
> Chrissy Geibel

eezyimport

Uri Appelbaum
CEO
www.eezyimport.com

While automation has revolutionized some logistics processes, other fields still require human intervention.

Over the last few years, automation has transformed some areas in the supply chain industry such as inventory management, order processing, transportation management and customs clearance. These transformations can be seen in advanced warehouse management systems and automated storage and retrieval systems, which enable businesses to optimize stock levels and minimize human errors. Integration of e-commerce platforms with warehouse operations has allowed picking, packing and preparing of orders to become fully automated, thus speeding up fulfillment and minimizing human errors.

In transportation management, algorithms optimize routes, track fleets and plan loads. These systems make transportation more efficient by choosing the best paths and reducing costs. Autonomous vehicles and drones are also emerging technologies that may further automate deliveries in the future. Automation has also transformed customs compliance, allowing importers to file documents, calculate duties and manage regulations through digital platforms, which helps reduce errors and saves time.

And yet, some areas cannot become truly automated.

While AI offers remarkable benefits and possibilities, it's evident that transforming how people work is a gradual process, largely due to established checks and procedures that have become standard practice.

Customer service is an area that cannot be fully automated. While chatbots handle basic queries, complex issues such as delivery problems, strikes or natural disasters require human interaction for effective resolution.

Similarly, relationship management with suppliers and clients relies on human skills. Negotiating, managing expectations and resolving disputes are tasks that automation cannot replace.

While automation has enhanced efficiency in logistics — particularly in inventory, order processing and transportation — human oversight remains essential for other areas in the industry. We can use automated tools to help human oversight in customer service, relationship management and navigating unpredictable situations, but never to a full extent.

> "While AI offers remarkable benefits and possibilities, it's evident that transforming how people work is a gradual process, largely due to established checks and procedures that have become standard practice."
>
> Uri Appelbaum

Endava

James Brennan
Global Industry Lead, Supply Chain & Manufacturing
www.endava.com

Over the past 12 to 24 months, the evolution of artificial intelligence and generative AI has been astonishing. Even as an end-user, it's amazing to reflect on the difference in the market from the original ChatGPT to where we now have access to countless open-source applications for use-cases such as image/video generating models, co-pilot capabilities for development, plug-ins for Microsoft office, iPhone messenger, etc. giving us easy access to increase our daily productivity. But there's something on the horizon that will take AI in the supply chain to a whole new level: quantum computing. Within the next three to five years, quantum will shift from experimental to practical, completely redefining what's possible with AI. We don't need to wait for the medium term however, as we are already seeing early adopters experimenting, and having success, with quantum computing to plug in and solve some of the most complex algorithms within the supply chain.

Machine vision is another area where we're seeing significant advancements. The ability of machines to interpret visual data from camera feeds, sensors and internet of things

> "We are already seeing early adopters experimenting, and having success, with quantum computing to plug in and solve some of the most complex algorithms within the supply chain."
>
> James Brennan

Executive Commentary

devices is transforming manufacturing, driving growth, increasing safety and attracting investment. A critical factor in advancing machine vision is synthetic data, which allows us to create diverse, high-quality training sets and refine models long before they go live. Consider an autonomous forklift or other automated mobile robots in a warehouse that need to navigate around potential hazards. Instead of relying on real-life incidents — which we obviously want to avoid — we can train these systems with synthetic data that simulates various scenarios. This approach strengthens the model's capabilities while keeping workers and workplaces safe. We believe advancements such as these will rapidly increase the time to value on machine vision capabilities and investments.

Farrow

David Bennett

President
www.farrow.com

The importance of supply chain visibility has been a hot topic since the global uncertainty brought on by the COVID-19 pandemic. Continued uncertainties with geopolitical challenges influencing trade and various service disruptions associated with extended labor negotiations make it an increasing need to have full visibility to one's cargo movement. Unreliable proforma schedules with the continuous mechanism of blank sailings, the ongoing conflict in the Red Sea and continuous challenges with rail car capacity have resulted in inconsistent transit times. This makes the need to have full visibility to container movements a necessity, not a luxury.

"Addressing this critical need for visibility to movement of containers has resulted in the offering of basic tracking tools. One key, yet often overlooked, metric is the status of customs brokerage updates."

David Bennett

Over the years, customers have continued to request visibility tools to track and trace container movement from loading through to the final destination, requiring that such tools extend to the critical final mile once the container is in the hands of the drayage provider. Addressing this critical need for visibility to movement of containers has resulted in the offering of basic tracking tools. One key, yet often overlooked, metric is the status of customs brokerage updates. With continued inconsistent transit times and extended dwell times, providing customers with visibility to the customs clearance status of their shipment entries has become as equally important as updates to the cargo movement.

Regarding predictability within supply chains, it starts with a solid forecasting model to understand volume needs well in advance of when many are accustomed to. Just-in-time inventory models were unsustainable during the pandemic and continue to be challenging to properly plan for, given the infrastructure challenges and lack of reliable schedules from carriers and rail providers. As we look to possible challenges our industry faces in 2025, it will be critical to have a forecasting model and process that is nimble and can pivot quickly.

Freightos

Ian Arroyo

Chief Strategy Officer
www.freightos.com

These days, market ups and downs are forcing beneficial cargo owners (BCOs) to refresh their rates with logistics providers more often — sometimes monthly or even weekly. This back and forth on tender agreements isn't just eating up everyone's time — it's stretching procurement teams (and their vendors) thin. Additionally, constantly renegotiating deals can put a strain on relationships with forwarders and carriers, the very partnerships that prove so crucial when markets get rocky.

That's where tech solutions help, with automated systems connecting providers and BCOs and a backbone powered by market intelligence and AI to make the tender process smoother. This lets BCOs zero in on just the routes that need updating, while forwarders and carriers can make targeted tweaks to prices and surcharges. Best of all, it takes the mind-numbing parts of procurement off of people's plates, letting them focus on what really matters: building solid business relationships.

The change is just part of a bigger industry shake-up. Supply chains have become unfathomably large, all supported by a digital backbone. Even the sharpest minds need the right tools to wade through data, spot patterns, and make smart calls. As the industry cranks out more data and connections, we've got to put all this information to good use.

Tech can create a more flexible, collaborative space where BCOs and their partners can roll with the punches when markets shift. When the next big disruption hits — and it will — streamlined processes keep goods moving without throwing relationships under the bus. Data and tech aren't magic bullets for agility; they're tools that let procurement pros focus on what they do best.

"Data and tech aren't magic bullets for agility; they're tools that let procurement pros focus on what they do best."

Ian Arroyo

Kaleris

Kirk Knauff

CEO
www.kaleris.com

Vertical software solutions abound in supply chain. Every node has a solution that optimizes the workflows and cargo movement within that node, but that optimization takes place in isolation from other connected nodes and modes. In 2025, visibility has evolved to mean extending

"Execution, visibility and predictability working in tandem can drive powerful performance improvements for the global supply chain."

Kirk Knauff

Executive Commentary

those optimization processes horizontally to all upstream and downstream trading partners. If node 1 has cargo movement information that is valuable to node 2, early visibility of node 1's cargo data will help node 2 create and execute the best operations plan. The earlier we can provide visibility of vital information to the next node, the better it can prepare. That's what predictability means in 2025.

