

## Factors Shaping Supply Chain & Logistics

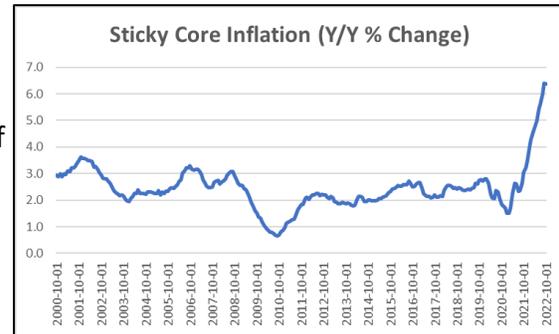
**GDP for 2022 on Track for 0.2%.** 2023 forecasts are projected to show growth of 1.2%, all the growth back-loaded in the second half of the year. The Fed will likely push the unemployment rate to 4.5% and the Fed Effective Funds Rate to nearly 5%, the highest interest rate since 2007.

	2021	2022	2023	2024	2025
Real GDP	5.7	0.2	1.2	1.7	1.8
Unemployment rate (%)	5.4	3.8	4.4	4.4	4.3
PCE Inflation (%Y/Y)	3.9	5.4	2.8	3.3	2.0
Core PCE Inflation (%Y/Y)	3.3	4.5	3.1	2.3	2.1
Fed Funds Rate	0.1	4.4	4.9	3.9	2.9

**Construction Spending Continues.** Eight sectors in non-residential construction continue to grow at double-digit rates. Manufacturing construction spending is up nearly 44% Y/Y and commercial is growing at more than 22%. This could eventually get weighed down by higher interest rates, but for now this activity continues to be strong.

Type of Construction:	Value of Construction Put in Place - Seasonally Adjusted Annual Rate (Millions of dollars. Details may not add to totals due to rounding.)			Percent change Sep 2022 from -	
	Sep 2022 <sup>a</sup>	Aug 2022 <sup>a</sup>	Sep 2021	Aug 2022	Sep 2021
<b>Total Construction</b>	1,811,136	1,807,011	1,632,860	0.2	10.9
<b>Residential</b>	927,254	927,320	823,155	0.0	12.6
<b>Nonresidential</b>	883,882	879,691	809,705	0.5	9.2
<b>Manufacturing</b>	113,399	105,420	79,159	7.6	43.3
<b>Water supply</b>	24,693	25,053	19,584	-1.4	26.1
<b>Commercial</b>	115,283	116,130	94,152	-0.7	22.4

**Real Inflation Still Too High.** Despite this week's CPI number coming in slightly cooler, the core sticky inflation (prices that don't ease as easily or quickly as other measures) figure for October came in at 6.36%, down just 3 tenths of a percent from 6.39% last month. Despite some of the stock market optimism, the underlying inflation data is not improving at a rate that will ease Federal Reserve pressures.

