



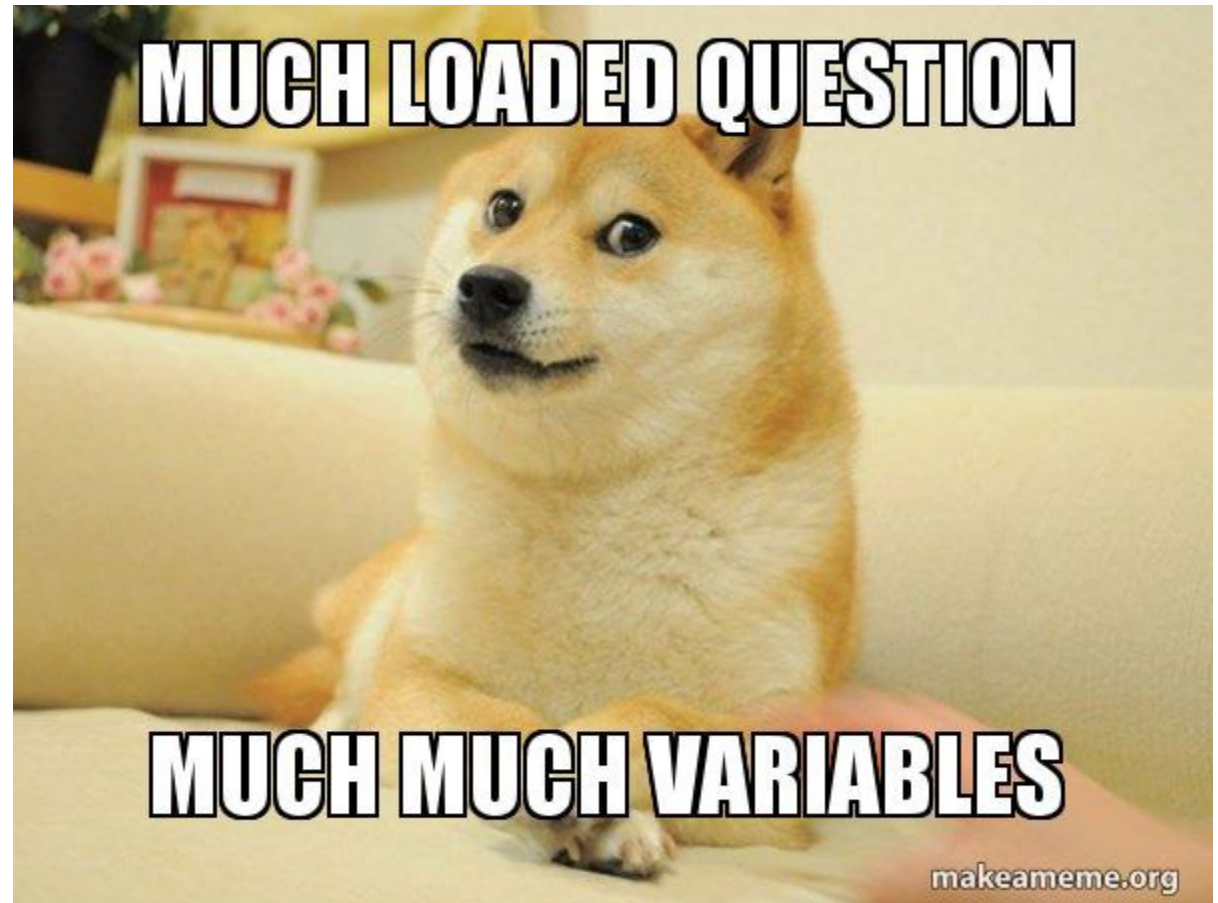
ARMADA

The Q&A Webinar: Testing the Reliability of the Magic 8 Ball

AWFS Webinar

Chris Kuehl - Armada

December 2022



We have heard mixed signals about potential 2023 slowdowns. Can you set us straight? First-half of the year or later part or will we will keep rolling along this year?

- **Signals are indeed mixed – something for glass half empty as well as glass half full. I am leaning towards a slow start to 2023 followed by steady improvement starting to manifest by late Q2 and Q3. But there are caveats (as always)**
- **Factors that could negatively impact 2023**
 - No recovery in supply chain as far as China is concerned.
 - Worsening recession in Europe
 - Severe labor disruptions in US and Europe
 - Retreat by worried consumer
 - Continued aggressive interest rate hikes

Quick Macro Outlook

3. Back to sub-2% growth through '25

	2022				2023				2019	2020	2021	2022	2023	2024	2025
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4							
Real GDP	-1.6	-0.6	2.6	-0.5	-0.5	0.5	2.0	3.0	2.3	-3.4	5.7	0.2	1.2	1.7	1.8
Unemployment rate (%)	3.8	3.6	3.6	3.6	3.7	3.9	3.9	4.4	3.7	8.1	5.4	3.8	4.4	4.4	4.3
PCE Inflation (%Y/Y)	6.3	6.5	6.3	4.2	3.4	3.0	2.9	2.8	1.5	1.2	3.9	5.4	2.8	3.3	2.0
Core PCE Inflation (%Y/Y)	5.2	4.8	4.6	4.4	3.4	3.2	3.1	3.1	1.7	1.4	3.3	4.5	3.1	2.3	2.1
Fed Funds Rate	0.4	1.6	3.1	4.4	4.4	4.5	4.6	4.6	1.6	0.1	0.1	4.4	4.6	3.9	2.9

1. Although officially showing recession here, the contraction is still not steep

2. But Q3 '22 and Q2 '23 are razor thin. There is nearly a year here of stagnant market conditions. Which will not allow companies to sell down on inventories and it will stall freight movement.

