

Uber Freight

Chemical Current

Supply chain newsletter for
chemical shippers

January 2024



December 2023 overview



Executive summary

The year ended with little change in outlook for short term chemical trucking markets. Spot Truck rates gained momentum at the end of the year, not unlike years past, but ground transportation forecasts remain soft in the first half of 2024. The [JOC](#) highlights that spot ocean rates are gaining momentum in some lanes due to the situation in the Red Sea and LTL rates in the US remain steady moving into 2024. Outside of those modes, forecasts for 2024 are slightly up, much of which is predicted to be gained in the back half of the year.

The [American Chemistry Council](#) forecasts global chemical production to grow by 2.9% in 2024. The strongest forecast is for the Asia/Pacific markets at 4.2% while the US (1.5%) and the EU (1.9%) remain tepid in forecasted production growth. Low inventory levels in the US coupled with longer international supply chains (due to disruptions in the Red Sea) may create some near-term momentum for producers.

In the US trucking market, primary tender acceptance (PTA) for package hazmat TL shipments remains strong at 81% (although a 3% drop from November). Spot RPM for package hazmat loads jumped 13% in December after seeing an annual bottom in November. Bulk trucking capacity has remained stable in December with most equipment types seeing little rate movement in the month.

Crude oil prices bounced around Christmas after early month lows, but Diesel has not followed. Diesel is down 12.9% since September where WTI Crude is off 19.6% in the same period.

Chemical industry news and updates

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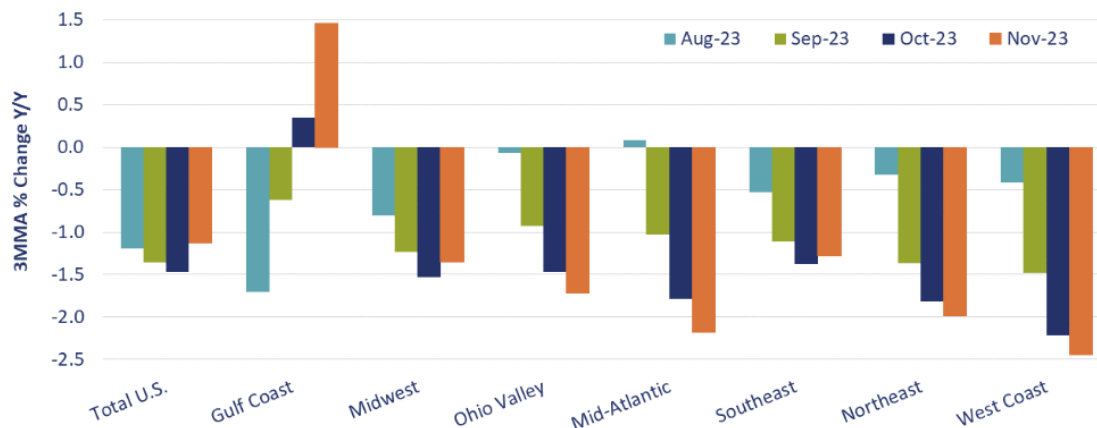
Red Sea disruptions

- Attacks on commercial ships in the Red Sea have caused container rates to spike
- Disruptions have been fairly contained but major maritime carriers such as Maersk fear prolonged volatility
- Re-routing around the southern tip of Africa will significantly impact transit times by 2-4 weeks

Carbon emissions in the crosshairs

- Norfolk Southern looking to improved fuel efficiency 13% by 2027 & increase usage of renewable energy to 30% by 2030
- Maersk has launched its 1st of 18 commercial maritime vessels powered by methanol

U.S. Chemical Production Regional Index



Note: excludes pharmaceuticals
Source: American Chemistry Council

US Chemical production

- Chemical production overall was down 0.4% in November although the Gulf Coast was slightly higher compared to last year
- The ACC expects chemical output volumes to fall 1.0% in 2023 and rebound in 2024
- All chemistry segments are projected to be down in 2023 except for consumer product

Supply chain innovation:

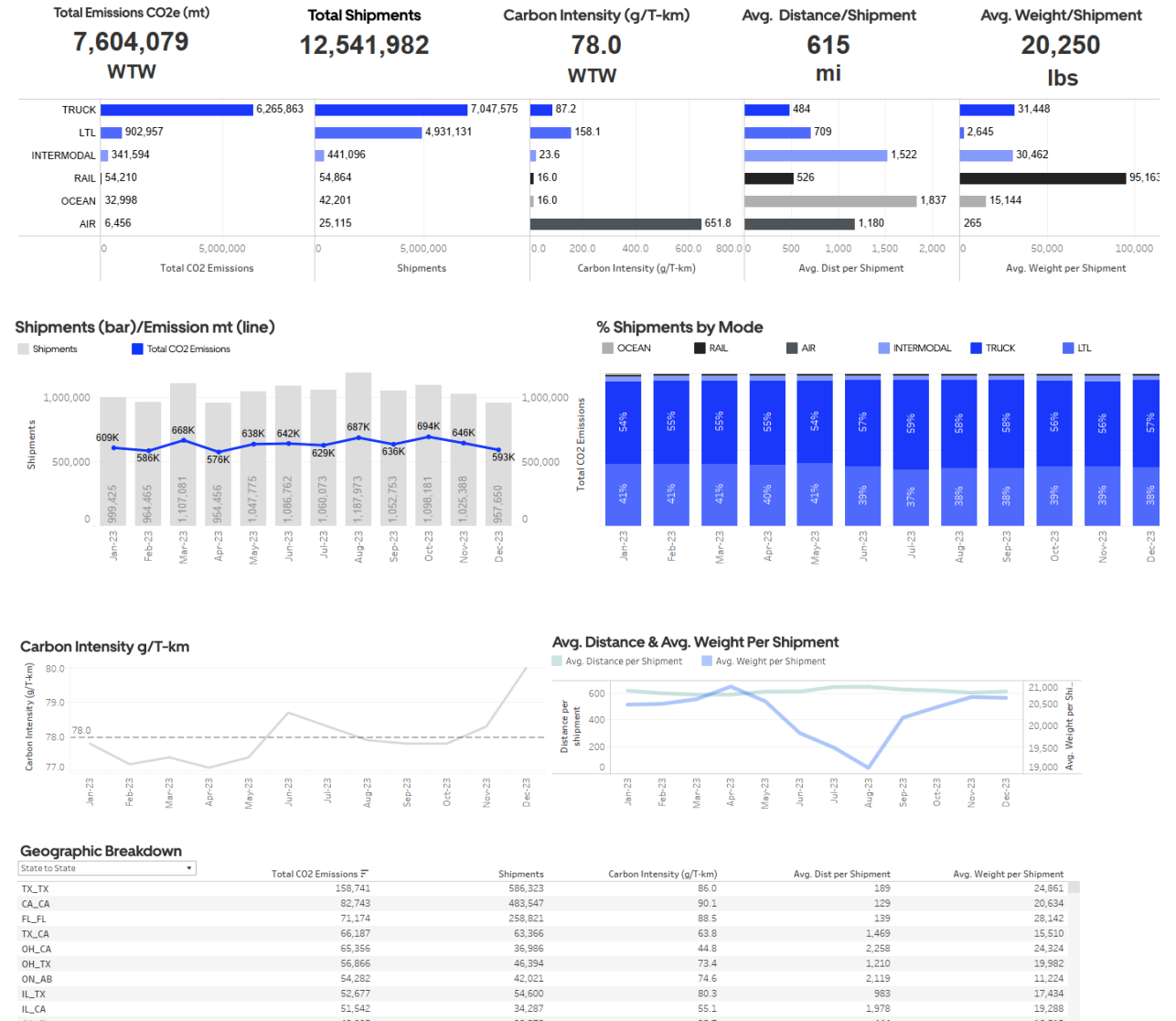
Uber Freight Emissions Dashboard



Emissions Dashboard features

- Calculate total emissions of CO2e
 - Calculated both in WTW (Well-to-Wheel) and TTW (Tank-to-Wheel)
- Calculate Carbon Intensity
 - Carbon intensity represents the efficiency of your network based on mode distribution. Inefficient modes will lead to a higher Carbon Intensity
- SmartWay Reporting
 - Provides the data required to submit SmartWay independently, or Uber Freight can submit on your behalf
- Ability to customize reporting to fit your needs
 - From a high-level regional view all the way down to facility level, you can dissect the data to your preference

FAQ tab is available in the dashboard to answer many of your questions!