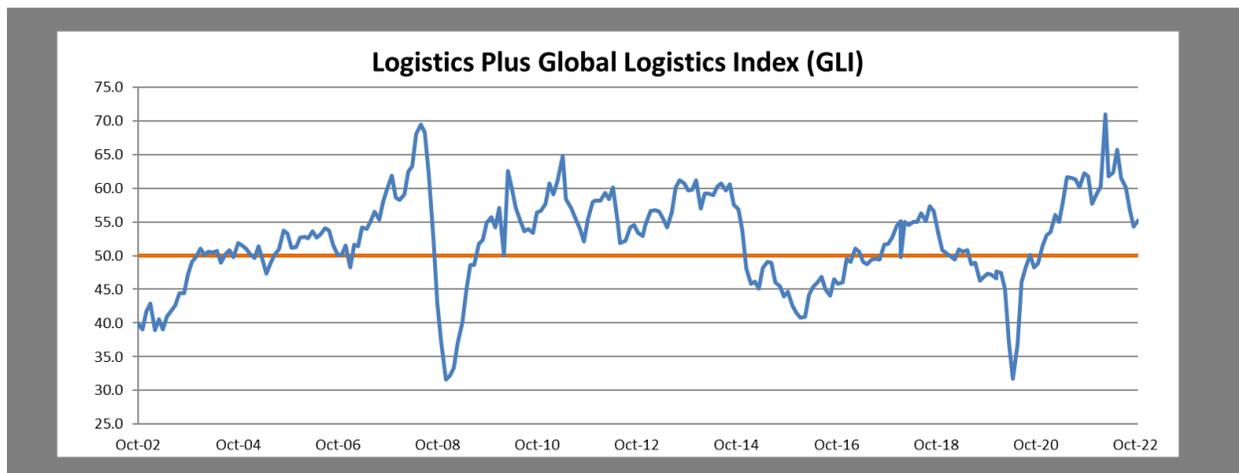


## The LogisticsPULSE Global Logistics Index

### October GLI Remains Stable Heading Into the Peak

The Logistics Plus Global Logistics Index (GLI) came in at 55.3 in October, slightly higher from 54.3 posted in September and remaining in expansion phase. The index was 10.5% lower year-over-year but was still 16.8% higher vs. the same pre-pandemic period in 2019.

The 22 global economic and transportation metrics that make up the index continued to show some mild economic pressure, and disruptions from Covid lockdowns in China and recession risk in Europe was keeping a cap on activity, despite normal seasonal demand at this time of year. The GLI measures transportation demand and has been measured over twenty years of collected data.



## What's New & Important with North American Supply Chains?

Inventory to Sales Ratio (ISR) Analysis

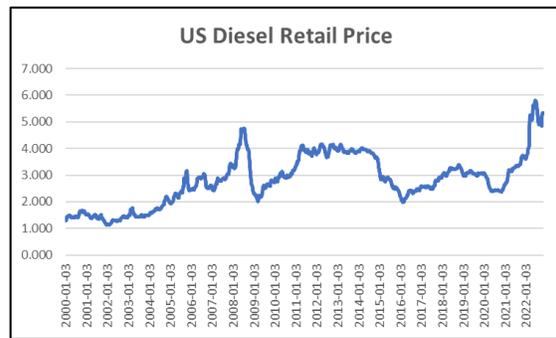
Sector	August Sales (Millions)	Aug 2019 ISR	Aug 2022 ISR	ISR Percent Above/Below 2019 Levels
<b>Total Business</b>		1.43	1.33	-7.0%
1. Automotive		2.31	0.67	-71.1%
2. Retail		1.46	1.24	-15.1%
3. Merchant Wholesalers		1.36	1.31	-3.7%
4. Manufacturing		1.47	1.46	-0.7%
1. Machinery Wholesalers (ie. John Deere, Vermeer)	51,489	2.85	2.47	-13.3%
2. Apparel Stores	26,111	2.39	2.22	-7.1%
3. Chemical Wholesalers	14,807	1.25	1.17	-6.4%
4. Paper Wholesalers (ie. National Paper)	9,407	1.12	1.06	-5.4%
5. Drugs Wholesalers	76,633	1.11	1.08	-2.7%
6. Food and Beverage Stores	79,176	0.79	0.78	-1.3%
7. Durable Goods Wholesalers	324,621	1.73	1.71	-1.2%
8. Lumber and Construction Material Wholesalers	22,870	1.54	1.58	2.6%
9. Alcohol Wholesale Distributors	16,860	1.34	1.39	3.7%
10. Building Material Stores (ie. Home Depot)	37,608	1.82	1.92	5.5%
11. Household Appliances/Electronics Wholesalers	69,837	1.16	1.23	6.0%
12. Computer Wholesale Distributors	23,160	0.82	0.87	6.1%
13. Commercial Equipment Wholesalers	50,686	1.18	1.26	6.8%
14. Furniture, Appliance Stores (ie. NFM)	19,614	1.53	1.65	7.8%
15. Department Stores (ie. Nordstrom's)	11,286	2.04	2.21	8.3%
16. Grocery Wholesalers	72,648	0.71	0.79	11.3%
17. Furniture Wholesalers	11,062	1.76	2.01	14.2%
18. General Merchandise (ie. Walmart)	69,616	1.36	1.57	15.4%
19. Hardware, Plumbing, Heating Wholesalers	18,925	2.08	2.59	24.5%

### Business Inventories Still The Freight Story

Again this month, business inventory levels are an important backdrop to the freight market going into a possible recession in 2023. More than 56% of the product side of the economy is still understocked (based on the latest available data) and faces supply chain challenges. Approximately 38% are heavy relative to their pre-pandemic inventory levels. The remaining percentages are relatively balanced. Some supply chains are finally opening because they have chronically out-of-stock components now being fulfilled.

