A Freight View of the Economy

Is It Too Early to Declare Victory?

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Current Environment

- **The economy is not currently in a Recession...or is it?**
  - Truckers say yes, but our overall indicators say ‘not yet’
  - Business profits are still growing at a 7% rate – no ‘profits recession’ yet
  - Businesses continue to hire, unemployment is low – some layoffs in consumer/tech
  - Consumer credit remains viable
  - Some companies maintain this is only an ‘inventory correction’
  - Many point to a potential re-acceleration of China-driven global growth

- **But…velocity is slowing**
  - The rate of economic growth has slowed (ex inventory GDP growth remains positive)
  - Consumer disposable income has declined on 7% inflation – consumer trade-down is beginning
  - Business conditions and activity has seen some decay
  - Wealth has declined with the stock market pullback
  - Stimulus programs are fading
  - Leading sentiment indicators are increasingly entering bearish zones…productions indices may follow

Current Environment

- **Truck industry 'trip wires' are being triggered**
  - ISM below 50
  - Leading economic indicators are now in negative territory
  - Yield curve inversion
  - Weight per shipment down in LTL
  - Empty miles rising in Truckload
  - Truck rental utilization heading south
  - Gains on equipment sales are declining
  - Truck industry margin deterioration
  - Spot rate weakness leveling out, but contract rates will decline in 2023

- **'Trip wires' yet to be triggered before the gang is all here…**
  - Industrial Production not yet negative
  - Corporate Profits not yet negative growth
  - Equipment order cancellations haven't risen above 4% of backlog

4Q 2022 Earnings Reports for Freight/Logistics Companies

Sector Medians	Units	Yield	Util	Aggregate	Revs	Labor	SG&A	Pur Tran	Op Exp	bp chg	Margin	Change	Incr Mrg
On Demand Delivery	27.0%	12.8%	16.5%	17.7%	30.5%	59.7%	22.4%	88.0%	28.5%	500	7.3%	NM	27.9%
Truck OEMs	8.4%	17.6%	26.1%	30.2%	32.8%	28.9%	11.5%	15.1%	27.7%	470	9.6%	97.1%	27.0%
Final Mile	(11.0%)	25.8%			12.6%				12.9%	160	5.0%		
SCS & VAWD					31.0%				34.5%	90	3.7%	104.0%	8.9%
Less Than Truckload	(8.4%)	15.5%	(1.7%)	(8.4%)	6.1%	1.0%	33.2%	(13.6%)	5.0%	60	12.4%	5.3%	26.1%
Brokerage/BCOs	(5.5%)	(17.0%)			(11.2%)	21.6%	2.4%	(16.6%)	(11.8%)	0	5.7%	(4.9%)	7.3%
Parcel	(7.4%)	6.4%			(1.0%)	0.1%	36.4%	(15.4%)	0.3%	(125)	9.8%	(17.3%)	38.1%
Truckload	(4.5%)	3.0%	12.2%	8.0%	5.7%	5.6%	106.3%	(3.4%)	10.9%	(150)	7.1%	(6.3%)	(12.4%)
Dedicated	(5.7%)	15.0%		8.9%	18.5%				16.7%	(160)	8.6%	29.5%	9.8%
Intermodal	(10.5%)	12.5%	431.0%	11.3%	(1.0%)				5.9%	(160)	8.6%	(15.4%)	14.5%
Railroad	1.6%	11.2%	(1.8%)	(0.6%)	14.6%	7.9%	53.1%	16.0%	19.8%	(235)	39.1%	5.7%	22.1%
Rideshare	13.8%	12.0%	27.8%	31.3%	25.0%	40.5%	37.0%	(6.0%)	26.5%	(325)	6.7%	76.0%	66.4%
Forwarding	(51.3%)	(42.7%)	(3.3%)		(48.1%)			(55.1%)	(46.3%)	(400)	2.8%	(80.8%)	10.5%

Source: Company Reports, Vertical Research Partners

Current Environment

What Could Make This Better

- Credit and balance sheets in strong condition
- Most anticipated downturn in recent history is managed proactively
- Fed tames inflation faster than expected, lower expectations for rates prove accurate
- Inventories correct, growth resumes
- Energy and commodity prices decline
- Housing/shelter costs moderate
- China tensions moderate
- China growth spurs European, US exports

What Could Make This Worse

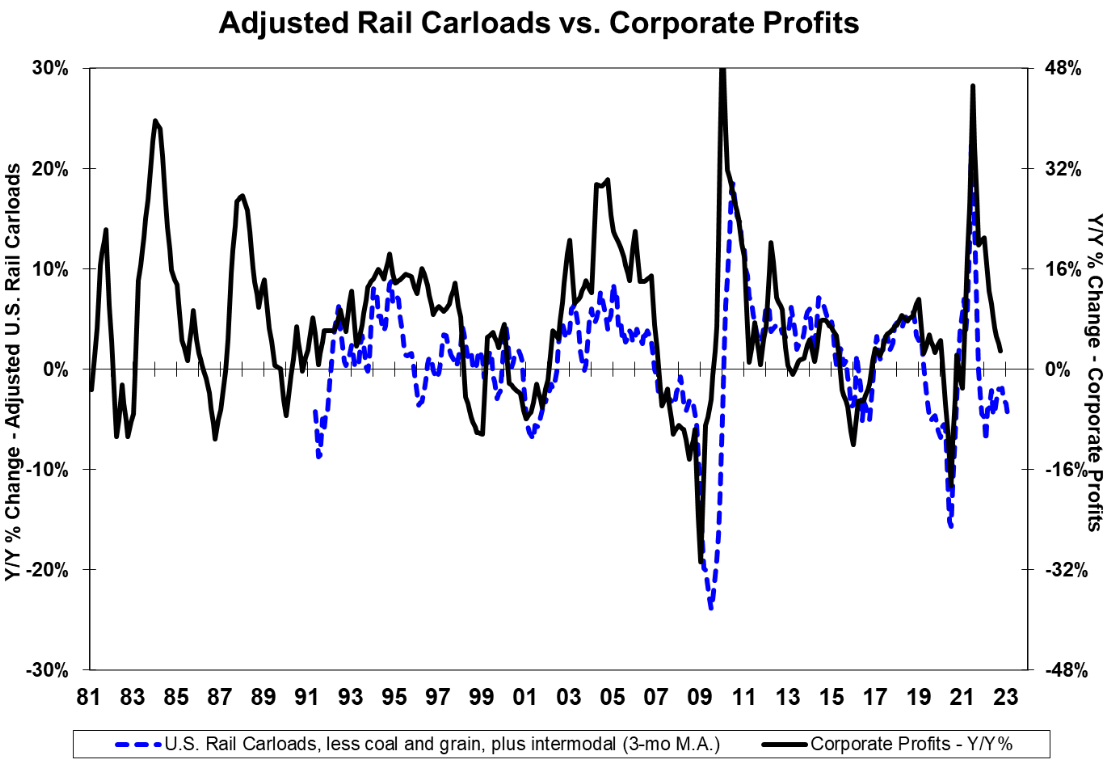
- Political mismanagement of the debt ceiling negotiations
- Inflation remains stubborn, Fed continues to raise
- High rates finally break the consumer
- Chinese growth drives commodities higher
- Expansion of the Russia/Ukraine conflict
- COVID/other health risk resurgence
- China/Taiwan tensions rise
- Trade wars

