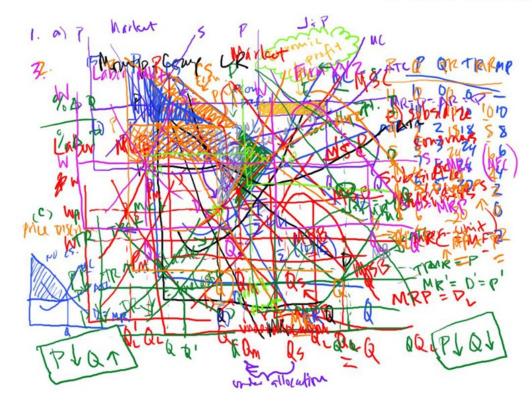


Economic Outlook: ACT Conference

Prepared by: Armada Corporate Intelligence

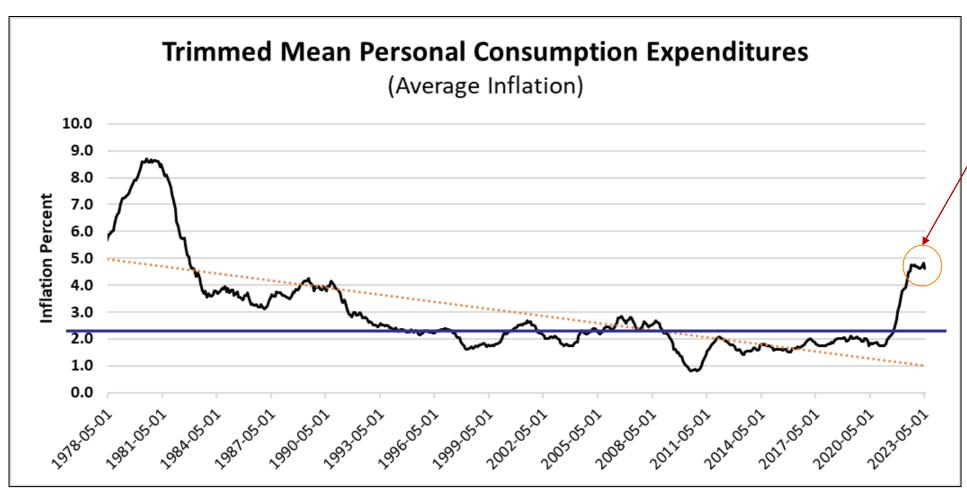
Dr. Chris Kuehl



(BLUF) Bottom Line Up Front

- Q2 GDP was still running at 2.3%, well above initial expectations for contraction of 0.9%.
 Q3 expectations between 3.0% and 4.0% at the moment. Recession threat much reduced.
- Global growth between 3.0% and 3.5%. Up slightly but still historically low. Europe at between 1.1% and 1.5%. China likely to miss 5.0% growth target.
- The Federal Reserve is likely to take another quarter-point interest rate increase before the end of the year, pushing the Fed Effective Funds Rate to 5.6%, the highest since the year 2000. ECB still talking rate hikes. BoE may be slowing. BoJ still low
- Positive economic activity is being propped up by strong nonresidential construction activity, automotive, aerospace, defense sector spending, and stable consumer spending.
- Global commodity inventories are still generally low, but there was some improvement in the last 30 days. Oil prices still in the 70s. US oil production hitting a record again.

The Fed is Still Fighting Inflation



- 4.61% May
- 4.81% Apr
- 4.68% Mar
- 4.67% Feb
- 4.63% Jan
- 4.68% Dec
- 4.70% Nov
- 4.75% Oct
- 4.73% Sep
- 4.75% Aug

2% Target Rate (20-year average 2.07%)

