AlixPartners

SUPPLY CHAIN MARKET PULSE

April 2024

KEY TRENDS AND CHALLENGES IN SUPPLY CHAIN

1 DEMAND/SUPPLY IMBALANCE

- A surplus of transportation capacity continues to keep pricing down for customers
- Persistently low prices and weak demand has created risk of solvency for transportation providers. The longer these market conditions remain may result in incremental capacity being removed from the market, driving prices up
- Shippers should remain mindful of these risks, pursuing diversified, flexible, and resilient logistics strategies

2 SHIFT IN TRADE FLOWS

- Geopolitics and changing cost positions are shifting trade strategies across the globe. Nearshoring has been, and remains a topic of conversation since its acceleration from the pandemic.
- While Trans-Pacific trade routes remain critical due to the ongoing significance of Asian economies, trade routes to Mexico and Central America could gain prominence, bolstered by their geographical proximity and expanding manufacturing sectors
- The effects on supply chain efficiency and costs depend on industry specifics, the readiness of nearshore countries, and Asia to EU trade is being diverted away from the Red Sea and passing around the Cape of Good Hope

3 SUPPLY CHAIN DISRUPTIONS

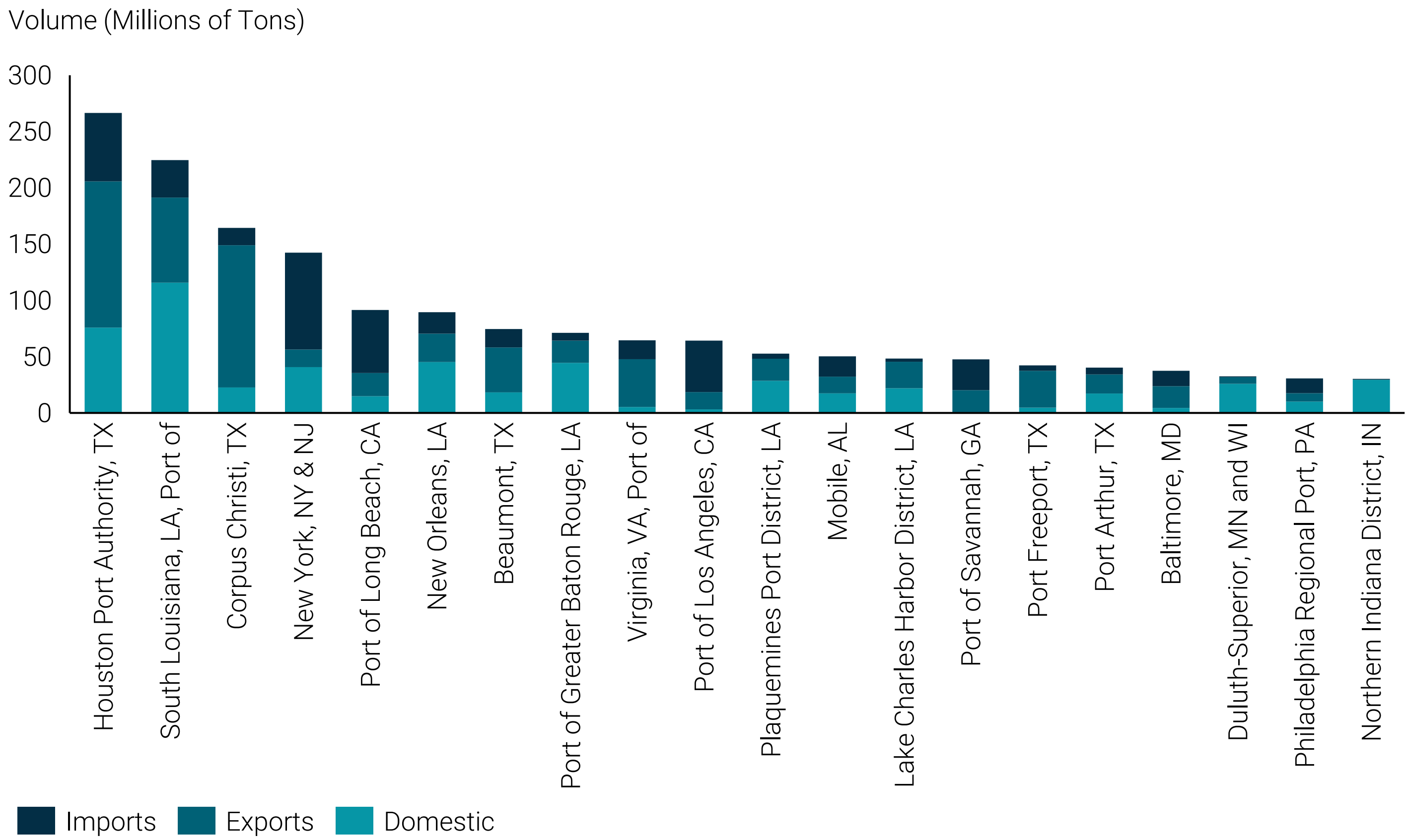
- Baltimore bridge tragedy has impacted various sectors that relied on this port for import/export within North America. Supply chains have adjusted and begun to mitigate the impact
- Ocean freight vessels within the Red Sea have continued to be diverted around the Cape of Africa causing longer transits and costs within the global ocean shipping market. Supply chains have normalized to the longer transit times
- Supply chain practitioners are beginning to look out at potential disruptions for 2024 with the North American East Coast port contract renewal due in October 2024.

Source: AlixPartners analysis

BALTIMORE BRIDGE COLLAPSE

We are seeing Supply Chain disruption disproportionally impacting specific industries

U.S. ANNUAL PORT VOLUMES



DISCUSSION

- **Closed Port:** A container-ship, Dali, struck a supporting pier on the Francis Scott Key Bridge, collapsing the bridge and blocking the port of Baltimore from large freight vessels
- **Timeline:** After nearly 3 weeks of around the clock efforts, the vessel is still weeks away from being able to be moved from pier. Estimates range from several weeks to several months. Prior to opening the port, the vessel needs to be tugged away from the pier. Adding complexity to the situation, containers need to be carefully moved off the ship.
- **Impact:** The port of Baltimore is the largest hub for autos and other rolling equipment in the U.S., but, in terms of overall tonnage, it is only the 12th largest port in the U.S.
  - Pricing impacts have been minimal for containers going to the East Coast; latest rates are down 1% since the incident
  - CSX started operations for container diversions on April 4th, adding a route from New York to Baltimore to deliver containers
  - The roll-on/roll-off market for autos and other large equipment is still in flux as shippers re-route shipments to nearby ports of Wilmington and Brunswick

Source: AlixPartners analysis, CNBC, Freightwaves, JOC

FREIGHT COSTS

The freight market has seen Geopolitical shocks begin to normalize. Pricing remains pressured from an environment of weak demand and excess supply

	OCEAN FREIGHT	AIR FREIGHT	TRUCKING	PARCEL	WAREHOUSING
Recent cost trend	↑	↓	→	↓	↓
Short-term forecast	↓	→	→	↓	→

WHAT IS MOST IMPORTANT TO KNOW?

International Transportation providers have realized a spike in pricing which is now normalization from attacks on commercial shipping in the Red sea

- Ocean & Air Freight prices are trending back to normalization after increases caused by Red Sea disruptions
- Baltimore port disruption causing very little impact to pricing or capacity in the market

Parcel costs are coming down after a period of inflation across 2021-2023

- Parcel carriers are becoming more aggressive on pricing in an attempt to win business. This provides an opportunity for Shippers to renegotiate their contracts.

Companies are continuing to look at structural aspects of their supply chains

- To further optimize, companies are shifting from procurement exercises to optimizing a changed Supply Chain network as a result of constant waves of disruptions of different kinds

Although spot market rates have likely bottomed, fluctuation will be part of the new norm

- Supply Chain resilience is going to be key in 2024
- This environment provides opportunity to optimize core carrier base enhancing service and capacity commitments

WHAT ACTIONS CAN WE TAKE?