Visibility and predictability complement execution to drive more effective throughput across the entire supply chain. In port communities where visibility and predictability are prioritized, cargo movement information flows freely between shippers and terminals' purpose-built execution software, enabling both parties to execute their operations more productively. This results in a triple win: each node, the overall supply chain and the consumer all experience the benefits. Execution, visibility and predictability working in tandem can drive powerful performance improvements for the global supply chain. Uniting these priorities harmoniously will be a focus in 2025 and beyond.

"While automation is essential for modern companies, finding the right balance between automation and standardization is crucial."

Markus Johannsen

Kuehne+Nagel (K+N)

Markus Johannsen
Global Head of Sea Logistics Technology and Business Intelligence
www.kuehne-nagel.com

Artificial intelligence is particularly well-suited to enhance several key functions in container shipping, including maximizing utilization, optimizing route planning, managing capacity, predicting milestones and improving data completion and quality. These areas represent just a few of the most promising applications of AI in the industry.

Almost all forwarding activities in logistics can be automated with the right technology. The key is to decide which areas to focus on for automation. However, while automation is essential for modern companies, finding the right balance between automation and standardization is crucial. This helps to create a competitive edge and ensures customer excellence.

Magaya

Martyn Verhaegen
Chief Technology Officer
www.magaya.com

The container shipping industry, with all its requisite documents and processes, produces massive amounts of data. AI can be tremendously helpful in digitizing the data on the front end and, later, generating predictive insights that fuel continuous improvement and better decision-making.

Getting unstructured data from various sources, such as shipping documents, into a structured, normalized database is an important step that is particularly time consuming and can be prone to errors. AI dramatically accelerates this process. Recent advances in large language models and computer vision make AI interpretation of unstructured data more reliable and economically viable than ever. Documents can be digitized by engineering a simple prompt describing the input and desired output. For example, "use this commercial invoice to create my Customs entry and Importer Security Filing." The AI parses data from an unstructured PDF and even assigns harmonized tariff schedule codes correctly, shaving several minutes off each entry.

Another example of AI data input is in the warehouse, where automated dimensioning technology can take highly accurate measurements of cargo in seconds, and optical character recognition can be used to grab data from shipping labels.

In both examples, rather than eliminating the need for human involvement, AI enhances it. Workers can now focus on higher-level tasks such as prompt engineering and quality control instead of manual data entry.

Taking things to the next level, once all that raw data is digitized, machine learning models can also be used to make predictions about the future. Today, predictive intelligence is largely focused on managing shipping delays and exceptions, but there are virtually no limitations to the types of demands, events and outcomes we could predict. AI can help us uncover more efficient, cost-effective, greener and safer ways of moving containers around the world.

The possibilities are exciting.

"Predictive intelligence is largely focused on managing shipping delays and exceptions, but there are virtually no limitations to the types of demands, events and outcomes we could predict."

Martyn Verhaegen

New York Shipping Exchange (NYSHEX)

Gordon Downes
CEO
www.nyshex.com

Thinking back to this time last year, most industry experts were anticipating a "normalized" 2024 freight market. However, 2024 has been anything but normal for reasons we all know too well. Consequently, spot rates were much higher than most contract rates that were signed early in 2024, resulting in many contracts having to be adjusted upwards through peak season surcharges and other means.

Adjusting contract rates when the spot market shifts is an arduous process, taking significant time from everyone involved, and also putting major strain on relationships. Fortunately, some of the leading carriers, shippers and non-vessel-operating common carriers (NVOs) are coming up with innovative new solutions, such as index-linked contracts. In fact, as of mid-2024 approximately 45% of the contracts on NYSHEX were index linked.

Index-linked contracts remove

"Index-linked contracts remove the relationship strain and reduce the administrative burden."

Gordon Downes

the relationship strain and reduce the administrative burden. These contracts also perform significantly better because they avoid situations where a carrier might be incentivized to curtail a shipper's allocation when spot rates climb above contract rates, or instances where a shipper might be incentivized to shift their volumes off contract when spot rates fall below contract rates.

The main drawback of index-linked contracts is the shipper's freight rate changes each week or month based on changes to the underlying index, making cost planning more difficult. Fortunately, some of the major global banks, such as Goldman Sachs, now offer hedging solutions that allow a shipper to manage the freight cost fluctuations in the same way they might manage their currency or interest rate exposures.

It's super exciting to see how our industry is innovating. At NYSHEX, we're fully committed to supporting our member carriers, shippers and

"Predictive analytics allows companies to foresee demand and potential disruptions, enabling proactive risk management."

Alan Baer

OL USA

Alan Baer

President
www.ol-usa.com

AI is revolutionizing container shipping by enhancing efficiency, predictive analytics, decision-making, automation, sustainability and resilience. It optimizes supply chain processes, reducing costs and improving speed by streamlining tasks such as tracking shipments and managing stock levels. Predictive analytics allows companies to foresee demand and potential disruptions, enabling proactive risk management. AI provides real-time insights and recommendations, aiding managers in making informed decisions. Automation of repetitive tasks frees up human workers for more complex activities, while AI-driven sustainability efforts optimize routes and reduce waste, contributing to environmentally friendly practices. Additionally, AI enhances supply chain resilience by quickly identifying alternative supplies and solutions during disruptions. Overall, AI's ability to process and analyze large datasets, provide actionable insights and automate routine tasks makes it an invaluable asset in the container shipping industry.

Executive Commentary

NVOs with the shared digital infrastructure that helps them to improve their contract performance, reduce their manual workload and strengthen their relationships.

> "Visibility now refers to real-time access to shipment locations and statuses... Predictability, meanwhile, leverages artificial intelligence-driven data analytics to forecast demand, delays and risk factors."
>
> Liji Nowal

ODeX Global

Liji Nowal

Founder and CEO
www.odexglobal.com

Supply chain visibility and predictability in 2025 go beyond basic tracking. Visibility now refers to real-time access to shipment locations and statuses, allowing stakeholders to monitor the journey from departure to delivery in detail. This level of insight enables rapid responses to potential delays or disruptions. Predictability, meanwhile, leverages artificial intelligence-driven data analytics to forecast demand, delays and risk factors. By analyzing past performance, customer demand and global events, AI creates a data-informed supply chain that can anticipate and prepare for variations before they occur. This proactive approach has transformed logistics into a strategic function that mitigates disruptions and optimizes supply chain performance.

PSA BDP

Chee Foong Wan

CEO
www.psabdp.com

The concepts of visibility and predictability in supply chains have evolved significantly, driven by advances in technology and shifting market demands. Visibility is now about more than just knowing where products are; it's about complete transparency into every factor affecting the supply chain using precise, real-time knowledge of the location and status of cargo at any given time. Predictability, on the other hand, has grown from static forecasting to dynamic foresight, allowing companies to not only anticipate future demands but also navigate unexpected disruptions. This enables companies to forecast when a specific shipment will arrive, or when an event will take place. In the simulation context, predictability also encompasses understanding the likely outcomes of scenarios, which can help companies prepare for and mitigate risks.

Together, visibility and predictability provide a foundation for resiliency — another critical component of supply chain management. By combining them and tapping into networked data, infrastructure and various supply chain capabilities, organizations can build a more resilient system. This integrated approach not only helps companies respond to immediate challenges but also enables them to anticipate and adapt to future changes, creating a more robust and agile supply chain.

Visibility and predictability, once separate concepts, are now deeply interconnected and will continue to be as we enter an increasingly complex logistics landscape. Looking ahead, there is no doubt that managing relationships across diverse geographies, suppliers and logistical channels will demand a higher level of insight and foresight.