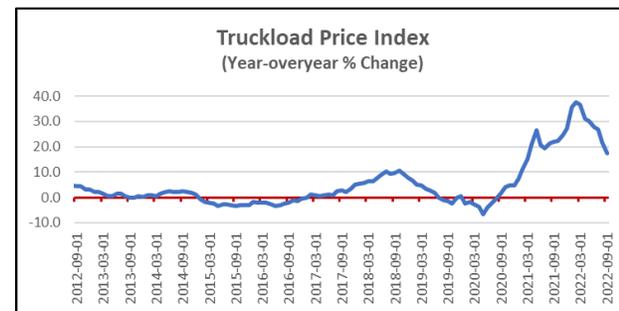
### Diesel Continues to Be an Important Story

Diesel inventories on the US east coast continue to be low (currently running at a 25-day supply). A significant cold snap or any disruptions to distribution, refinery capacity, etc. could tighten resources even faster. Current refinery capacity is just 76% of what it was a decade ago, and petroleum input prices continue to push toward \$90 a barrel. These conditions have combined to keep diesel prices high going into the final stretch of the peak season. Diesel surcharges on the spot market are still running nearly 45% higher than last year's levels, which were also elevated.



### Full Truckload (FTL) Price Index:

Truckload prices are down 0.7% month-over-month in September according to the Producer Price Index (includes both contract and spot rates). But they remained 17.5% higher year-over-year and continue to be historically high. (PCU484121484121)



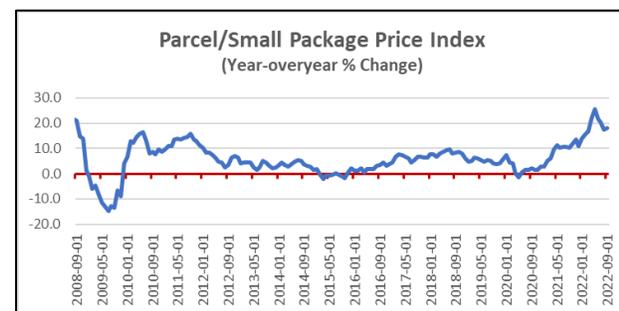
### Less-Than-Truckload (LTL) Price Index:

LTL prices were 0.3% higher month-over-month in September and remained 16.0% higher year-over-year. The index was showing a flattening cycle in September as seasonality halted the deceleration trend. But broader decelerating in the economy and quickly building inventories was beginning to free up capacity in some regions. (PCU4841224841221)



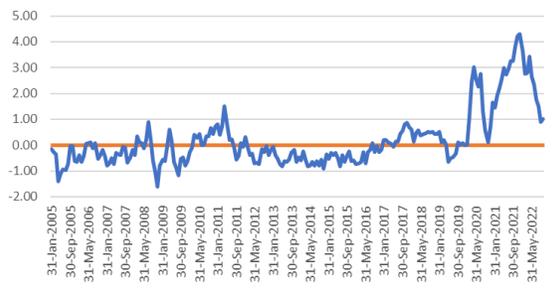
### Parcel/Small Pack Price Index:

Prices for parcel and small package express courier services were 18.2% higher than they were a year ago and they were also up month-over-month in September by 0.3%. E-commerce sales were still 11.6% higher year-over-year and were higher by 0.5% month-over-month in September (latest available). (PCU492110492110201)



## What's New & Important with International Supply Chains?

Global Supply Chain Pressures Index



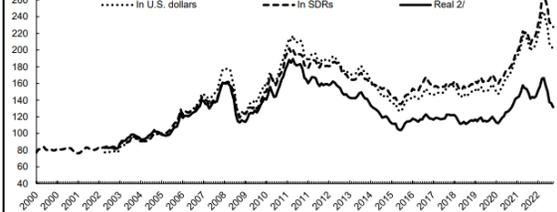
### New York Fed Supply Chain Pressures Index

An index from the New York Federal Reserve is showing a global supply chain that is starting to improve slightly but continues to give supply chain managers a lot of challenges. The index measures more than 20 sourcing and transportation measures to create a “pressures” index. In other words, it shows how far from a “normal” operating environment the global supply chain is in. At this stage, it is much better than it has been in the past two years, but it continues to be more challenging than the two decades prior to the pandemic.