Take advantage of every opportunity – freight procurement remains a hot market within trucking

- RFPs are not the only answer; shippers should renegotiate rates with incumbents for faster results and rationalize their truckload supplier community with top performing suppliers

Strategically review the network

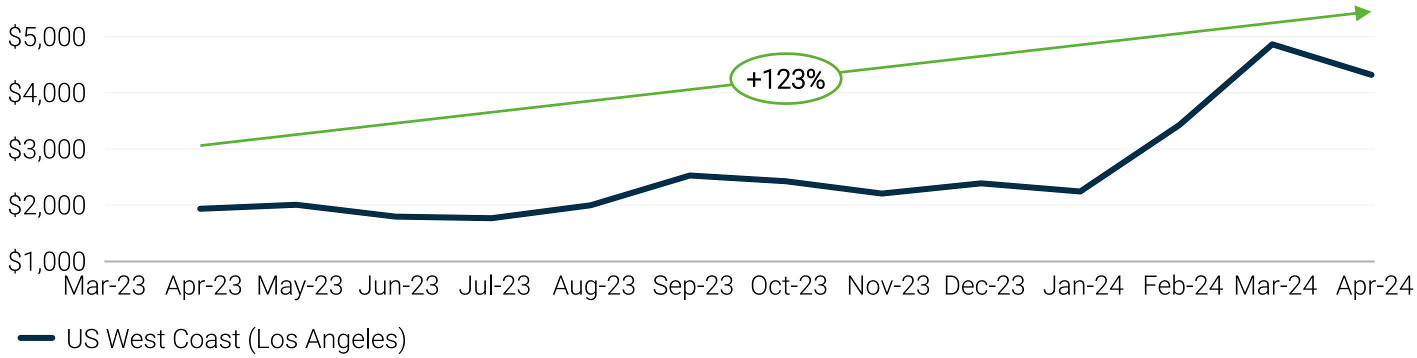
- Review and use this time as an opportunity to reset the strategic distribution network.
- Align where the organization needs to be physically, and from a capability standpoint to take advantage of the next growth period

Source: AlixPartners analysis

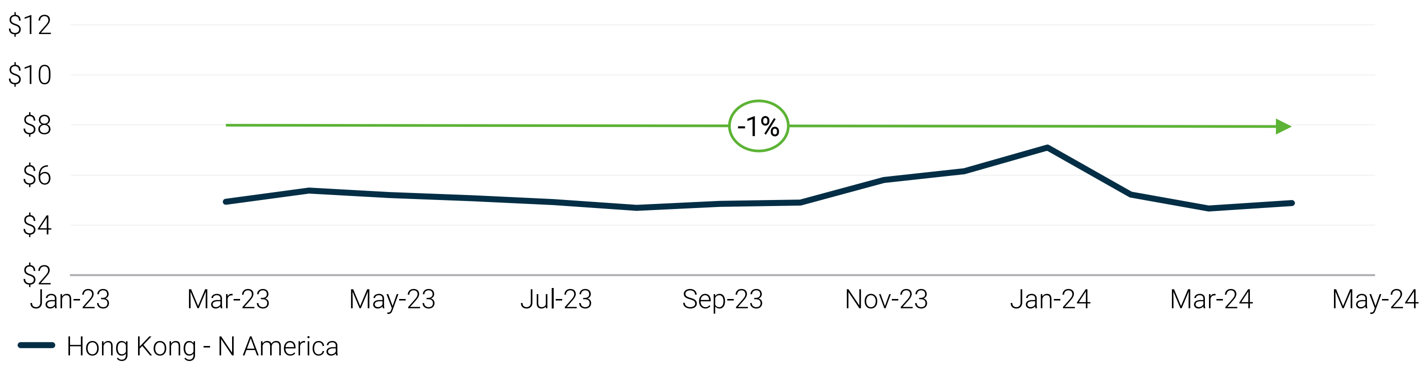
FREIGHT TRENDS

Recent macro-economic have sent international transportation rates higher are now stabilizing. Domestic trucking remains depressed due to supply/demand imbalance

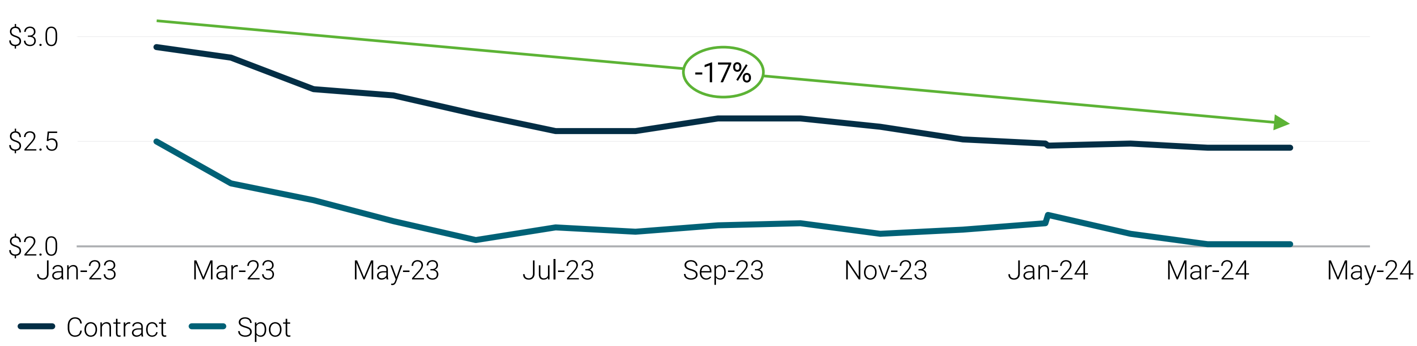
OCEAN FREIGHT – SHANGHAI TO U.S. – ($/40FT)



INTERNATIONAL AIR FREIGHT – ($/KG)



TRUCKING – DRY VAN – ($/MILE)



KEY TRENDS AND FACTS

KEY DRIVERS CAUSING RATE CHANGES ARE:

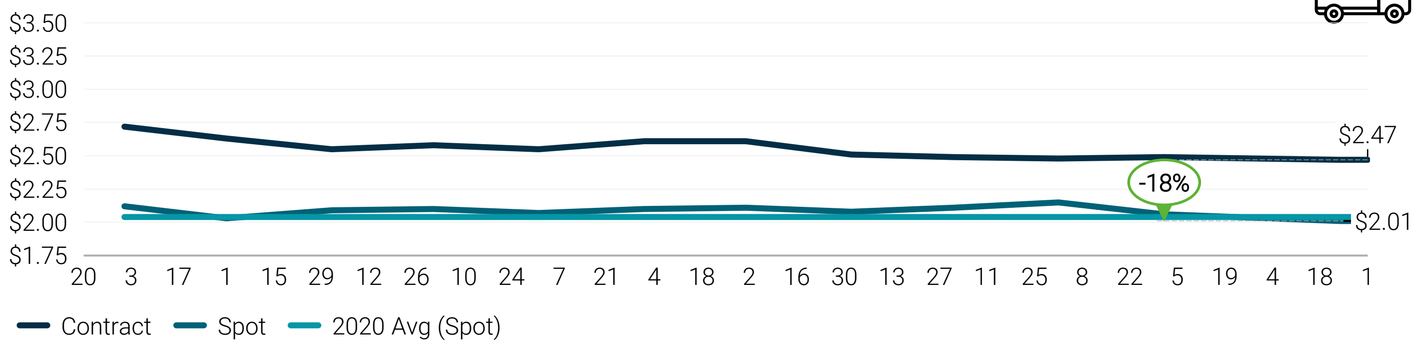
- Ocean and air market rates have plateaued and are now retreating in cost as a resulting from the Red Sea disruption, this may continue to normalize over the next quarter
- Recent spot rate increase in ocean beginning to come down after Red Sea incident. This is expected to normalize at rates higher than seen in 2023.
- TL rates remain low as shippers refrain from building inventory and carrier exists slow, prolonging the road to recovery