> "Visibility is now about more than just knowing where products are; it's about complete transparency into every factor affecting the supply chain using precise, real-time knowledge of the location and status of cargo at any given time."
>
> Chee Foong Wan

Portchain

Niels Kristiansen

Co-founder and CEO
www.portchain.com

By 2025, technologies such as real-time data sharing and digital collaboration platforms will continue driving innovation in the maritime industry. I believe that the potential of these technologies is far from fully realized. For example, real-time data on vessel schedules, terminal operations and key metrics already enable stakeholders to make more informed and timely decisions. Yet, as digital transformation progresses, the opportunities for even greater efficiency and sustainability will expand.

One area where digital technology is already making an impact is just-in-time (JIT) port calls. By sharing accurate, real-time information on vessel schedules, berth availability and potential disruptions, JIT port calls allow terminals and carriers to better coordinate operations, reducing idle time and fuel consumption.

However, the true power of these technologies lies in their scalability and potential for further integration. As more terminals and carriers adopt digital solutions, the industry will move away from static, siloed data to dynamic, interconnected systems that offer visibility across the entire supply chain. The ability to make real-time, data-driven decisions will become increasingly essential for optimizing operations and minimizing disruptions.

> "As more terminals and carriers adopt digital solutions, the industry will move away from static, siloed data to dynamic, interconnected systems that offer visibility across the entire supply chain."
>
> Niels Kristiansen

Prologis

Will O'Donnell

Managing Director, Prologis Ventures
www.prologis.com

Logistics automation offers both opportunities and limitations that significantly impact operational efficiency and business value. To meet evolving customer demands for faster delivery, logistics companies are actively leveraging automation. Warehouse tasks such as inventory management, picking and packing, put-away, storage and sorting can be efficiently handled by advanced robotics and artificial intelligence.

Executive Commentary

Raft

Greg Kefer

Chief Marketing Officer
www.raft.ai

Artificial intelligence resides on top of the IT hype cycle because of its ability to communicate and learn in humanistic ways. Today, as consumers, we are surrounded by AI — just ask Siri.

But businesses are only now beginning to take full advantage, making significant AI investments across all operational areas, including containerized freight; however, there are multiple different aspects of moving freight that will benefit.

AI presents an enormous opportunity to address and rectify the data challenges that have vexed logisticians for decades. Despite tremendous amounts of effort and investment to solve this data problem, nothing has worked. Today, Microsoft Office and email are pervasive, which is an extraordinarily expensive reality when managing ocean freight. Hence, AI's opportunity is significant.

Companies have been evaluating AI through pilot programs in order to get their feet wet, judging whether this is just another IT fad or something that will create real impact. Many are using it to consume and organize unstructured data and leverage it within their existing IT ecosystems, doing away with manual data entry and, in turn, improving both data quality and velocity. We are now seeing success cases being shared at conferences, on webinars and in news articles; it works.

In 2025, AI will begin to "cross the chasm," where the early adopters can begin to scale it across their operations, and the mainstream market will begin to follow. Applying AI to processes — such as the way freight is booked and paid for or the way customs declarations are created — are among the use cases that will deliver process efficiencies and operational value running into tens of millions of dollars in ROI for large shippers. We will be hearing and reading about it next year.

"Applying AI to processes — such as the way freight is booked and paid for or the way customs declarations are created — are among the use cases that will deliver process efficiencies and operational value running into tens of millions of dollars in ROI for large shippers."

Greg Kefer

Additionally, processes such as documentation, regulatory compliance, last-mile delivery optimization and standard order fulfillment are increasingly managed by intelligent software, which excels at handling repetitive, data-driven tasks — boosting accuracy and reducing costs.

Yet, essential aspects of logistics still require human expertise. Strategic network design, complex problem-solving during disruptions and high-value customer relationships demand human judgment, creativity and adaptability. Custom solution development, risk assessment and crisis management rely on experience and emotional intelligence — qualities automation cannot replicate.

The real power lies in a strategic blend of both. Companies achieve the best results by automating standardized processes while empowering their teams to focus on high-impact activities requiring creativity and nuanced decision-making. The most successful logistics operations will master this hybrid approach — using automation to boost efficiency and human expertise for strategic growth and customer satisfaction. This balance reduces costs while preserving the flexibility and relationship-driven focus that modern logistics demands.

"The most successful logistics operations will master this hybrid approach — using automation to boost efficiency and human expertise for strategic growth and customer satisfaction."

Will O'Donnell

Qued

Prasad Gollapalli

CEO and Chairman
www.qued.com

Supply chains worldwide are undergoing a fundamental evolution as manufacturers strive to cut transport and inventory costs, bring suppliers closer to plants and stage finished goods closer to end consumers. Underlying this structural change is an expansion of technology throughout the supply chain that is creating more management challenges and opportunities.

Shippers have more choices. Mobile apps and complementary management technology have enabled freight brokers to act and operate similar to asset owners. The capacity market is more fluid than ever. And technologies to plan, source, manage and execute freight shipments are becoming cheaper, easier to integrate, more inclusive and more powerful.

Today's supply chain technologies are on the cusp of further advancement. Machine learning and artificial intelligence are becoming deeply embedded into logistics and transportation management software solutions. That's bringing promise for even more efficiency, productivity, visibility and precise decision support. The result? With more manual tasks automated, workers can tackle more complex problems for customers.

The biggest challenge: managing evolving technology and capturing the benefits. AI presents opportunity to "improvise" decisions in a way that reaches the best outcome faster and more accurately.

One example is load appointments, which have many variables. With AI, the software can consider these variables and quickly find the optimal time for that stop while learning and becoming more precise. AI is a consolidator of data and decision choices, understanding how each decision impacts the next and continually refining the overall process and setting the stage for a profound reimagining of how logistics tasks are executed.

Yet AI is not for everything — we still need people involved in the process. But they will be operating more efficiently, at a higher level, and with more knowledge, intelligence and decision support at their fingertips than ever before.

"AI is a consolidator of data and decision choices, understanding how each decision impacts the next and continually refining the overall process and setting the stage for a profound reimagining of how logistics tasks are executed."

Prasad Gollapalli

Executive Commentary

RK Logistics Group

James Bryant

Chief Operating Officer
www.rklogisticsgroup.com

Supply chains deal constantly with a raft of never-ending challenges. Securing quality facilities, hiring and retaining skilled workers, investing in equipment and services, keeping up with rapidly changing technology, controlling costs while delivering quality service, and finally, balancing risk and flexibility.

Supply chains are more fluid and subject to change today than ever before, as evidenced by the growth of nearshoring and reshoring as sourcing and production shift from Asia to sites closer to end users in the US. For third-party logistics providers (3PLs) that operate warehouses, it's an opportunity, but also a risk.

Ideally, a 3PL warehouse lease is timed to expire with the client's contract. In today's market, landlords typically demand five-year leases, which also provide the best price. Yet as supply chains shift and relocate more frequently, shorter leases (one to three years) are in demand.

Therein lies the problem. Landlords typically won't grant short-term leases. Or if they do, the cost is prohibitive. Yet the downstream partner — the 3PL — must make longer-term investment decisions, such as hiring and retaining people, investing in equipment, or building out capacity. And shippers still want flexibility to move at a moment's notice, leaving the 3PL holding the bag for the lease.

It's an unsustainable situation. Now the 3PL must find another paying customer to cover the cost of that lease.