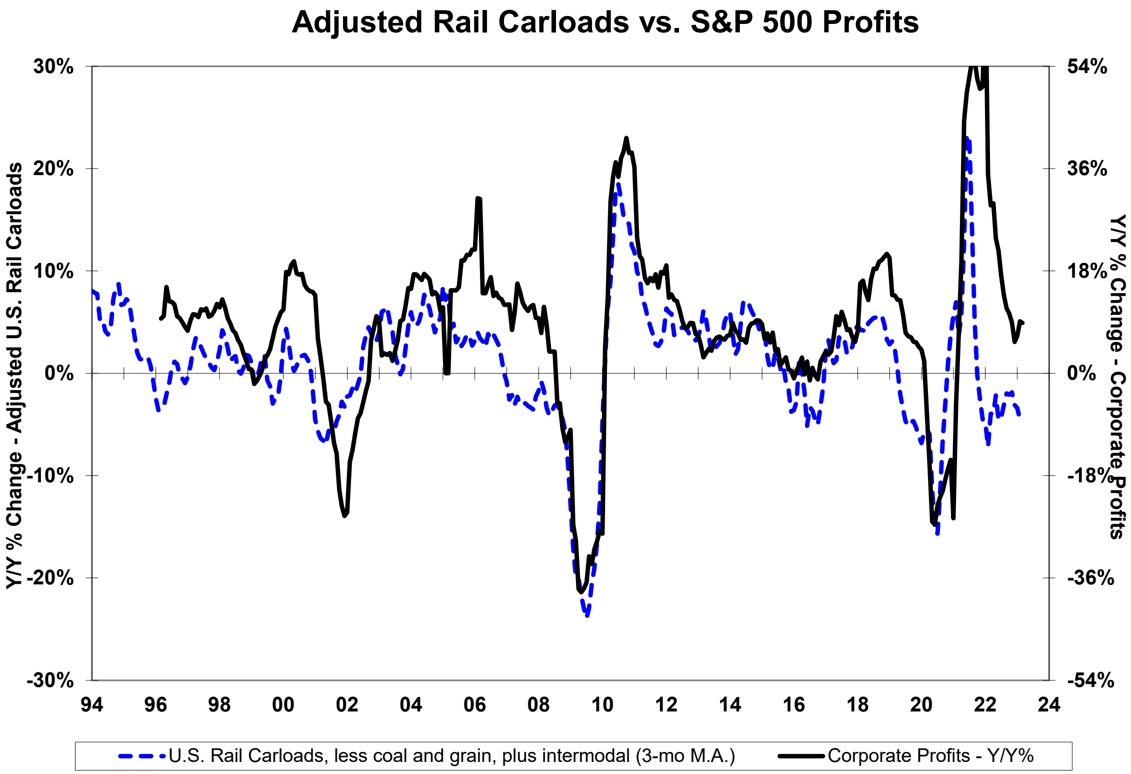
Macro & Cycle Thoughts

Source: Photo Stock

Corporate Profits Are the Key – and They are Growing More Slowly

Corporate Profits Drive Labor Demand, Capex, T&E, and Services Spending





Source: Vertical Research Partners, American Association of Railroads, Bloomberg

The Pending Downturn

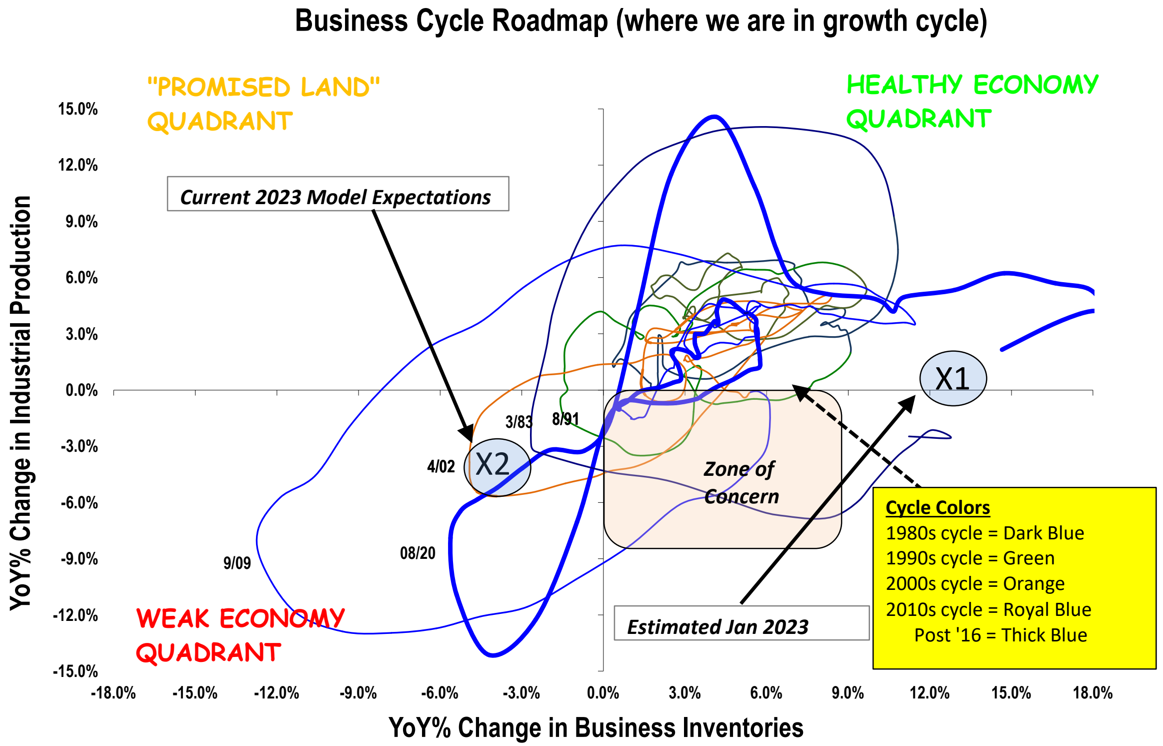
- **Right now we are dealing with 'mostly' an inventory correction – we expect broader slowdown later**
    - Consumer changing from spending on goods to spending on services & experiences
    - Real slowness in housing, tech spending, and advertising
    - Industries correcting inventories are chemicals, retail, manufacturing
    - Industries that are strong or rebuilding are automotive, aggregates/construction, and truck OEs

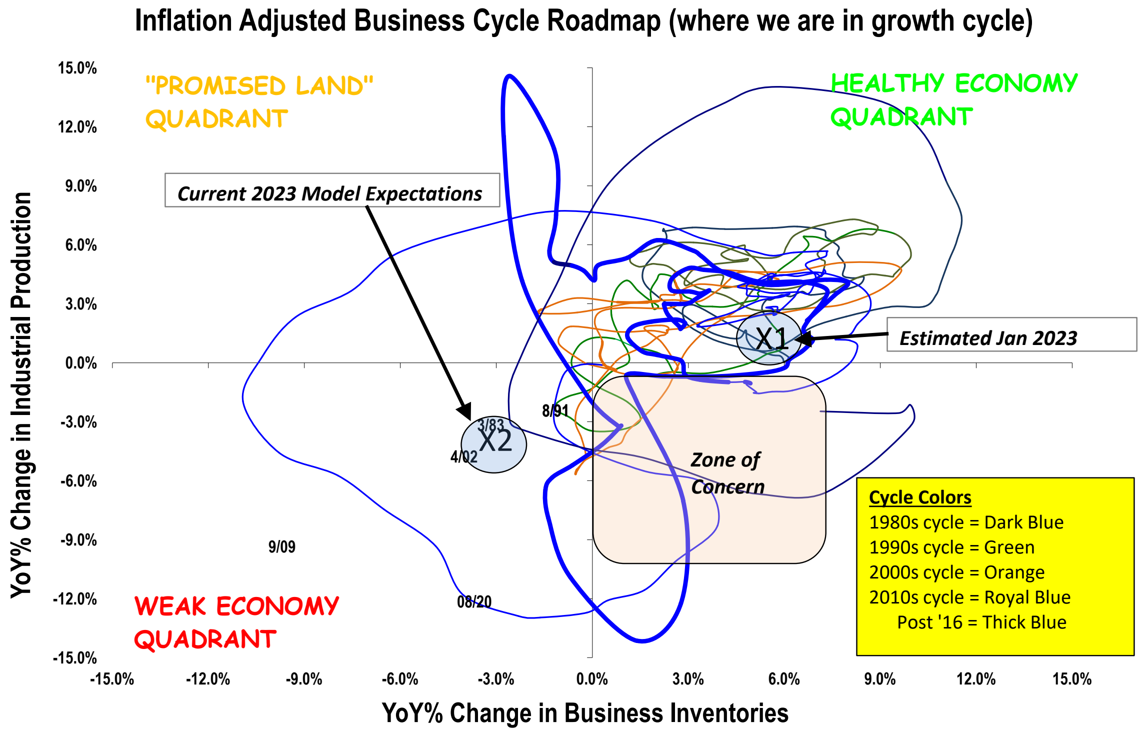
The Pending Downturn

- **The path of the economy depends on three interconnected elements and one unconnected event**
  - The path of inflation – it appears to have peaked, but at what pace will it reduce ?
  - The ability of the FED to slow the labor market without killing too much growth
  - The behavior of consumer spending during the slowdown

  - Can our politicians reach an agreement on the 'Debt Ceiling' before something bad happens ?