Emissions Dashboard methodology

- Dashboard is aligned with the GLEC Framework – the most widely accredited emissions methodology available in the freight industry today
 - GLEC = Global Logistics Emissions Council, a program of Smart Freight Centre
- The emissions calculation is comprised of three inputs: distance, weight, and emissions factor
 - The GLEC Framework provides emissions factors for each mode, which can also be region dependent. The higher the emissions factor, the less efficient the mode is from an emissions standpoint
 - Emissions are not currently calculated at the truck level, however that is our north star. Some assumptions are made to calculate the emissions output for each shipment

Calculate Tonne-kms

Find emission intensity factor
(from table below)

Convert tonne-kms to GHGs

GLEC EMISSION INTENSITY FACTORS WTW gCO2/t-km (Well to Wheel)			MODE TYPE					
			TL ⁺¹	LTL ⁺¹	INTERMODAL ⁺²	RAIL	AIR ⁺³	OCEAN ⁺⁴
REGION	FACTOR BASEDON	FACTOR						
NORTH AMERICA	EQUIPMENT TYPE	VAN	88	157	23.2	16		
		FLATBED	83					
		BULK	70					
		REEFER	92					
EUROPE/SOUTH AMERICA	REEFER/OTHER	REEFER	103.04	224	27.44	17		
OTHER		92	200	245				
ASIA/AFRICA		REEFER	112.24	244	29.89	20.74		
		OTHER	112.24	273.3	33.48			
ALL	TYPE OF HAUL	SHORT HAUL <1000KM					1130	
		MEDIUM HAUL < 3700KM					700	
		LONG HAUL >3700KM					630	
ALL	SEA VEHICLE TYPE/LOAD CHARACTERISTICS	Avg. of General Cargo< 10dwkt and 10-20 dwkt.						16

Emissions factors can be seen in the figure above

Interested in learning more?

The Global Emissions Dashboard is currently available to all our
Managed Transportation shippers

If you would like access via your Tableau site, please reach out to
your Uber Freight representative, or email
david.ledonne@uberfreight.com to ensure that you have the most
up-to-date version of the dashboard available.

Electrifying Freight

Uber Freight is currently hauling EV shipments on our platform

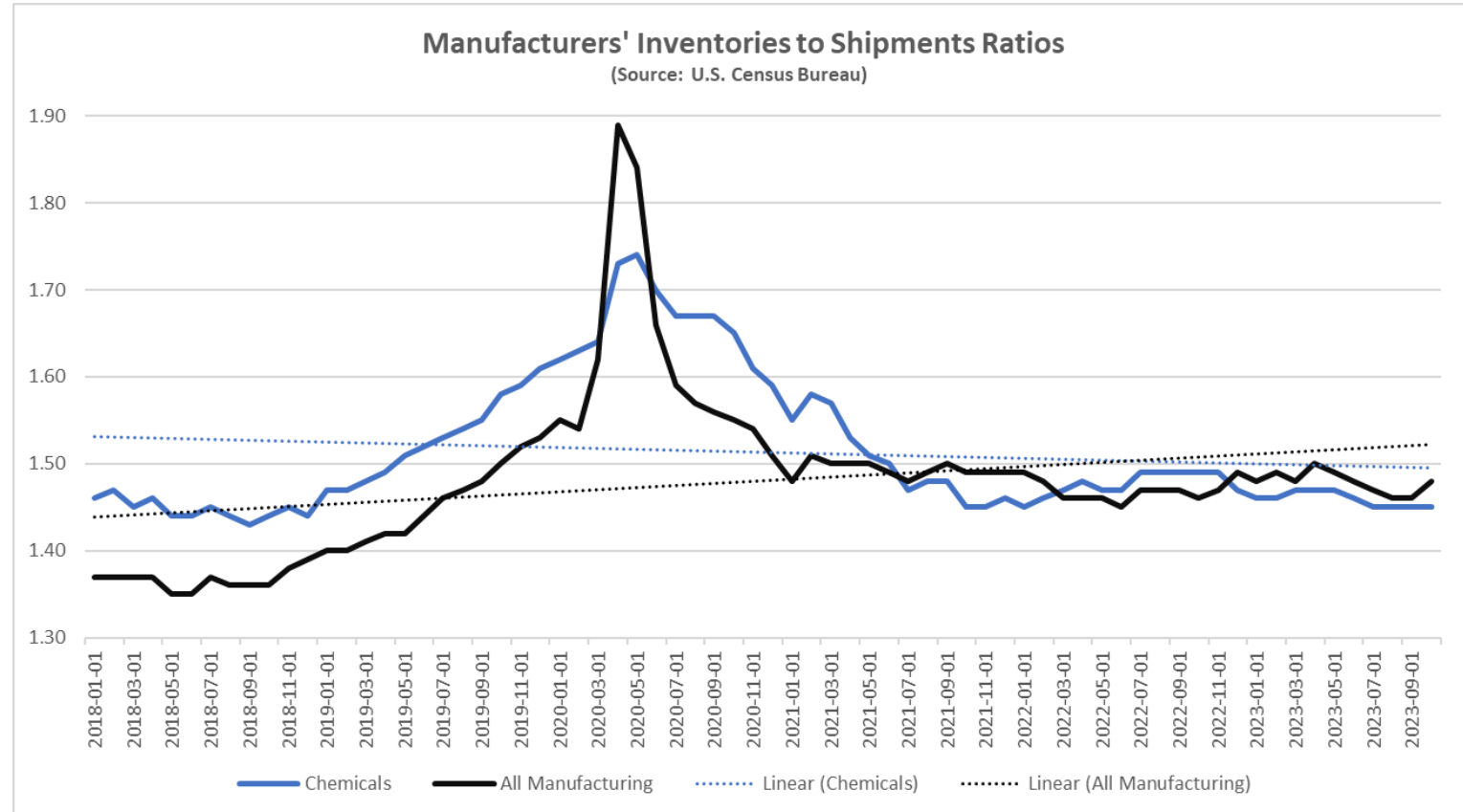
If you are interested in deploying EVs onto your network, please reach out to sustainability@uberfreight.com and we can run a network analysis to determine eligible lanes.