Source: DAT, Drewry, TAC database, Freightwaves, AlixPartners analysis

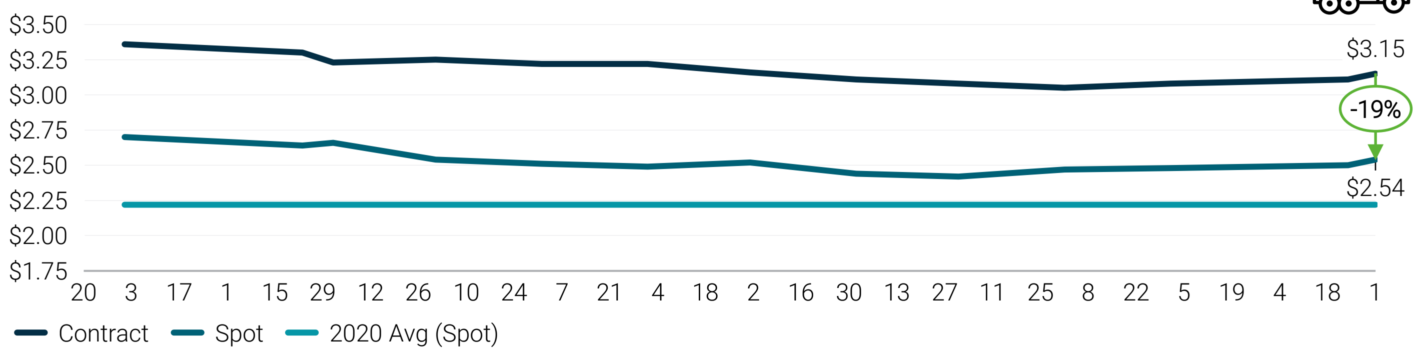
TRUCKING FREIGHT

Rates appear to be stabilizing below sustainable levels as overcapacity persists in the trucking market

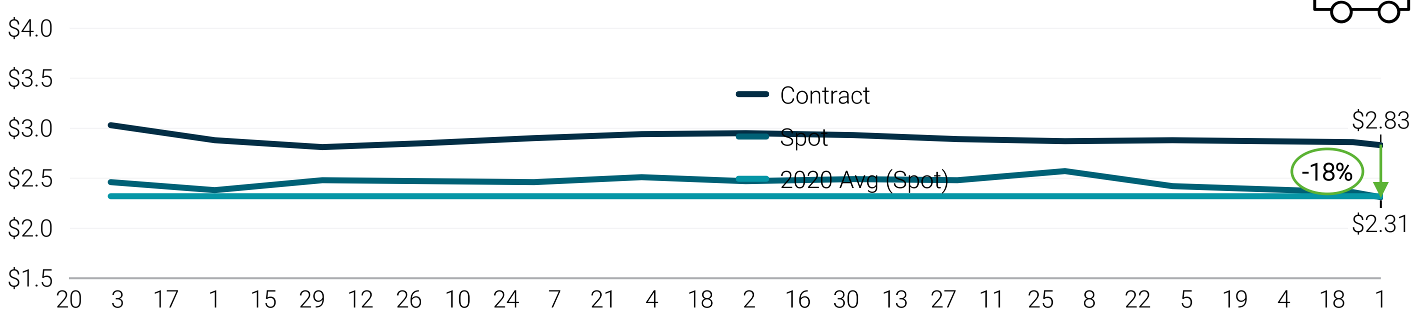
DRY VAN – U.S. DOMESTIC FREIGHT RATES, INCL. FUEL (UNIT:$ PER MILE)



FLATBED – U.S. DOMESTIC FREIGHT RATES, INCL. FUEL (UNIT:$ PER MILE)



REEFER – U.S. DOMESTIC FREIGHT RATES, INCL. FUEL (UNIT:$ PER MILE)



KEY TRENDS AND FACTS

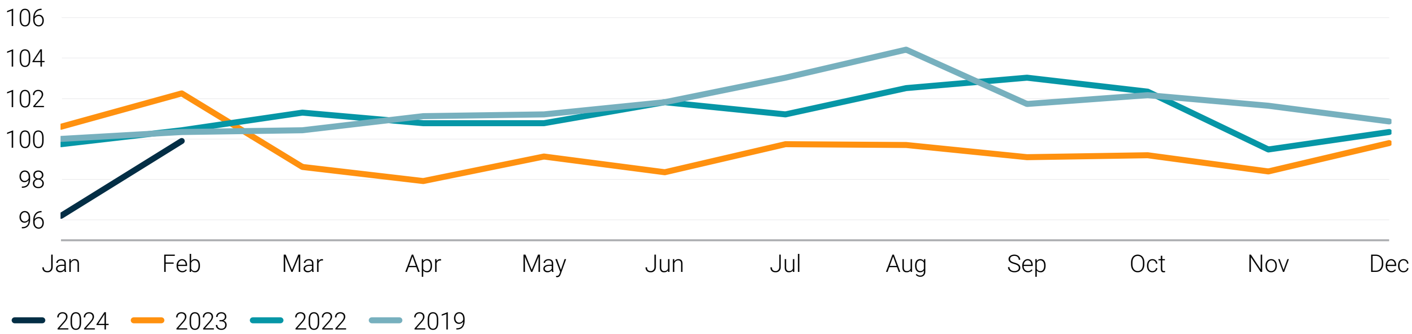
- **Shipments increased 4.5% YoY** in January, the smallest decline in 10 months (Freight Waves)
- **Retailers have returned to just-in-time inventory,** resulting in lower than expected demand (Freight Waves)
- **Flatbed volumes and spot rates increase** for lanes out of Baltimore as the Federal Motor Carrier Safety Administration (FMCSA) extended its emergency declaration in response to the bridge collapse (Freight Waves, S&P JoC)

Source: DAT, WSJ, Freight Waves, AlixPartners analysis

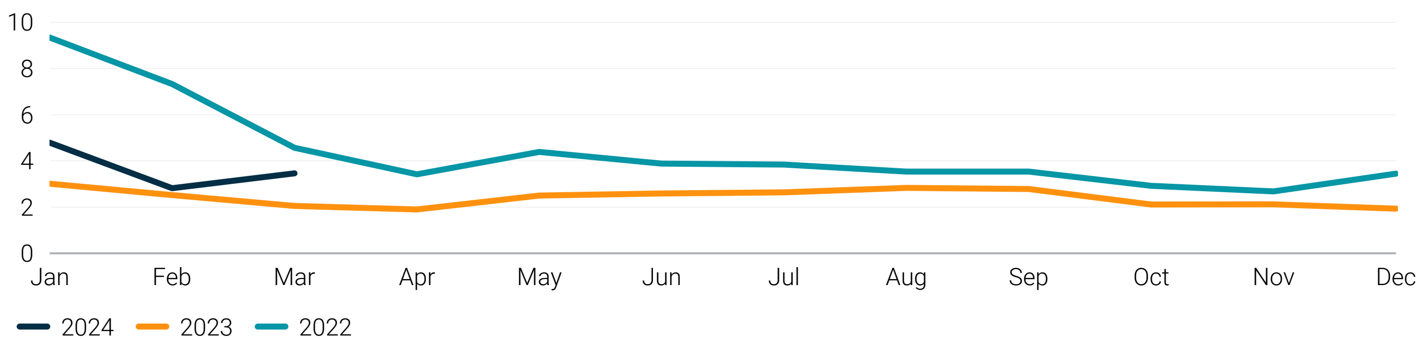
TRUCKING FREIGHT

Surplus capacity continues as carrier exits slow and smaller trucking firms handle more loads