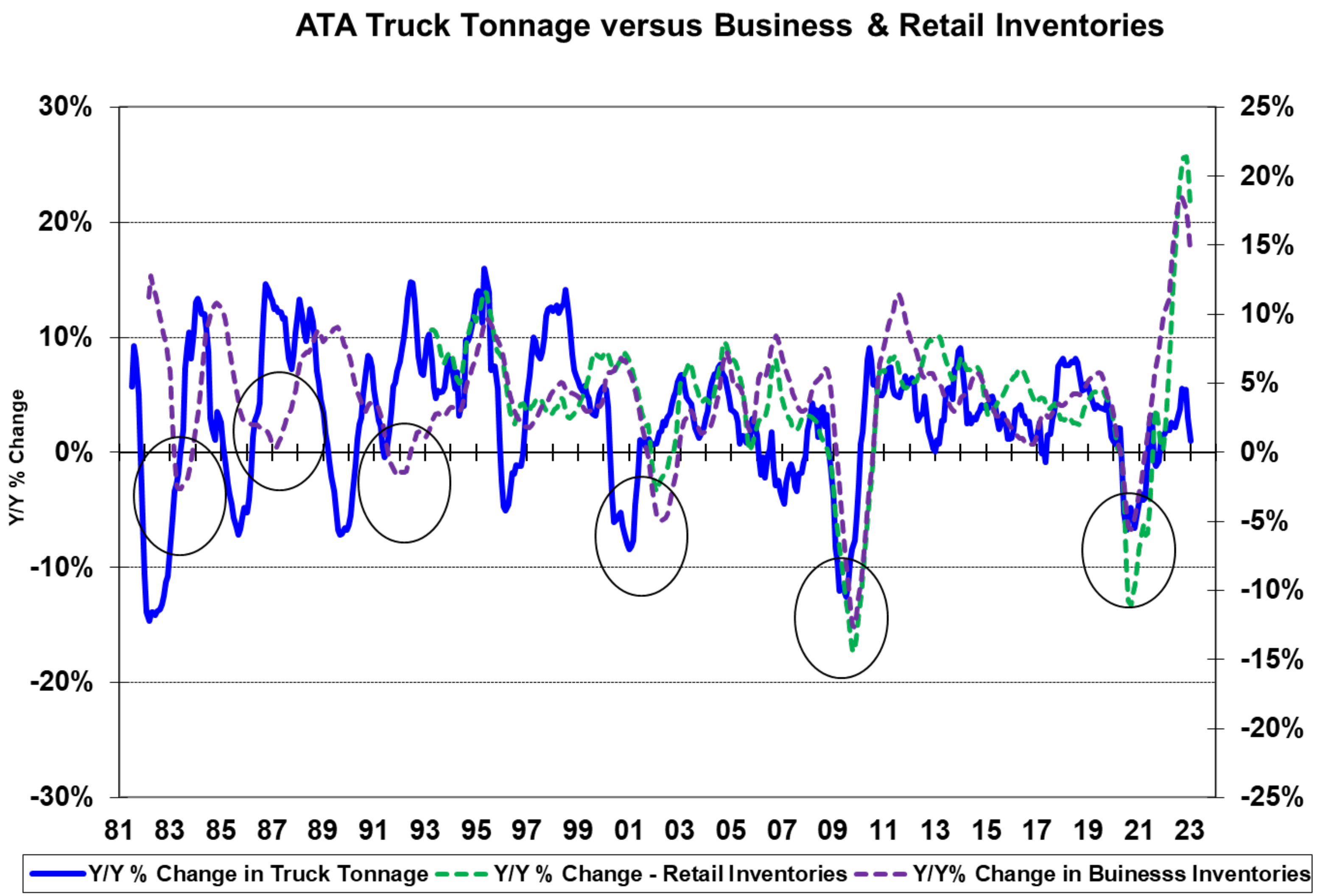
Which Inventory Figure Should We Believe?





Source: Vertical Research Partners, Department of Census, Federal Reserve

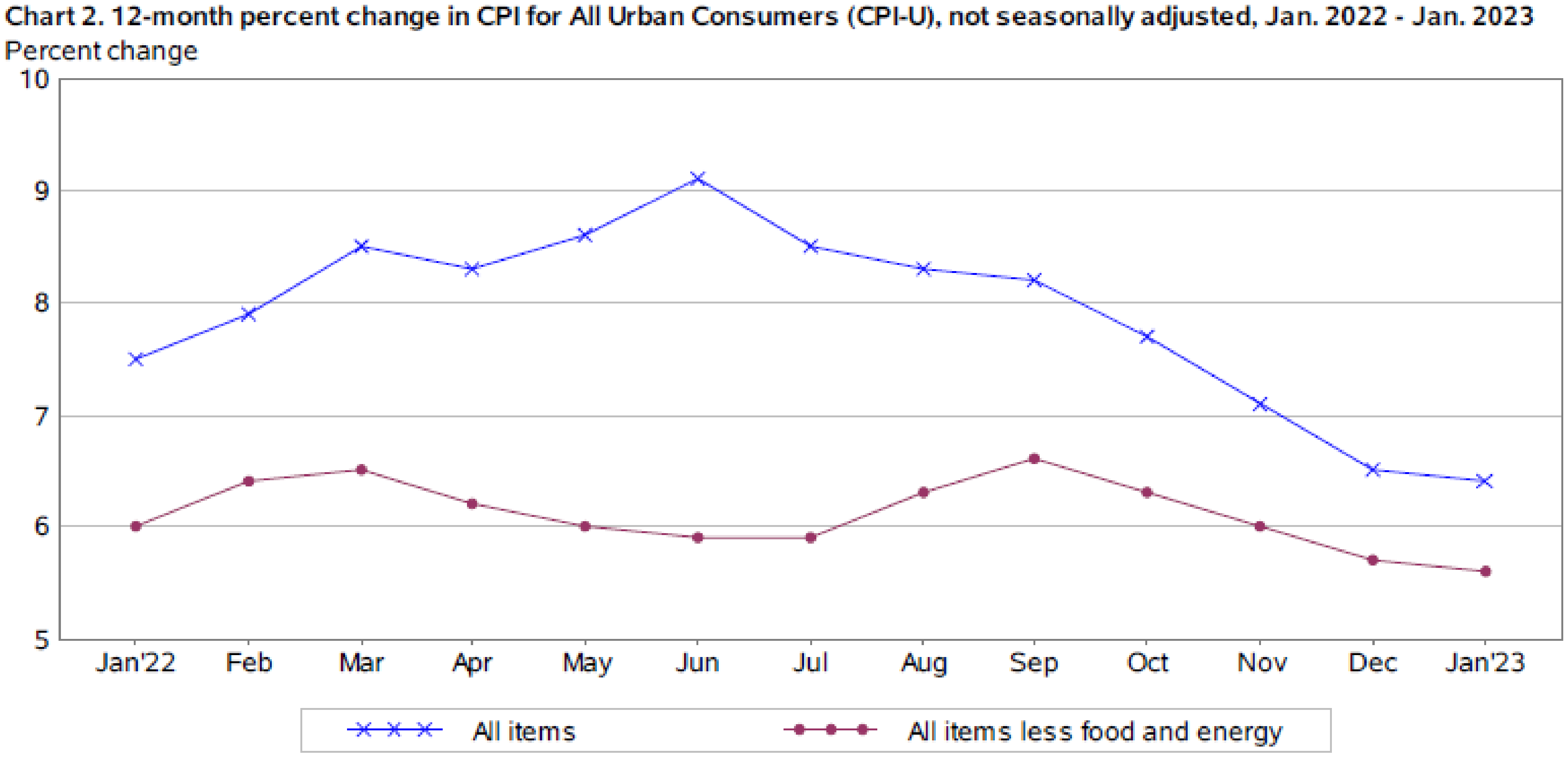
Which Inventory Figure Should We Believe?



Source: Vertical Research Partners, Department of Census, Federal Reserve

Inflation Drivers and Expectations

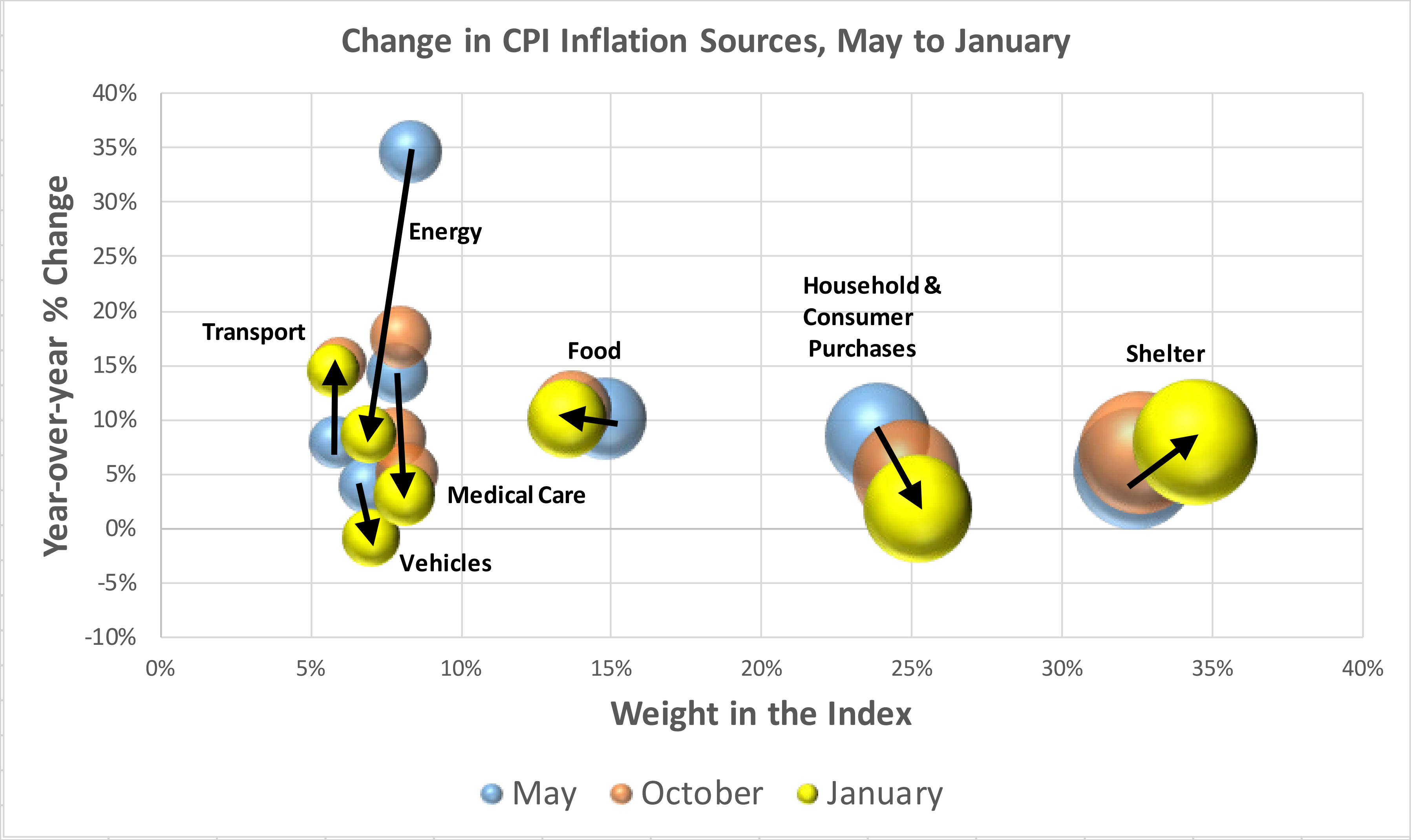
Headline CPI is down from 9.1% to 6.4%, but Core CPI has only moved down from 6.0% to 5.6% since May