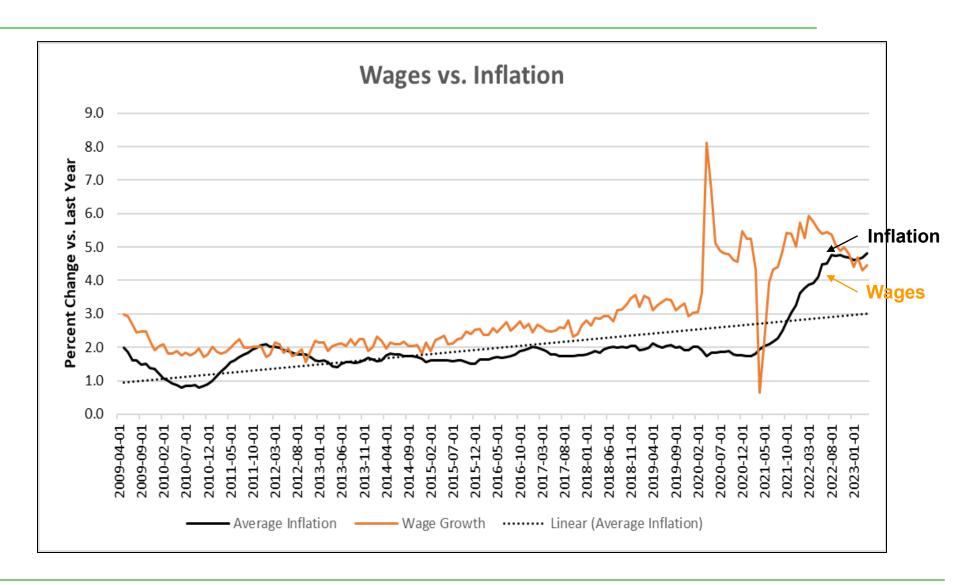
Note: The Trimmed Mean Personal Consumption Expenditures (TMPCE) averages more than 190 inflationary measures, stripping off the extreme highs and lows to give us a more accurate view of street level inflation.

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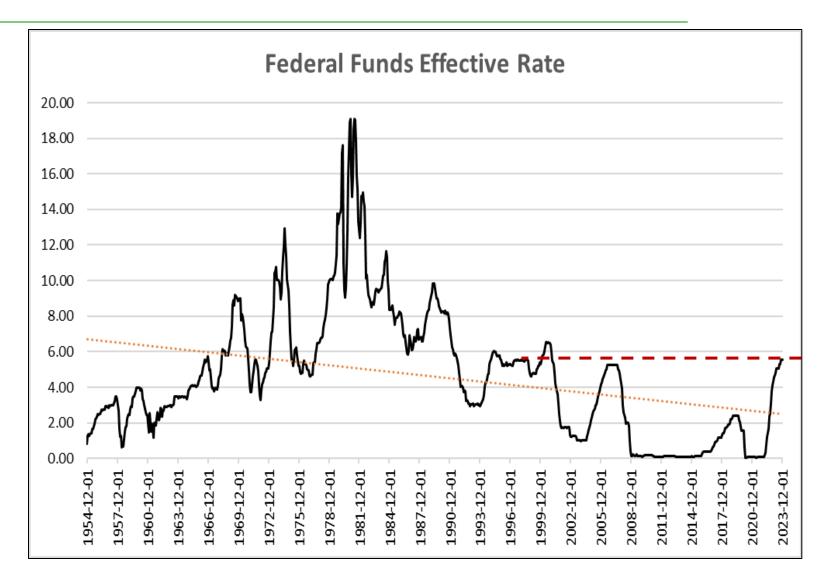
We Haven't Seen this Inversion between Inflation and Wages Since 2012

- 60% of the US is living check-to-check. With 78 million households falling further behind each month.
- Some secular pockets
 of inflation have
 started to ease, but
 wage inflation is sticky,
 and is likely partly the
 cause for some of this
 inflationary pressure.



Therefore, Outlook for Fed Funds Rate to Hit Strongest Levels Since 2000...

- Nonresidential construction carries the greatest risk. More than \$200 billion in CRE lease contracts will be renegotiated before the end of 2023. Collectively, between \$1.3 trillion and \$3 trillion to be renegotiated over the next two years.
- Forecasts show some softening of the Fed Funds Rate late in 2024.
- The new neutral rate of interest target is likely to be 2.5%, rather than the 1% target in the decade prior to the pandemic. Rates will stay higher for longer.

