Monthly Survey Results

December 2024

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Important disclosures can be found in Appendix

Key Points

December sales improved vs. November, helped by an extra selling day. Looking at 4Q, sales still finished below channel expectations and stepped down vs. 3Q, driven by weakness in Ag markets. Ag was loudly highlighted as weaker than expected due to soft end demand which continues to be compounded by excess inventory at OEM customers, which is taking longer than expected to work thru. Aero, datacenters and O&G remain areas of optimism. Price appears to be stabilizing supported by a round of November supplier price increases, though upside on price increases is expected to be limited by muted demand and competition. Respondents maintained their 2025 outlook for 1%-3% growth, with recovery expected to be 2H weighted, as post-election optimism does not appear to be translating to an uptick in orders at this time. While we believe we are near a bottom in demand, pronounced weakness in Ag appears to be persisting longer than expected which is making the timing and magnitude of recovery less clear for our respondents and we see upside to the outlook as limited until we see more clear evidence of improving end demand.

Sales

- Sales were ~flat in December vs. down ~7% in November. For the quarter, 4Q sales were down ~3% vs. ~flat in 3Q.

Orders

- Orders were down ~1% in December vs. down ~8% in November. For the quarter, 4Q orders were down ~3% vs. ~flat in 3Q.
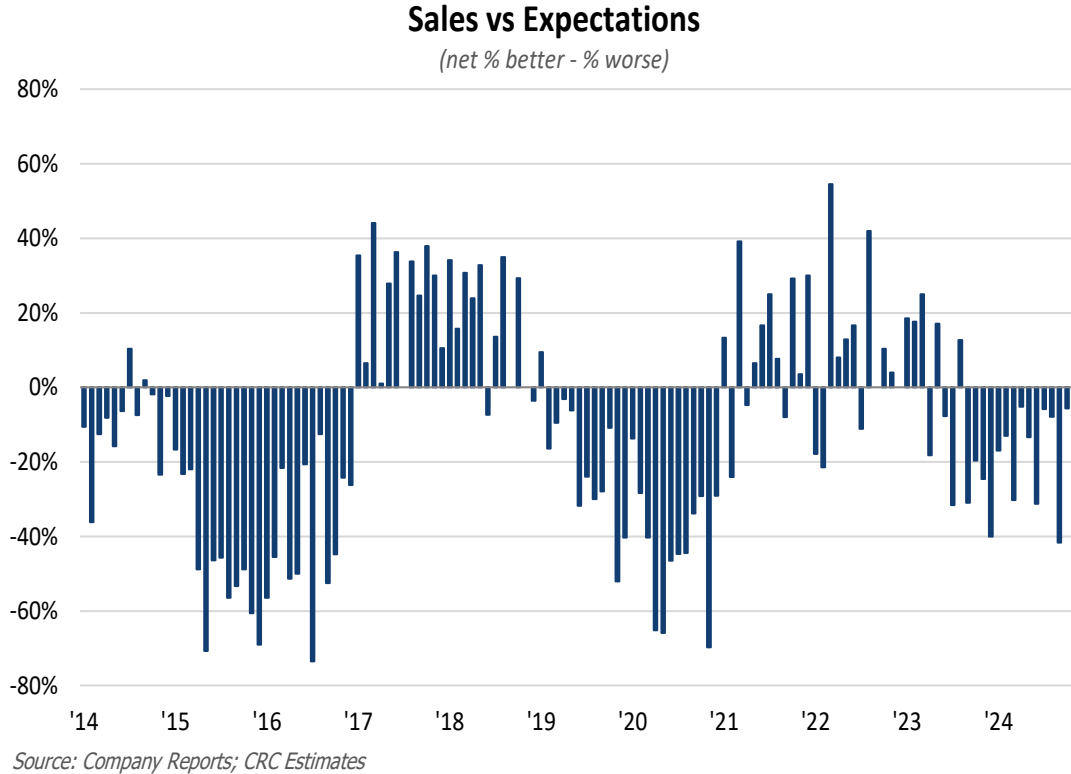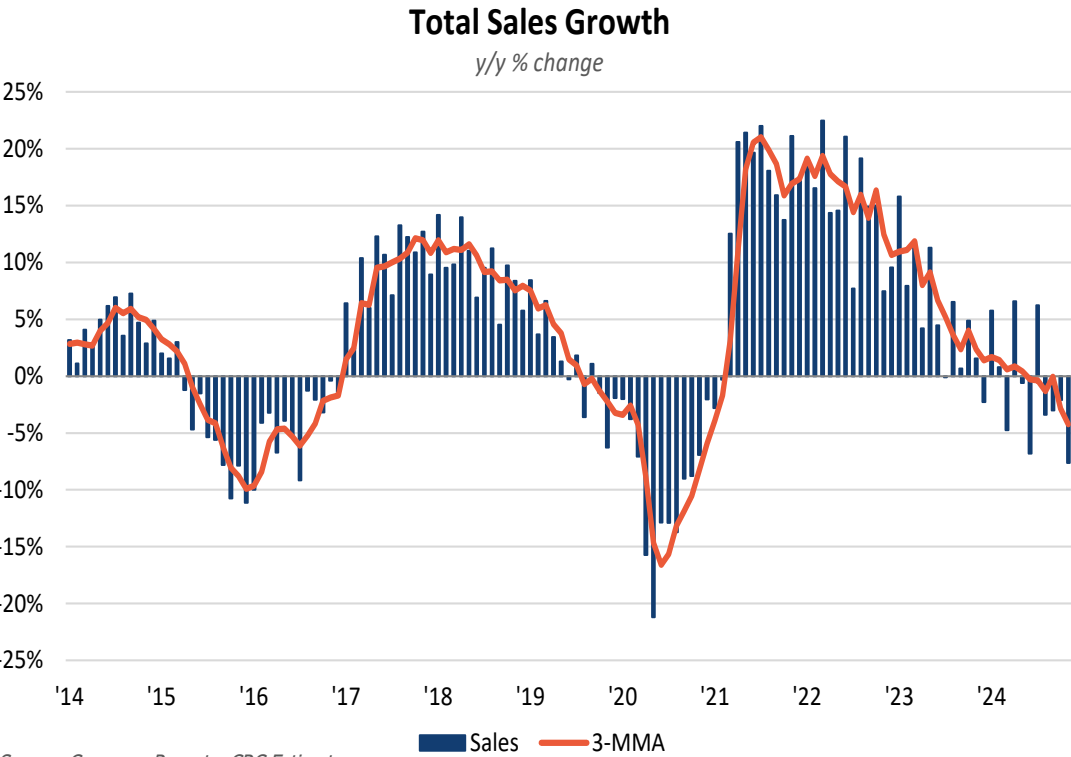
Outlook

- Respondents maintained their 2025 sales forecast for up ~2% on average. Recovery is expected to be 2H25 weighted.
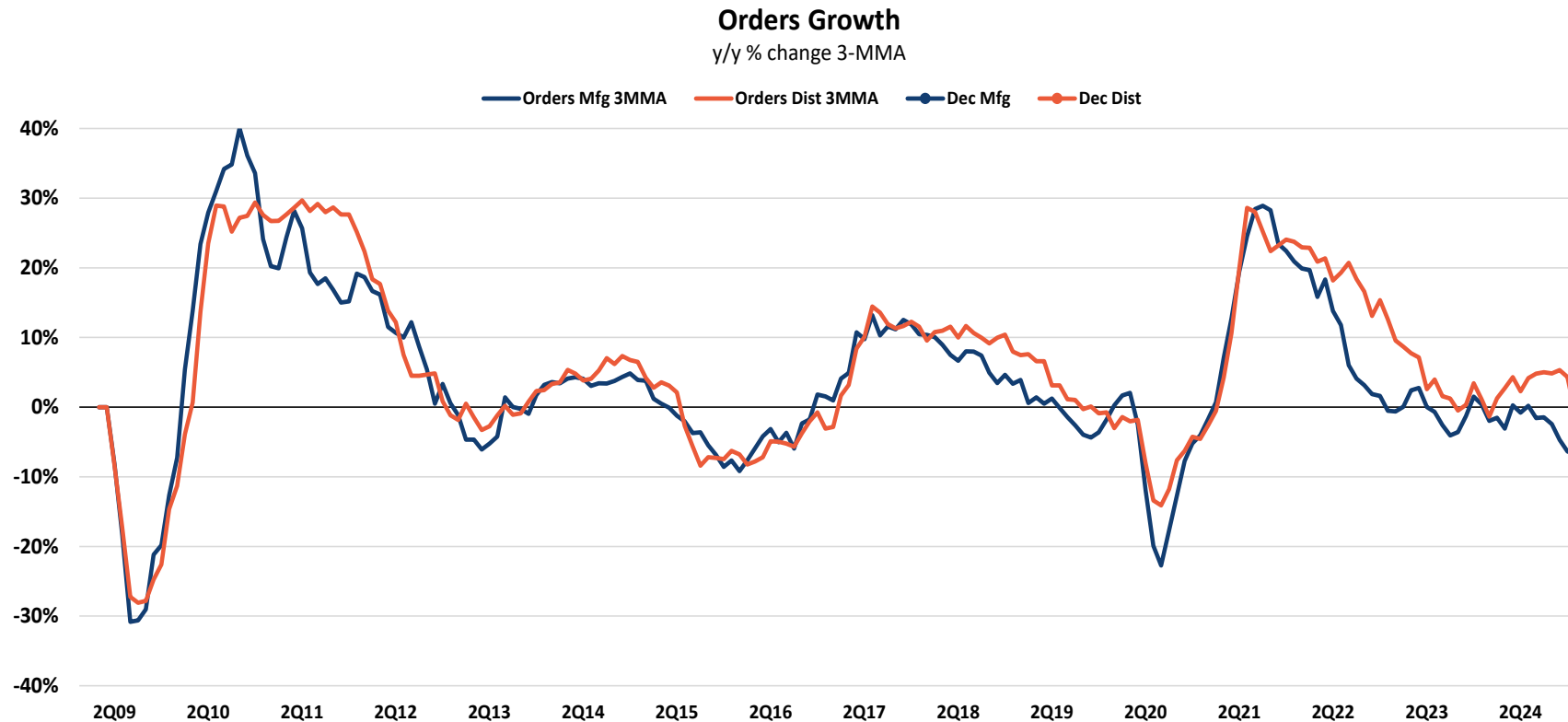
Demand Improves in December vs. November; 4Q Finished Below Expectations