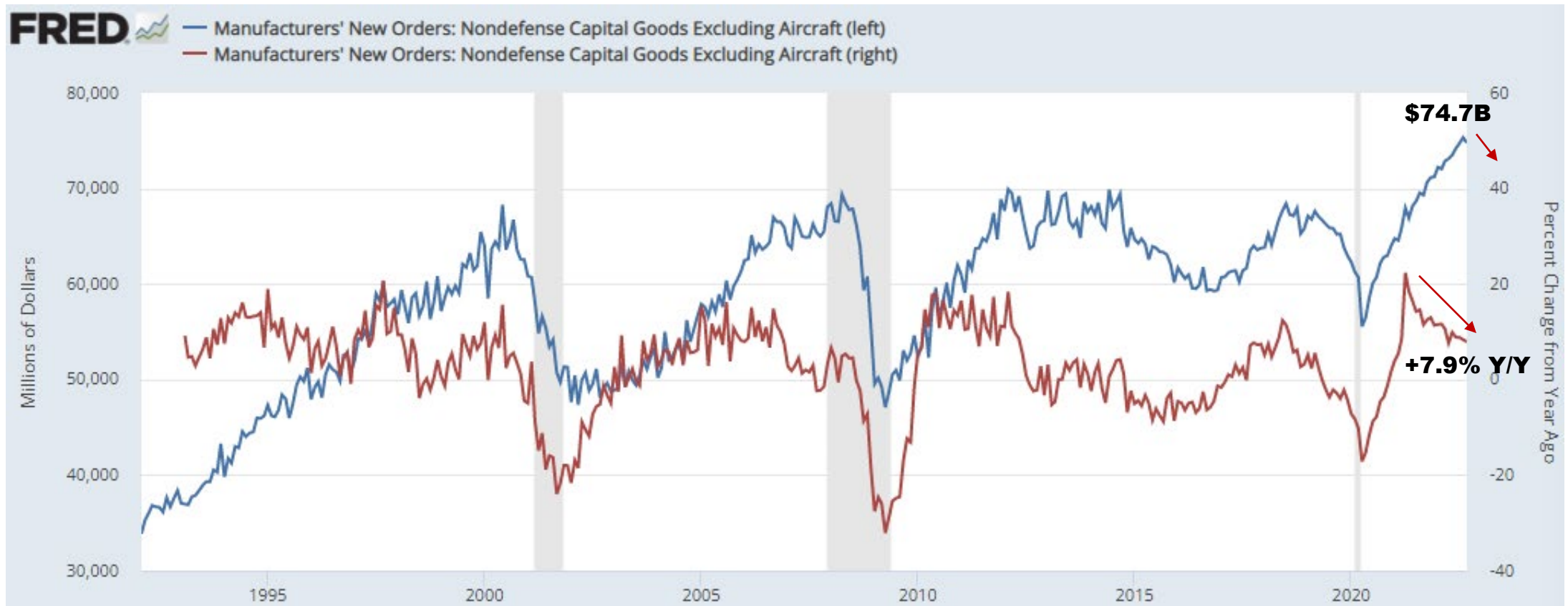
4. To hit 2% inflation target, estimates suggest the Fed will have to hit a peak Effective Funds Rate of 5.25% and unemployment will likely approach 5.0%.

Good News on the Horizon or Not?

- **Global Inflation Peaking?**
 - Factory gate pricing – producer price index
 - Commodity prices declining
 - Expectations for inflation have diminished (somewhat)
- **Central Banks Talking Rate Slowdown**
- **Potential Improvement in Supply Chain (depends on China)**
- **Job Growth Still Exceeding Expectations**
- **Oil and Gas Remain Volatile Until Europe Gets Through Winter**
- **China Still Pushing Zero Tolerance**
- **Global Wage Growth, More Risk of Strikes and Generally More Labor Leverage**

Corporate Investment Now Starting to Show the Fourth Quarter Decline that We Have Been Expecting

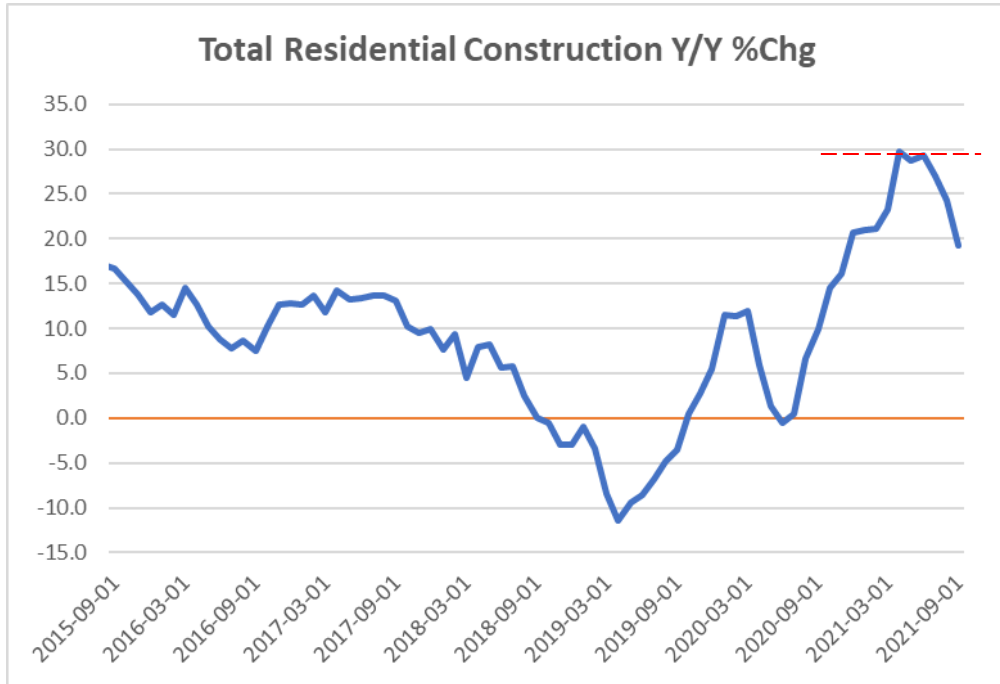
- Some surveys of corporate CEO's have indicated planned slowing of spending in the second half of the year if recessionary risk continues to grow.
- US Private investment driving Manufacturing (automation and robotics); Construction



Are there any concerns with the residential housing segment heading into first of the year?