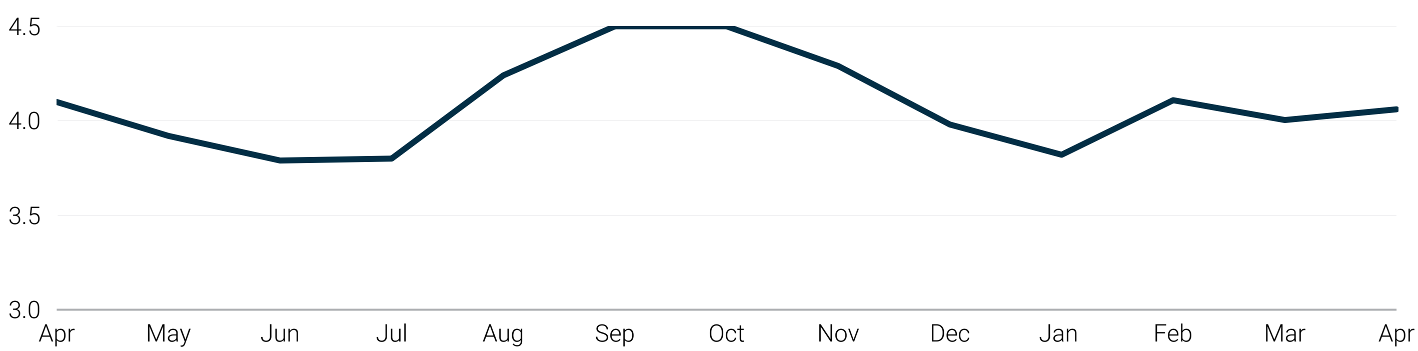
TRUCK DEMAND – TONNAGE, YEAR OVER YEAR, INDEX (100) = JAN 2019



VAN LOAD-TO-TRUCK RATIO – YEAR OVER YEAR



DIESEL – $ PER GALLON



KEY TRENDS AND FACTS

- **Carrier exits continue to exceed additions** but appear to be slowing (Trucking Dive)
- **Diesel prices remain static to increasing** across the U.S., with the average price remaining above $4 per gallon (Freight Waves)
- **Small carriers are handling more freight** even amidst challengingly low rates, contributing to the continuation of surplus capacity (S&P JoC)

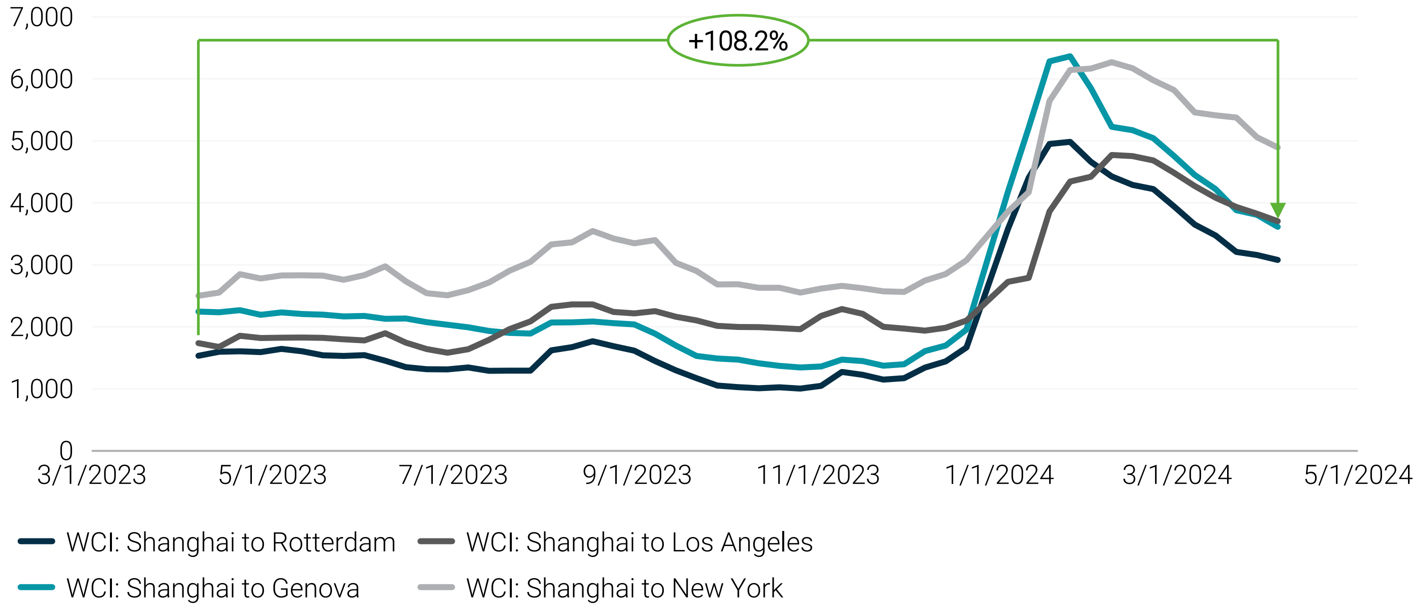
Source: DAT, FRED, Bloomberg, AlixPartners analysis

OCEAN FREIGHT

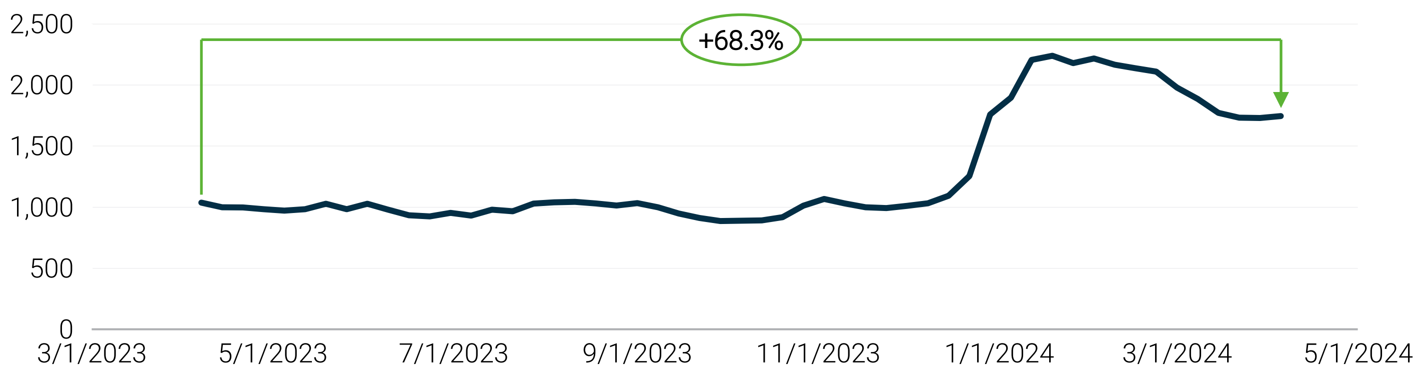
Ocean rates are continuing to normalize amidst continued ocean disruptions at significantly higher rates off of market trough last year

TRANSPACIFIC: CENTRAL CHINA (SHANGHAI) TO U.S. MONTHLY SHIPPING RATE FOR 40FT CONTAINER EVOLUTION (UNIT: $)

Drewry: Trade Routes from Shanghai (US$/40ft)



Shanghai Container Freight Index (US$/20ft)