Chemical transportation trends

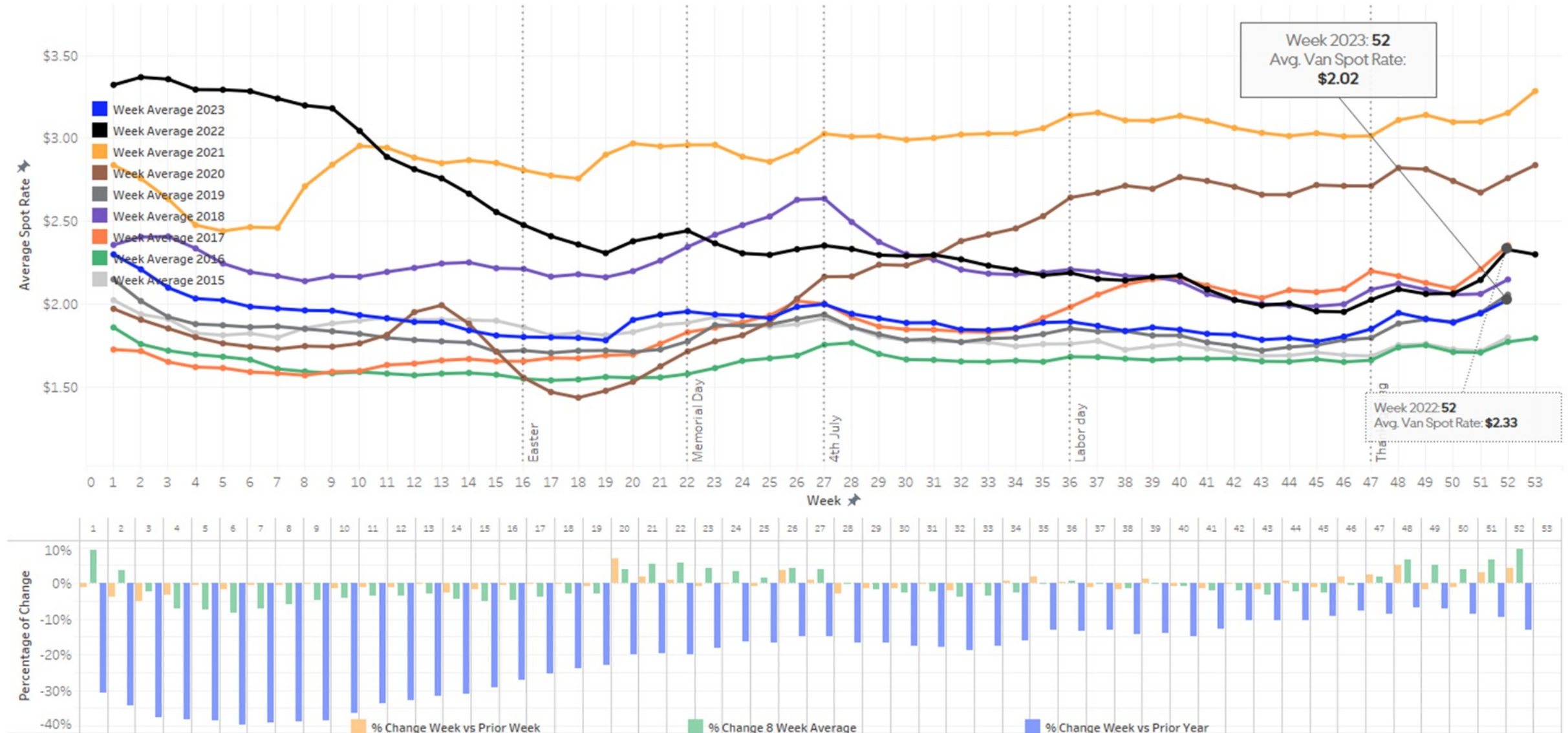


Inventory levels

- In October 2023, chemical manufacturers achieved inventory levels 8.2% below pre-pandemic levels (compared to October 2019) and 2.7% below prior years metric (when measured by inventories to shipment ratio)
- All manufacturers have also fallen below pre-pandemic levels, but at a much slower pace than chemicals (1.3% lower than 2019)
- All manufacturers are seeing inventory/shipment ratio up 1.4% on a YOY basis
- Overall, the chemical industry is out-pacing the rest of the market from a de-stocking standpoint, positioning the market for a manufacturing upswing with improved demand



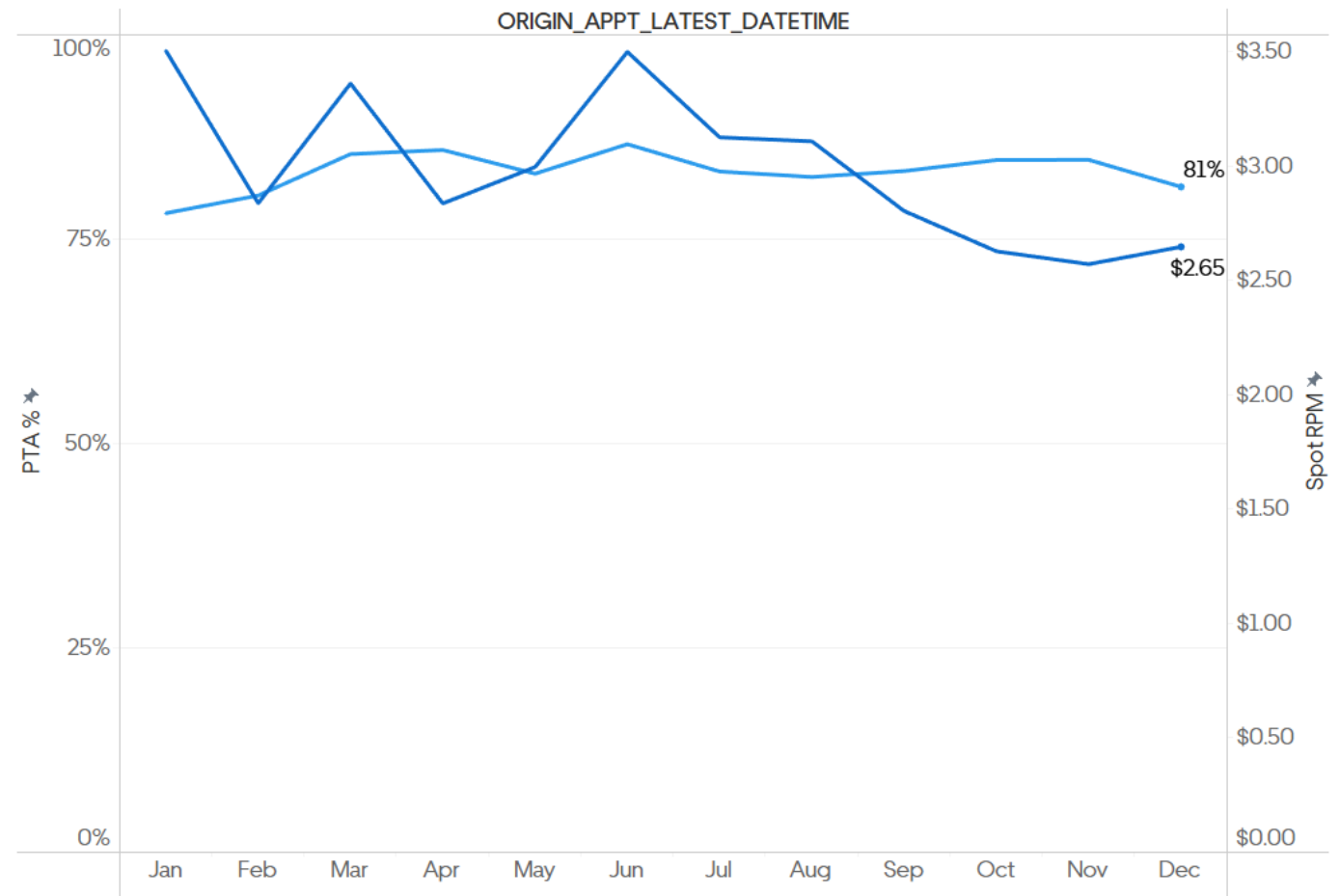
Truckload(TL) pricing trends – Weekly average dry van spot rate (week 52)