- **Overall growth still showing up but only in the multi-family category. Single family housing still sinking.**
- **Significant variability between regions (as always). Growth still in southwest and southeast while northeast and upper Midwest are stalling**
- **Multi-family permit growth is higher than it has been since the 1980s. Driven primarily by economic growth**
- **Hottest markets are still 1**
 - New York area
 - Los Angeles area
 - Houston area
 - Dallas area

Some Continued Recovery in Commercial Construction

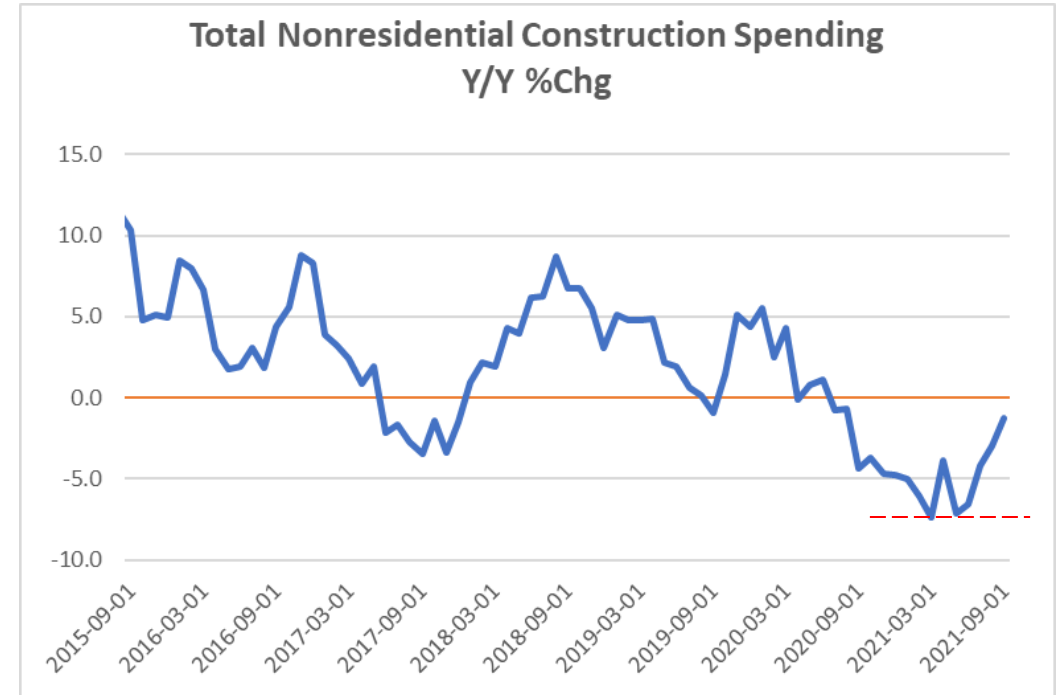


Private Annualized Spending

2019: \$550B
2021: \$786B

**+19.3%
YoY**

+24.3% in last update



Private Annualized Spending

2019: \$815B
2021: \$788B

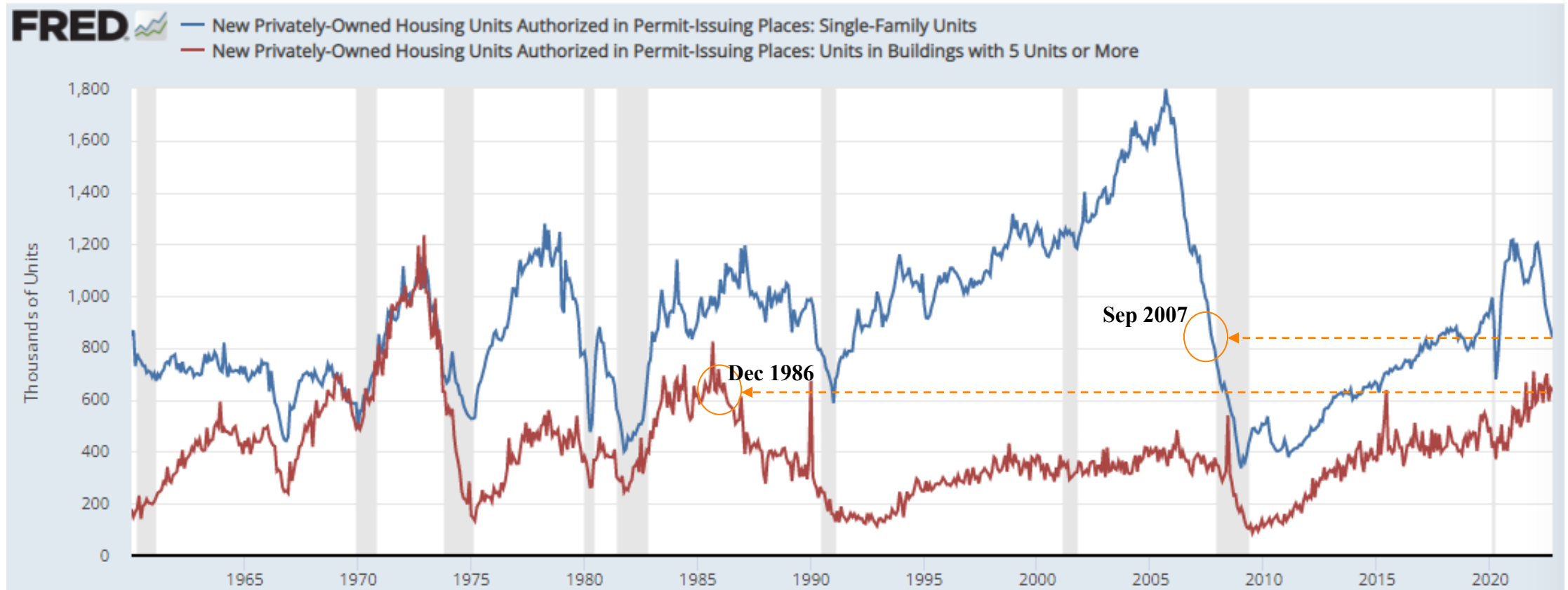
**-1.3%
YoY**

Jan 20' peak: \$885B

-3.0% in last update

Housing Getting Hit – But Multifamily Still Stable

- Permits are forward-looking, total permits down 10.1% Y/Y.
- Multi-family strongest permits since 1986, up 11.2% Y/Y through October.
- Single family home permits getting hit hard, permits down 22.1% Y/Y.
- Estimates that the US still needs 2.8 million units (not including migrant population) affordability is the issue, hence multi-family.