Such short-term decisions also have risk for the shipper. A year down the road, a client may find they still need the space they left, but it's no longer available. So, they are stuck securing space — if they can find it — at a much higher rate than they had previously.

Shippers should recognize that facility leases are a long-term investment partnership with their 3PL. By falling prey to short-term thinking and abandoning that partnership, they are placing an unsustainable and unfair risk on their 3PL.

> "Shippers should recognize that facility leases are a long-term investment partnership with their 3PL."
>
> James Bryant

Shiperone

Sarjak Sheth

Founder
www.shiperone.com

Supply chain visibility and predictability will emerge as essential components of competitive advantage in 2025. In a landscape marked by uncertainty, the ability to monitor and predict movements within the supply chain is no longer optional but a necessity.

Visibility will evolve beyond mere tracking of goods. It will encompass a holistic, real-time perspective across the entire supply chain ecosystem. With advancements in internet of things, blockchain and digital twins, companies will gain insights into every process and partner. This level of visibility will empower businesses to respond with agility, addressing challenges before they escalate into crises.

However, visibility alone is insufficient. The true differentiator will be predictability. By leveraging AI and machine learning, future supply chains will expect rather than react. Advanced, predictive algorithms will analyze vast datasets to forecast demand fluctuations, production delays and potential disruptions. This proactive approach will enable data-driven decision-making, allowing companies to reroute shipments or adjust production schedules based on projected market trends.

The evolution of supply chains will hinge on integrating these technologies and fostering collaboration across the ecosystem. Companies must embrace a culture of transparency and trust, where every stakeholder — from suppliers to logistics providers — works together as part of a unified network. Those who can transform data into actionable insights and empower their teams with real-time information will lead the industry.

In a world where uncertainty reigns, the winners will be those who not only see their supply chains but can also anticipate their every move.

> "Those who can transform data into actionable insights and empower their teams with real-time information will lead the industry."
>
> Sarjak Sheth

Samsung SDS

Kooil O.

Logistics Business Division Leader
www.samsungsds.com

Recent global events such as geopolitical tensions, natural disasters, labor strikes, etc. have highlighted the need for enhanced visibility and predictability in logistics. Interestingly, "visibility" and "predictability" are often used interchangeably or without clear definitions due to their inherent interdependence. In other words, having high visibility into a supply chain can enable better predictions about future events, while predictive analytics can increase the accuracy of visibility into the present state of the supply chain. An instance of this is how real-time visibility provides precise knowledge of stock levels in transit and storage, subsequently impacting near-term forecasts.

Nevertheless, it is significant not to conflate these two indispensable components. Viewed in this way, predictability refers to the ability to consistently measure and manage disruptions and uncertainties, enabling effective preparation and response. Visibility, on the other hand, measures a company's capacity to access necessary information about its supply chain operations, providing

> "Merely possessing data is insufficient. Data must be meticulously cleansed, processed and analyzed to yield valuable insights for strategic decision-making."
>
> Kooil O.

insight into different stages that would otherwise be unknown or difficult to track. Without this visibility, companies may struggle to stay informed and ahead of potential issues.

They should be recognized as complementary elements that work synergistically to carve out a competitive edge in today's evolving global market. To accomplish this, it is imperative to have access to reliable and comprehensive data derived from various sources including transportation systems, inventory management and tracking tools. Merely possessing data is insufficient, however. Data must be meticulously cleansed, processed and analyzed to yield valuable insights for strategic decision-making.

In conclusion, it is essential to acknowledge the distinction between visibility and predictability while simultaneously appreciating their mutual reliance. By doing so, companies can effectively harness the power of both concepts and position themselves for continued growth in this increasingly competitive landscape.

"We're moving beyond the discovery and experimental phase of generative AI, starting to infuse AI throughout each facet of supply chain technology and processes."

Lior Ron

Uber Freight

Lior Ron

CEO
www.uberfreight.com

Recent breakthroughs in artificial intelligence are driving an entirely new industrial revolution, and the logistics sector is no exception. We're moving beyond the discovery and experimental phase of generative AI, starting to infuse AI throughout each facet of supply chain technology and processes. Powered by real-time, specialized data streams, AI is allowing companies to proactively surface unique insights into their supply chains within seconds so they can make more informed decisions faster. In 2025, we'll continue to see logistics AI become more sophisticated and actionable, providing teams with comprehensive and digestible summaries of shipment status updates, locations and even environmental conditions — as well as AI-powered predictions (e.g. potential delays, early delivery, etc.) and recommendations based on market shifts, weather and geopolitical events. For example, our team leverages one of the world's most expansive logistics networks to power our Insights AI tool, providing shippers with real-time insight to maximize visibility into the market and their supply chains. This specialized knowledge allows them to stay informed and make the best decisions for their unique business needs.

Meanwhile, 2025 will be another milestone year in autonomous trucking. The technology is reaching maturity and will reshape logistics, maximizing supply chain efficiency and improving quality of life for drivers. Our team continues to work with key technology providers — Aurora, Volvo Autonomous Solutions, Torc and Waabi — to pilot this emerging technology, with over 300,000 autonomous miles driven within our network. As broader deployments take place, we'll see a hub-to-hub model emerge where humans handle the first leg of freight transport, autonomous trucks handle the middle leg and humans take over the final leg. Marketplace technology and algorithms will be key to making this a reality, matching shippers with the right capacity — taking into account factors such as the type of freight, lane, deadlines and more.

Solvo.ai

Gaurav Bajaj

CEO
www.solvo.ai

In container shipping, artificial intelligence has primarily been applied to reduce costs by improving efficiency, simplifying routes and optimizing operations. This focus on cost-saving has been crucial as shipping companies face rising fuel prices, labor shortages and unpredictable demand. However, as AI capabilities have grown, there is a shift toward revenue-generating applications, especially for logistics providers and freight forwarders.

Today's AI tools enable logistics providers to focus not only on reducing costs but also on maximizing revenue through strategies such as dynamic pricing, demand forecasting and targeted customer insights. For instance, AI allows freight forwarders to adjust prices in real time, taking into account changing demand, seasonal trends and customer purchasing history. This approach helps companies capture more revenue by strategically raising prices during high-demand/peak periods or offering promotions to protect market share during lean periods.

"Even when logistics providers struggle to centralize their data, AI-driven solutions can still deliver a strong return on investment with limited input, making these tools more accessible and effective for a wider range of businesses."

Gaurav Bajaj

AI's ability to offer optimized trade-offs by balancing multiple factors — such as customer satisfaction, market trends and operating costs — has become increasingly valuable in today's volatile environment. This trend reflects a broader shift toward data-driven decision-making, where logistics providers can adjust services and pricing to better meet the unique needs of various markets and customer segments. As a result, these AI-powered tools are helping logistics companies create new value for both themselves and their customers, making supply chains more responsive and competitive.

Moreover, recent advancements mean that vast amounts of data are no longer required to see significant benefits and ROI. Even when logistics providers struggle to centralize their data, AI-driven solutions can still deliver a strong return on investment with limited input, making these tools more accessible and effective for a wider range of businesses.

Executive Commentary

WiseTech Global

Fabian Blaicher

Group Portfolio Leader, Data Science
www.wisetechglobal.com

Over the last year, ChatGPT, artificial intelligence and the NVIDIA stock price were covered widely in the press. But will AI drive value for logistics companies, or is it the next blockchain?