Source: Bureau of Labor Statistics

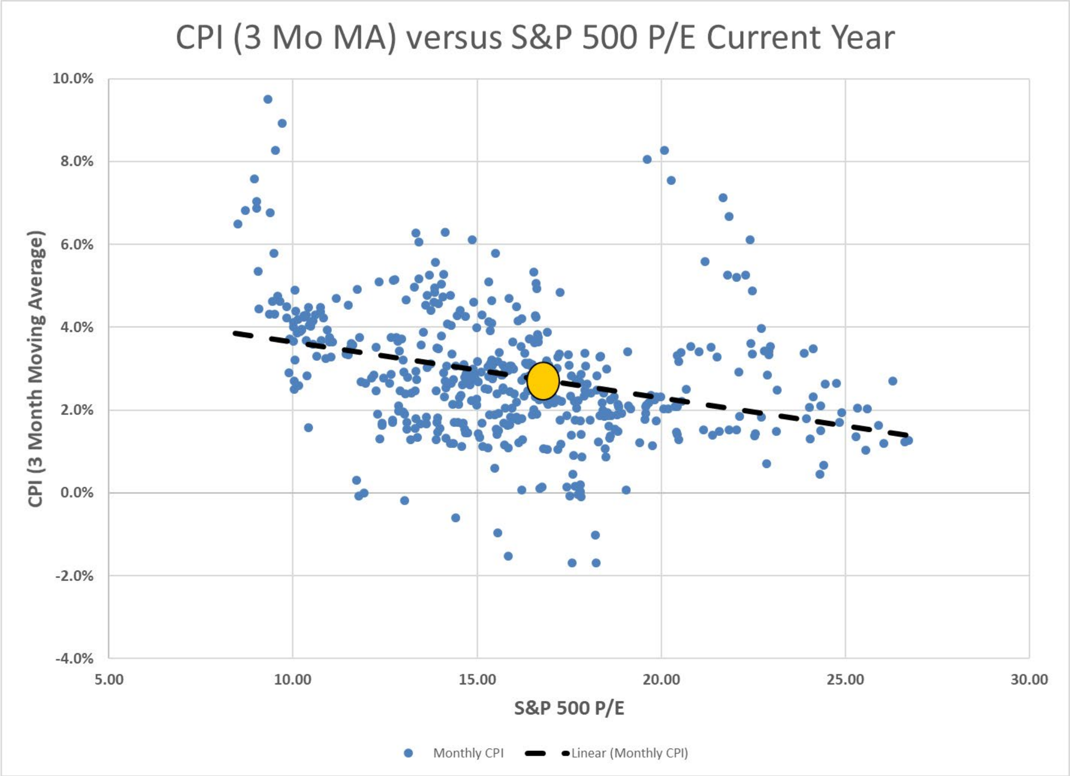
Inflation Drivers and Expectations

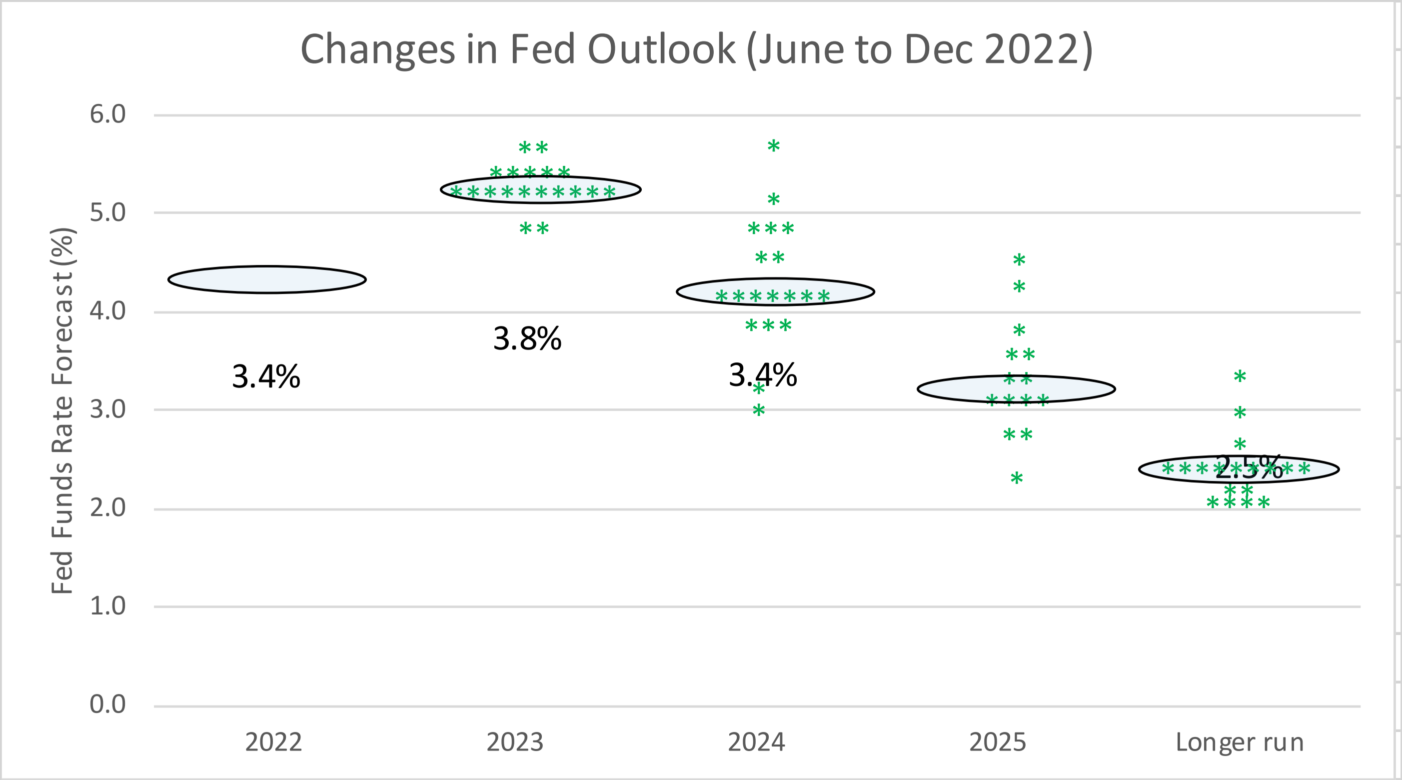
Food and Shelter represent nearly half of the index



Source: Bureau of Labor Statistics

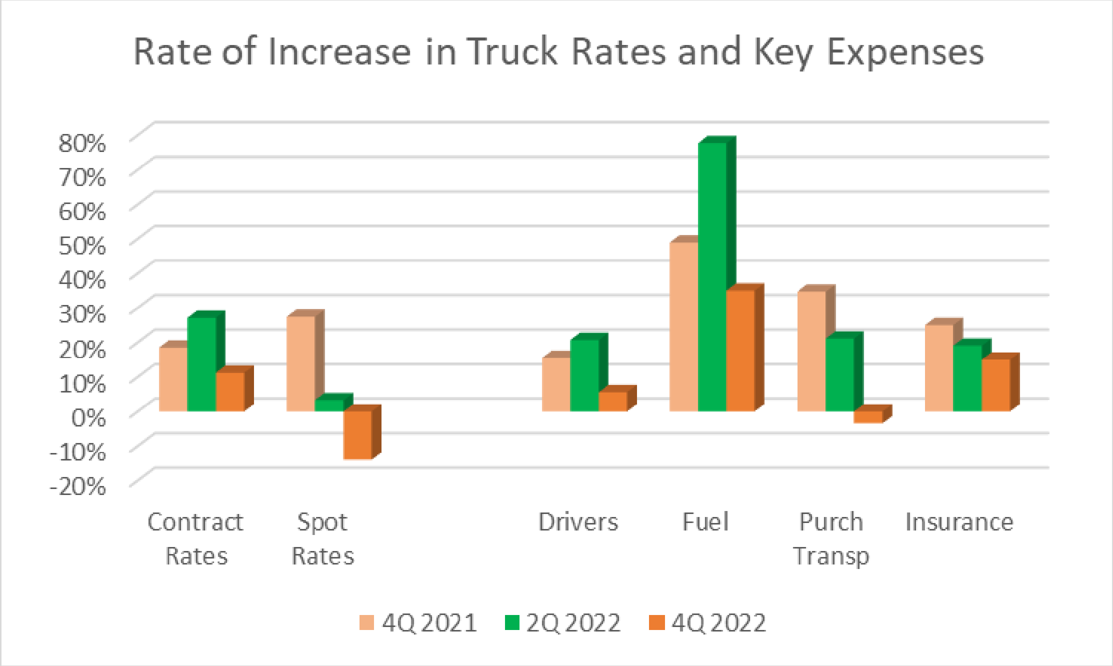
Fed Underestimated Inflation – Is That Still Happening?