Regional Potential Construction Scores (Population forecasts, construction GDP)

- Q/Q construction GDP changes are the most important here.
 - Comparisons to the lockdown period in 2020 are not valuable at this stage.

Rank	MSA	Construction Scoring System			Change in Gross Construction GDP	
		.40 Construction GDP Estimate Index	.60 Population Growth 2015-2019 Index	Construction Potential Score	Q2 2021 Q/Q Change in Gross Construction GDP	Q2 2021 Y/Y Change in Gross Construction GDP
1	New York-Newark-Jersey City, NY-NJ-PA	99.5	-18.2	2890.8	1.1%	16.9%
2	Los Angeles-Long Beach-Anaheim, CA	65.4	-2.4	2476.8	1.3%	13.1%
3	Houston-The Woodlands-Sugar Land, TX	48.8	7.7	2415.0	-7.1%	-1.2%
4	Dallas-Fort Worth-Arlington, TX	44.8	8.8	2320.9	-7.1%	-1.2%
11	Denver-Aurora-Lakewood, CO	23.7	2.9	1119.1	1.4%	8.0%
26	Indianapolis-Carmel-Anderson, IN	11.7	1.6	565.5	13.1%	24.3%
28	Nashville-Davidson-Murfreesboro-Franklin, TN	10.2	2.0	523.5	-14.8%	-4.6%
29	Kansas City, MO-KS	11.0	1.3	520.5	5.3%	16.5%
39	Oklahoma City, OK	5.1	0.9	262.0	2.2%	6.7%
42	Des Moines-West Des Moines, IA	4.2	1.4	255.1	7.8%	13.7%
54	Omaha-Council Bluffs, NE-IA	3.4	0.6	175.2	22.6%	30.1%
55	Tulsa, OK	3.9	0.3	174.3	2.2%	6.7%
83	Little Rock-North Little Rock-Conway, AR	2.1	0.2	97.7	-7.8%	1.8%
90	Wichita, KS	2.3	-0.1	85.1	1.7%	11.2%

While you are at it, we may as well tackle the non-residential side. Any concerns/trends you are seeing?

- **Driven primarily by logistics and transportation needs.**
- **Office buildings are not making much of a comeback**
- **Retail is still falling off a cliff**
- **Major issues with labor shortage, commodities pricing and overall shortages**
- **Health care is also off but major plans seem to be emerging again as pandemic focus fades and elective surgery makes a comeback**



Office Utilization Still Not Recovering

- National occupancy rates still just 36.8% (36.1% in the last update).
- Strongest markets still in Texas (earliest to reopen) now getting back up in the 50% range in Houston and Austin, Dallas still lagging slightly.
- There is no physical occupancy reports for KC, but estimates suggest it is also in the 40-50% RTW range.