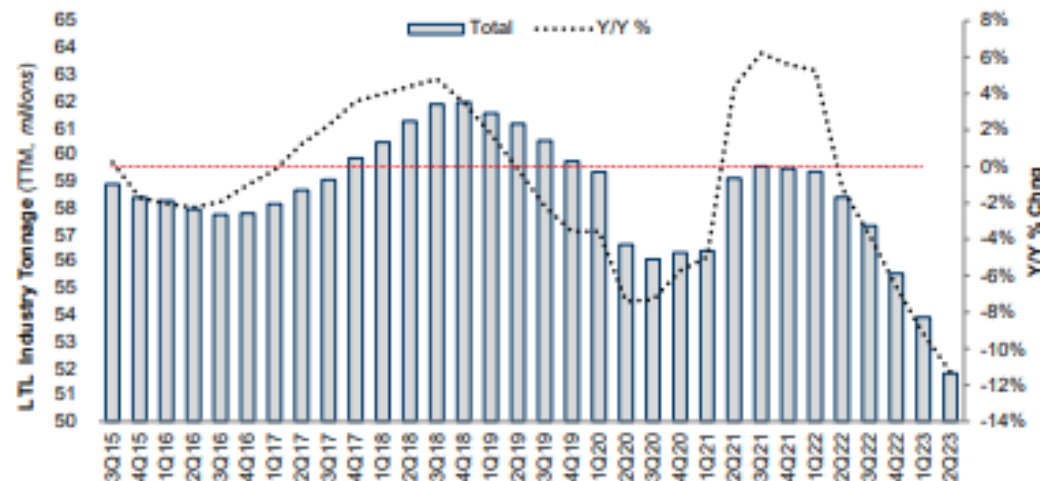
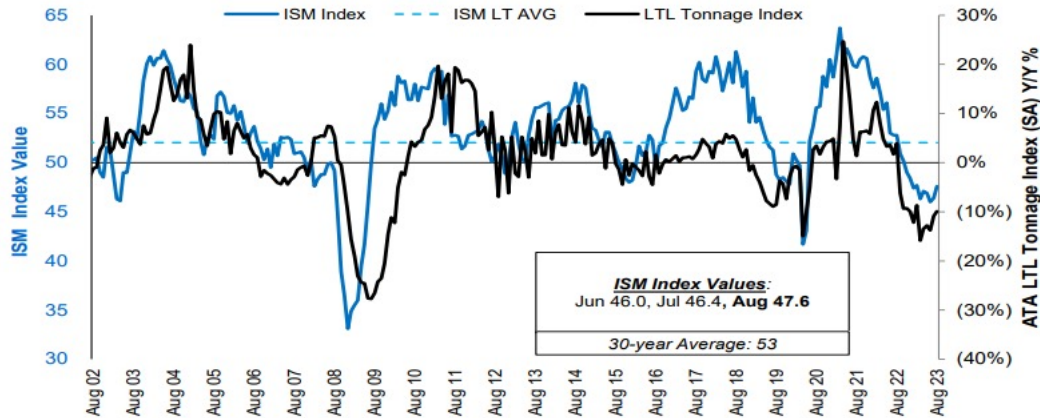
Hazardous materials tendering trends

- Primary tender acceptance (PTA) for package truckload (TL) hazmat shipments saw a decline of 3% in December
- Spot rate per mile (RPM) for package hazmat loads increased 13.2% in December to \$2.65.

Hazmat TL: PTA % vs Spot RPM



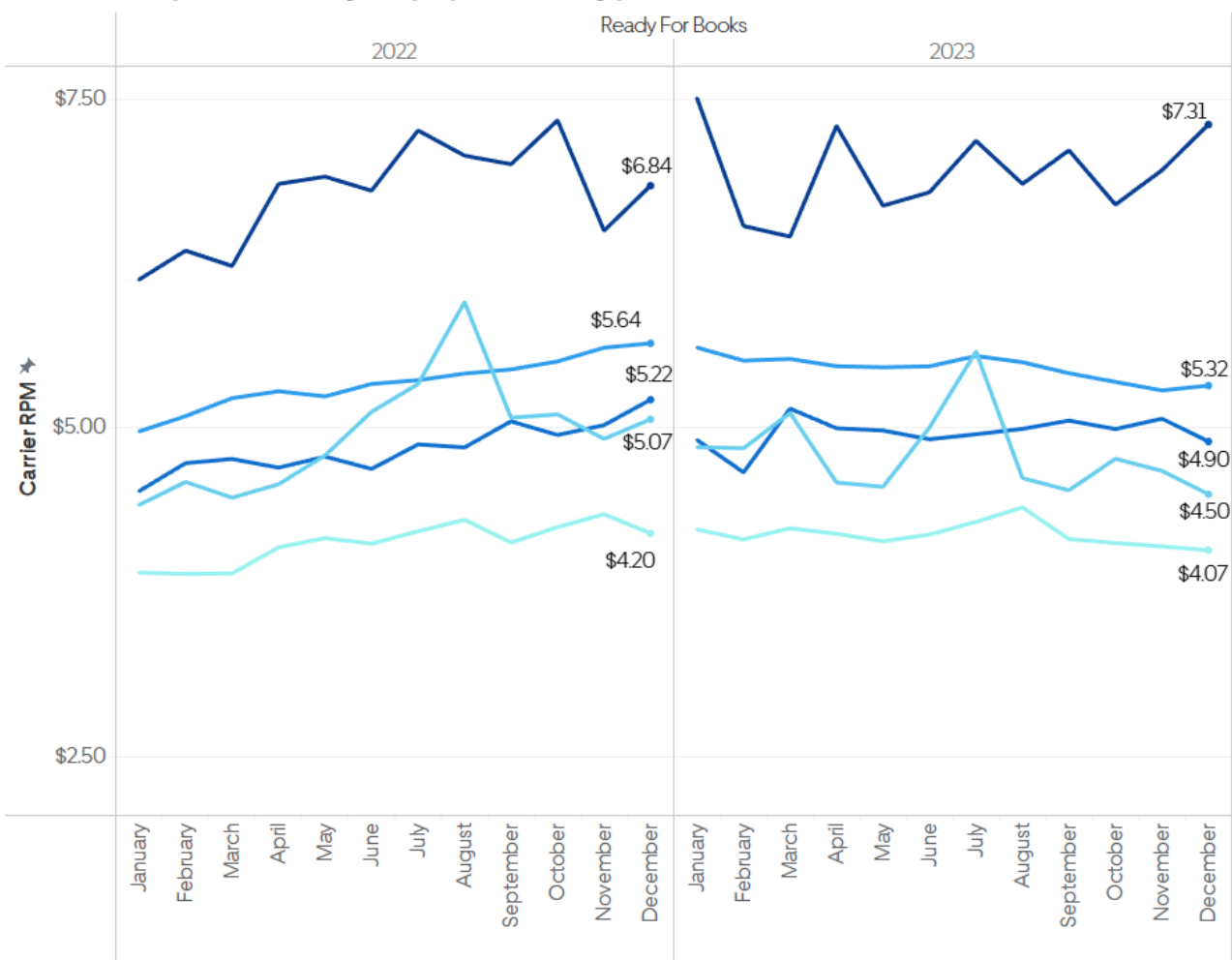
LTL trends



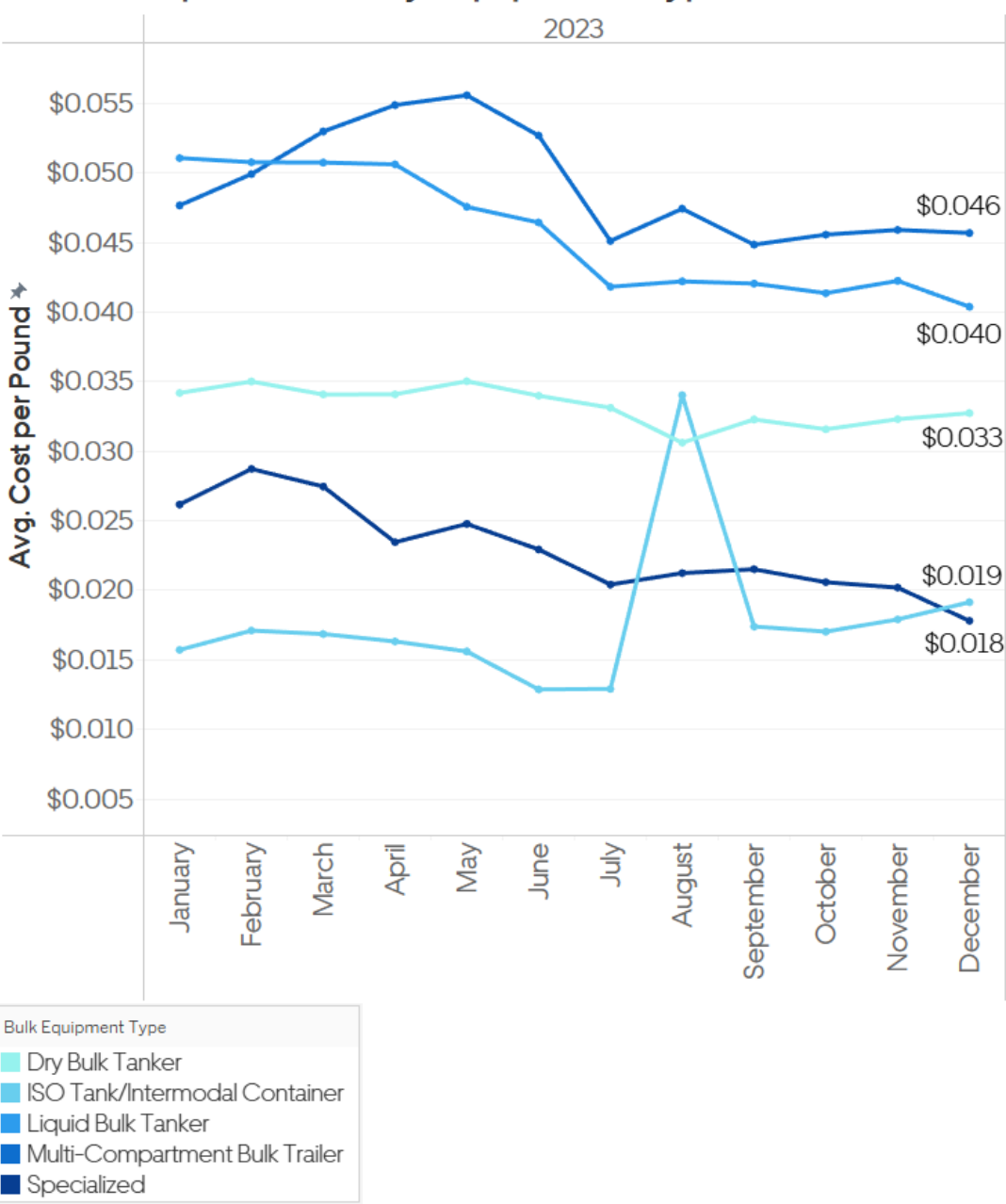
- Institute for Supply Chain Management (ISM) and Purchasing Managers' Index (PMI) are good indicators of LTL freight volumes
 - A reading above 50 indicates manufacturing economy is expanding
 - September PMI rose to 49 with October at 46.9
 - Although September was encouraging, October readings are in line with recent history
 - The historical correlation between U.S. manufacturing PMI and LTL tonnage suggests continued industry volume declination
- Observations impacting demand
 - Q3 tonnage continued to decline, but individual Carrier's tonnage are showing signs of improvement in September due to Yellow's closure
 - Overall LTL tonnage and shipment count is expected to remain at reduced overall levels through the end of the year and into 2024
 - The LTL market had the excess capacity to absorb Yellow's volume with relatively little disruptions. Most carriers still have excess capacity despite Yellow's exit
 - Average shipment size also continues to decline