KEY TRENDS AND FACTS

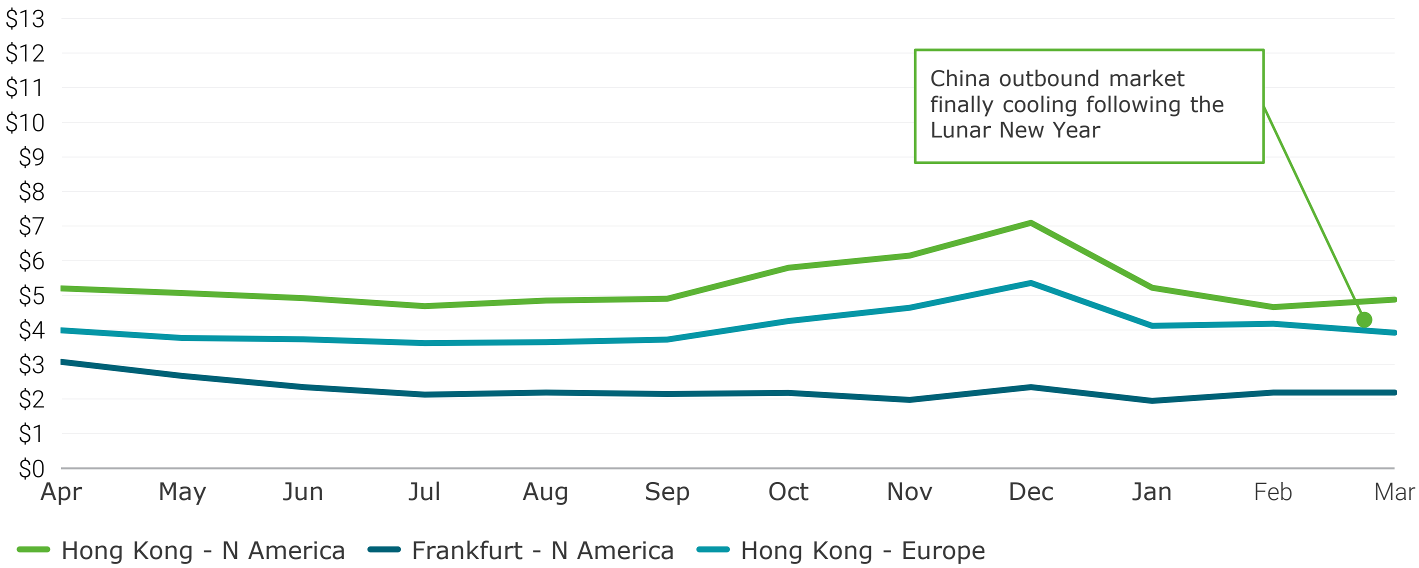
- Rates from China to the West Coast have plateaued at a 70% YoY increase; U.S. import demand continues to be strong with volume through LA Ports up 7% YoY
- China to Mexico imports are up 134% since March 2019, adding to Asia to North America container lane demand and potentially putting upward pressure on pricing (Freightwaves)
- Carriers have been able to leverage the higher spot market to improve contract rates; large US retailers locked in Asia-US container rates that are up 12-17% higher than contract rates set in 2023 (JOC)

Source: Drewry Ocean report, TI Insights, Journal of Commerce, SCFI, AlixPartners analysis

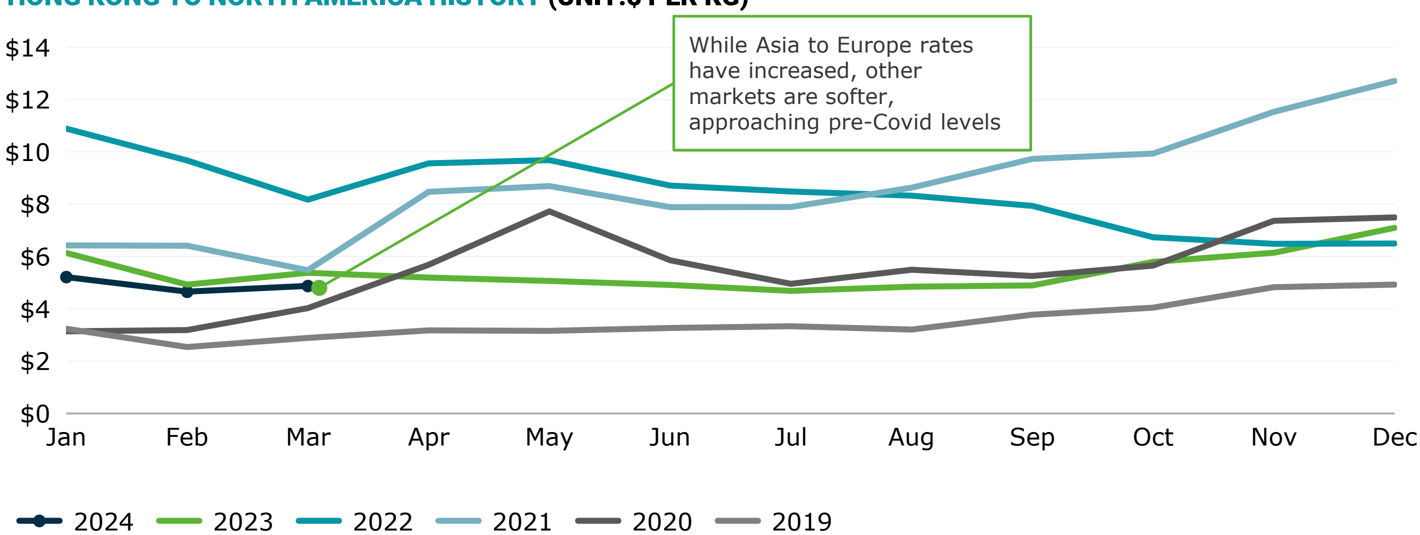
AIR FREIGHT

Global air freight demand rose 11% YoY for the third consecutive month

KEY INTERNATIONAL ROUTES (UNIT:$ PER KG)



HONG KONG TO NORTH AMERICA HISTORY (UNIT:$ PER KG)



KEY TRENDS AND FACTS

- Air cargo demand growth outpaced supply growth by 3 percentage points (AJOT).
- Continued demand growth in March was driven by Middle East and South Asia traffic shifting modes to avoid Red Sea-related delays.
- The average **air cargo spot rate** from India to Europe **increased 68% month-over-month**, while the average **ocean** containerized spot rate **declined 9%.**

Source: Baltic Exchange Air Freight Index - TAC database, AlixPartners analysis, IATA, American Journal of Transportation, Air Cargo News

RAIL FREIGHT

Total U.S. rail traffic in March was up 2.5% YTD versus 2023. Carloads declined 4.2% and intermodal traffic increased 9.1% YTD

U.S. RAIL VOLUME BY COMMODITY – YEAR-TO-DATE CHANGE VS 2023

INTERMODAL	9.1%
COAL	-14.1%
FOREST PRODUCTS	0.1%
MOTOR VEHICLES AND PARTS	3.5%
METALLIC ORES AND METALS	-0.8%
CHEMICALS	4.5%
FARM PRODUCTS EXCLUDING GRAIN AND FOOD	-0.2%
GRAIN	-0.3%
PETROLEUM AND PRODUCTS	7.7%
NONMETALLIC MINERALS	-9.3%