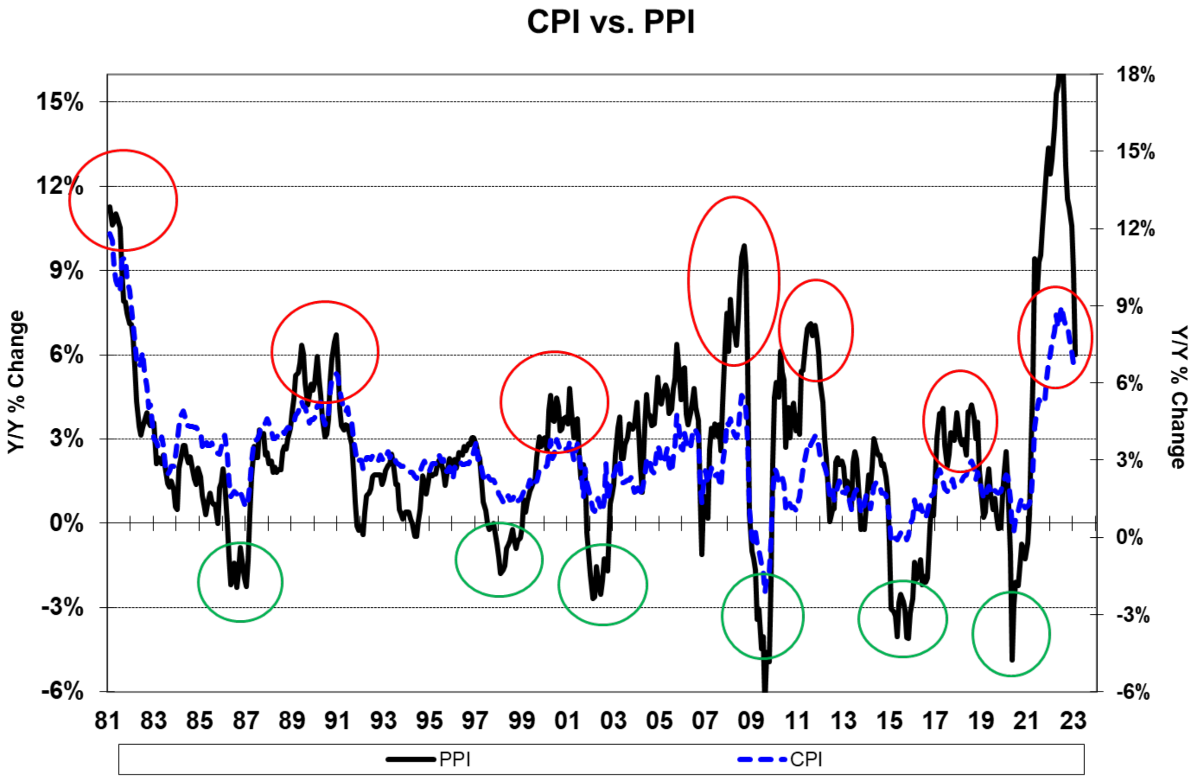




Source: Federal Reserve, Factset and Vertical Research Partners

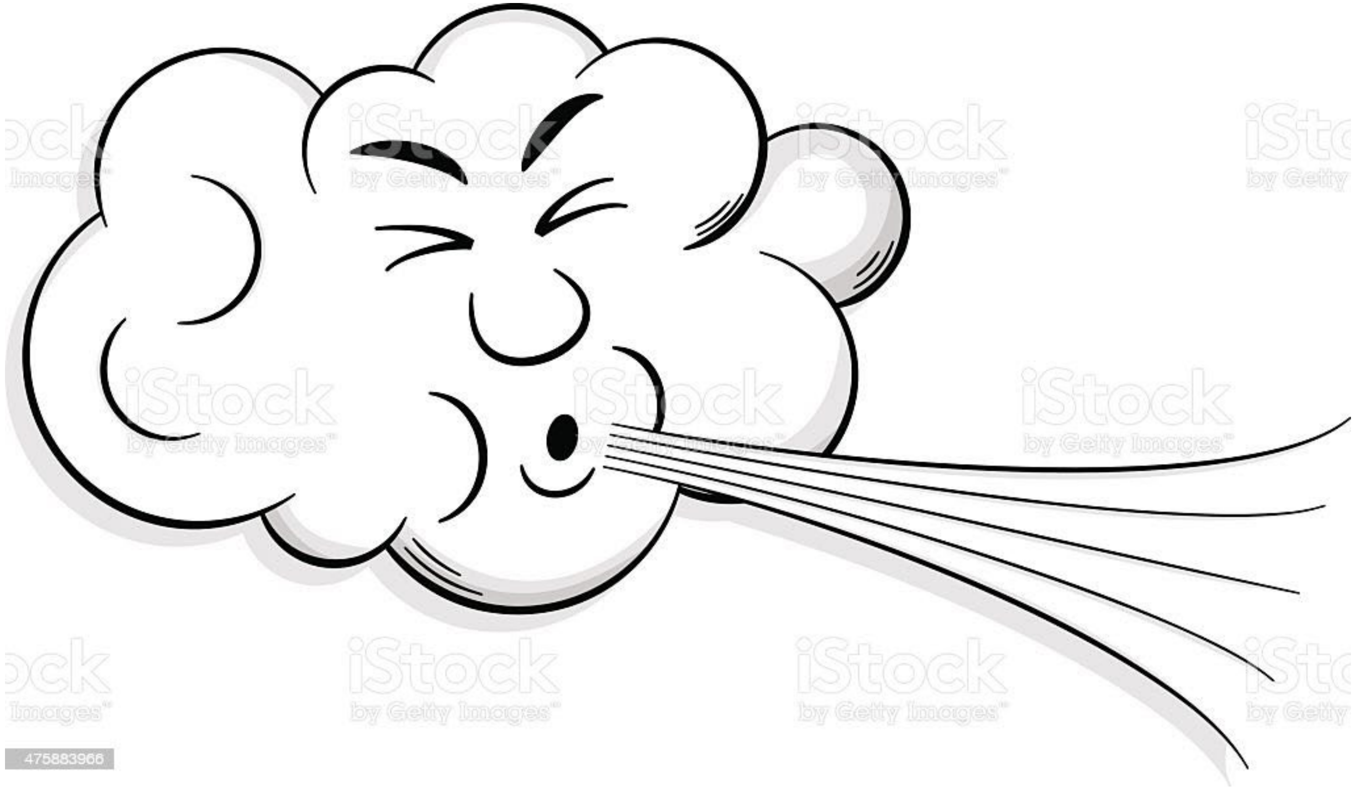
Inflation Bending Lower, but Slowly





Source: Company Reports, Bureau of Labor Statistics and Vertical Research Partners

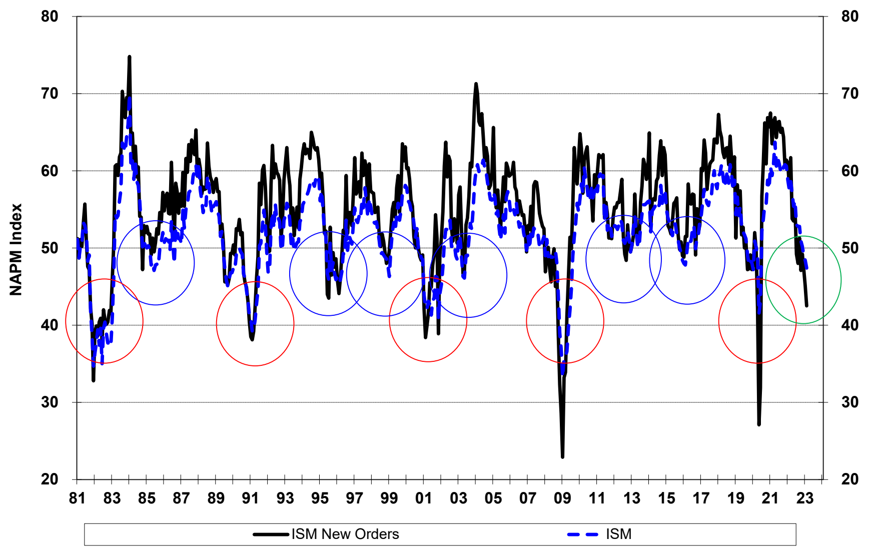
What Direction is the Wind Blowing?