December sales and orders stepped up vs. November with less respondents tracking below plan. Improved demand in December was not enough to offset weakness in the quarter (Oct-Dec), where 4Q sales and orders finished down 3% vs. flat in 3Q. The stepdown in 4Q sales was largely driven by weakness in mobile end markets, particularly ag which continues to be compounded by elevated OEM inventory levels. Respondents also highlighted broader weakness in capex and project delays throughout the quarter tied to macro and interest rates.

Total Sales Growth
y/y % change

Source: Company Reports; CRC Estimates

Legend: ■ Sales ── 3-MMA

Sales vs Expectations
(net % better - % worse)

Source: Company Reports; CRC Estimates

Cautious Order Feedback; Manufacturers Appear to be Stabilizing

Feedback on orders were underwhelming and below channel expectations due to weakness in Ag, muted capex, project delays and slower conversion on quoting activity. While orders were weaker than expected, the rate of decline for manufacturing orders appears to be stabilizing and the underperformance vs. distributors narrowed vs. 3Q which is encouraging. While the stabilization in manufacturing orders is encouraging, further improvement hinges on improved end demand/distributor orders, which respondents expect to happen in 2Q25.

Orders Growth
y/y % change 3-MMA

Orders Mfg 3MMA · Orders Dist 3MMA · Dec Mfg · Dec Dist

Source: Industry Association Survey

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Sales Data

Monthly Sales Growth

Total

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	2%	-10%	6%	14%	8%	-2%	-3%	19%	16%	6%
February	2%	-4%	2%	10%	4%	-4%	0%	17%	8%	1%
March	3%	-3%	10%	10%	7%	-7%	13%	22%	12%	-5%
April	-1%	-7%	6%	14%	3%	-16%	21%	14%	4%	7%
May	-5%	-4%	12%	11%	1%	-21%	21%	15%	11%	-1%
June	-2%	-5%	11%	7%	0%	-13%	20%	21%	4%	-7%
July	-5%	-9%	7%	10%	2%	-13%	22%	8%	0%	6%
August	-6%	-1%	13%	11%	-4%	-14%	18%	19%	7%	-3%
September	-8%	-2%	12%	4%	1%	-9%	16%	15%	1%	-3%
October	-11%	-3%	11%	10%	-1%	-9%	14%	15%	5%	-2%
November	-8%	0%	13%	8%	-6%	-7%	21%	7%	2%	-8%
December	-11%	-2%	9%	6%	-2%	-2%	17%	10%	-2%	0%

Distributors

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	3%	-12%	7%	14%	10%	0%	-5%	17%	18%	8%
February	2%	-3%	2%	9%	5%	-3%	-1%	18%	12%	3%
March	4%	-4%	9%	9%	8%	-3%	10%	26%	14%	-5%
April	2%	-9%	5%	13%	5%	-14%	20%	16%	6%	11%
May	-6%	-4%	14%	9%	6%	-19%	18%	13%	15%	0%
June	-1%	-5%	12%	6%	-1%	-8%	19%	26%	9%	-4%
July	-5%	-8%	8%	13%	3%	-14%	22%	6%	2%	10%
August	-2%	-1%	12%	11%	-2%	-11%	20%	23%	14%	0%
September	-6%	-1%	10%	2%	5%	-8%	16%	18%	4%	3%
October	-11%	-6%	11%	10%	-1%	-8%	16%	19%	8%	3%
November	-6%	-4%	14%	11%	-6%	-4%	19%	13%	3%	-5%
December	-14%	1%	6%	6%	1%	-5%	17%	11%	1%	3%

Manufacturers

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	1%	-8%	6%	14%	6%	-4%	-1%	21%	14%	3%
February	2%	-6%	3%	10%	3%	-4%	1%	15%	4%	-2%
March	2%	-2%	11%	10%	6%	-11%	15%	19%	10%	-4%
April	-5%	-5%	7%	15%	2%	-17%	21%	13%	3%	2%
May	-4%	-4%	11%	13%	-3%	-24%	25%	16%	8%	-1%
June	-2%	-5%	10%	8%	1%	-18%	20%	16%	0%	-9%
July	-6%	-10%	6%	6%	1%	-12%	22%	9%	-2%	2%
August	-9%	-2%	15%	10%	-5%	-16%	16%	15%	-1%	-7%
September	-9%	-3%	15%	7%	-2%	-10%	16%	12%	-3%	-9%
October	-10%	-1%	11%	9%	-2%	-10%	11%	11%	2%	-8%
November	-10%	3%	12%	6%	-7%	-6%	23%	1%	0%	-10%
December	-9%	-4%	12%	6%	-5%	0%	17%	8%	-6%	-2%

Percent Positive / Negative Growth

	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Positive Sales Growth	74%	77%	69%	80%	76%	66%	67%	59%	78%	54%	76%	54%	40%	60%	45%	55%	51%	36%	55%	44%	30%	71%	49%	38%	69%	45%	46%	53%	24%	54%
Flat Sales	0%	10%	3%	7%	0%	7%	0%	15%	7%	3%	7%	15%	14%	20%	9%	5%	16%	13%	9%	19%	9%	5%	5%	8%	4%	8%	8%	9%	11%	2%
Negative Sales Growth	26%	13%	28%	13%	24%	28%	33%	26%	15%	43%	17%	31%	47%	20%	45%	39%	33%	51%	36%	37%	60%	24%	46%	54%	27%	47%	46%	38%	65%	44%
Net % (Positive - Negative)	**48%**	**63%**	**41%**	**67%**	**52%**	**38%**	**33%**	**32%**	**63%**	**12%**	**59%**	**23%**	**-7%**	**40%**	**0%**	**16%**	**18%**	**-15%**	**19%**	**7%**	**-30%**	**47%**	**3%**	**-17%**	**42%**	**-2%**	**0%**	**15%**	**-41%**	**9%**

Results vs. Expectations

	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Oct-24	Nov-24	Dec-24
Better than expected	15%	52%	22%	24%	24%	31%	37%	37%	38%	18%	34%	22%	16%	31%	7%	16%	18%	11%	22%	22%	13%	22%	27%	21%	25%	25%	10%	34%	11%	15%
In line with expectations	59%	39%	56%	62%	56%	38%	44%	44%	48%	45%	49%	49%	37%	51%	55%	48%	40%	38%	39%	43%	43%	50%	33%	27%	44%	41%	38%	26%	22%	40%
Worse than expected	26%	10%	22%	14%	20%	31%	19%	19%	13%	36%	17%	29%	47%	18%	38%	36%	42%	51%	39%	35%	43%	28%	40%	52%	31%	33%	52%	40%	67%	45%
Net % (Better - Worse)	**-11%**	**42%**	**0%**	**10%**	**4%**	**0%**	**19%**	**18%**	**25%**	**-18%**	**17%**	**-8%**	**-32%**	**13%**	**-31%**	**-20%**	**-25%**	**-40%**	**-17%**	**-13%**	**-30%**	**-5%**	**-13%**	**-31%**	**-6%**	**-8%**	**-42%**	**-6%**	**-57%**	**-31%**

Source: Cleveland Research

Orders and Backlog Data

Monthly Order Growth

Total

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	1%	-8%	10%	12%	4%	3%	4%	24%	8%	8%
February	1%	-1%	3%	9%	3%	-1%	11%	15%	4%	-2%
March	3%	-6%	15%	7%	3%	-8%	20%	21%	2%	0%
April	-3%	-4%	11%	9%	0%	-21%	28%	12%	-3%	3%
May	-7%	-4%	15%	14%	1%	-21%	32%	13%	5%	3%
June	-4%	-5%	9%	6%	-1%	-14%	25%	15%	-4%	-1%
July	-7%	-8%	11%	7%	-2%	-10%	24%	6%	-5%	4%
August	-8%	4%	14%	9%	-3%	-7%	26%	9%	3%	1%
September	-7%	-1%	12%	5%	-2%	-4%	19%	7%	0%	-4%
October	-10%	-1%	11%	9%	-2%	-3%	24%	9%	4%	0%
November	-5%	0%	10%	3%	0%	-6%	24%	2%	-2%	-8%
December	-10%	-2%	9%	5%	-2%	2%	17%	3%	-7%	-1%