THE SLOW RETURN TO THE OFFICE

2 Years of Kastle Back to Work Barometer

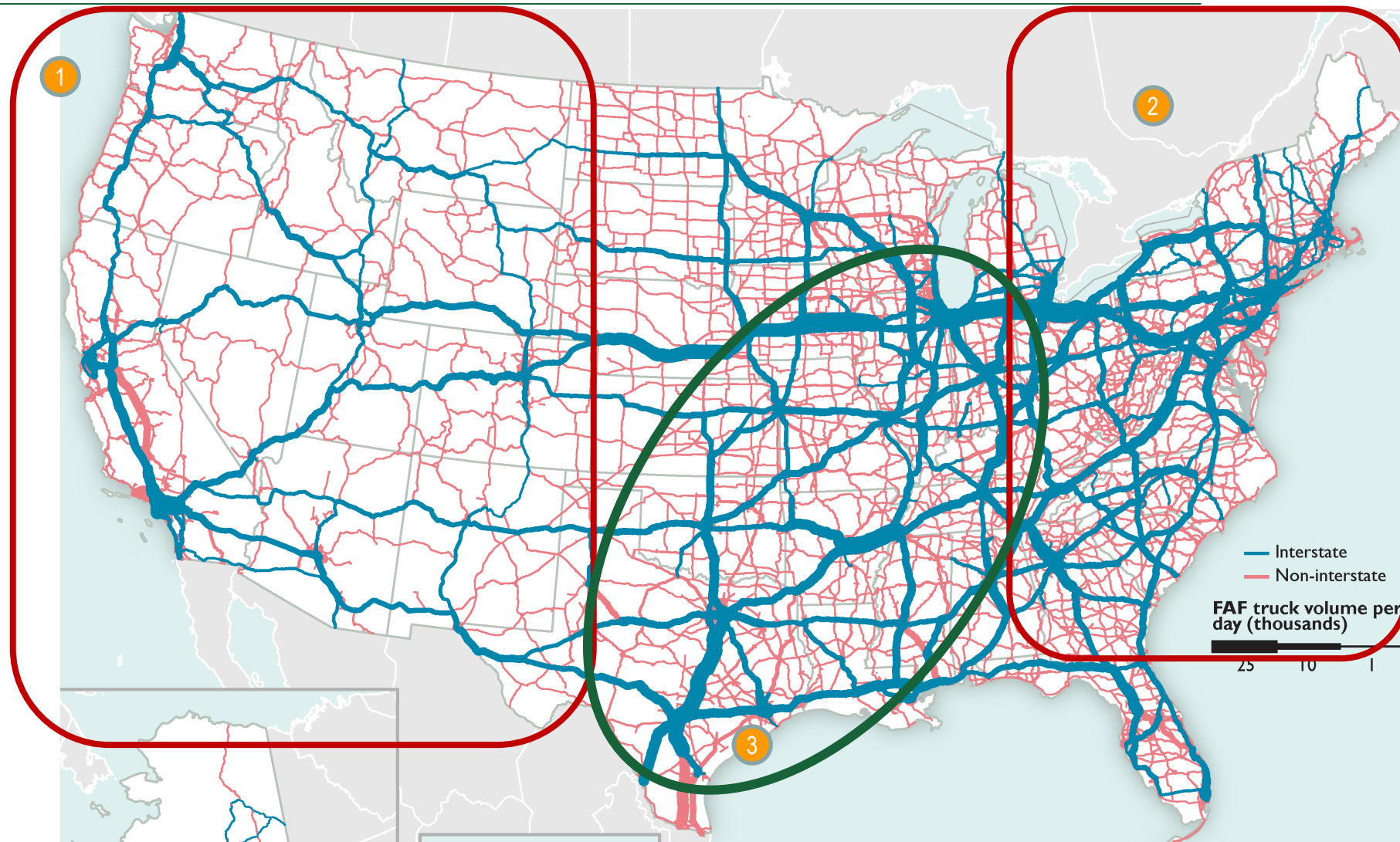


Source: Kastle



Where Will It Land? Midwest Well Positioned.

1. Water and energy scarcity, heavier regulatory environment, higher cost of operations.
2. Higher cost of operations, higher standard of living.
3. Generally favorable distribution, good access to energy and water supply, favorable tax structures and more accommodative regulatory environment.



What's the real deal with all the ramped up talk of a possible rail strike? How catastrophic would a strike be?

- **Immediate threat is over – strike has been blocked by government. Doesn't mean an end to labor actions.**
- **A strike would have been devastating and that mandated intervention.**
- **Issues have been non-traditional**
 - Sick Leave – especially to take care of family
 - Flexible and predictable schedules

What are you hearing about the truck driver shortage? Is it getting better or worse? Transportation/shipping as a whole? Is this situation improving or getting worse?

- **Truck driver shortage still serious but capacity issues have declined somewhat. There were 14 loads for every truck at the start of the year and now there are 4. There have been over 60,000 brand new trucking companies started in just the last year.**
- **Retirement is a huge issue – average age of a long hall driver is now 60.**

Global Maritime Situation, Hints of a Turn Showing Up.

- Freight rates are starting to drop dramatically from Asian inbound into the US. Rates are down 40% from their peak just 4 weeks ago.
- Still, a typical rate pre-pandemic to move a container from China to the US is about \$4K, rates are still 3 times higher. But there is some notable price deceleration taking place.

	Container Rate 3 Weeks Ago	Container Rate Today 10/13	% change
China/East Asia to NA West Coast	\$ 19,175	\$ 16,004	-16.5%
NA West Coast to China/East Asia	\$ 909	\$ 1,020	12.2%
China/East Asia to NA East Coast	\$ 21,804	\$ 19,421	-10.9%
NA East Coast to China/East Asia	\$ 945	\$ 1,036	9.6%
NA East Coast to North Europe	\$ 523	\$ 501	-4.2%
North Europe to NA East Coast	\$ 6,869	\$ 7,117	3.6%

20' CONTAINERS FROM Ningbo to Long Beach, United States \$9,244+ See rates	40' HC CONTAINERS FROM Ningbo to Long Beach, United States \$11,931+ See rates
20' CONTAINERS FROM Ningbo to Melbourne, Australia \$7,736+ See rates	40' CONTAINERS FROM Ningbo to Melbourne, Australia \$13,526+ See rates
20' CONTAINERS FROM Ningbo to Sydney, Australia \$7,918+ See rates	40' CONTAINERS FROM Ningbo to Sydney, Australia \$13,684+ See rates

- Maritime stocks have started to come off their peaks as the global market begins to realize that peak freight movement is probably behind us.
- Hapag Lloyd is down 21.5% since September 17th.



Source: Freightos

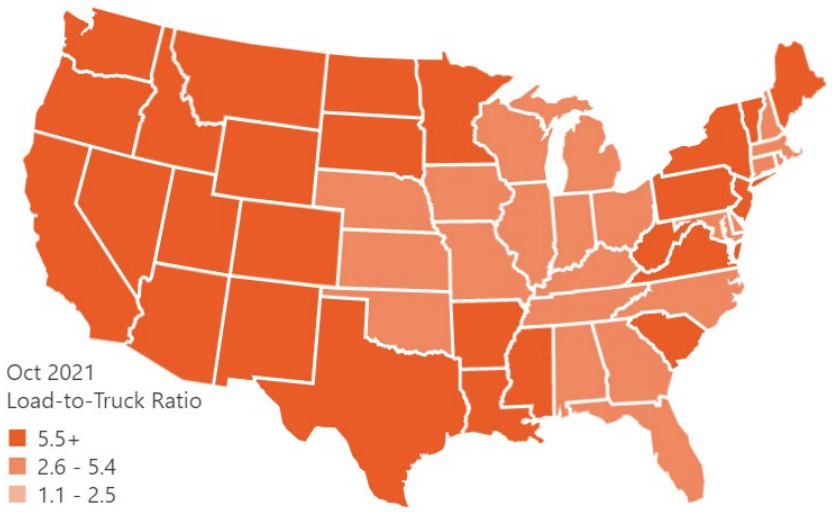
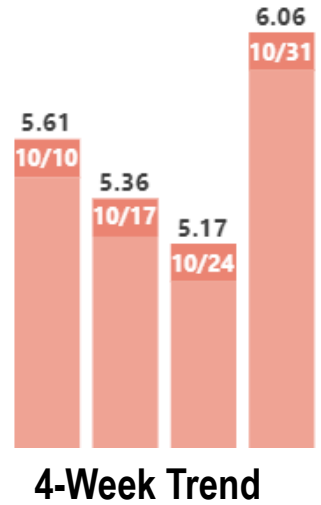
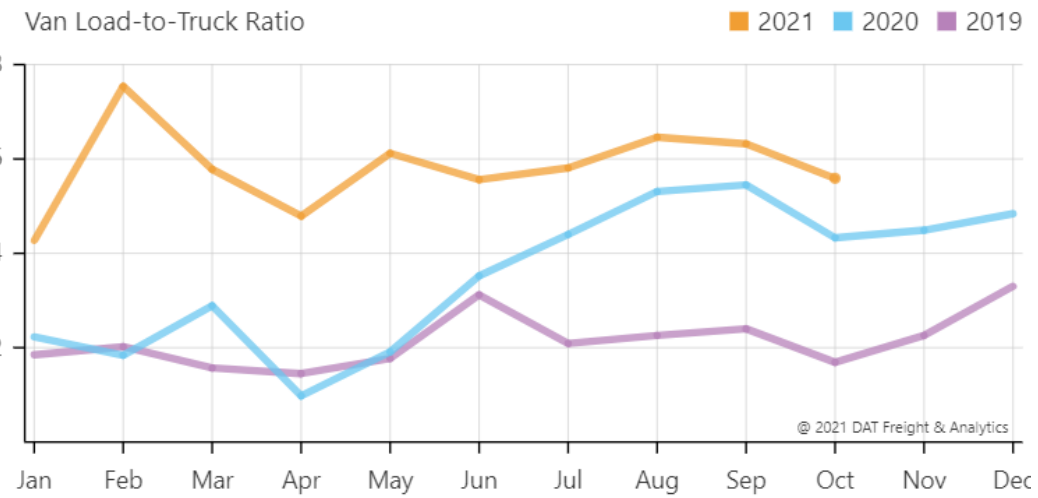
One of the oldest indexes in the world, showing some hints of turning.