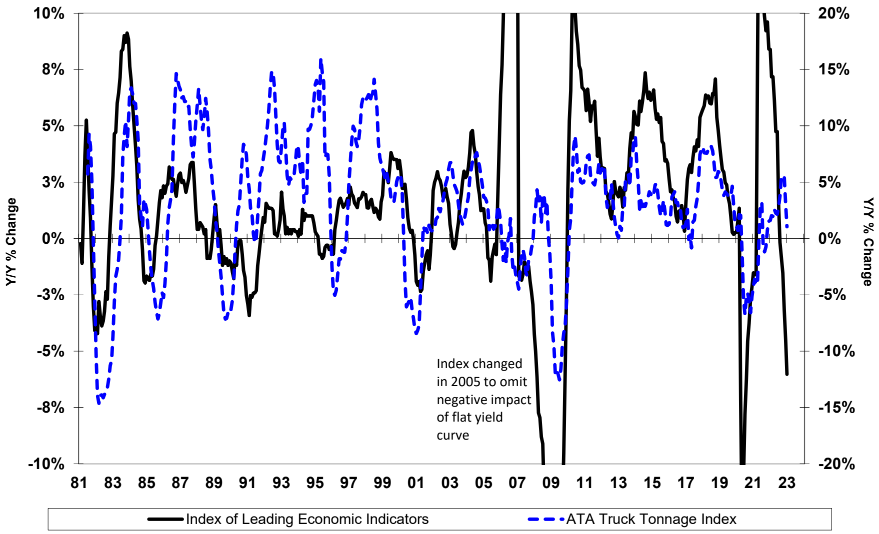
Source: Internet Stock

Trucking Leading Indicators Pointing South…

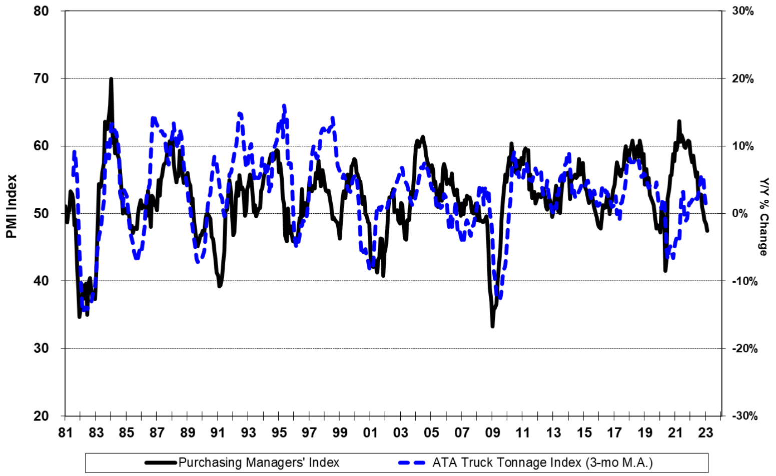
ISM New Orders vs ISM



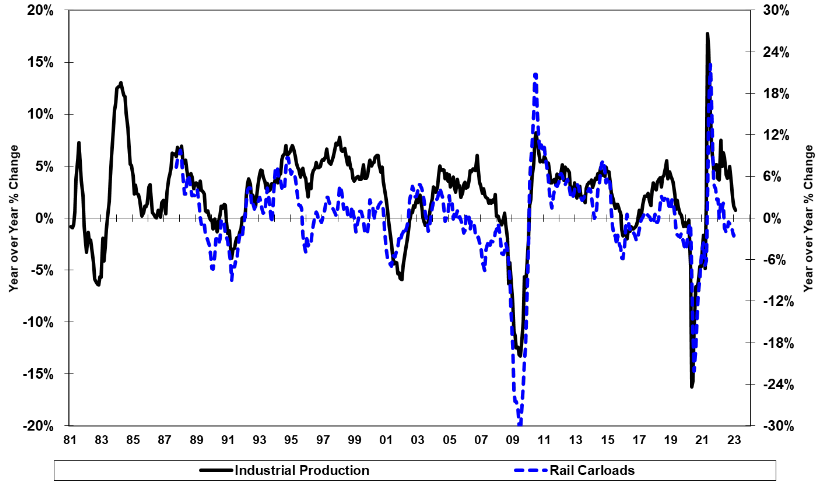
Truck Tonnage versus Leading Indicators Index



ATA Truck Tonnage Index vs. Purchasing Managers' Index

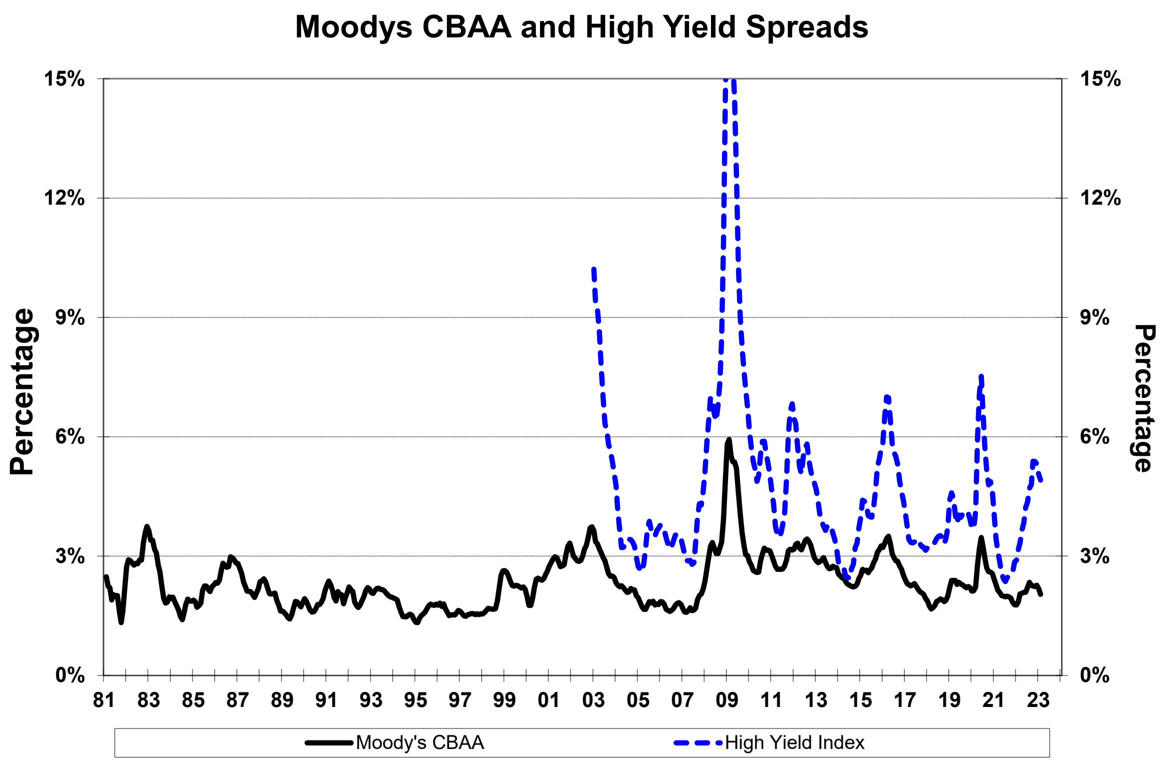


Industrial Production v. Rail Carloads
(ex coal/grain/intermodal)



Source: Institute for Supply Management, Federal Reserve, AAR, American Trucking Association, Vertical Research Partners