Distributors

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	3%	-13%	10%	15%	10%	1%	2%	24%	11%	14%
February	4%	-2%	2%	11%	3%	-2%	8%	19%	5%	2%
March	2%	-7%	14%	8%	6%	-5%	22%	22%	5%	-3%
April	0%	-6%	15%	10%	0%	-17%	30%	14%	-2%	8%
May	-10%	-2%	15%	16%	3%	-18%	34%	22%	10%	8%
June	-6%	-7%	11%	5%	0%	-7%	20%	26%	-3%	-1%
July	-9%	-8%	10%	8%	-1%	-10%	21%	7%	-3%	8%
August	-7%	4%	13%	14%	0%	-6%	26%	16%	5%	7%
September	-7%	-2%	12%	8%	1%	-3%	23%	16%	0%	0%
October	-9%	-4%	12%	10%	-4%	-4%	24%	14%	6%	5%
November	-3%	-3%	11%	7%	0%	-7%	25%	8%	-2%	-9%
December	-8%	-2%	6%	6%	-5%	3%	20%	6%	-8%	-2%

Manufacturers

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	-2%	-5%	11%	9%	-1%	4%	6%	23%	5%	2%
February	-1%	-1%	5%	7%	2%	1%	14%	11%	3%	-6%
March	3%	-6%	16%	6%	1%	-12%	18%	20%	0%	4%
April	-5%	-2%	8%	7%	1%	-24%	26%	10%	-3%	-1%
May	-4%	-7%	16%	11%	-2%	-23%	29%	5%	1%	-3%
June	-2%	-2%	7%	6%	-3%	-20%	30%	3%	-6%	-1%
July	-5%	-9%	12%	5%	-3%	-9%	27%	4%	-7%	-1%
August	-9%	4%	15%	3%	-6%	-9%	27%	2%	2%	-6%
September	-7%	0%	11%	2%	-4%	-5%	16%	-1%	1%	-8%
October	-10%	2%	10%	9%	0%	-2%	24%	3%	1%	-6%
November	-6%	3%	10%	0%	-1%	-5%	23%	-4%	-1%	-7%
December	-11%	-2%	11%	3%	2%	2%	13%	-1%	-6%	0%

Monthly Backlog Growth

Total

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	3%	-6%	4%	17%	3%	-1%	5%	40%	6%	-4%
February	2%	-5%	3%	14%	4%	-3%	13%	29%	2%	-7%
March	2%	-7%	8%	16%	1%	-4%	19%	27%	-11%	-7%
April	-1%	-8%	11%	15%	4%	-12%	25%	26%	-3%	-13%
May	-3%	-6%	14%	15%	0%	-14%	37%	32%	1%	-10%
June	-3%	-5%	13%	12%	0%	-13%	28%	24%	-5%	-8%
July	-7%	-6%	11%	11%	-2%	-10%	31%	17%	-11%	-7%
August	-8%	-3%	13%	15%	1%	-9%	31%	14%	-7%	-9%
September	-6%	-4%	14%	12%	-3%	-7%	31%	14%	-12%	-12%
October	-8%	0%	9%	9%	-3%	-5%	36%	11%	0%	-6%
November	-10%	-2%	10%	10%	-3%	-4%	33%	10%	-11%	-9%
December	-6%	-2%	15%	6%	-3%	3%	38%	5%	-15%	-6%

Distributors

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	3%	-7%	1%	18%	9%	0%	4%	36%	21%	-2%
February	3%	-7%	2%	13%	7%	-3%	9%	31%	15%	-4%
March	3%	-9%	9%	14%	5%	-3%	19%	29%	10%	-4%
April	0%	-14%	13%	11%	6%	-9%	25%	23%	4%	-7%
May	-4%	-5%	16%	17%	4%	-12%	34%	36%	8%	-5%
June	-5%	-8%	17%	11%	4%	-10%	29%	31%	8%	-5%
July	-10%	-2%	13%	13%	3%	-9%	31%	24%	-1%	-3%
August	-10%	-4%	11%	19%	4%	-8%	28%	22%	2%	-7%
September	-9%	-6%	14%	18%	1%	-4%	38%	21%	-5%	-2%
October	-10%	1%	10%	14%	-1%	-7%	40%	23%	-6%	-3%
November	-12%	-5%	9%	17%	0%	-4%	36%	26%	-6%	-7%
December	-5%	-4%	11%	8%	-2%	4%	44%	22%	-14%	-6%

Manufacturers

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
January	2%	-5%	8%	16%	-2%	-3%	7%	43%	-8%	-7%
February	1%	-3%	4%	15%	1%	-3%	16%	26%	-10%	-11%
March	1%	-4%	7%	18%	-3%	-4%	19%	25%	-32%	-9%
April	-1%	-3%	9%	19%	2%	-15%	24%	29%	-10%	-20%
May	-1%	-6%	12%	13%	-4%	-16%	40%	29%	-6%	-14%
June	-1%	-3%	10%	13%	-4%	-17%	28%	17%	-18%	-10%
July	-4%	-10%	8%	9%	-7%	-11%	31%	10%	-20%	-11%
August	-5%	-2%	14%	11%	-3%	-9%	33%	7%	-16%	-11%
September	-3%	-2%	14%	6%	-6%	-11%	25%	7%	-18%	-21%
October	-5%	0%	8%	4%	-4%	-3%	31%	-1%	5%	-9%
November	-8%	1%	11%	4%	-6%	-3%	29%	-6%	-16%	-10%
December	-7%	0%	20%	3%	-4%	2%	32%	-11%	-17%	-7%

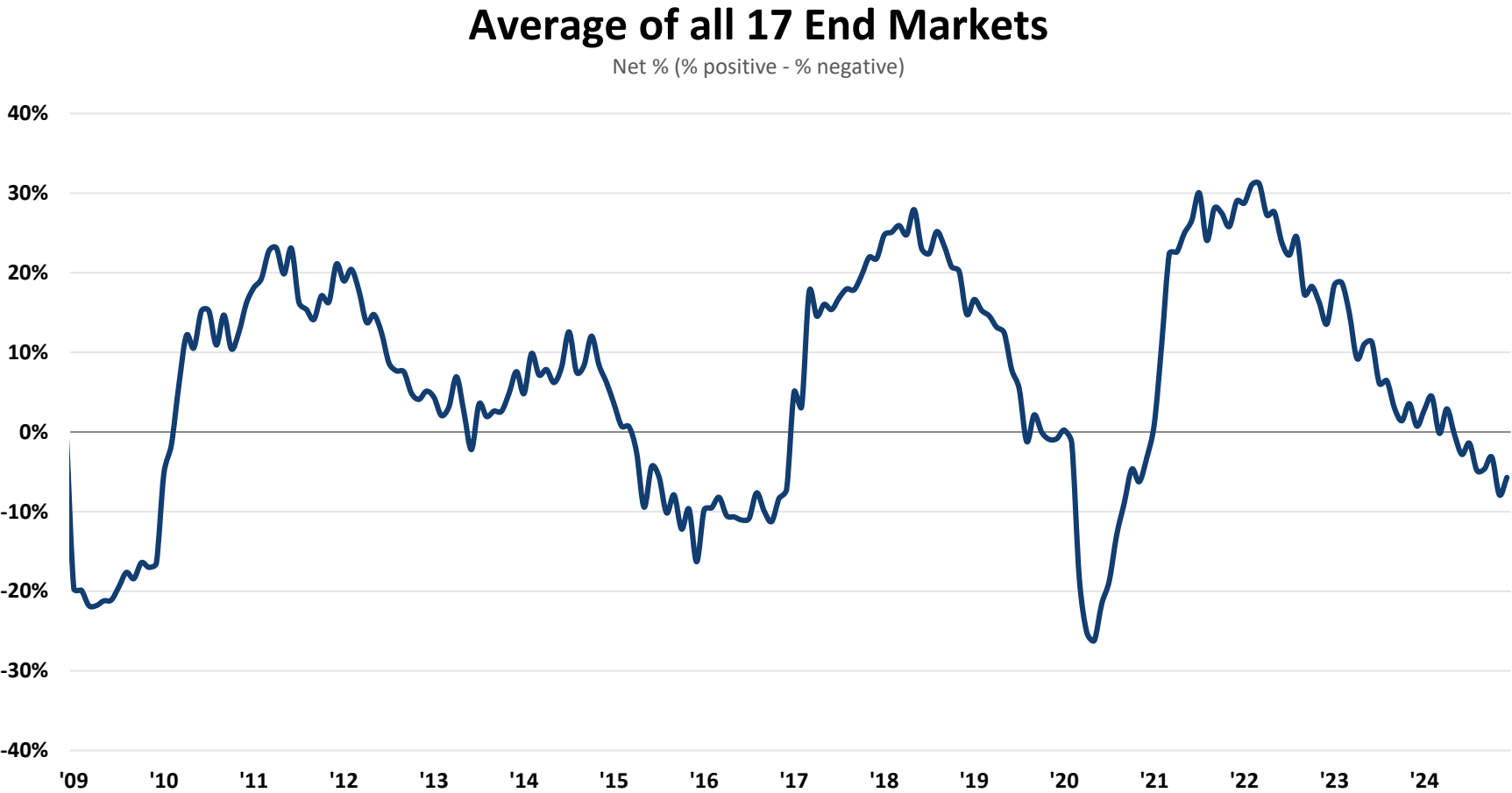# OEM Inventory Remains a Drag; Distributor Inventories Appear Balanced

Distributor feedback suggests inventory is largely balanced with end demand. Distributors still appear to be managing inventory more tightly as supply chains have improved and customer order trends seem to be normalizing with customers being more JIT rather than placing blanket stocking orders.