### Global Commodity Prices Falling

The International Monetary Fund publishes a global commodities index, and the chart at right shows the inflation adjusted index in the dark line, and it is approaching levels that were seen prior to the pandemic. But street level costs for products (in the darker dashed line) are still well above all-time highs. For those third world countries trying to purchase commodities, rates are still near all-time highs. There is also a significant drop in inventories of many primary metals, which could push the price back up when demand recovers (China out of Covid lockdowns).

Chart 2. Indices of Non-Fuel Primary Commodity Prices (2016 = 100) 1/



### Airfreight Price Index:

The airfreight price index came in 1.4% lower month-over-month in September (latest available) and was lower on a year-over-year basis, falling by 7.9%. Fifteen countries are now showing their manufacturing sectors going into contraction through October, global slowing is certainly underway. Versus pre-pandemic levels, air freight prices are still 47.7% higher. (IC131)

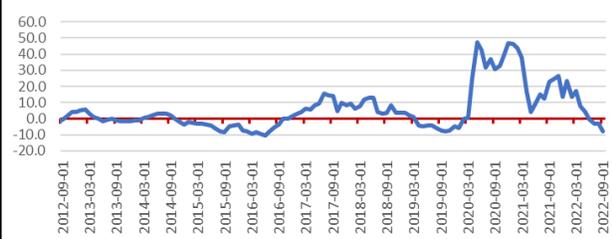
### Ocean Freight Price Index:

The blended PPI for maritime service is still showing a strong year-over-year rate that is 29.6% higher (35.5% last month), and it decreased 0.9% again M/M (-0.9% last month). Some spot lanes are showing faster deceleration. (PCU483111483111)

### Warehousing Price Index:

Warehousing prices firmed slightly in September (latest data available) with rates 0.2% higher M/M (0.2% last month) and higher year-over-year by 8.9% (+9.7% last month). (PCU49314931)

International Air Freight Price Index (Year-over-year % Change)



Maritime Freight Price Index (Year-over-year % Change)



Warehousing Price Index (Year-over-year % Change)



## Special Topics in Supply Chain & Logistics:



### Labor Contract Negotiations Still In Focus

Two critical supply chain labor contract negotiations continue, and it is difficult to gauge just how close either is to getting an amicable contract put together. Rail negotiations are still ongoing, and any work interruption threats have been pushed beyond the first week of December. But uncertainty continues. And the same story continues with West Coast port negotiations. They continue, but there is little indication of how close an amicable deal is. In the meantime, both modes have continued to operate through the peak season, and this could be a 1H 2023 story.

### Mississippi River Situation Continues

This story also continues from last month, the cost to ship grains down the Mississippi River has risen by 2000% year-over-year according to USDA and Bloomberg. For magnitude, a single barge can replace 70 semi trucks or 16 rail cars. Everything from petroleum products to coal, grains, fertilizer, and many other products move down the Mississippi River for export. Other rivers around the world have also been hit with drought this year spanning South America, China, and Europe. Many grains can not get to distribution points, which will impact grain supplies in 2023.



## What's New at Logistics Plus?

### Logistics Plus is Named a Top 50 Leading 3PL by Global Trade Magazine

Logistics Plus is proud to announce it has been named one of America's Top 50 best third-party logistics providers by Global Trade magazine. It is the third time in the past four years Global Trade has recognized Logistics Plus as one of its leading 3PL providers. [Read More](#)



### LP Helps Remove 3.5 Million Kilos of Plastic from the Pacific Ocean

Logistics Plus is proud to announce that it has helped finance the collection of 3,500,000 kilos (over 7 million pounds) of ocean plastic through the Restoring Integrity To The Oceans (RIO) Blue Ocean Program over the last two years. Earlier this year, Logistics Plus also received the official (RIO) Plastic Neutrality Certification for 2022, its second year in a row. [Read More](#)



### Jim Berlin Named to Smart Business Pittsburgh "Smart 50" List

Logistics Plus is proud to announce that its founder and CEO, Jim Berlin, has been selected by the judging panel of Smart Business Pittsburgh to be a 2022 Smart 50 Award honoree. Jim was previously recognized with a 2017 Smart 50 Award. [Read More](#)