Is There Fear in the Marketplace? Caution, but not Fear



Source: Vertical Research Partners, FactSet

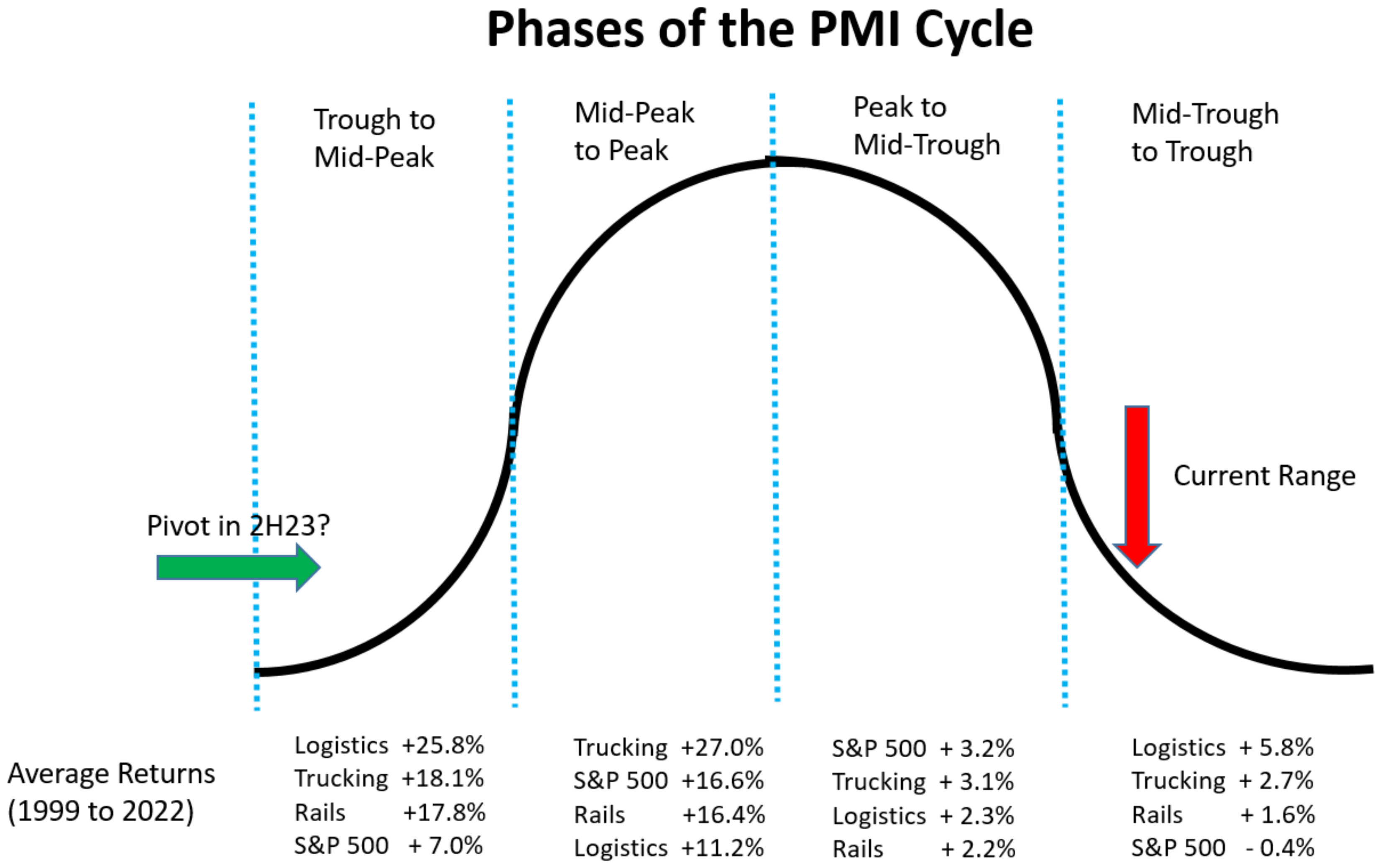
Outlook and Opinion

Source: Internet Stock

Handicapping Outlooks

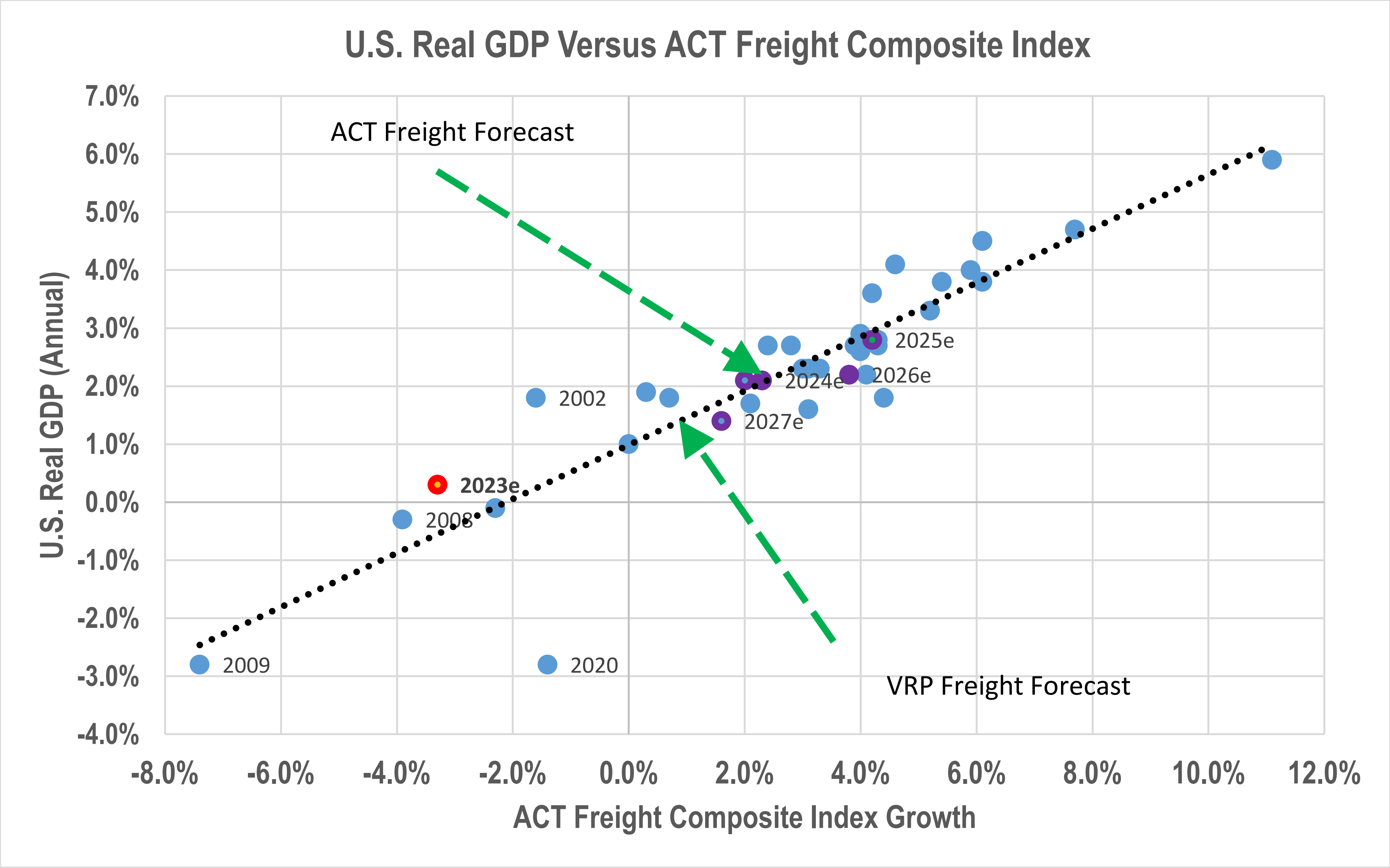
Probably Scenarios - Next 18 months	
Growth at trend or better	5%
No growth or stagnation	15%
Mild Recession	60%
Severe Recession	20%

Where are We In the Cycle?



Source: Vertical Research Partners

GDP Assumptions Imply Freight Assumptions



Source: Bloomberg, ACT Research and Vertical Research Partners

Established Historical Impacts for Freight and Class 8 Truck Demand

Prior Recession Impacts					
	Duration (months)	GDP (top to bottom)	IP (top to bottom)	Cass (top to bottom)	Class 8 (top to bottom)
Severe	16	-3.0%	-15.0%	-28.0%	-57.0%
Moderate	8	-0.8%	-5.0%	-11.0%	-38.0%

Source: Vertical Research Partners

Key Assumptions In Our Outlook

- 12-Month Mild Recession
  - We forecast a (1)%-(2)% GDP in mid-2023 that will last into early 2024
  - This will result in a 3.0% reduction in truck tonnage in 2023 and only 1.5% growth in 2024
  - The implied 20% Class 8 pullback is moderated to 10% by current conditions, better 1H23
  - Profit pullback will be 150 basis points in 2023, recovery will begin in 2024
  - This is better than the normal 250-300 basis points of margin deterioration

- Other notes
  - Expected CARB prebuy of 30,000 Class 8 units will be muted by the Recession
  - Expected EPA 2027 mandate will result in 2025/2026 being two largest Class 8 years ever
  - Trailer pool growth of fleets will moderate the normal trailer cycle from down 35% to down 15%
  - Trailers will see a stronger 2024 than normal related to fleet substitution
  - We believe the transition to BEV, NG, and Fuel Cell will gain traction in 2024, but not accelerate until 2027 because of the EPA 2027 mandate