- The Baltic Dry Index leads global supply chain activity by nearly 60 days.
- There has been a notable turn in the index, down 59% in the last 30 days despite remaining 127% higher than it was last year at this time.
- Again, some hints of weaker demand starting to show up?



There is a Domestic Lag in Trucking. No Relief Here Yet.

- **Truck demand up 35.2% Y/Y in Sept (31.5% last month)**
- **Capacity only 0.5% higher Y/Y (5.8% LM)**
- **Spot rates 19% higher Y/Y (unchanged)**
- **Fuel surcharge rates 51.2% higher Y/Y (40.2% LM)**
- **Flatbed rates up 25.3% Y/Y**



Source of Graph: DAT Trendlines, September 2021

Update: Driver Shortages; The Longer-Term Problem

- 72,444 drivers on failed drug test prohibited status
- Only 60% are successfully returning to duty over a 6-month period of time
- Nearly 92,000 have at least one violation
- 62% of failures are marijuana related, and more states are now legalizing usage
- 2,444 a month are failing every month (average was 4,500 a month in the front half of the year)
- Given strong national demand, and 72,444 already on prohibited status, it would seem like the ATA estimate of 80,000 drivers short would be understating the problem.
- At 80,000, there's no room for higher retirement rates, fewer new entrants, etc.
 - Or it assumes that demand is relatively unchanged.

September

RTD STATUS	# DRIVERS
All Drivers (with at least 1 violation)	91,370
CDL/CLP holders in Prohibited Status	72,444
RTD Process Not Started	54,495
Substance Abuse Professional (SAP) Request Sent	615
SAP Designation Confirmed	1,723
SAP Request Declined	362
Initial SAP Assessment Complete	3,327
Determined Eligible for RTD Testing	11,922
CDL/CLP Holders in Not-Prohibited Status*	18,926
RTD Test with Negative Results	17,591
Follow-Up Testing Plan Complete	1,335

August

RTD STATUS	# DRIVERS
All Drivers (with at least 1 violation)	87,438
CDL holders in Prohibited Status	69,937
RTD Process Not Started	52,691
Substance Abuse Professional (SAP) Request Sent	609
SAP Designation Confirmed	1,617
SAP Request Declined	322
Initial SAP Assessment Complete	3,262
Determined Eligible for RTD Testing	11,436
CDL Holders in Not-Prohibited Status*	17,501
RTD Test with Negative Results	16,336
Follow-Up Testing Plan Complete	1,165

Source: Department of Transportation, FMCSA Drug and Alcohol Clearinghouse Database

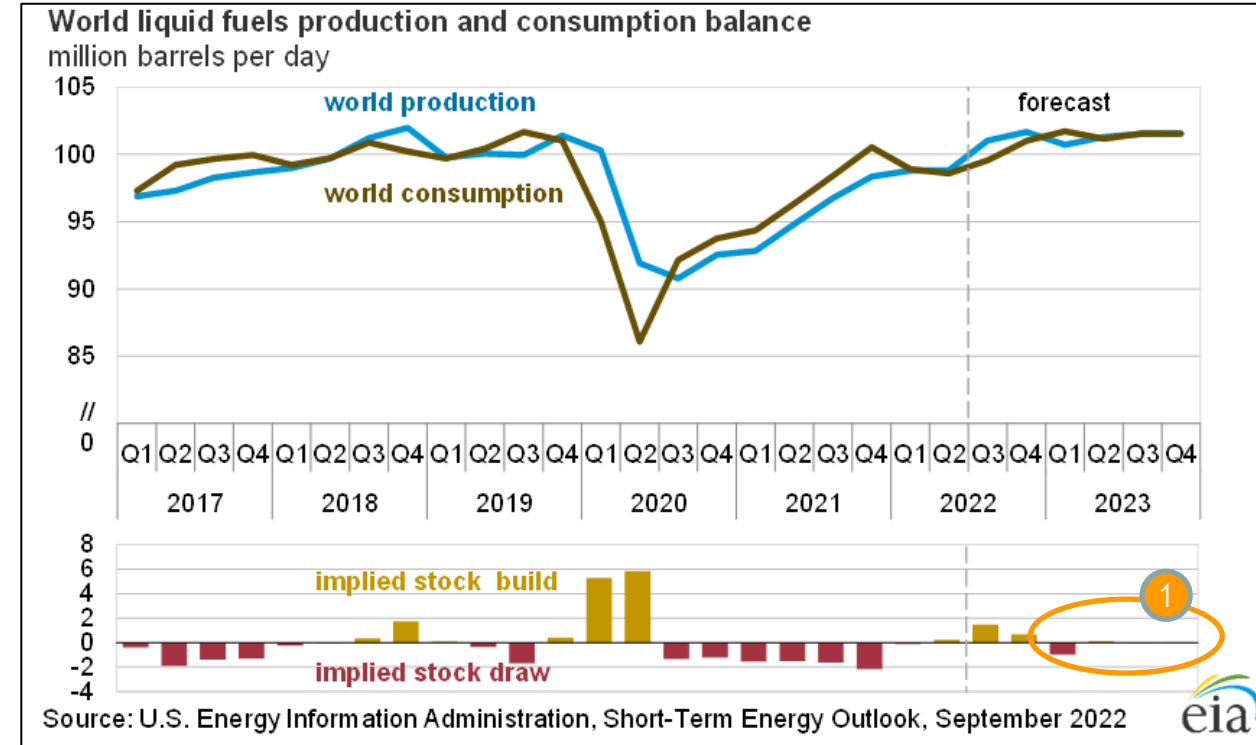
Where do you see oil and gas headed in 2023? Will oil get to \$100 a barrel again?