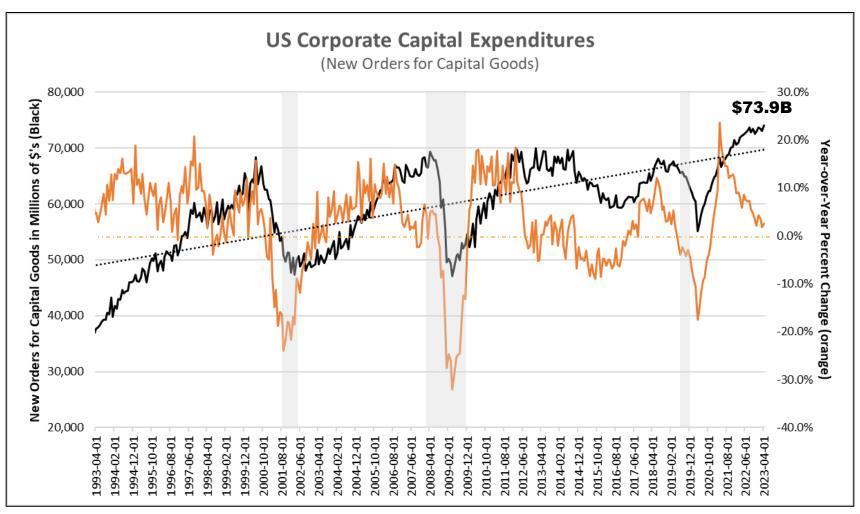


Here is Why So Much of the Economy Continues to Struggle

- 1. 65.1% of the marketplace remains overstocked through the end of April relative to 10-year average between Sep 2009 and Sep 2019.
- Approximately 35% of the market is likely in a continuous reorder cycle, but the majority of the market is likely still conservatively ordering for the rest of 2023.
- Some supply chain pressures in China could reverse this thinking for sourcing managers.

	Inventory to Sales Ratio (ISR) Analysis									
	Sector	April Sales (Millions)	9/12/09 - 09/12/19 10-YR Average	Apr-23	ISR Percent Above/Below Pre-pandemic					
	Total Business		1.34	1.40	4.5%					
1	Automotive		2.49	0.65	-73.7%					
2	Retail		1.43	1.29	-9.8%					
3	Merchant Wholesalers		1.29	1.40	8.5%					
4	Manufacturing		1.35	1.50	11.1%					
1	Drugs Wholesalers	84,911	1.09	1.03	-5.5%					
2	Department Stores (ie. Nordstrom's)	11,154	2.11	2.01	-4.7%					
3	Chemical Wholesalers	14,323	1.17	1.12	-4.3%					
4	General Merchandise (ie. Walmart)	72,315	1.43	1.41	-1.4%					
5	Food and Beverage Stores	81,844	0.78	0.78	0.0%					
6	Apparel Stores	25,640	2.39	2.39	0.0%					
7	Furniture, Appliance Stores (i.e NFM)	18,773	1.63	1.65	1.2%					
8	Computer Wholesale Distributors	25,033	0.79	0.80	1.3%					
9	Paper Wholesalers (ie. National Paper)	8,178	1.09	1.11	1.8%					
10	Building Material Stores (ie. Home Depot)	35,654	1.85	1.94	4.9%					
11	Machinery Wholesalers (ie. John Deere, Vermeer)	50,586	2.60	2.81	8.1%					
12	Furniture Wholesalers	10,111	1.71	1.85	8.2%					
13	Lumber and Construction Material Wholesalers	18,007	1.49	1.69	13.4%					
14	Commerical Equipment Wholesalers	49,622	1.09	1.25	14.7%					
15	Grocery Wholesalers	71,359	0.68	0.78	14.7%					
16	Durable Goods Wholesalers	304,226	1.59	1.85	16.4%					
17	Hardware, Plumbing, Heating Wholesalers	19,505	2.05	2.47	20.5%					
18	Household Appliances/Electronics Wholesalers	63,794	1.10	1.38	25.5%					
19	Alcohol Wholesale Distributors	14,574	1.31	1.67	27.5%					