In the wider software market, there have been some success stories. Thanks to companies such as Google and Microsoft Bing, consumers have benefitted from AI-driven search engine results providing useful summaries of relevant content. However, other products received mixed reviews and there's a long tail of AI products which have already entered the tech graveyard.

Why is now AI's moment in the spotlight? The successful applications were driven by the massively improved cognitive and generative abilities of AI. Computers are now much better at understanding text, images, documents or videos than one or two years ago. This has coincided with AI improvements in generating content (generative AI).

We've seen all sorts of applications of this, i.e., answering support questions, generating marketing copy or even writing poems.

How far can this really go? The companies that build the underlying tech are continuing to invest in new versions of foundational AI models or systems where multiple AI agents with different specialties work together to solve complex, multi-step problems.

We're still very much at "day one" of applying AI to business processes. We will see a much higher number of software features and business processes driven by AI over the next five years. For the logistics industry where customer and delivery experience are everything, we expect that AI will play a key role in delighting customers.

Warning: written by a human.

Trade Tech

Bryn Heimbeck

President and Co-founder
www.tradetech.net

Automation is shaping the future of the logistics Industry. What can be automated? Anything that requires logic, rules or memory. What can't be automated? Anything that involves creativity.

I like to think that logistics software brings to the movement of goods what the assembly line brings to manufacturing. Similar to an assembly line, much of the logistics process relies on clearly defined steps or tasks. These tasks, including "book the shipment," "issue the pick-up order," or "rate the bill of lading" stem from the vendor selection process and the specific routing instructions provided by the party that initiated the contract. The logistics process involves executing these contracted services, beginning with the creation of dynamically built shipment data sets.

Shipment data sets are built progressively as each step is executed, with information from previous tasks seamlessly integrated into the next, enabling opportunities for automation. When a shipment is booked, the system automatically identifies the carrier, vessel and target dates, generating a booking number. This, along with the booking details, load date and location, automatically triggers the creation of the pick-up order, streamlining the process.

Creating the data structures that define vendors, vendor pricing and routes, among other things, will lead to the automation of the execution of these steps/tasks. That automation or mechanization of the process will be more reliable than what humans do today manually, primarily because computers have better memories than humans. They just don't forget.

While computers excel at executing tasks with precision, they can't solve problems or navigate complex, creative challenges such as vendor negotiations. That's where humans come in. People will always be essential in managing the logistics process, using computers as powerful tools to streamline operations and handle the administration. Technology can enhance efficiency, but it's human ingenuity that drives real solutions.

TranzAct Technologies

Mike Regan

Co-founder
www.tranzact.com

Heading into 2025, shippers are asking: Are we prepared for upcoming changes in the transportation marketplace? Below are a few of the important issues shippers should expect to see:

Volatility in rates, especially in the truckload and ocean markets. For example, three weeks after hurricanes Helene and Milton struck, spot market rates in the truckload sector increased by 17%. Rates in the ocean market will continue to fluctuate based on geopolitical factors (e.g., attacks in the Red Sea and the diversion of freight around the Cape of Good Hope) along with economic conditions in North America, Europe, Japan and China.

Do not expect stability and predictability in 2025. Smart shippers will develop contingency plans to avoid seeing their freight costs go through the roof and have their entire organization prepared in advance.

Variability in freight pricing, particularly in the less-than-truckload (LTL) markets. With changes forthcoming in the National Motor Freight Classification and LTL carriers focused on density-based pricing, shippers will see variances between what they thought they would be paying versus what they will actually be paying.

"Do not expect stability and predictability in 2025. Smart shippers will develop contingency plans to avoid seeing their freight costs go through the roof and have their entire organization prepared in advance."

Mike Regan

"By integrating big data, AI provides real-time visibility for container transport, effectively addressing delays or unexpected situations during transit."

Cash Zhou

"Technology can enhance efficiency, but it's human ingenuity that drives real solutions."

Bryn Heimbeck

Executive Commentary

Financial viability of carriers will be important to watch in 2025. If the truckload market continues to experience a historic freight recession, expect to see more carriers close their doors or be acquired — especially small to mid-size trucking companies. This could reduce capacity and allow truckload carriers to seek more aggressive rate increases.

Add it all up and volatility, variability and viability will affect virtually every sector in the transportation marketplace and make life challenging for both shippers and carriers.

YQN Logistics

Cash Zhou
Founder and CEO
www.yqn.com

In the logistics industry, emerging technologies such as artificial intelligence, internet of things and blockchain are driving significant innovations. For example, in container shipping, AI demonstrates substantial advantages in cargo tracking and predictive monitoring. By integrating big data, AI provides real-time visibility for container transport, effectively addressing delays or unexpected situations during transit. Additionally, AI can be applied across the entire transport chain, including assessing port congestion and trailer conditions, enabling accurate predictions of transport time and costs.

Today, in the realms of ports and warehousing, technologies such as automated terminals, self-driving unmanned trucks and unmanned cargo ships have been implemented in controlled environments, significantly improving port operational efficiency. However, the application of these technologies in open logistics pathways is still under development. In some large ports and warehouses, automation technology has become standard, allowing routine logistics operations such as document handling, automated sorting, transport and packing to be fully automated. Nonetheless, certain scenarios remain resistant to full automation; for instance, small ports and warehouses face cost and regional constraints that limit automation potential, specialized large cargo presents challenges due to size variability, and customized orders still require manual processing. These areas represent key focal points for future advancements in logistics. Additionally, new energy-powered solutions and AR/VR-enabled remote warehouse inspection technologies are nearing maturity, offering further opportunities for innovation in the industry.

Looking forward, advanced technologies such as quantum computing are also expected to unlock substantial potential in the logistics sector.

By 2025, we anticipate the application of more new technologies to further enhance supply chain visibility and predictability. This will allow logistics customers to track cargo movements and transit times in real time, with more intuitive predictions of costs and shipping timelines. Meanwhile, logistics providers will be able to offer more flexible and adaptive strategies, making the logistics process increasingly transparent and reliable.

Global air cargo volumes grew 12% in the first 10 months of 2024 against a 5% increase in capacity.
Shutterstock.com

Perpetual pressure

Ex-Asia air freight capacity constraints to persist in 2025

By Greg Knowler

The big picture: Capacity constraints on outbound air cargo routes from Asia, particularly China, will persist in 2025, with volumes continuing to outstrip available space. Airlines have been postponing the retirement of freighters to cope with booming e-commerce demand in the US and Europe, but many of those aircraft are at the end of working life, and production delays at both Boeing and Airbus are slowing the arrival of any new capacity.

A look back: Air cargo on the two main trade lanes from Asia to North America and Europe was stuck in a perpetual peak season throughout 2024. Following the traditional air freight peak season in the fourth quarter of 2023, hostilities in the Red Sea — and the resulting diversion of container ships around southern Africa — forced shippers of time-sensitive cargo into the air. As planes leaving Asia began to quickly fill up, competition for space emerged from an unexpected source: e-commerce platforms contracting directly with airlines. Even as online shopping demand accelerated during the COVID-19 pandemic, the major e-commerce platforms typically had fulfillment centers in destination markets. Chinese e-commerce giants Temu and Shein changed all that, cutting out forwarders and contracting space directly with airlines to move packages into the US and Europe. US package imports by the end of September reached more than 1 billion units compared with 140 million units in 2023, according to a White House briefing, as the platforms made use of its generous “de minimis” value threshold; shipments valued at less than $800 in the US and €150 in the EU are exempt from import duties. The e-commerce platforms in the past year have factored this into their US and EU supply chains, which almost exclusively use air cargo. Although available capacity increased almost 5% during the first 10 months of the year, demand grew more than 12%, according to rate benchmarking and analytics platform Xeneta, pushing global load factors and rates to their highest levels in two years.