Source: Association of American Railroads

KEY TRENDS AND FACTS

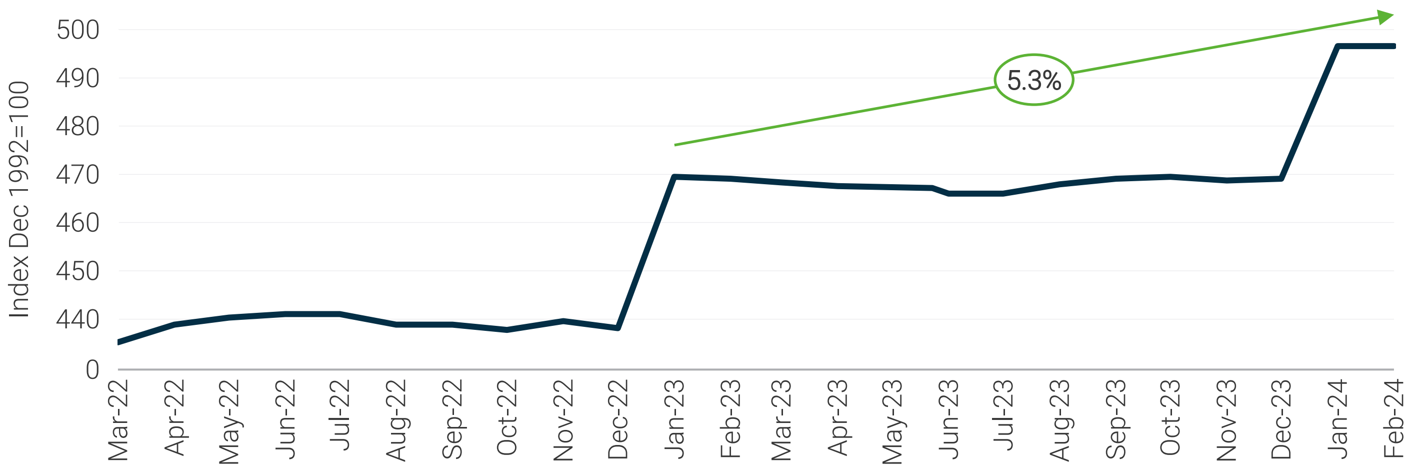
- 'Large swaths of rail traffic reflect broader economic changes. The recent announcement by the Institute for Supply Management that its manufacturing sentiment index turned positive in March aligns with rail carloads. Coal volumes continue to decline due to ongoing shifts in electricity generation markets. Intermodal was again a bright spot in March, reflecting stable consumer spending, increasing port activity, and a reduction in inventory destocking. (AAR)
- The Federal Railroad Administration issued a final rule requiring all Class I railroads to operate with a two-person crew, citing safety reasons. This topic has long been debated among railroads & labor unions and takes effect within 60 days. Many Class I railroads already operate with two-person crews, so little change is expected, but railroads had long fought for a single-man crew given focus on operational costs and technology capabilities.

Note: Carloads are traffic classified into 20 major commodity categories. Rail intermodal units are shipping containers and truck trailers moved on railcars
Source: AAR, Supply Chain Dive

USA PARCEL

FedEx and UPS added new ZIP codes for Delivery Surcharges to boost profitability amid soft demand; shippers can mitigate these new costs by consolidating shipments

PRODUCER PRICE INDEX – STANDARD COURIER SERVICES INDEX[1]



1. Measures the average change over time in the selling prices received by domestic producers for their output. For e.g.: If a 1kg package average parcel selling price in U.S. was $5 in Dec 1992, today it is about 5*466/100=$23.3

ABOUT DELIVERY AREA SURCHARGE

What is Delivery Area Surcharge (DAS)?	Additional charges shipper has to pay to deliver in specific zip codes (delivery location)
What are the types of DAS?	Standard surcharge, Extended Delivery Area Surcharge, Remote Area Surcharge (AK and HI)
How much are the charges for DAS?	$3.95 (UPS Commercial ground)
Why is this important?	Current list of Zip codes for DAS cover ~30% of U.S. population and every year new Zip codes are included in DAS

1. FedEx and UPS are adding delivery surcharges in 82 new ZIP codes to cover operational costs in dense urban areas and potentially boost profits amid lower demand

KEY TRENDS AND FACTS

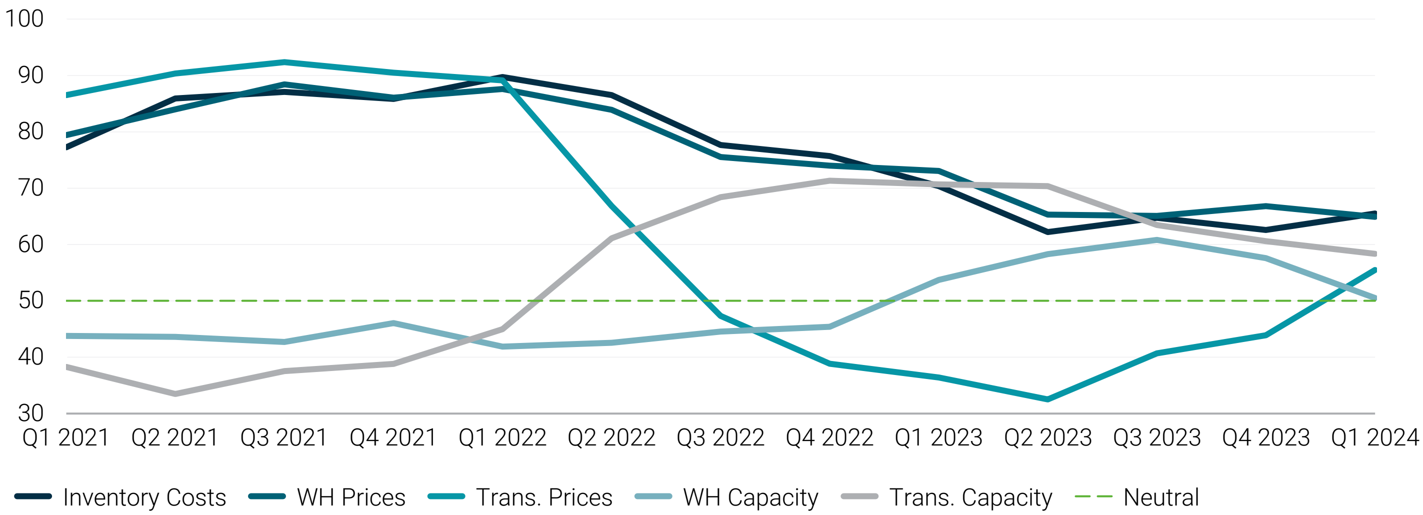
- FedEx and UPS will add surcharges for deliveries in 82 ZIP codes this month, many of which cover parts of major urban areas, according to updates from both companies covering approximately 3M of U.S. population
- UPS is closing approximately 200 U.S. facilities to streamline operations into automated hubs as part of its 'Network of the Future' initiative aimed at reducing manual labor and saving $3 billion by 2028:
  - The company is increasing its focus on automation across its network, including dispatching and package handling processes, aiming to more than triple its automated facilities to 400 by the end of 2028
  - These efforts are designed to improve UPS's volume-per-resource ratio, with a goal to increase this ratio from 51 in 2023 to approximately 59 in 2026, enhancing efficiency and reducing costs

Sources: [1]Federal Reserve Economic Data (FRED); Garland, M. (2024, Mar 26). UPS plans to close around 200 U.S. facilities, shift volume to automated hubs. https://www.supplychaindive.com/news/ups-closing-200-facilities-network-of-the-future/711412/ ; Garland, M. (2024, Apr03). FedEx, UPS adding delivery fees in parts of New York, Los Angeles, Chicago. https://www.supplychaindive.com/news/fedex-ups-delivery-area-surcharges-cities-2024/712025/