- **Oil situation starts to improve. US production hitting new records.**
- **OPEC looking at stepped up production but will react to recession threats.**
- **Estimates are for per barrel price at around \$90 and maybe closer to \$80.**

Oil Outlook Still Uncertain

1. Implied net draw through most of 2023

- US production will hit an all-time high next year of 13M Bpd
- But, with commuter traffic cut off, consumption is 20M Bpd currently
- 7M Bpd gap must be imported
- SPR releases (@1M Bpd) end in November
- The US will start rebuilding the SPR in 2023 and 2024
- Concerns that global excess capacity is just 1.2% higher at this time, when China and Europe are largely consuming less.
 - Chinese imports of petroleum down 4.7% YTD
 - Refinery shutdowns in China could lead to more import activity



Crude forecast:

- 2021 \$68.21
- 2022 \$98.79
- 2023 \$89.75

Gasoline forecast:

- 2021 \$3.02
- 2022 \$4.05
- 2023 \$3.57

Diesel forecast:

- 2021 \$3.29
- 2022 \$4.73
- 2023 \$4.07

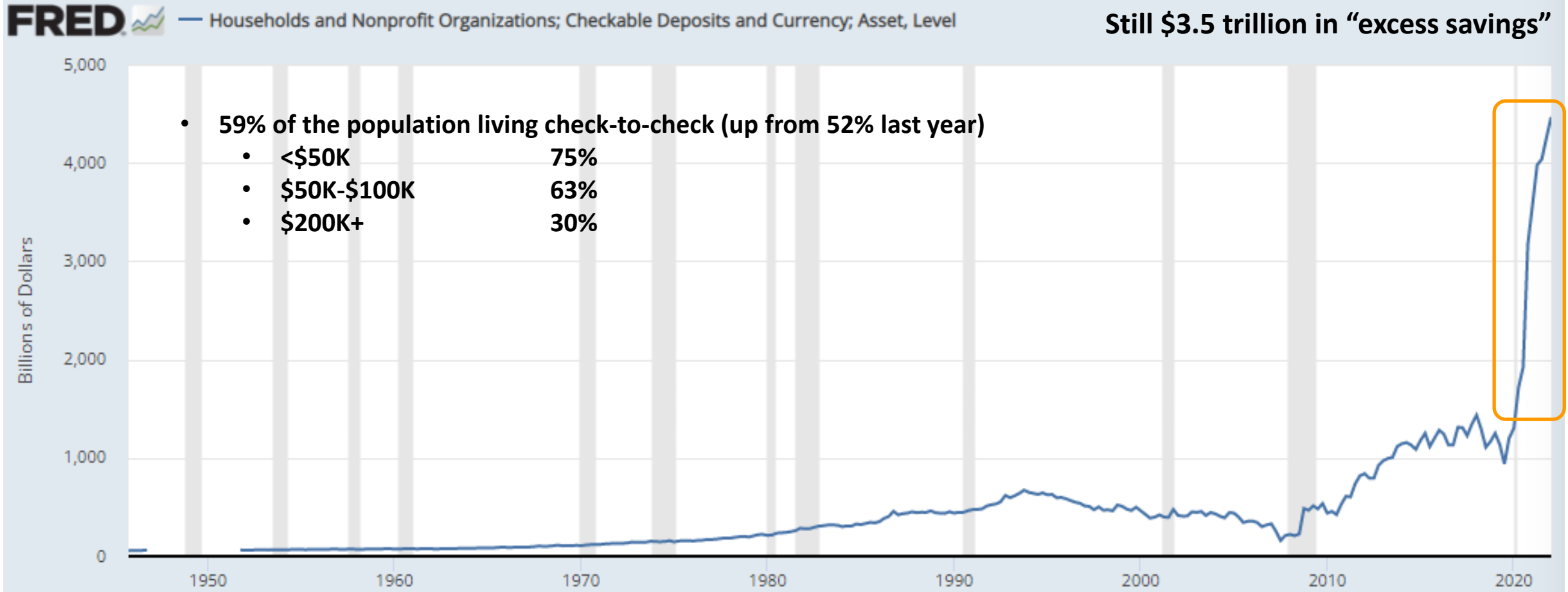
We continue to see M&A activity heat up. Are there signs this will continue next year?

- **Most analysts are expecting a slowdown due to higher interest rates – cheap money is now hard to come by.**
- **On the other hand there is still desire to control upstream and downstream. There are companies that are struggling and that makes them targets. Expect consolidation in sectors that grew fast last year – transportation is in that category**