A look ahead: Capacity will continue to be the greatest challenge facing shippers moving goods from Asia by air in 2025. As e-commerce siphons off huge amounts of space directly from airlines, forwarders are under increasing pressure to secure capacity for their customers shipping traditional cargo. That pressure is often translated into forwarders chartering freighter capacity at a high cost, adding further upward pressure on rates, especially during historical peaks around Lunar New Year and November online sales promotions. Exacerbating ongoing space constraints for shippers are increasing shortages of intra-Asia capacity as airlines shift planes to the more lucrative long-haul routes. Heavy competition for limited space will likely keep rates elevated throughout 2025. Scrutiny of Chinese online platforms by US authorities is also likely to intensify next year, with plans in place to reform the US de minimis program that will almost certainly be accelerated by the new Trump administration.

> Capacity will continue to be the greatest challenge facing air cargo shippers.

The next inflection: Even if the US significantly lowers the de minimis value threshold, however, it is unlikely to have any real impact on air cargo demand out of China. The average value of US e-commerce transactions is about $170, according to Hong Kong-based economists CEIC. More important is a US proposal put forward in September 2024 by the Biden administration that, if adopted, could result in 40% of e-commerce products no longer covered by de minimis regulations, including 70% of textile and apparel exports from China. That would have a significant negative impact on sales via e-commerce platforms that rely on direct shipments to US consumers from China.

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Commentaries

"Sidelining traditional customers and the increased reliance on a single segment could leave the industry vulnerable to sudden shifts in consumer behavior or geopolitical events."

Martin Schulze

BlueBox Systems

Martin Schulze

CEO
www.bluebox-systems.com

The air freight industry in 2025 will face a multitude of challenges, many of which are beyond its direct control. Geopolitical tensions and trade disputes might disrupt supply chains and create uncertainty. To navigate these turbulent waters, the industry must remain vigilant and advocate for free trade and the merits of global trade.

The e-commerce boom in Asia will put further pressure on the air freight industry in the coming year. The share of these goods on the overall air freight volume will continue to increase.

While this trend presents a substantial opportunity for growth, it also carries inherent risks. Sidelining traditional customers and the increased reliance on a single segment could leave the industry vulnerable to sudden shifts in consumer behavior or geopolitical events. Potential backlash against e-commerce, driven by political measures, could also lead to overcapacity and economic instability.

The industry must strike a delicate balance between capitalizing on growth opportunities and mitigating risks. The potential for rapid shifts in demand, coupled with the high costs of air freight, necessitates a flexible and adaptable approach. By diversifying customer bases and optimizing operations, carriers can better position themselves to weather potential storms.

Our sector faces significant hurdles in achieving net-zero emissions by 2050. While technological advancements may offer some solutions, such as sustainable aviation fuels, the scale of the challenge is immense.

To meet these stringent decarbonization requirements, the industry will need to invest heavily in both fleet modernization and alternative fuel research. However, the costs associated with these initiatives will ultimately be borne by consumers. As such, it is imperative for the industry to engage with stakeholders to develop sustainable solutions that balance economic viability with environmental responsibility.

"The traditional gateways will always have a place in the market, but the future belongs to the nimble airports that can deliver a complete cross dock (wheels down to dock load-out) in a few hours."

Curtis Spencer and Steve Schellenberg

IMS Worldwide

Curtis Spencer

President and CEO

Steve Schellenberg

Sr. Vice President, Logistics and Business Development
www.imsw.com

The world is discovering that the extensive key element of demand is requiring goods to reach buyers in under 4 days from order to receipt. Most new demands have a truly short attention time frame, making air cargo the now-required mode of choice. There will be shifts in regulations (de minimis rule) and stiffer import rules, but the ability to buy in the "each" category from an overseas vendor and receive goods in a few days is the genie model that will never go back into the bottle.

The biggest problem for the air cargo industry now and tomorrow is to determine how to participate or contribute to the contraction of the timeline between order and delivery. Airports must look at all aspects of their services — from taxi time for inbound freighters to turn times from offload to Customs clearance until the cargo is in the last-mile carrier's hands — and all services that facilitate this new model.

Congestion, taking 24 to 48 hours from unload to last-mile conveyance departure, will drive carriers to shift to competing airports that can produce compressed timelines. Airports must perform or they will find cargo moving toward more efficient airports with long runways such as Chicago Rockford, Greenville-Spartanburg, Phoenix-Mesa Gateway, Perot Field Fort Worth and others where infrastructure and connectivity to large populations are available to the carriers and delivery contractors.

This is the future of air cargo; the traditional gateways will always have a place in the market, but the future belongs to the nimble airports that can deliver a complete cross dock (wheels down to dock load-out) in a few hours. The foreign companies that learn how to pre-sort package volumes into local or regional city deliveries to allow cargo to deplane and be pushed into a soon-to-depart delivery van will be the drivers behind this shift to efficient and well-located airports.

"Capacity has grown less than half the rate of demand growth, which has had the effect of increasing aircraft utilization, load factors and yields. Again, we expect to see the growth in capacity to remain below demand as we move into 2025."

Glyn Hughes

The International Air Cargo Association (TIACA)

Glyn Hughes

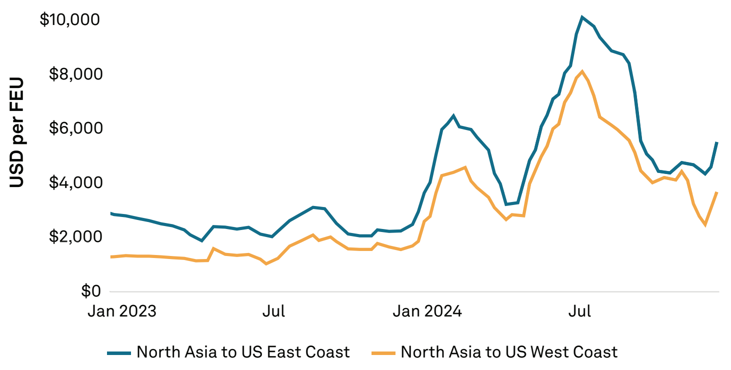
Director General
www.tiaca.org

Demand for air cargo has grown in excess of 10% year over year for the majority of months in 2024. This trend is expected to continue into 2025, although the pace of growth is expected to slow. Capacity has grown less than half the rate of demand growth, which has had the effect of increasing aircraft utilization, load factors and yields. Again, we expect to see the growth in capacity to remain below demand as we move into 2025. A deeper assessment of these numbers indicates that e-commerce shipments, primarily from Asia and particularly from China, accounts for about 20% of total global air cargo volumes. The growth of Temu and Shein, especially as they open up new markets, has generated double-digit month-over-month gains for most of the current year. Projections suggest that e-commerce demand is still increasing, therefore we can anticipate that the current strong growth will continue. In order to satisfy this demand for air cargo, airlines have been repositioning freighter aircraft from other regions into Asia. This, in turn, has caused some short-term challenges to provide the required amount of capacity in other regions. To address this challenge, some aircraft originally scheduled for retirement have been deferred and continue in service.