Truck Capacity Could Outstrip Demand through 2024

Forecast Summary	2020	2021	2022e	2023e	2024e	2025e	2026e	Source	Note
Real GDP	(3.4)%	5.7%	2.1%	0.3%	2.1%	2.8%	2.2%	ACT Research	
Personal Consumption Exp	(3.0)%	8.3%	2.8%	1.3%	2.0%	2.6%	2.1%	ACT Research	
Industrial Production	(7.0)%	4.9%	3.9%	(1.9)%	(2.0)%	4.2%	3.8%	ACT Research	
Freight Composite Index	(1.4)%	11.1%	2.0%	(3.3)%	2.3%	4.2%	3.8%	ACT Research	
Cass Shipment Index	(8.4)%	12.8%	0.8%					Cass	
Truck Tonnage Growth	(3.6)%	**0.1%**	**2.2%**	**(3.0)%**	**1.5%**	**3.4%**	**2.8%**	**VRP Estimates**	No change 2023-2025
Active Population - Class 8 (000s)	2,550	2,500	2,561	2,598	2,598	2,656	2,764	VRP Estimates	
Est Replacement Demand - Class 8 (000s)	245	238	244	248	250	252	252	VRP Estimates	
Active Population - Trailers (000s)	3,300	3,349	3,431	3,507	3,559	3,617	3,655	VRP Estimates	
Est Replacement Demand - Trailers (000s)	220	218	220	224	228	232	232	VRP Estimates	
Class 8 Sales - ACT Research	233	271	309	292	266	318	373	ACT Research	
Est Capacity Increase		1.3%	2.6%	1.7%	0.6%	2.5%	4.6%		
Class 8 Sales - Vertical View	233	271	305	285	250	310	360	VRP Estimates	No change - we remain below ACT
Est Capacity Increase	-0.5%	1.3%	2.4%	1.4%	0.0%	2.2%	4.1%		
Versus estimated Tonnage Incr		**1.2%**	**0.2%**	**4.4%**	**-1.5%**	**-1.2%**	**1.3%**	VRP Estimates	
U.S. Trailers - ACT Research	206	267	305	302	275	309	286	ACT Research	
Est Capacity Increase		1.5%	2.5%	2.3%	1.3%	2.2%	1.5%		
U.S. Trailers - Vertical View	206	267	302	300	280	290	270	VRP Estimates	No change - we remain below ACT
Est Capacity Increase	-0.4%	1.5%	2.4%	2.2%	1.5%	1.6%	1.1%		
Versus estimated Tonnage Incr		**1.4%**	**0.2%**	**5.2%**	**0.0%**	**-1.8%**	**-1.7%**	VRP Estimates	

Source: ACT Research and Vertical Research Partners

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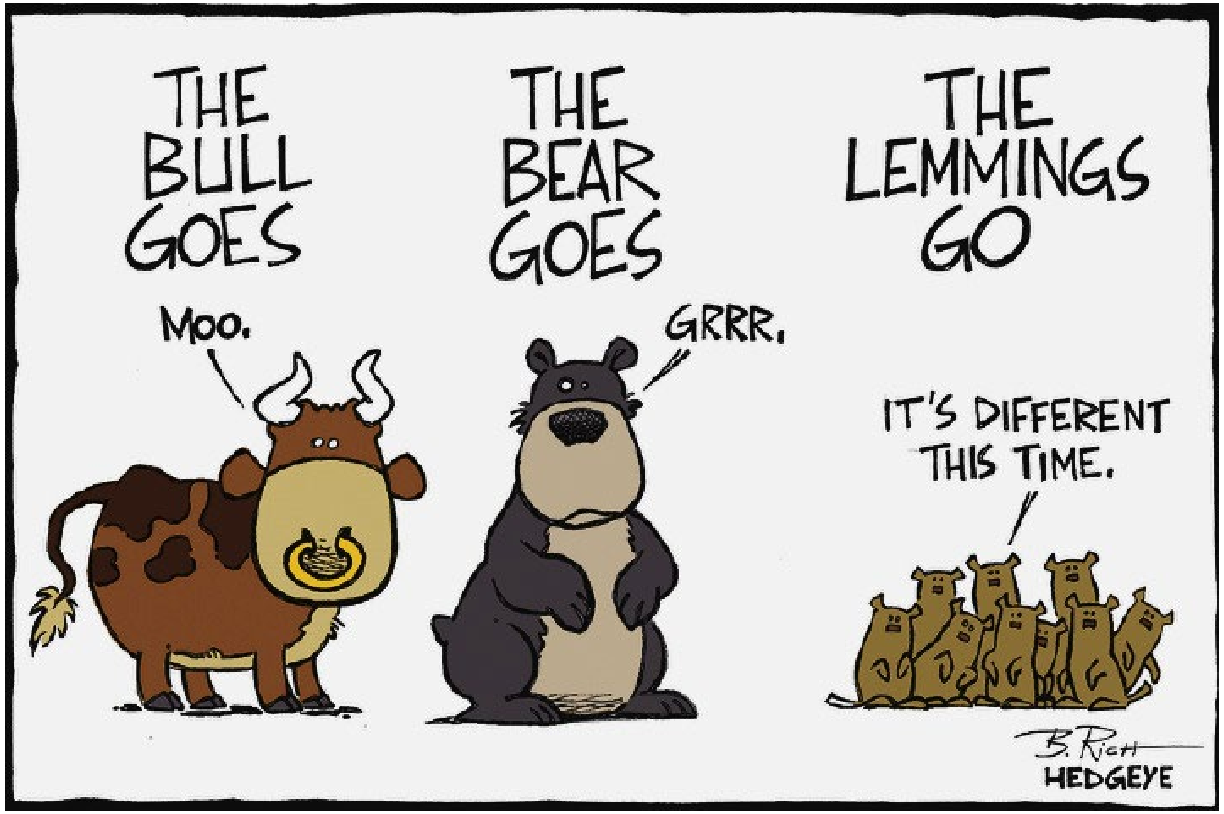
Other Things To Consider

** This Time It's Different **

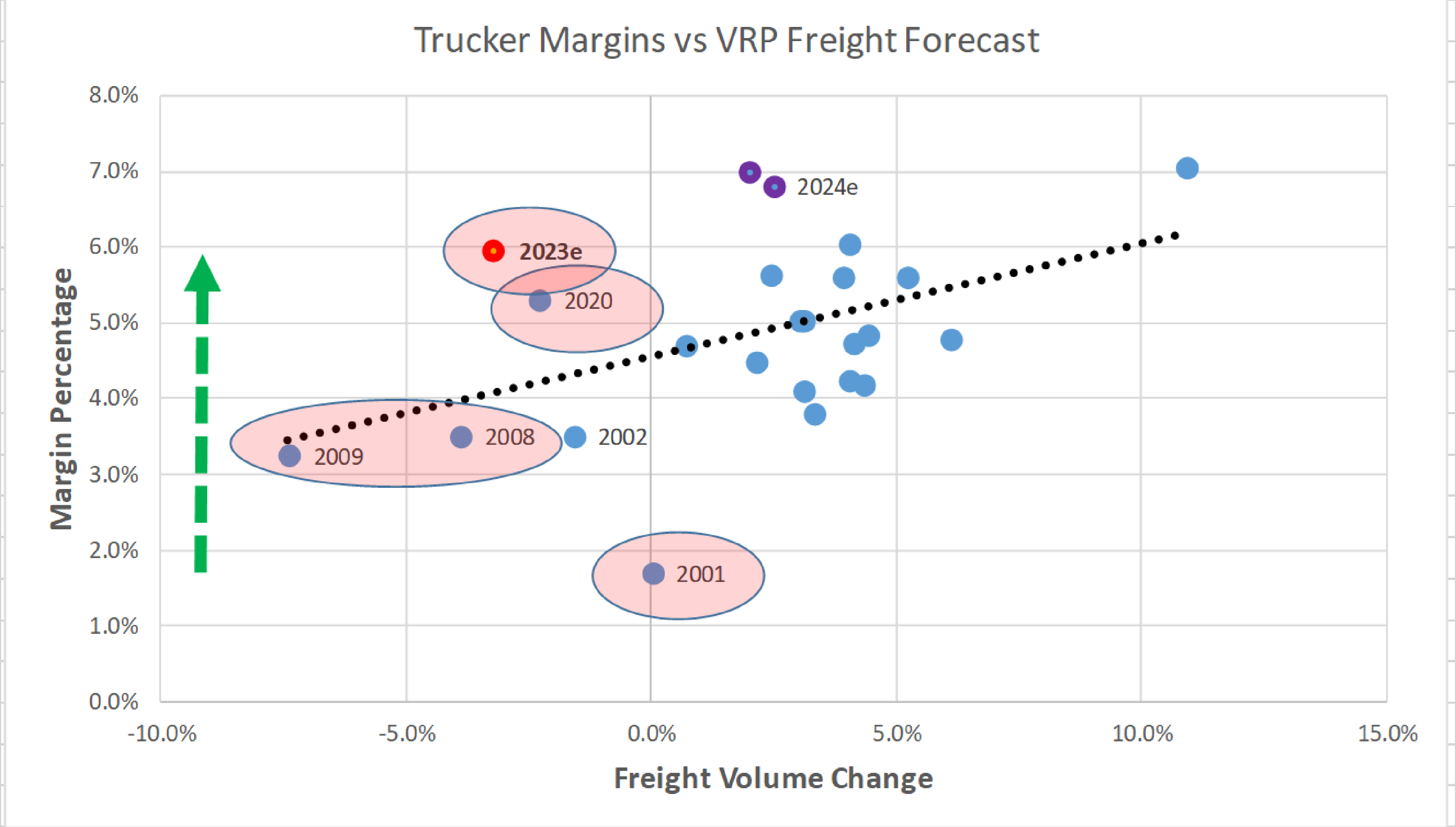


Source: Hedgeye, Internet Stock

Base Thesis – How It Might Be Different

- This cycle hasn't seen the fleet capacity additions of previous cycles
- Corporate balance sheets are in very good overall condition
- Trucking Industry is better protected because of the driver shortage
- Truck OEMs sold out through mid-2023 – will never feel the pain

Is There a Secular Profit Story in Trucking?



Source: Vertical Research Partners