While distributor inventories appear balanced, mobile OEM customers continue to be highlighted as sitting on excess inventory, which is taking longer than expected to work through. Respondents expect mobile OEM inventories to be rightsized by end of CY25.

Inventory vs Prior Month
(net % higher - lower)

Inventory Net % "Too High"
(net % too high - too low)
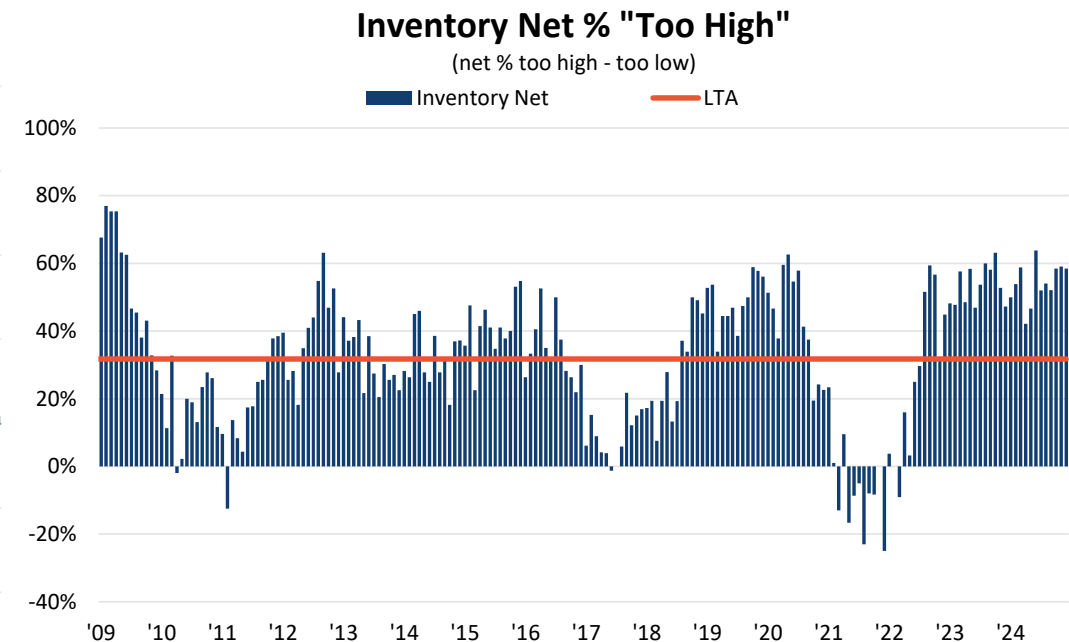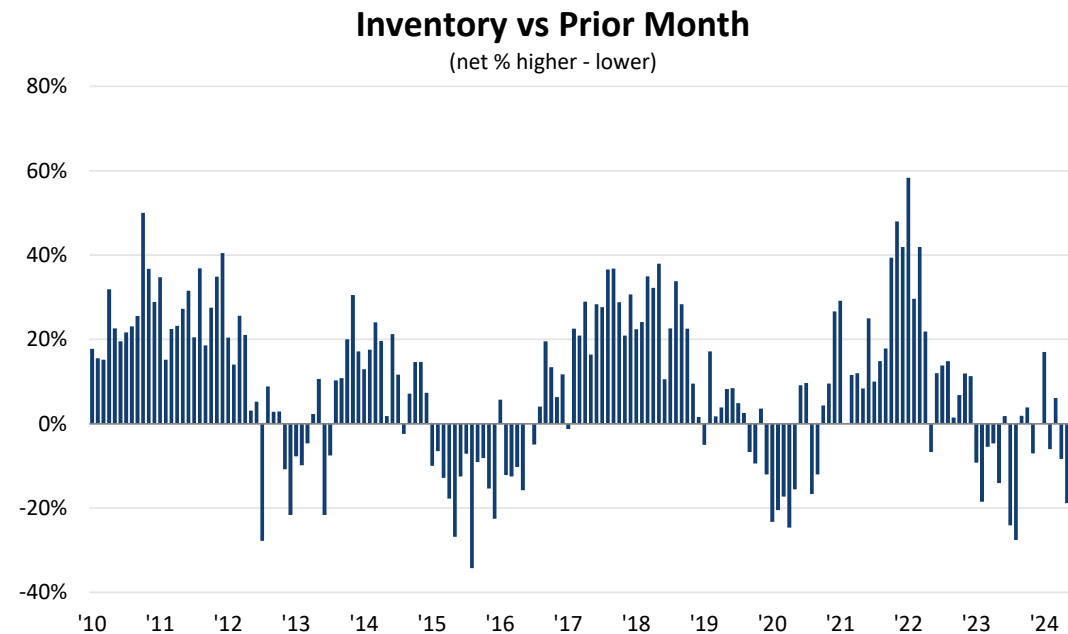
End Market Feedback Improves vs. November

End market index finished down 6% in December vs. down 8% in November. 4Q end market index was down 6% vs. down 4% last quarter.

Average of all 17 End Markets

Net % (% positive - % negative)

Source: Industry Association Survey

Ag Takes Another Step Down

- 5 out of 17 end markets declined vs. November.

- Mobile end markets, particularly Ag, continues to be highlighted as the weakest end market with activity stepping down. Ag stepped down 10% vs. 3Q.

- Respondents highlighted optimism with O&G in anticipation of a more favorable regulatory environment under the new administration.

- Strength in datacenters is becoming a growing theme in our fluid power discussions. Several companies highlighted investing in incremental capacity on certain SKUs and assigning specific sales positions to address the growing market opportunity.

End Market Ranking
(Net % Strong - Weak)