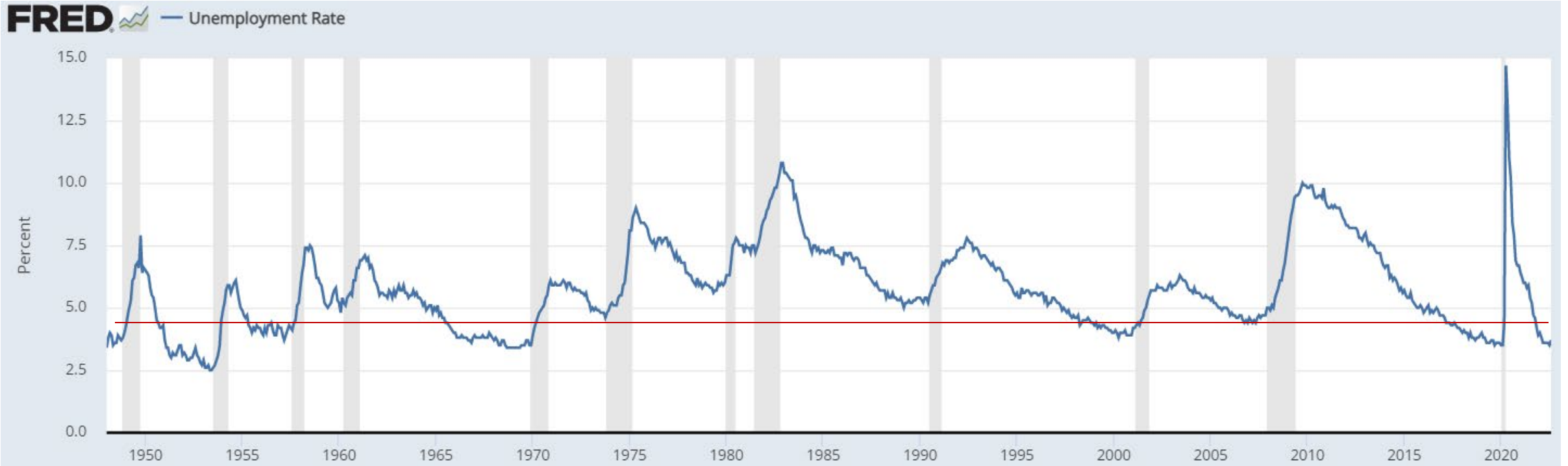
Black Friday seemed to have a lot less buzz this year and a lot less traffic. Is this cause for concern with customer confidence heading into the new year?

- **Black Friday turned out better than hoped. Retail numbers are still respectable. Lull now but that is common this time of year.**
- **Still lots of money on the sideline.**
- **Job security determines consumer behavior**

A Lot Of Cash Still Sitting On The Sidelines



Unemployment Still Low – Fed Target is 4.5% - Which Is Still Low – Which Bodes Well for 2023 and 2024

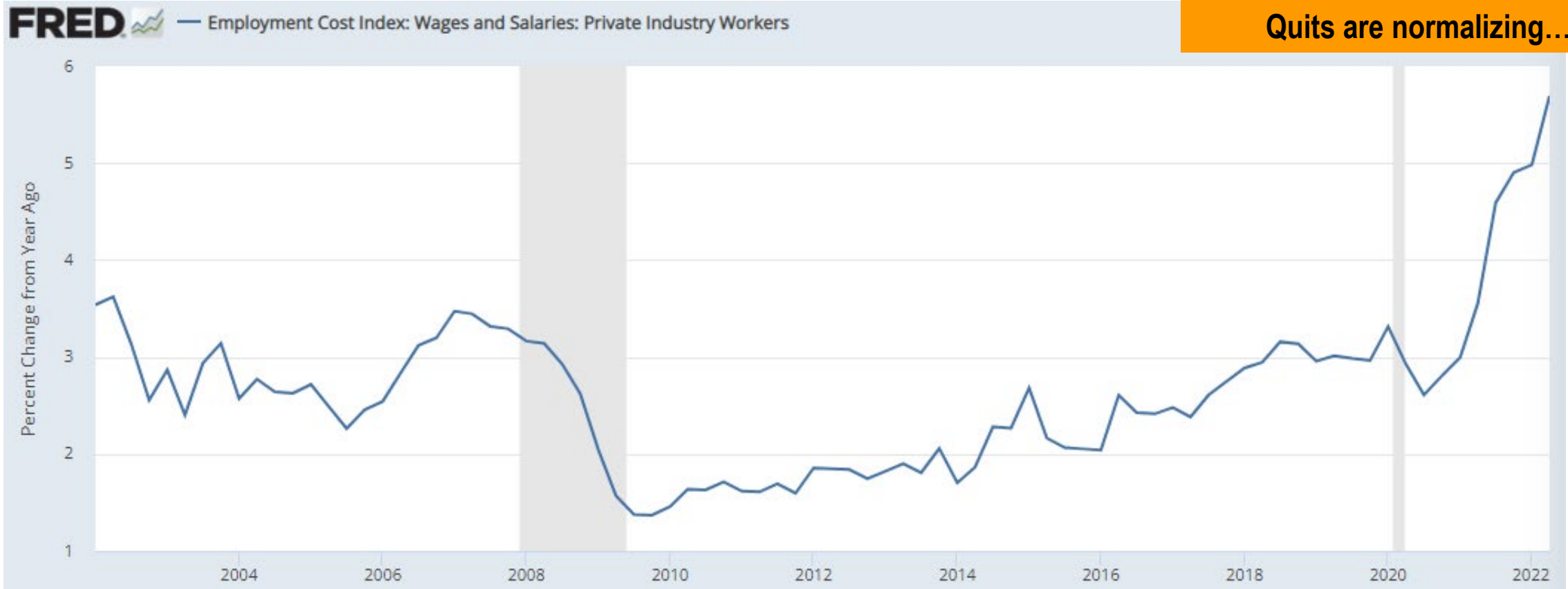


Labor Costs Are Sticky Inflation, Wages Rising Faster Than Any Time Since The Early 2000's

- Good for keeping a consumer consuming.
- Tougher for employers and maintaining profits.

**Job openings still 10.7M
(ATH 11.9M 3/22)**

Quits are normalizing...



Are there any under-the-radar factors we should be looking out for heading into Q1?

- **Geopolitics – the permanent “black swan”**
 - Ukraine war
 - China and Taiwan
 - “Zero Tolerance” in China
 - UK economic struggles
 - Leftward tilt in Latin America
 - Middle East ferment over oil and alliances
 - Ferment in Iran
 - Ferment in India

Which Way Are We Heading?



- **Flagship**
 - Published every Monday, Wednesday and Friday
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 - Free trial for one month. \$7 a month subscription
- **Strategic Intelligence System**
 - Focus on manufacturing
 - Published monthly
 - Free two month trial - \$74 per month