Bulk pricing trends


Bulk Rate per Mile by Equipment Type




Bulk Cost per Pound by Equipment Type



Diesel fuel pricing trends

 Current national diesel price - **\$3.894/gal**
(As of 1/8/24)

 Brent Crude - **\$75.72(\$/bbl)**
(As of 1/8/24)


 WTI Crude - **\$70.43(\$/bbl)**
(As of 1/8/24)

Current dry van fuel surcharge 

NATIONAL FUEL SURCHARGE

\$0.44 (\$0.00) **0.0%**

Source: DAT (as of 1/8/24)

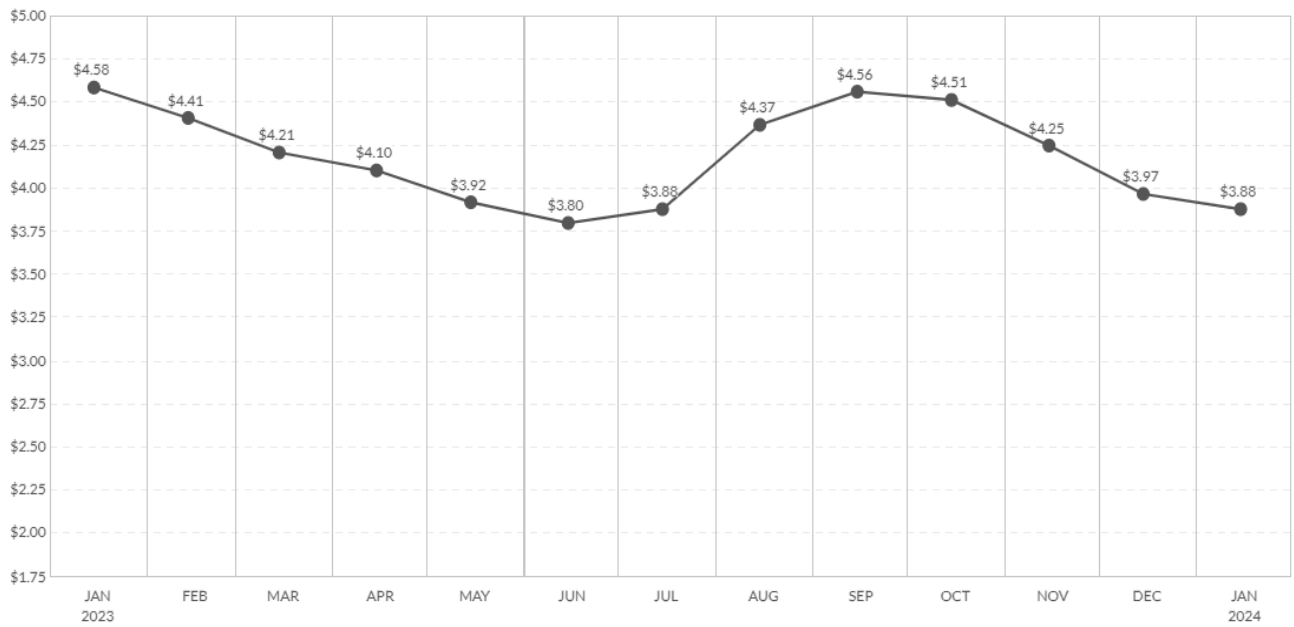
Current reefer fuel surcharge 

NATIONAL FUEL SURCHARGE

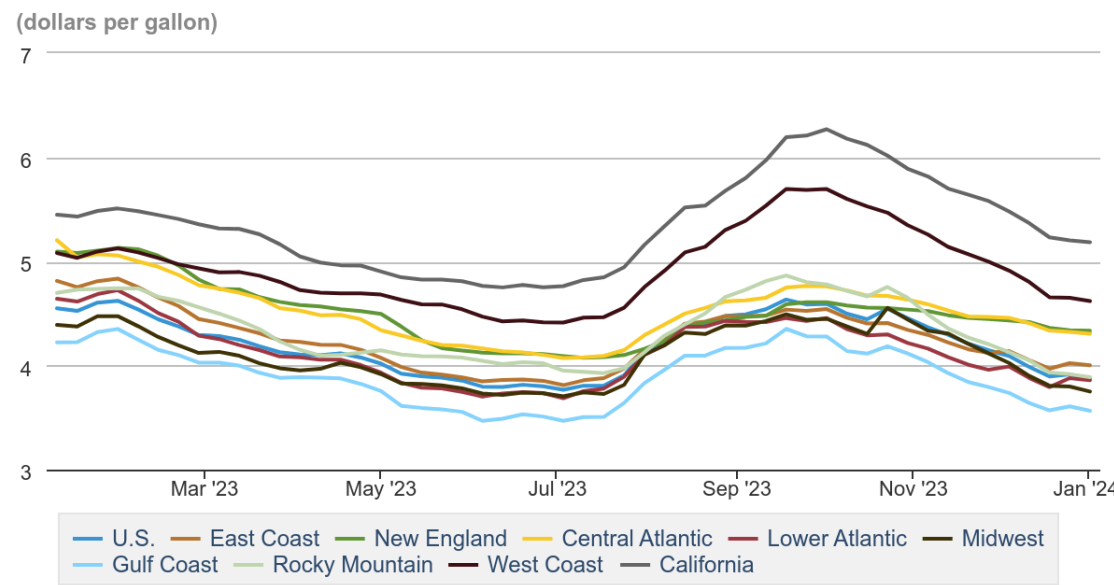
\$0.48 (\$0.00) **0.0%**

Source: DAT (as of 1/8/24)