■ Nov-24   ■ Dec-24
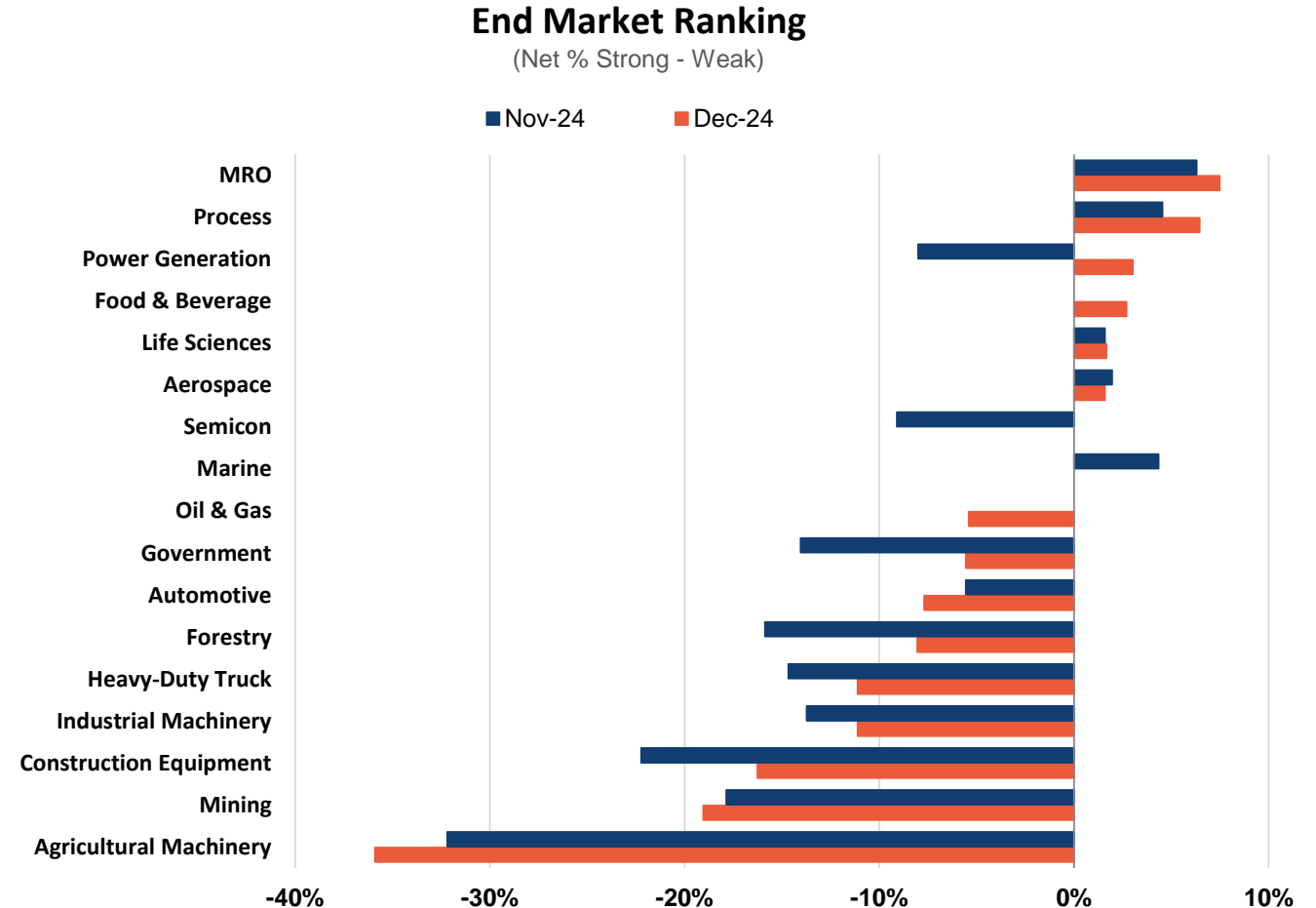
End Market Heat Map

End Markets	2017												2018												2019												2020											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Oil & Gas	-18%	-9%	13%	11%	10%	10%	11%	13%	17%	18%	19%	24%	27%	21%	23%	33%	34%	29%	35%	32%	28%	32%	16%	15%	13%	14%	10%	8%	5%	-3%	-10%	-17%	-16%	-21%	-24%	-27%	-19%	-28%	-51%	-57%	-56%	-52%	-54%	-52%	-46%	-48%	-49%	-39%
Mining	-17%	-28%	2%	8%	0%	5%	9%	13%	14%	14%	21%	26%	17%	28%	24%	24%	22%	24%	23%	27%	26%	22%	24%	16%	19%	11%	9%	11%	11%	7%	0%	-7%	-1%	-10%	-12%	-11%	-8%	-15%	-34%	-38%	-43%	-34%	-34%	-29%	-28%	-22%	-28%	-23%
Agricultural Machinery	-10%	-18%	6%	6%	11%	11%	16%	16%	16%	16%	24%	24%	22%	26%	27%	24%	30%	24%	11%	27%	28%	19%	23%	16%	20%	15%	17%	13%	12%	4%	1%	-13%	-10%	-11%	-11%	-11%	-10%	-10%	-14%	-30%	-25%	-20%	-17%	-14%	-11%	-6%	-6%	2%
Government	0%	0%	11%	9%	12%	1%	15%	13%	3%	16%	4%	18%	16%	17%	6%	16%	18%	20%	9%	17%	12%	10%	17%	6%	11%	-3%	10%	12%	9%	16%	12%	-8%	0%	3%	3.1%	7%	0%	1%	-6%	-4%	-5%	-8%	-7%	3%	5%	7%	-0.9%	-2%
Semicon	3%	21%	26%	22%	33%	22%	20%	23%	33%	27%	20%	23%	33%	29%	37%	30%	36%	33%	22%	23%	17%	6%	21%	3%	0%	20%	0%	0%	7%	0%	-4%	-9%	-12%	-2%	20.0%	6%	7%	9%	-19%	-11%	0%	-2%	-3%	5%	0%	7%	23.1%	17%
Heavy-Duty Truck	8%	6%	22%	14%	17%	20%	21%	18%	21%	21%	23%	26%	31%	29%	29%	26%	32%	22%	23%	32%	28%	25%	21%	16%	22%	20%	24%	15%	12%	6%	8%	-4%	4%	2%	-2%	3%	1%	-5%	-23%	-30%	-33%	-33%	-29%	-19%	-17%	-8%	-6%	-3%
Construction Equipment	7%	-1%	23%	22%	20%	22%	26%	23%	27%	26%	37%	23%	32%	35%	31%	36%	38%	34%	31%	34%	35%	33%	32%	25%	30%	24%	30%	19%	25%	18%	15%	3%	11%	4%	-3%	4%	0%	-1%	-18%	-35%	-31%	-22%	-24%	-17%	-9%	-1%	-4%	4%
Industrial Machinery	14%	13%	21%	24%	17%	23%	22%	25%	25%	28%	26%	24%	28%	33%	33%	29%	34%	31%	26%	30%	32%	30%	29%	25%	26%	23%	27%	23%	13%	15%	12%	0%	8%	6%	-1%	-2%	4%	0%	-16%	-30%	-29%	-24%	-22%	-13%	-8%	-3%	-12%	1%
Marine	5%	0%	17%	7%	12%	9%	8%	12%	9%	6%	14%	17%	17%	14%	20%	22%	18%	21%	31%	22%	15%	14%	10%	12%	11%	13%	15%	21%	13%	8%	6%	3%	5%	-1%	-3%	9%	7%	10%	-20%	-23%	-29%	-20%	-11%	-12%	-3%	-4%	-15%	-2%
Power Generation	6%	-4%	17%	8%	16%	10%	8%	9%	10%	10%	6%		11%	6%	15%	12%	16%	9%	25%	21%	10%	11%	9%	7%	11%	7%	5%	9%	5%	9%	4%	4%	3%	4%	0%	-2%	7%	-4%	-5%	-14%	-18%	-15%	-12%	-6%	-4%	-7%	0%	-2%
MRO	22%	21%	30%	26%	25%	24%	23%	29%	26%	31%	33%	28%	32%	31%	37%	37%	37%	33%	16%	35%	29%	33%	29%	23%	28%	22%	21%	19%	19%	16%	12%	3%	14%	6%	6%	4%	10%	9%	-10%	-24%	-28%	-15%	-13%	-4%	-2%	5%	0%	6%
Process	15%	4%	21%	19%	20%	19%	20%	21%	16%	22%	19%	19%	22%	25%	28%	22%	31%	23%	15%	25%	27%	20%	19%	17%	17%	19%	18%	16%	10%	10%	13%	13%	8%	12%	1.6%	9%	0%	4%	-8%	-17%	-22%	-16%	-16%	-7%	-3%	4%	4.3%	-1%
Aerospace	17%	15%	24%	21%	23%	25%	13%	20%	13%	27%	23%	28%	28%	30%	23%	17%	20%	24%	13%	29%	35%	24%	27%	21%	21%	21%	10%	11%	15%	9%	2%	-2%	16%	0%	7%	2%	10%	-2%	-29%	-40%	-44%	-39%	-35%	-32%	-35%	-26%	-31%	-26%
Food & Beverage	14%	16%	19%	17%	20%	22%	20%	24%	21%	21%	20%	15%	28%	26%	33%	30%	30%	23%	23%	19%	26%	24%	20%	19%	22%	21%	18%	18%	18%	14%	11%	13%	9%	13%	9.8%	6%	10%	12%	4%	-2%	-1%	-1%	3%	7%	14%	15%	12.4%	15%
Life Sciences	15%	14%	25%	18%	20%	23%	29%	24%	23%	22%	21%	19%	35%	28%	29%	28%	35%	17%	14%	28%	28%	25%	17%	17%	20%	21%	19%	13%	21%	7%	4%	6%	5%	6%	3.5%	7%	0%	18%	12%	8%	1%	3%	4%	-1%	17%	19%	22.2%	9%
Automotive	15%	23%	21%	16%	13%	16%	15%	11%	16%	19%	23%	24%	24%	27%	28%	19%	23%	19%	11%	11%	18%	15%	11%	2%	5%	4%	0%	9%	1%	0%	-2%	-3%	-8%	-8%	-8%	-7%	-7%	-12%	-42%	-52%	-48%	-40%	-27%	-19%	-19%	-11%	-16%	-10%
Forestry	-11%	-19%	2%	-2%	3%	0%	10%	3%	15%	11%	15%	26%	17%	21%	17%	14%	22%	7%	28%	14%	7%	9%	17%	11%	9%	7%	14%	6%	11%	1%	4%	-3%	-1%	-3%	-4%	-12%	-8%	-10%	-31%	-29%	-34%	-30%	-21%	-9%	-3%	0%	-2%	-2%
Overall Average	**5%**	**3%**	**18%**	**15%**	**16%**	**15%**	**17%**	**18%**	**18%**	**20%**	**22%**	**22%**	**25%**	**25%**	**26%**	**25%**	**28%**	**23%**	**22%**	**25%**	**23%**	**21%**	**20%**	**15%**	**17%**	**15%**	**15%**	**13%**	**12%**	**8%**	**5%**	**-1%**	**2%**	**0%**	**-1%**	**-1%**	**0%**	**-1%**	**-18%**	**-25%**	**-26%**	**-22%**	**-19%**	**-13%**	**-9%**	**-5%**	**-6%**	**-3%**