WAREHOUSING TRENDS

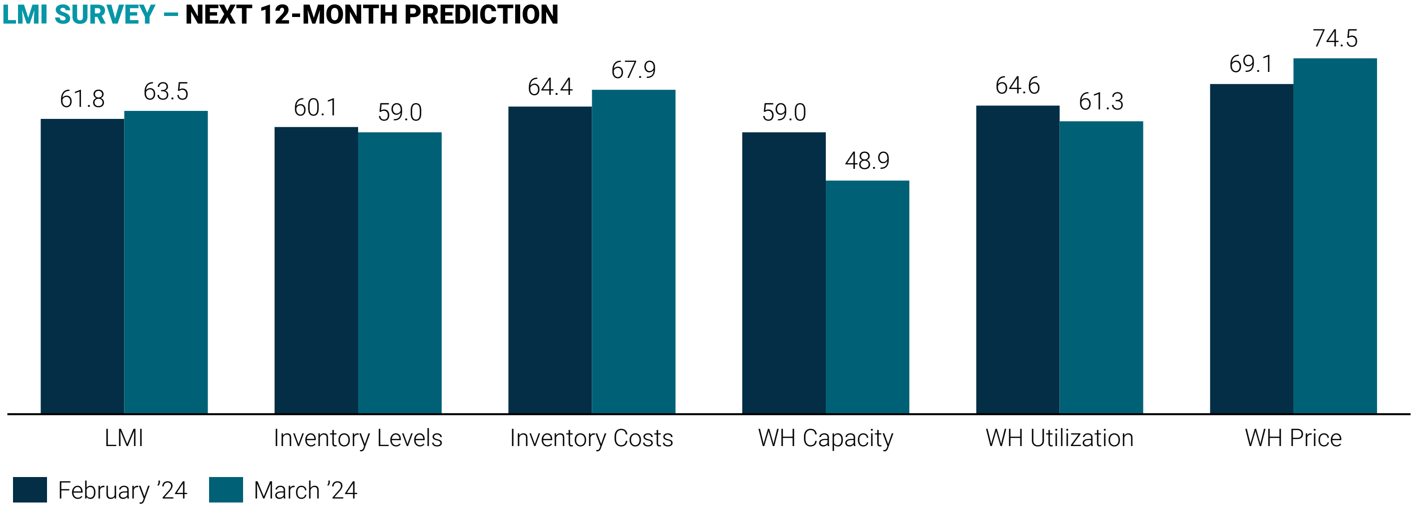
Inventory levels continued to grow to their highest since October 2022 with cascading effects on warehouse capacity

FLUCTUATION OF LMI INDICES



Logistics Manager Index (LMI) Legend: +50 = Increasing -50 = Decreasing

LMI SURVEY – **NEXT 12-MONTH PREDICTION**



KEY TRENDS AND FACTS

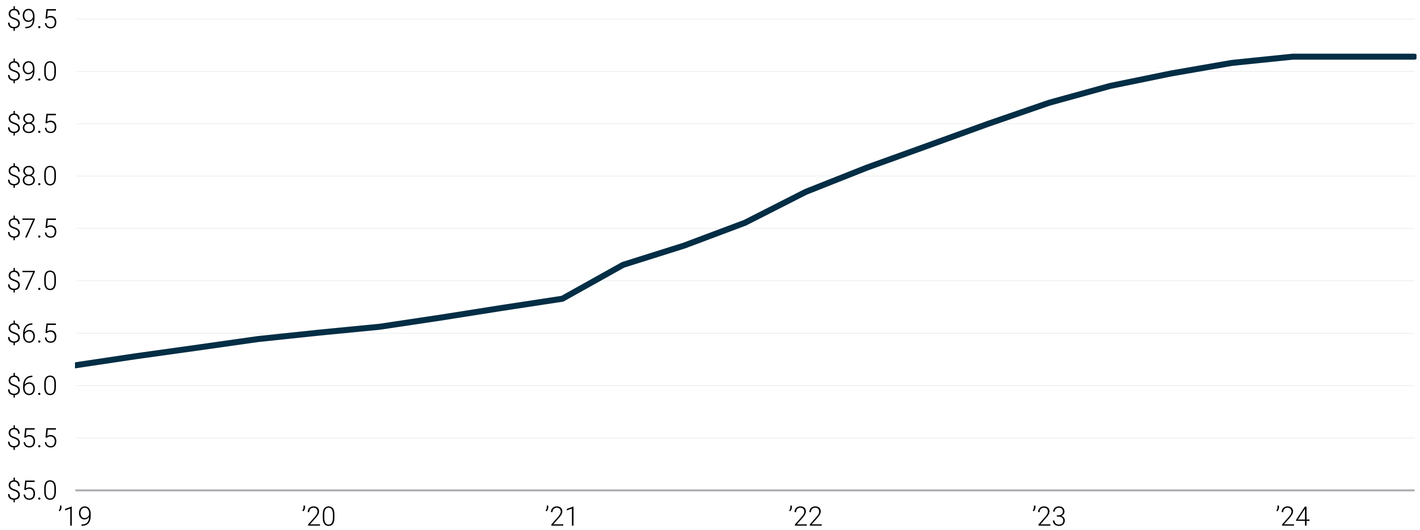
- Overall Logistics Managers' Index **reached 58.3 in February, up (+1.8) from February's reading of 56.5, and** showed the fastest rate of expansion in September 2022
- Freight rates and the overall freight market are expected to return to pre-pandemic levels, indicating a normalization trend in the industry according to industry experts
- Manufacturing seen as likely entering next growth cycle, which could lead to not only higher production rates but also more demand for warehouse space as inventories build

Source: Logistics Managers' Index, FreightWaves, The Census Bureau, AlixPartners analysis

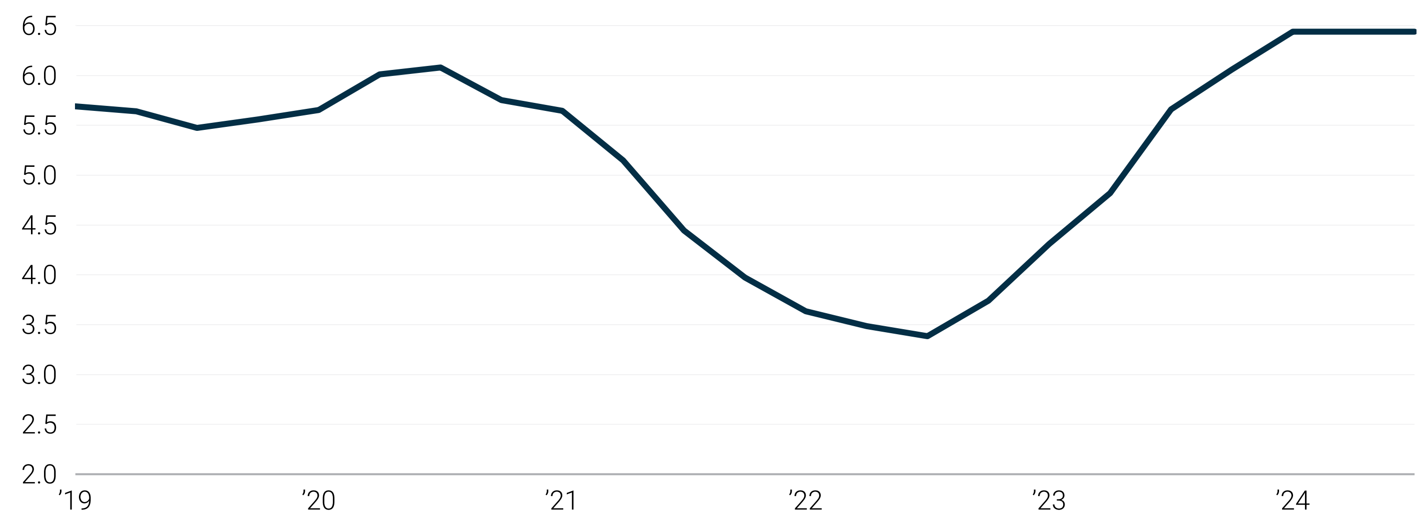
WAREHOUSING TRENDS

National warehousing rates and vacancy continue to level off amid continued demand reduction despite inventory growth

NATIONAL AVERAGE MARKET RENT/SQ FT ($)



NATIONAL AVERAGE VACANCY RATE (%)