1-Year National Diesel Fuel Averages



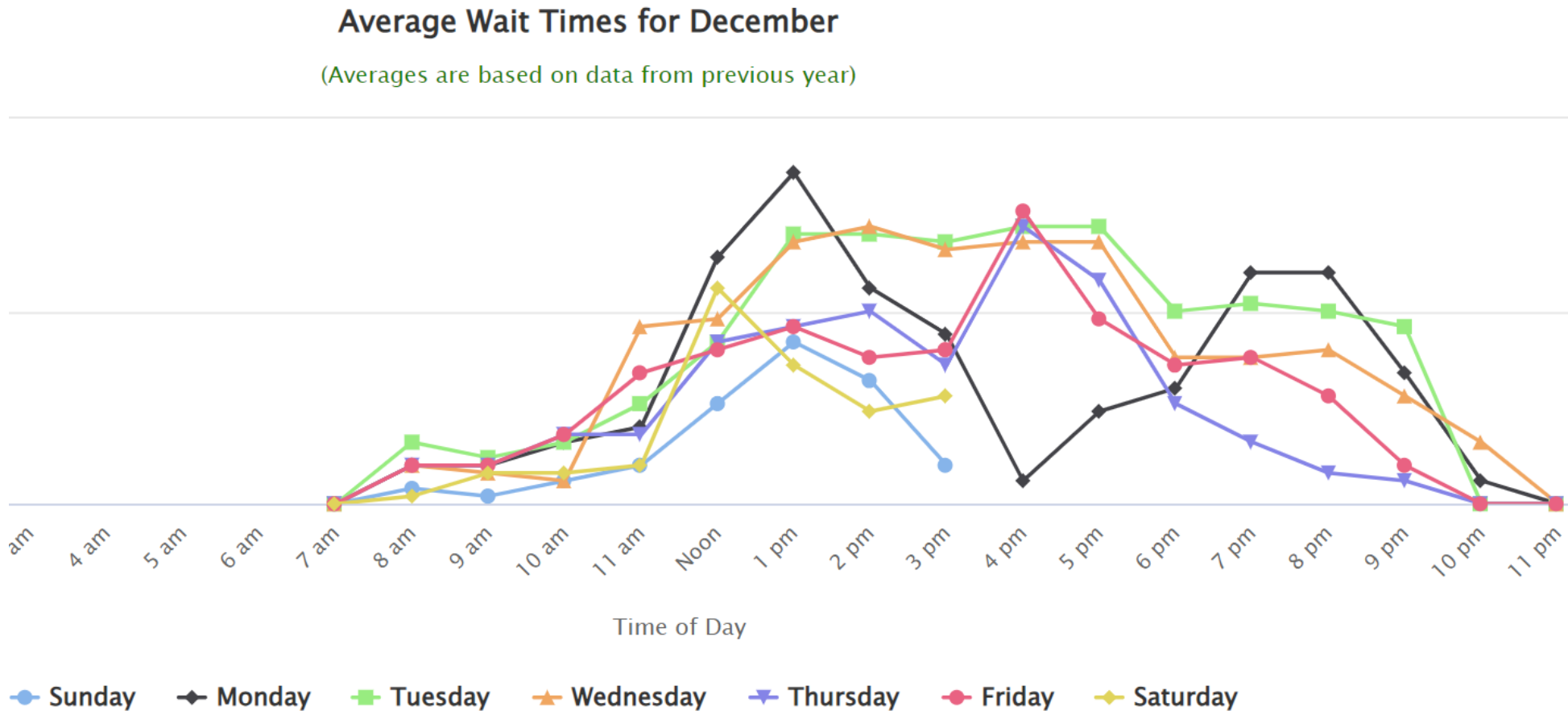
On-Highway Diesel Fuel Prices



 Data source: U.S. Energy Information Administration

Mexico

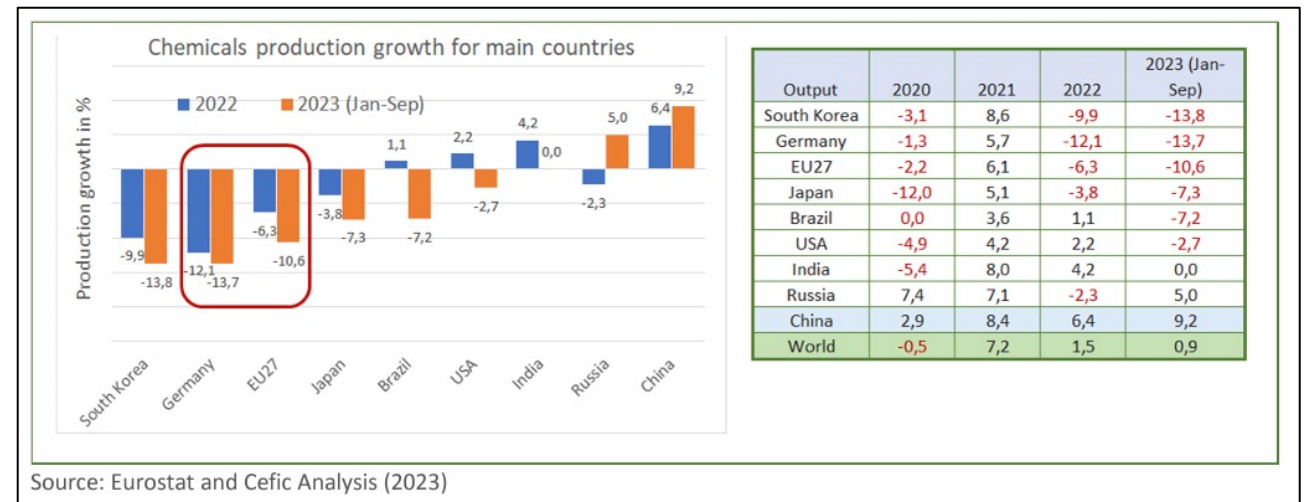
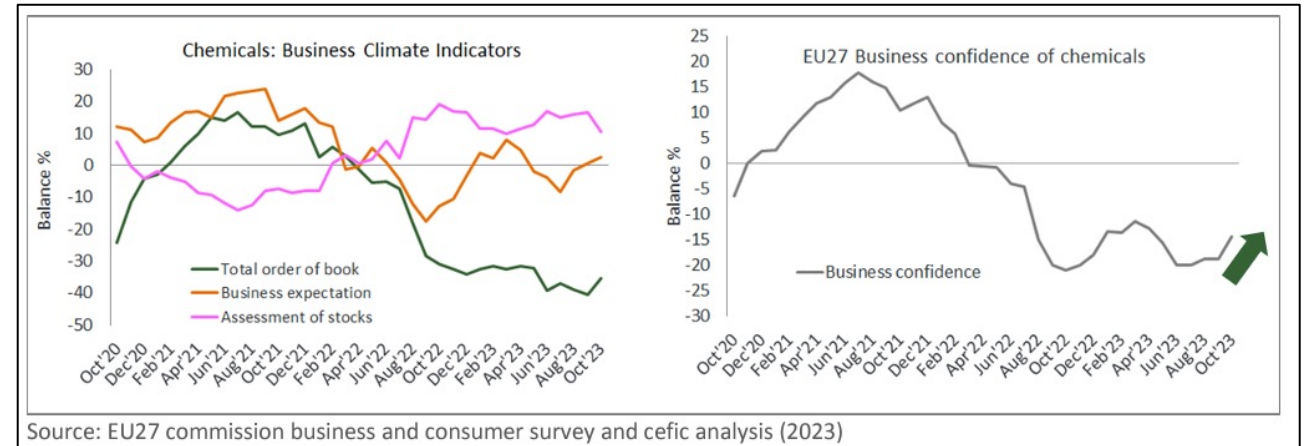
Laredo – World Trade Bridge wait times



Source: U.S. Customs and Border Protection

Europe – EU27 chemical market trends

- In the 27 EU countries (EU27), order books were down and inventories up during 2023
- Business confidence started to become less negative towards the end of the year
- The political and economic uncertainties remain a key factor
- The high energy costs in the EU27 are causing the chemical sector to become less competitive globally
- The negative growth in 2023 is more severe than in 2022, with Germany in particular, suffering a decline of -13.7%
- Output of chemicals is forecast to grow by 1.9% in 2024 (Source: ACC)
- More European chemical plant closures are expected in 2024 (Source: S&P Global)