End Markets	2021												2022												2023												2024											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
MRO	14%	16%	33%	37%	36%	38%	42%	36%	38%	40%	38%	39%	39%	38%	41%	33%	35%	37%	31%	33%	29%	31%	24%	23%	25%	29%	28%	17%	21%	20%	14%	16%	13%	8%	9%	7%	9%	16%	10%	9%	8%	8%	11%	8%	11%	9%	6%	7%
Aerospace	-29%	-5%	2%	-4%	5%	6%	11%	7%	16%	4%	11%	6%	10%	24%	22%	13%	19%	20%	15%	18%	13%	15%	19%	9%	16%	23%	17%	11%	17%	3%	6%	10%	16%	9%	3%	4%	4%	11%	10%	4%	1%	7%	5%	0%	-4%	7%	2%	2%
Automotive	-2%	4%	9%	12%	21%	16%	20%	13%	5%	13%	14%	18%	20%	14%	16%	20%	23%	15%	10%	20%	9%	16%	13%	4%	18%	11%	11%	8%	5%	7%	5%	-1%	-4%	-1%	2%	-9%	-4%	-3%	0%	6%	-5%	-10%	-5%	-4%	-7%	-8%	-6%	-8%
Construction Equipment	12%	23%	33%	33%	39%	33%	42%	33%	37%	37%	36%	39%	37%	40%	43%	34%	35%	28%	31%	33%	24%	25%	23%	16%	26%	26%	20%	13%	18%	22%	10%	12%	6%	3%	7%	6%	3%	5%	4%	3%	1%	-4%	-1%	-9%	-10%	-13%	-22%	-16%
Heavy-Duty Truck	8%	13%	23%	24%	30%	31%	36%	30%	31%	32%	28%	38%	34%	36%	35%	32%	29%	25%	27%	27%	23%	25%	23%	14%	23%	18%	14%	12%	17%	14%	12%	12%	5%	5%	14%	6%	2%	6%	9%	6%	3%	0%	1%	-9%	-8%	-1%	-15%	-11%
Agricultural Machinery	9%	22%	27%	24%	27%	31%	35%	29%	30%	30%	27%	36%	28%	35%	33%	31%	34%	27%	28%	28%	19%	26%	21%	19%	24%	25%	12%	13%	9%	9%	3%	4%	-3%	-1%	1%	-5%	-1%	-6%	-5%	-9%	-14%	-17%	-14%	-22%	-26%	-25%	-32%	-36%
Industrial Machinery	6%	16%	30%	27%	31%	38%	35%	35%	37%	33%	30%	36%	36%	39%	38%	33%	36%	28%	29%	28%	21%	20%	17%	17%	24%	21%	18%	12%	15%	15%	5%	9%	7%	3%	5%	4%	6%	7%	4%	5%	-1%	-6%	-2%	-3%	-4%	-2%	-14%	-11%
Mining	-13%	-6%	5%	3%	10%	13%	17%	14%	18%	25%	21%	24%	30%	31%	27%	27%	29%	20%	19%	26%	16%	19%	8%	10%	13%	13%	15%	7%	12%	10%	4%	9%	9%	5%	1%	-1%	0%	-1%	-10%	-1%	-7%	-10%	-13%	-8%	-11%	-18%	-18%	-19%
Oil & Gas	-37%	-25%	4%	4%	9%	10%	24%	8%	14%	22%	20%	32%	28%	38%	36%	37%	36%	33%	26%	28%	26%	27%	27%	22%	27%	25%	27%	15%	18%	19%	13%	12%	10%	6%	3%	0%	5%	1%	-5%	-3%	1%	-6%	-8%	0%	0%	0%	0%	-5%
Food & Beverage	5%	20%	31%	35%	35%	32%	41%	31%	35%	28%	33%	33%	27%	28%	36%	32%	30%	31%	23%	29%	16%	20%	19%	19%	21%	14%	14%	10%	13%	8%	13%	10%	0%	7%	10%	8%	8%	11%	4%	11%	7%	4%	6%	9%	1%	3%	0%	3%
Life Sciences	16%	23%	33%	33%	36%	37%	40%	29%	29%	35%	35%	35%	34%	30%	27%	28%	28%	20%	20%	23%	14%	17%	17%	18%	18%	22%	15%	6%	5%	14%	10%	5%	-4%	-3%	3%	8%	8%	7%	1%	4%	4%	-2%	-1%	0%	6%	2%	2%	2%
Marine	-11%	-1%	13%	13%	17%	12%	20%	11%	23%	15%	18%	14%	17%	20%	27%	24%	17%	19%	12%	19%	8%	14%	8%	12%	14%	10%	6%	4%	4%	8%	4%	2%	-3%	-4%	-4%		-3%	2%	-1%	7%	-1%	0%	-1%	-2%	-2%	-1%	4%	0%
Power Generation	1%	6%	20%	19%	17%	25%	25%	18%	25%	19%	17%	22%	25%	20%	25%	24%	17%	14%	15%	23%	13%	12%	12%	12%	16%	15%	15%	12%	9%	9%	-1%	5%	3%	0%	4%	0%	8%	7%	3%	8%	2%	-1%	-1%	0%	-7%	3%	-8%	3%
Process	4%	18%	30%	31%	27%	31%	36%	24%	31%	28%	30%	32%	28%	33%	31%	27%	26%	30%	22%	28%	18%	17%	17%	18%	19%	18%	19%	8%	10%	15%	2%	8%	8%	-1%	6%	4%	10%	10%	6%	7%	3%	0%	2%	2%	1%	2%	5%	6%
Forestry	10%	16%	18%	24%	31%	30%	25%	25%	32%	25%	24%	24%	30%	38%	32%	21%	22%	20%	21%	17%	12%	11%	13%	9%	11%	15%	8%	5%	-6%	2%	-3%	-6%	-6%	-4%	-4%		-13%	-9%	-15%	-10%	-9%	-8%	-15%	-15%	-14%	-16%	-8%	
Government	0%	15%	23%	22%	20%	18%	19%	26%	24%	19%	15%	14%	25%	15%	25%	17%	20%	9%	15%	13%	6%	1%	6%	10%	16%	17%	10%	9%	10%	11%	9%	9%	11%	6%	7%	9%	7%	10%	4%	10%	6%	3%	3%	-5%	4%	0%	-14%	-6%
Semicon	23%	33%	48%	44%	33%	50%	42%	41%	50%	61%	42%	47%	40%	48%	40%	31%	33%	30%	33%	24%	28%	13%	10%	-3%	2%	16%	2%	-6%	5%	6%	0%	-9%	-12%	-11%	-10%	-23%	-3%	-8%	-28%	-15%	-13%	-14%	-11%	-9%	-5%	-10%	-9%	0%
Overall Average	**1%**	**11%**	**22%**	**23%**	**25%**	**27%**	**30%**	**24%**	**28%**	**27%**	**26%**	**29%**	**29%**	**31%**	**31%**	**27%**	**28%**	**24%**	**22%**	**24%**	**17%**	**18%**	**16%**	**14%**	**18%**	**19%**	**15%**	**9%**	**11%**	**11%**	**6%**	**6%**	**3%**	**1%**	**4%**	**1%**	**3%**	**4%**	**0%**	**3%**	**0%**	**-3%**	**-1%**	**-5%**	**-5%**	**-3%**	**-8%**	**-6%**

Source: Industry Association Survey

Price Feedback Sounds Mixed

Price sounds largely unchanged vs. last check with realization appearing to be stabilizing following downward pressure tied to soft demand, competition and less supplier price increases.

Stabilization appears to be supported by supplier price increases (2%-5% on average) that were announced in mid-November, which were largely expected to go into effect in January. Respondents expect realization to be limited by muted demand outlooks and expectations for competition to persist.
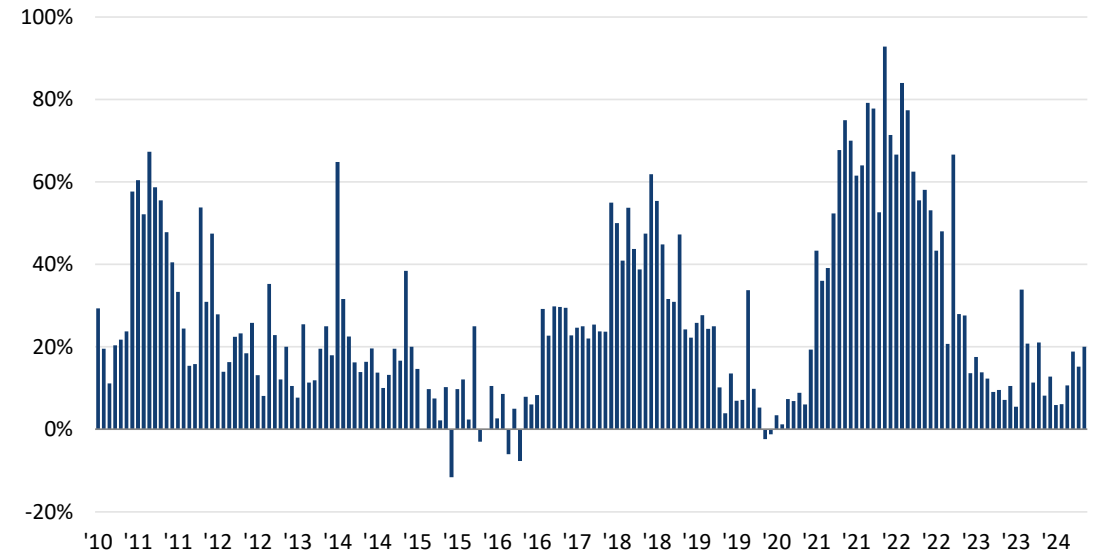
Estimated Price Realization
(3-MMA)
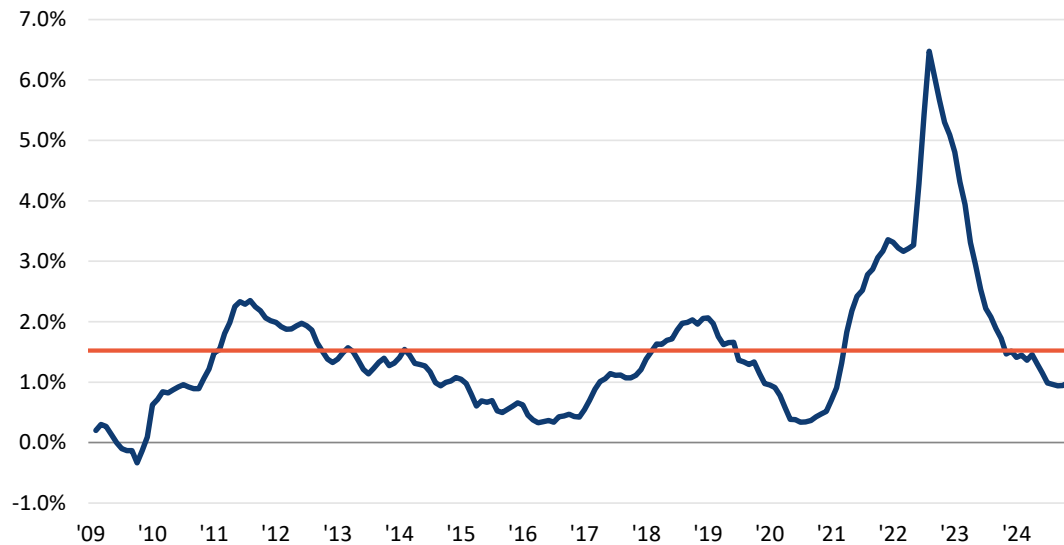
Price vs. Prior Month
(net % high - lower)