KEY TRENDS AND FACTS

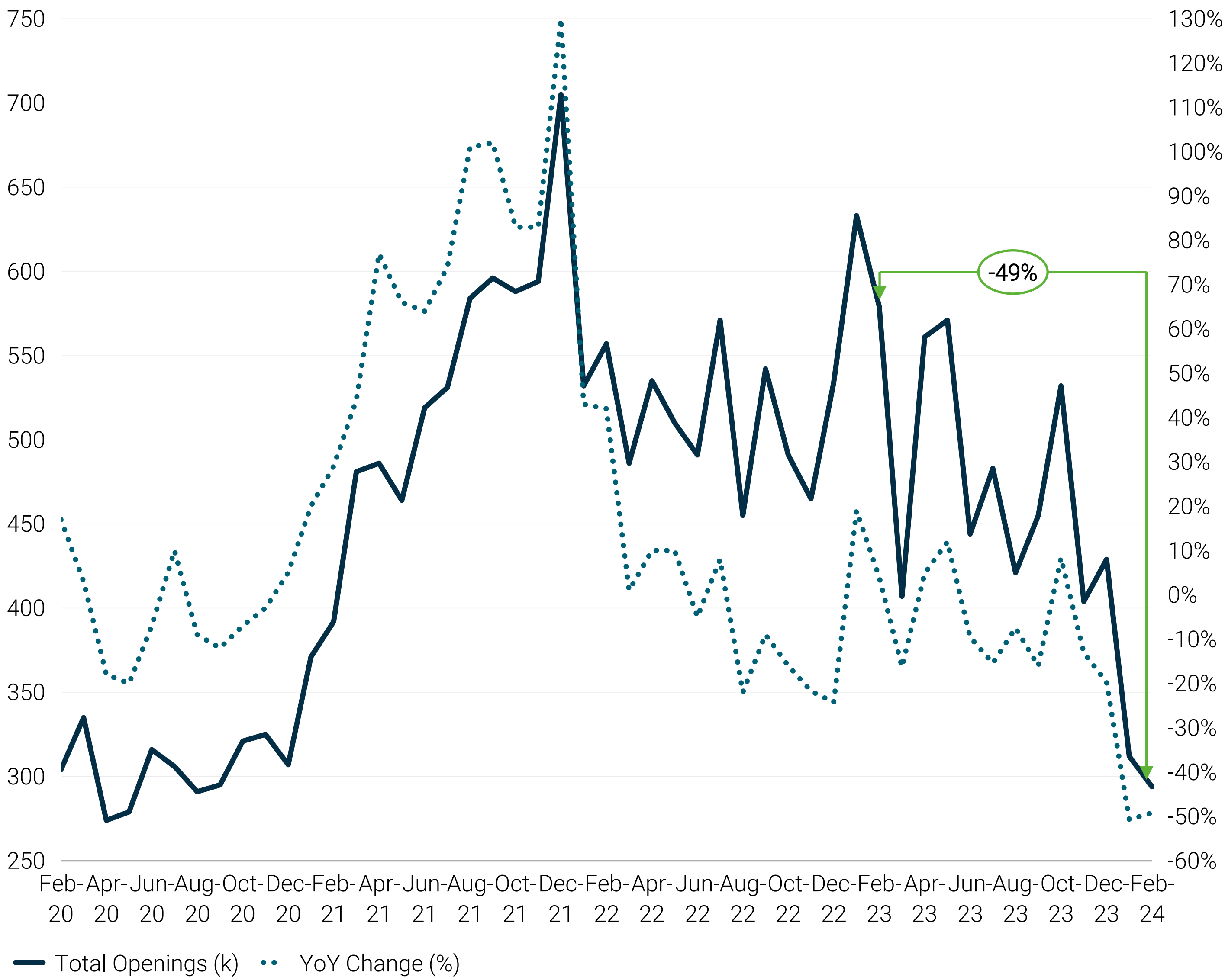
- **Quarterly rate increase appears to have slowed to 0.7% in Q1 2024** vs 2.4% over the same period a year earlier, as companies from e-commerce retailers to third-party logistics providers are leasing less new warehouse space amid weak freight demand, high interest rates and shifting consumer spending.
- El Paso, Southern California and Savannah are seen as top logistics and warehouse real estate markets where both geography and rates could be optimal given current vacancy rates and demand.

Source: AlixPartners & Mohr Partners, Wall Street Journal, Supply Chain Dives, AlixPartners analysis

LABOR

Logistics job openings were down 49% YOY as transportation; warehousing employers continue to cut jobs while transportation employment levels are relatively stable

TOTAL TRANSPORTATION, WAREHOUSING, AND UTILITIES JOB OPENINGS – JANUARY 2024 (THOUSANDS; SEASONAL ADJ.)



KEY TRENDS AND FACTS

- BLS estimated that there were **294k job projected openings** in the warehousing, transportation, and utilities sector in February; down 6% from the prior month and down 51% YOY
- Truck transportation jobs saw a healthy jump in March thought to be enabled by lower equipment costs and an active spot market in Q1; warehouse jobs continue to decline
- Dockworker negotiations along the East Coast and Gulf Coast are commencing amid the looming threat of a strike, potentially disrupting supply chains and impacting port operations

Source: U.S. Bureau of Labor Statistics Job Openings, AlixPartners analysis, Supply Chain Dives, Wall Street Journal

IMPORT TRENDS

UPDATED Q1 2024

China had been a go-to hub for U.S. manufacturers, but U.S./China relations and tariffs have been pushing trade towards other countries (Vietnam, Mexico, India gained most)

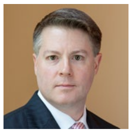
	TOTAL U.S. IMPORTS			COUNTRY WISE CHANGES (2018 V LTM SEPTEMBER 2023)			
				CHINA	VIETNAM	INDIA	MEXICO
COMMODITY	2018 ($B)	LTM SEP 2023 ($B)	CHANGE (%)	CHG. %	CHG. %	CHG. %	CHG. %
Apparel & Textiles	$116	114	(2%)	(33%)	20%	18%	5%
Automotive & Transportation Parts	$340	404	19%	(8%)	161%	(2%)	33%
Chemicals & Allied Industries	$233	330	41%	14%	114%	60%	64%
Computer & Electronics	$363	443	22%	(23%)	209%	496%	34%
Food & Beverage	$151	209	38%	(23%)	2%	11%	63%
Footwear, Headgear & Others	$32	34	6%	(24%)	40%	23%	67%
Furniture	$67	64	(3%)	(47%)	107%	49%	25%
Leather Goods	$15	15	(1%)	(58%)	25%	29%	45%
Mechanical & Electricals	$379	445	17%	(28%)	402%	89%	30%
Metals, Parts and Products	$139	166	20%	(17%)	71%	84%	49%
Misc. Goods & Manf. Products	$476	582	22%	0%	187%	24%	33%
Plastics & Rubber products	$86	102	18%	(10%)	228%	85%	50%
Special classification provisions	$85	102	20%	51%	570%	76%	23%
Temporary legislation	$18	23	28%	26%	172%	45%	11%
Wood & Pulp Products	$47	52	10%	(35%)	201%	119%	52%
Total	**$2548**	**$3086**	**21%**	**(21%)**	**115%**	**51%**	**36%**
		LTM Sep 2023 U.S. Imports ($B)		$428	$110	$83	$467

Key nearshoring trends:

- Over the past 5 years (2018 to Last Twelve Months ending Sep 2023), overall imports into the U.S. increased by 21%. However, imports from China decreased by 21% from $543 billion to $428 billion
- **Vietnam, Mexico, and India** have been the biggest gainers
  - Vietnam has seen 115% increase to reach $110 billion; Mechanical and electricals are flourishing the most in this region
  - Imports from Mexico increased by 36% to $467 billion (which is now more than China); Footwear, Headgear & Others have seen biggest increase in Mexico
  - Imports from India have seen a consistent growth across industries, overall increase of 51% in imports into U.S. to $83 billion
- Apparel, textiles and furniture industries have been most impacted. Apparel imports shifted majorly to Bangladesh, Pakistan and Cambodia

AlixPartners' Global Trade Optimizer (GTO) platform tracks real-time import trends across countries, product categories, importing companies and suppliers to help our clients be proactive with footprint diversification

ALIXPARTNERS SUPPLY CHAIN EXPERTS – REACH OUT TO LEARN MORE



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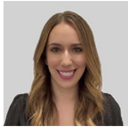

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