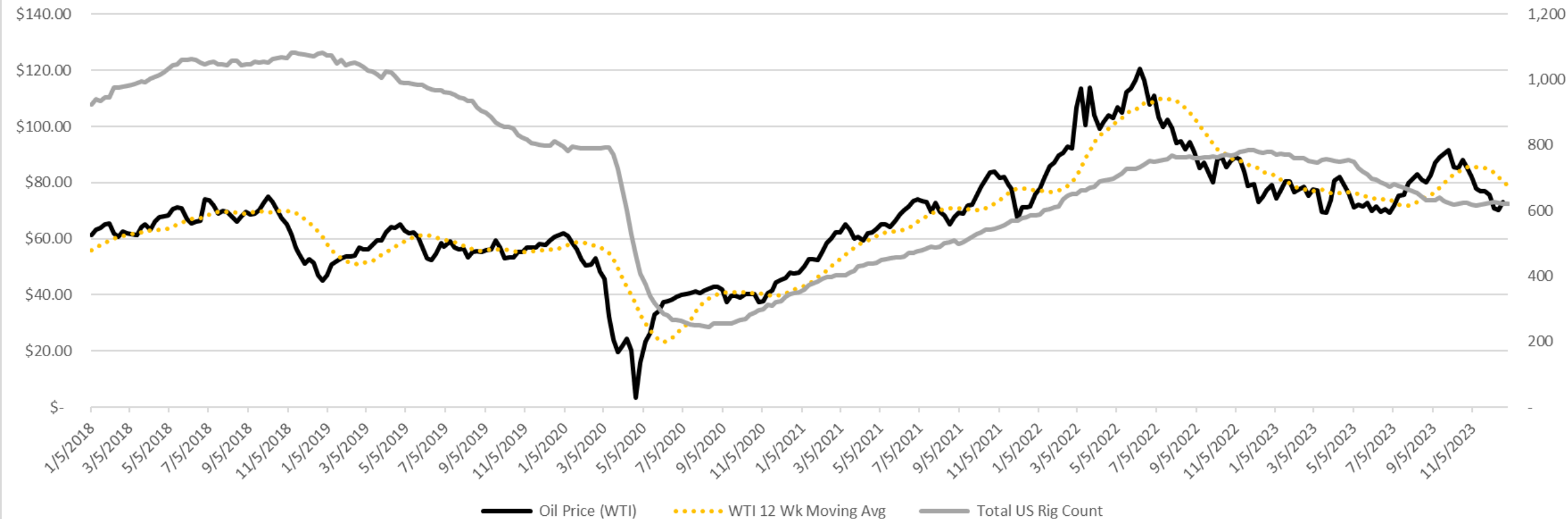
Chemical supply chain overview



Chemical industry news and updates: Energy

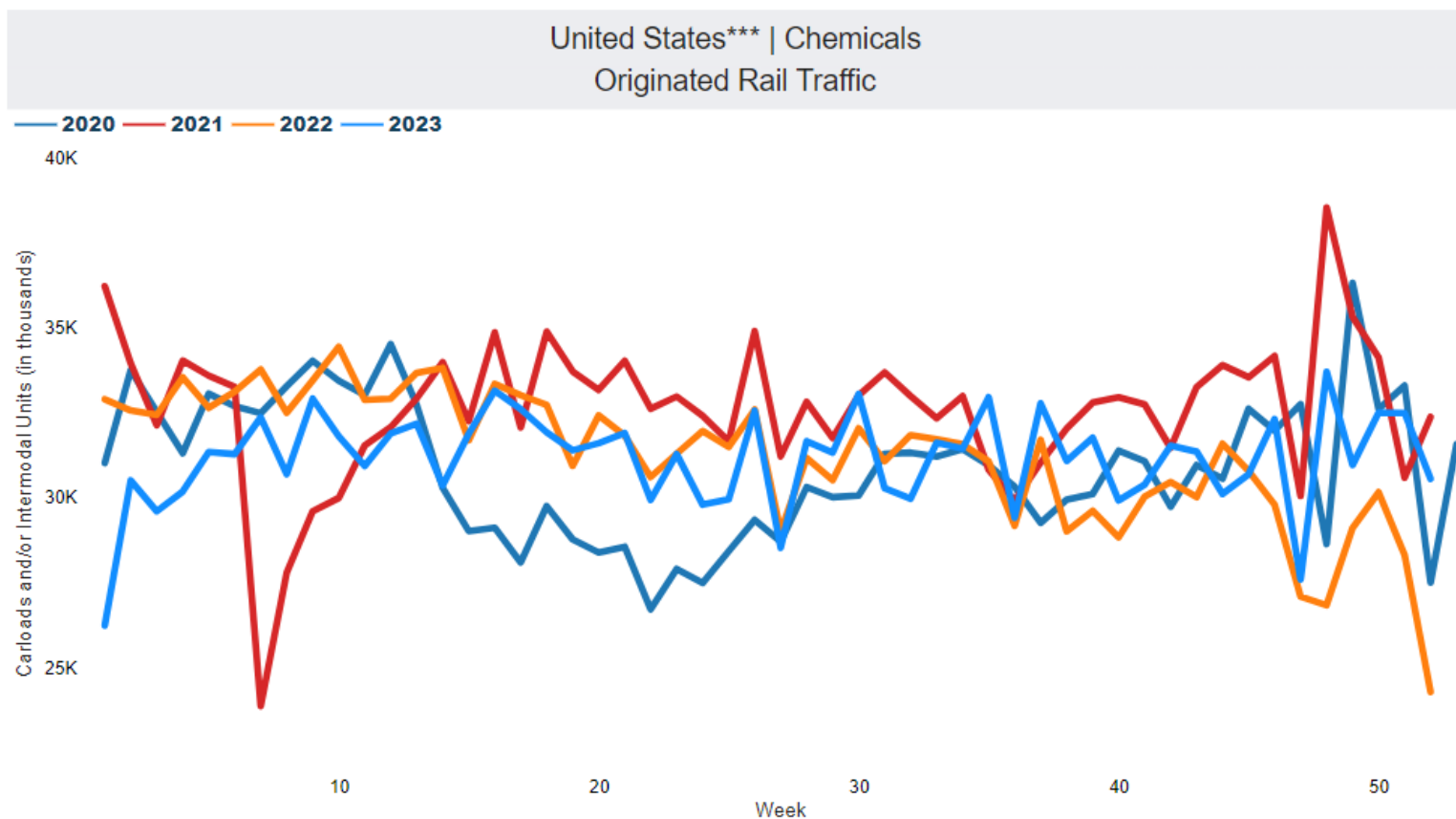
- 12-week moving average of WTI prices and US Rig Counts have historic correlation
- Interest rates have given upstream producers greater scrutiny when considering adding equipment to the market
- US rig count builds have not returned to pre-pandemic levels even with the summer spike in oil prices

Baker Hughes Total US Rig Count verse WTI Price



Chemical industry news and updates: Rail traffic

- US total rail volumes were down 2.4% for the first 51 weeks of 2023. This was primarily driven by Intermodal Boxes which are down 5.0% verse carloads which are up 0.6% YTD
- US Chemical volumes (chart below) saw a favorable bounce after Thanksgiving
- US Chemical volumes although up YOY in recent weeks, remains weak YTD. YTD total US Chemical carloads are down 0.7%, while Canadian (+3.3%) and Mexican (+12.3%) chemical carloads have seen strength in 2023



*Canadian traffic includes the U.S. operations of Canadian railroads.