2025 Outlook Unchanged

Respondents maintained their 2025 sales forecast for up 1%-3% on average, which was raised in November following the election. While respondents left the outlook unchanged, post-election optimism sounds more subdued this round of checks with respondents highlighting concerns around a slower rate cut trajectory vs. initially expected. Quoting activity does appear elevated post-election, though conversion on quoting appears slower than expected.

Respondents expect weakness to persist into C1Q and then improve in 2Q and step up in 2H.

Sales Growth Forecast Progression

Legend: 2023 — 2024 — 2025
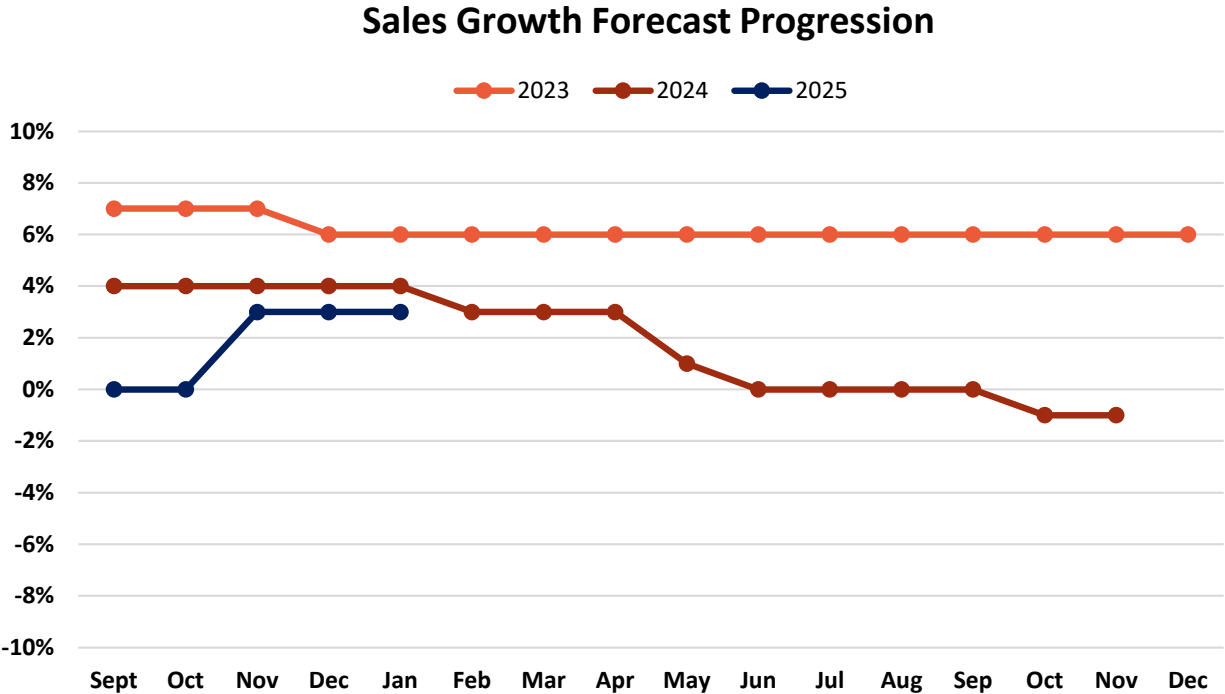
Economic Data

Industrial Economy Indicators

Industrial

U.S. Industrial Production
y/y %
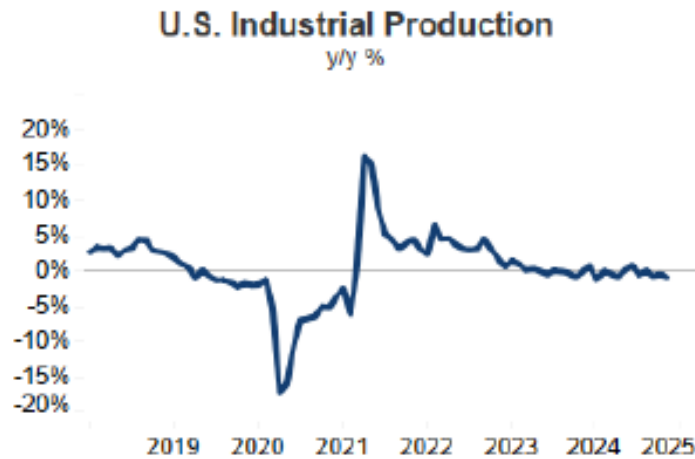
Source: Board of Governors of the Federal Reserve System / FRED

Manufactures' New Orders
Durable Goods, y/y %, SA

Source: U.S. Census Bureau / Bloomberg

Rotary Rig Count
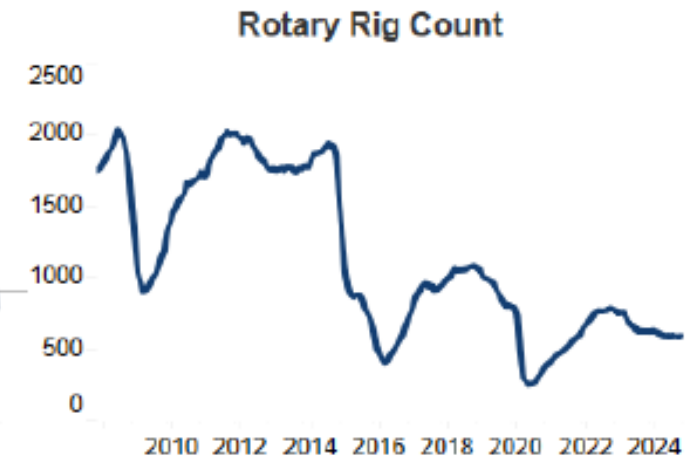
Source: Baker Hughes / Bloomberg