By the Numbers

An extensive, multi-channel, interactive freight shipping dashboard
can be found at https://www.joc.com/gateway/about

Container lines seek higher rates amid trans-Pacific uncertainty
Container spot rates from North Asia to US West and East coasts, in USD per FEU



Source: Platts, S&P Global

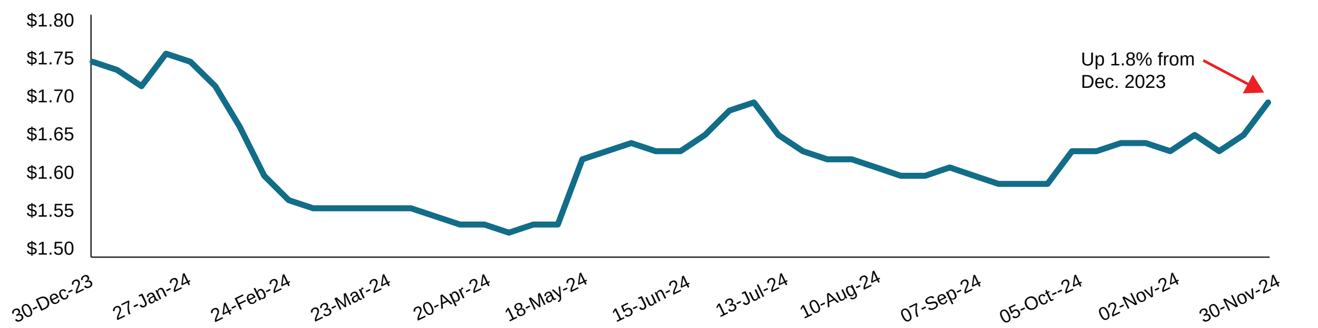
On Gateway

The overheated trans-Pacific saw a brief December respite after months of frontloading, but carriers were already gunning for fresh rate increases. Inbound container spot rates from North Asia, as measured by Platts, spiked in the week ended Dec. 13. There's apprehension in the market given the razor's-edge nature of longshore labor talks on the East and Gulf coasts and the threats of new tariffs by the incoming Trump administration. An earlier Lunar New Year may result in tight capacity even as carriers boost deployments and cut blank sailings.

The Gateway is an online shipping dashboard of more than 140 continuously updated charts from S&P Global and identified external data sources organized by trade lane, mode and topic. https://www.joc.com/gateway

DAT spot rate reflects robust weekly growth

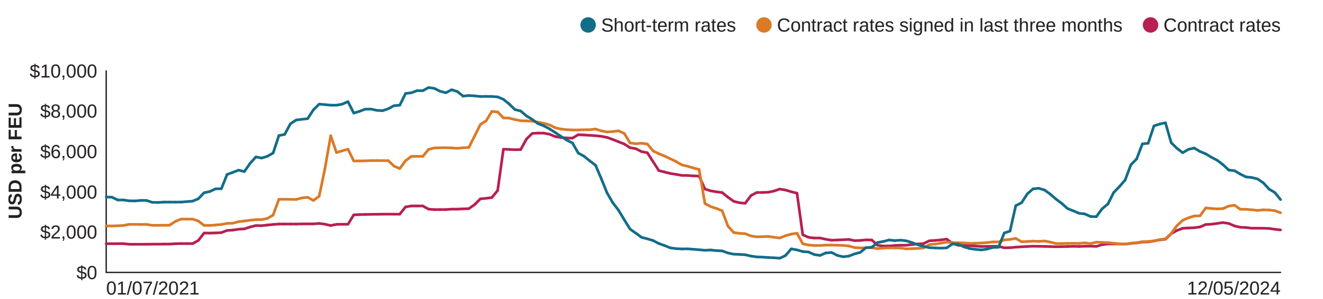
As of Nov. 30, 2024, the DAT Freight and Analytics national average spot rate reached $1.69 per mile, up from $1.65 per mile the previous week and $1.66 per mile rate in the same week of 2023.



Source: DAT Solutions

Xeneta Asia to US West Coast short and long-term rates

Xeneta aggregates freight rates for both short-term contracts valid for less than 32 days, and long-term contract that are valid for 87 days or more. Terminal Handling Charges (or THCs) are excluded. The Dec. 5, 2024, average spot rate from Asia to the US West Coast was $3,612 per FEU, down 8.8% from the previous week. Rates in long-term contracts signed in the last three months fell 3.4% to $2,959 per FEU, while rates in all long-term contracts slipped 1.5% to $2,108 per FEU.



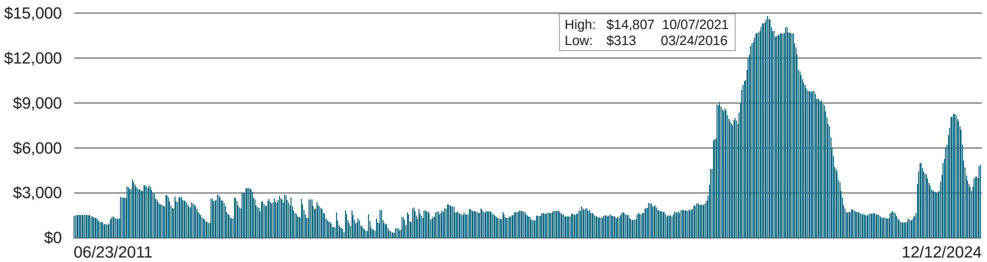
Xeneta's ocean freight spot and contract pricing benchmarks gather over 10 million rates monthly from large volume global shippers and forwarders. Before releasing any market information, a minimum of five daily rates per route, per equipment type is required.

World Container Index assessed by Drewry

The rate assessment is published by the World Container Index assessed by Drewry and includes the base ocean rate, the fuel surcharge and all other surcharges, but not the Terminal Handling Charge at the destination.

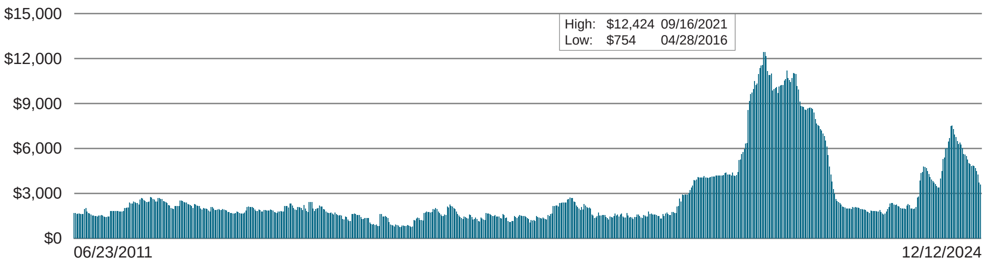
Shanghai to Rotterdam Rate

TICKS UP: The Dec. 12, 2024, spot rate from Shanghai to Rotterdam was $4,855 per FEU, up $80 (1.7%) from the previous week. The rate was up $3,512 (261.5%) year over year and $3,188 (191.2%) from year-end 2023.