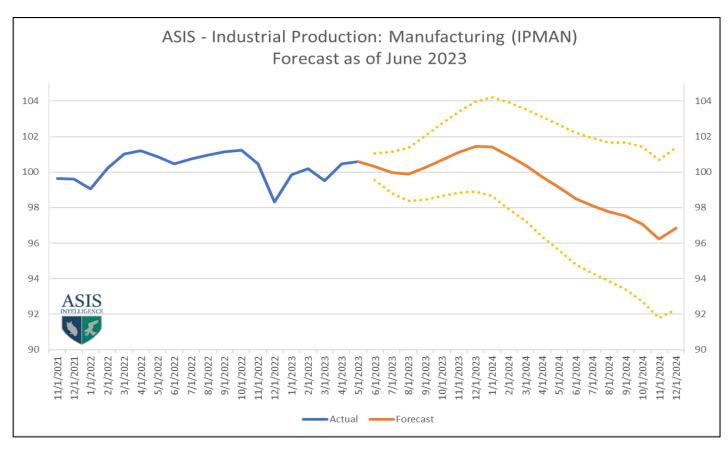
Corporate Investment Remains Steady

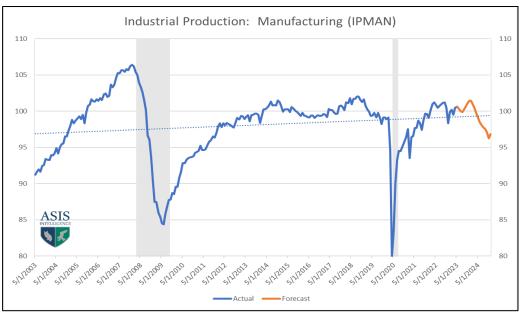


+2.5% Y/Y

Armada Forecast For Industrial Production in Manufacturing

- 1. These models use 18-22 economic metrics to forecast output from each of the following sectors of durable manufacturing.
- 2. The following models show a forecast over the next 18 months, these models are updated monthly.

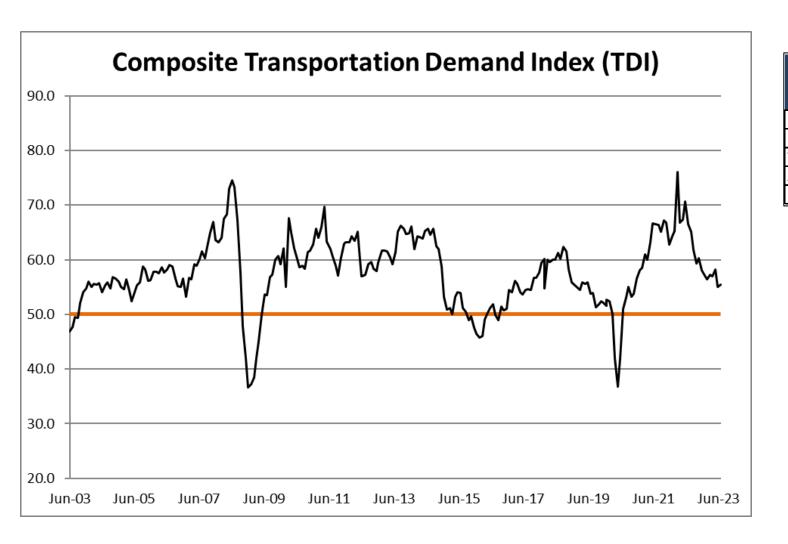




Accuracy:

3 months: 99.65%6 months: 93.88%

Armada Transportation <u>Demand</u> Index Showing the Market "Normalizing" Relative to Pre-Pandemic Levels of Activity.



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					M/M
				Y/Y	Change
	23-Jun	23-May	22-Jun	Change %	%
Composite	55.4	55.0	66.5	-16.7%	0.7%
Rail	53.4	53.4	63.8	-16.3%	0.0%
Trucking	55.5	55.1	67.0	-17.2%	0.7%
Air	61.0	60.6	66.5	-8.3%	0.7%
Maritime	59.6	58.3	64.7	-7.9%	2.2%

- All measures still over 50, but the "normalization" is obvious.
- March ushered in a bit of a flattening of the demand curve, and it remains stable relative to historical values.

For More Enlightenment

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Strategic Intelligence System – \$44 monthly

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