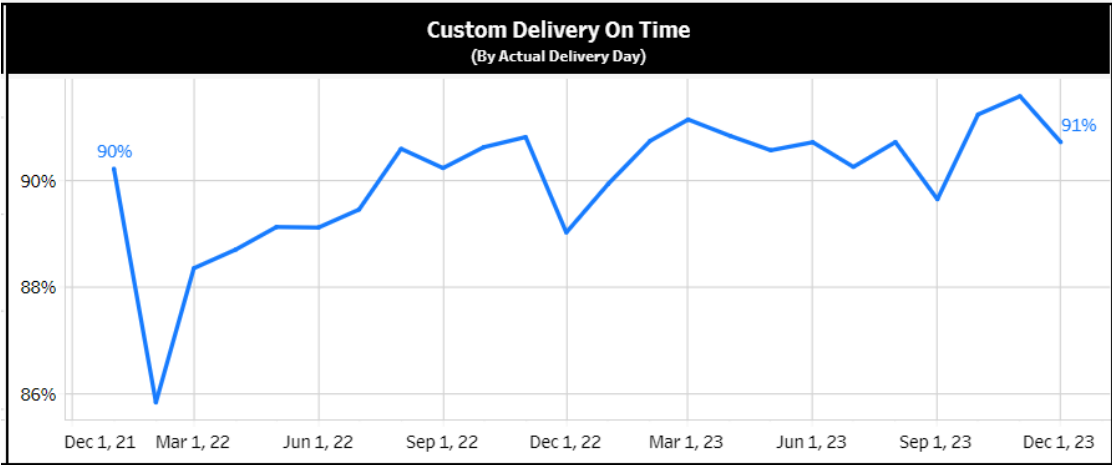
**Mexican traffic includes the U.S. operations of Mexican railroads.

***United States traffic excludes the U.S. operations of Canadian and Mexican railroads.

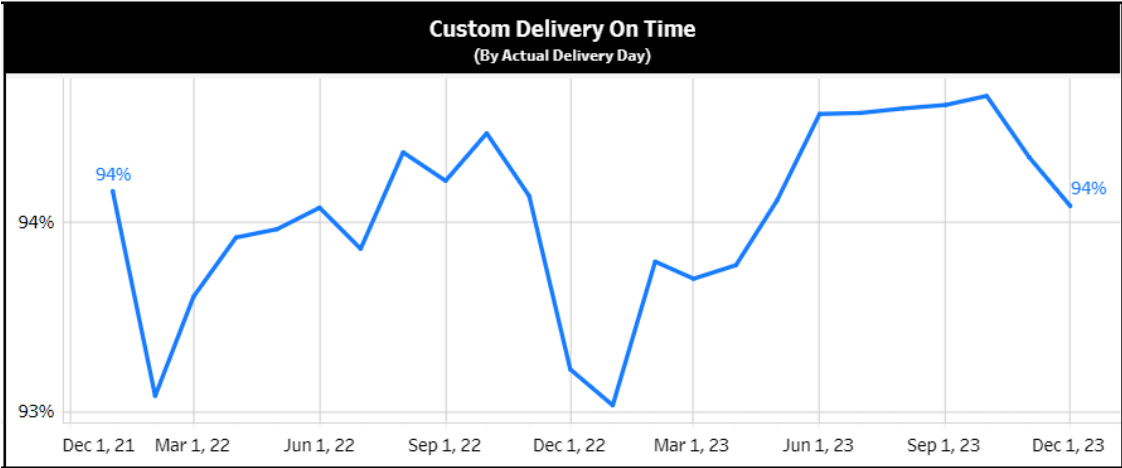
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Chemical vertical on-time delivery by mode

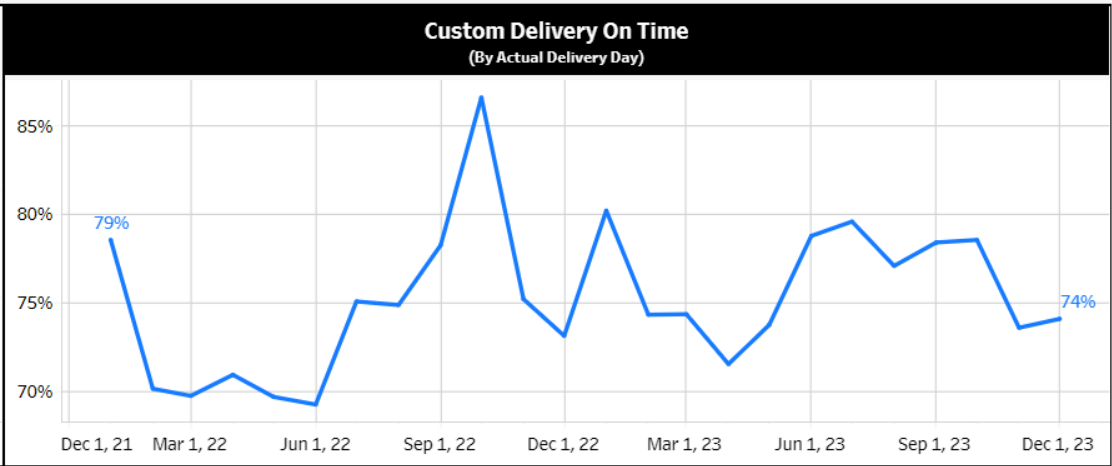
LTL



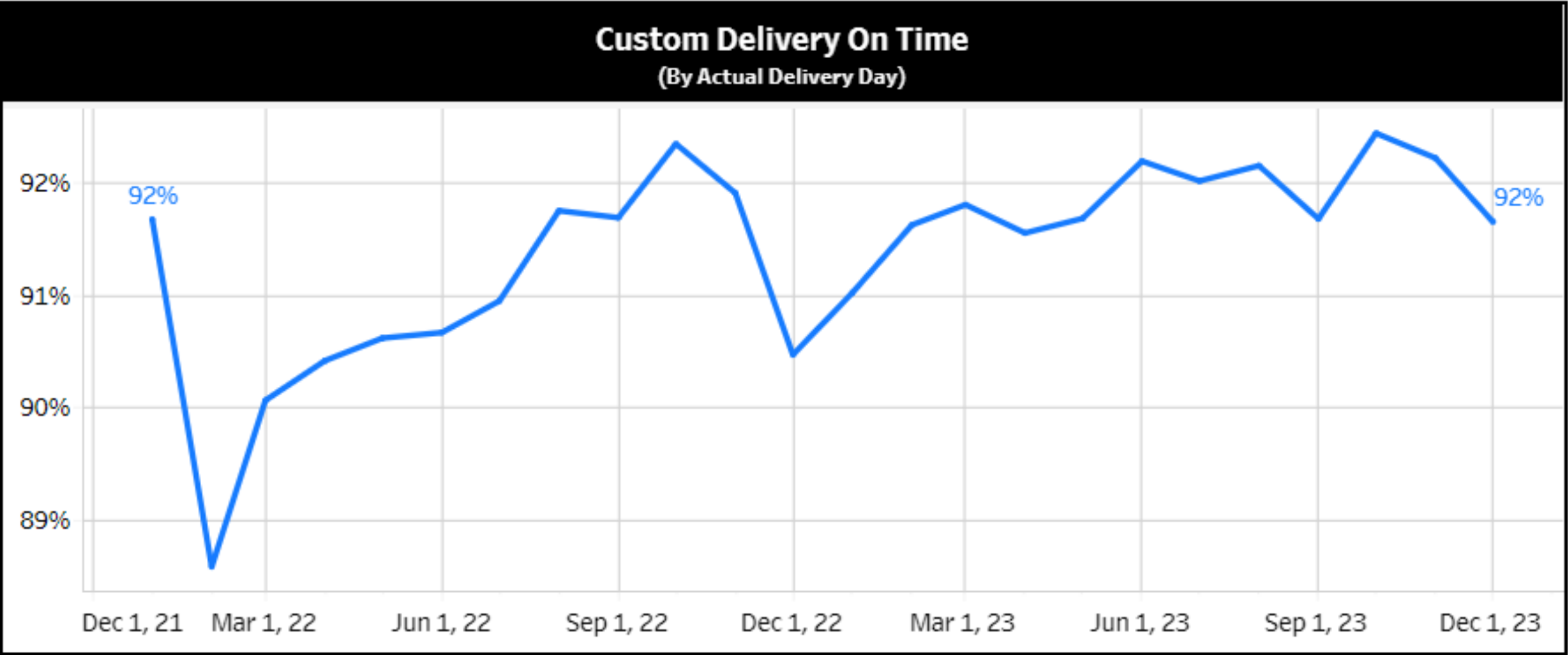
TL



Other



Chemical vertical on-time delivery*



*Out of more than 150,000 shipments each month, including all modes and two-hour tolerance for delivery appointments.

Uber Freight