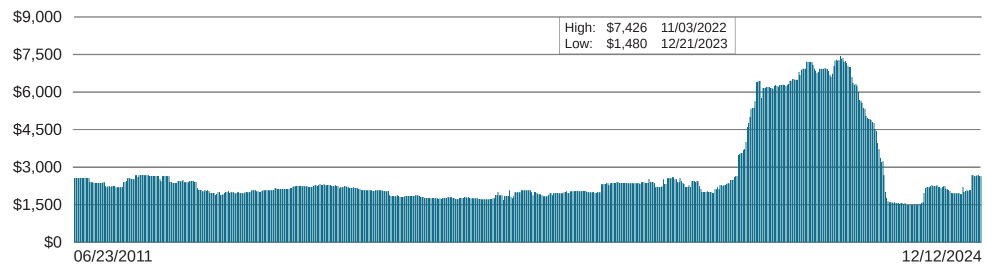
Shanghai to Los Angeles Rate

CONTINUES TO SLIDE: The Dec. 12, 2024, spot rate from Shanghai to Los Angeles was $3,582 per FEU, down $137 (3.7%) from the previous week. The rate was up $1,643 (84.7%) year over year and $1,482 (70.6%) from year-end 2023.



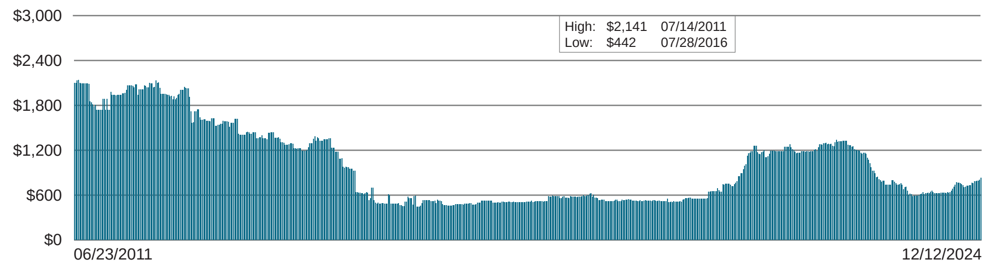
Rotterdam to New York Rate

SLIPS: The Dec. 12, 2024, spot rate from Rotterdam to New York was $2,622 per FEU, down $27 (1.0%) from the previous week. The rate was up $1,117 (74.2%) year over year and $1,142 (77.2%) from year-end 2023.



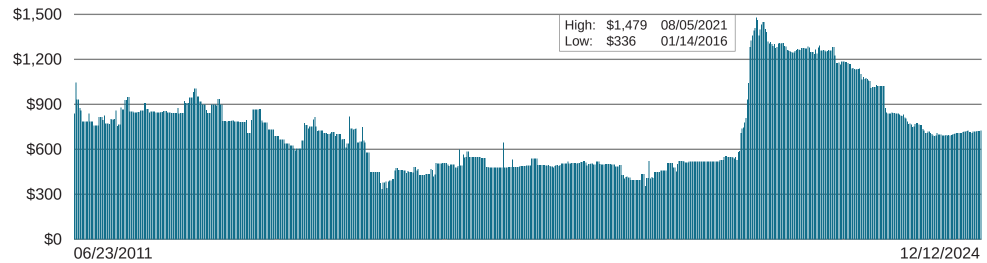
New York to Rotterdam Rate

RISES SLIGHTLY: The Dec. 12, 2024, spot rate from New York to Rotterdam was $830 per FEU, up $23 (2.9%) from the previous week. The rate was up $242 (41.2%) year over year and $238 (40.2%) from year-end 2023.



Los Angeles to Shanghai Rate

INCHES HIGHER: The Dec. 12, 2024, spot rate from Los Angeles to Shanghai was $726 per FEU, up $5 (0.7%) from the previous week. The rate was down $27 (3.6%) year over year and $48 (6.2%) from year-end 2023.



Drewry (www.drewry.co.uk) is a consulting firm specializing in international maritime transport, providing bid administration support, benchmarking, best practices, fuel programs, market research, technology and procurement advice.

A new, harsher world

By Peter Tirschwell

Earlier this year, the commercial director at a congested Asia port apologized to an ocean carrier for the trouble caused. The response from the ocean carrier? "Don't worry, it's OK."

It's OK? What about delays caused to the carrier's customers and its reputation with those customers as a reliable service provider?

Those aren't important, apparently. The message from the carrier was actually the opposite: the congestion was helpful in removing capacity, handing carriers another external shock that sent rates soaring.

In a nutshell, that is the new world of ocean container shipping that shippers and forwarders will be dealing with in 2025 and likely well beyond that.

It's a world where prior patterns of cyclicality, while still a factor, must now co-exist with non-cyclical forces of external shocks combined with a long-beleaguered set of carriers that learned valuable lessons in assertiveness from the COVID-19 pandemic that they are putting to use.

"Carriers have transformed from being weak and ready to be beaten up all the time (pre-2018) to becoming bold and assertive," said veteran forwarder and carrier executive Sanjay Tejwani now heading consultant 365 Logistics. "Carriers feel they have been at the receiving end for many years and now it is time to level the playing field between them and their customers."

Chief among the lessons carriers learned is that disruption is OK.

Chief among the lessons carriers learned, well reflected in the carriers' reaction to the congested terminal, is that disruption is acceptable. Though external shocks like Covid and the diversions away from the Red Sea were gifts that fell into carriers' laps, where they were not responsible but reaped the benefits, they had started down this road well before the pandemic by ramping up blank sailings within alliances, Tejwani said.

"Carriers became emboldened by the fact that a few of them controlled a large amount of global capacity and we started to see better capacity management from 2018 onwards," he said.

And as Maersk CEO Vincent Clerc told investors Oct. 31, carriers have still other cards to play if the market weakens in 2025, including ramping up blank sailings, scrapping and returning chartered tonnage to owners. His message challenged the theory that overcapacity is looming in 2025.

All of this amounts to a dramatic, indeed historic paradigm shift: carriers benefiting, on what increasingly seems like a sustained basis, at the expense of their customers. But that begs the question: how sustainable is this newly lopsided paradigm where carriers benefit from external disruption while flexing their muscles at every opportunity, and customers suffer the consequences?

The 2022 Ocean Shipping Reform Act, though limited in scope, showed the ability of shippers to push back via government action.

But some carriers are themselves recognizing that things may have gone too far. Could it be that the zero-sum gain within containers, where one party's gain is the other's loss, with no mutual value creation occurring, is reaching its limits?

"Going into 2025, transit times and schedule reliability will become even more important. It will be taken into account more heavily during the tender process, along with rates and other criteria," Yael D'Angeli, global head of strategic accounts at Zim Integrated Shipping Services, wrote recently on LinkedIn.

Such is the sorry state of schedule reliability, which never really recovered post-Covid, according to Sea-Intelligence Maritime Analysis, that Maersk and Hapag-Lloyd saw an opportunity to fix the problem via the hub-and-spoke Gemini alliance.

This approach flips the script on the status quo, with the pact aiming to consistently deliver 90%-plus schedule reliability by deconstructing lengthy, delay-prone loops into interconnected component services transiting through carrier-controlled hub ports.

That level of reliability has to be sustained at basis to point in whic comes to be trusted by shippers, it will rise to the level of shipper value creation by allowing them to take out inventory.

"For a supply chain to take out meaningful inventory costs, the reliability of the ocean leg … should be at least 95%, because below 95% the retailers will not trust the supply chain enough to take inventory cost out," a former Maersk executive told the *Journal of Commerce*.

"Why is that so important? When the client says if I only ship with Maersk I can reduce my global inventory cost by half, it's a half a billion in savings, so Maersk says that comes at a cost. Thus, the aim for 95% reliability is not casual or by coincidence, rather it links directly to what everyone says they need to deliver to take out buffer stock," the executive said.

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