ISM Manufacturing: PMI Index

Source: ISM / Bloomberg

ISM Manufacturing - New Orders

Source: ISM / Bloomberg

ISM Manufacturing - Supplier Deliveries

Source: ISM / Bloomberg

Capacity Utilization at 77.6% in December vs. 76.8% in November

Capacity Utilization
Seasonally Adjusted, %
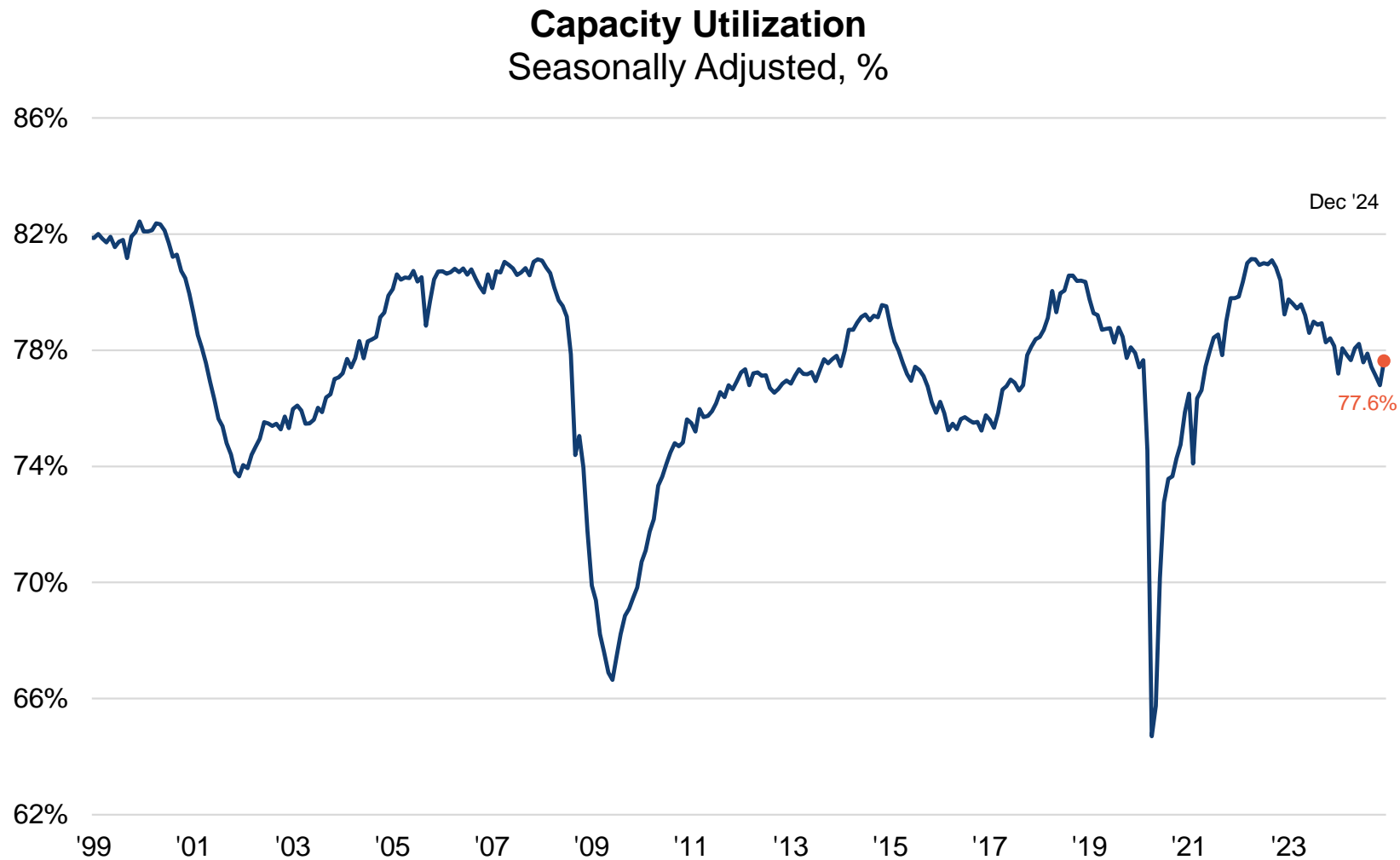
Source: FRED

Rig Count Down 4% y/y in December and Down 5% Sequentially

US and Canada Monthly Rig Count

Dec '24

Average # of active rigs

-4% y/y

Source: BHI, Cleveland Research estimates

Crude Oil (WTI)

price per barrel

Source: Factset
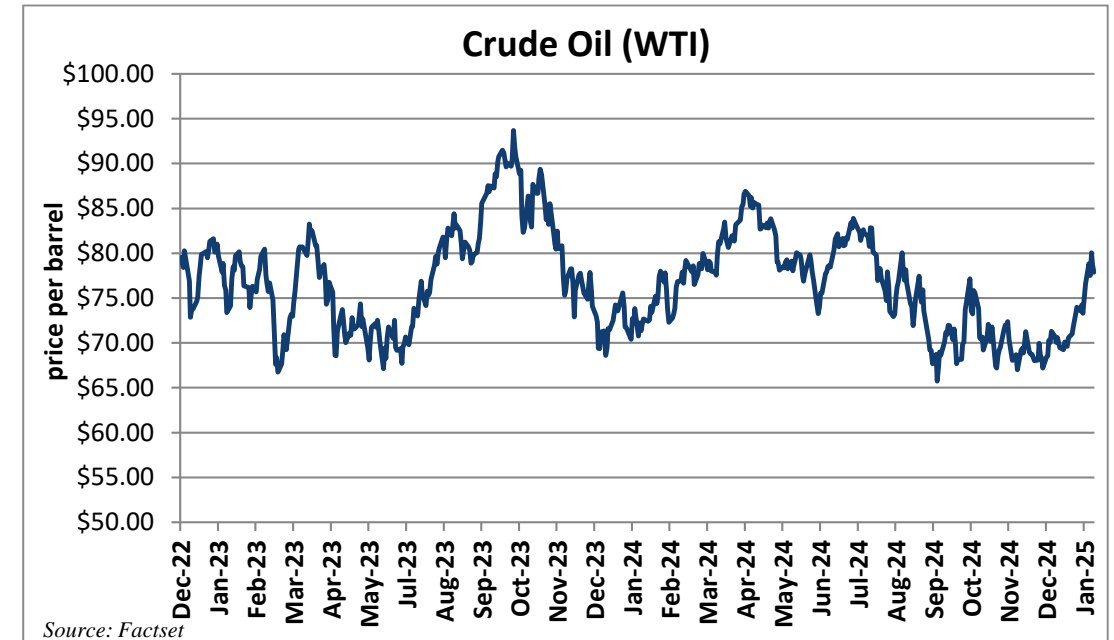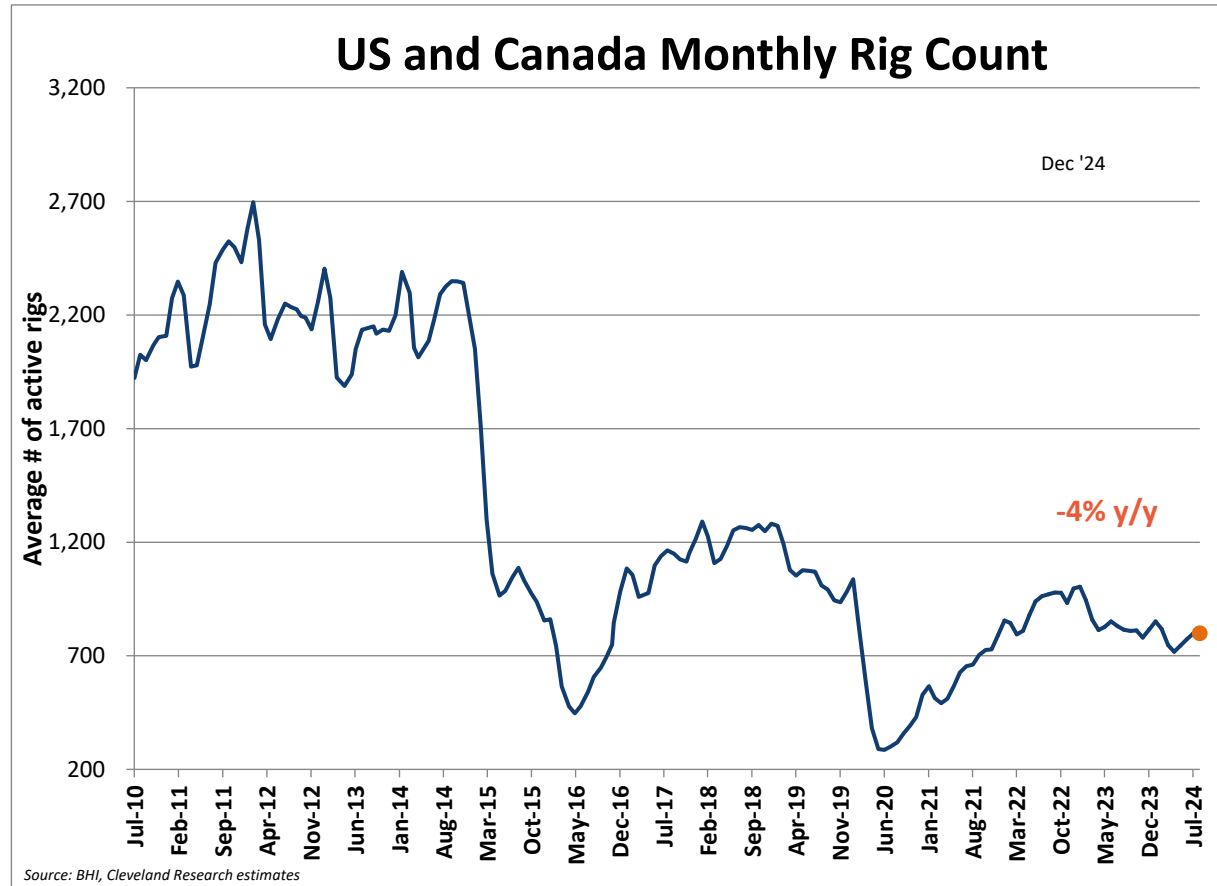
Crude Oil (WTI)		
Price per barrel	YTD Change	9%
1 year ago	$72.56	7%
6 months ago	$82.85	-6%
3 months ago	$70.67	10%
1 month ago	$70.08	11%
Current price	$77.88	

Economic Data

Automotive, Truck, and Ag

4Q North America Production Estimates Finished up 1% vs. Expectations for Flat

North America Vehicle Production Outlook (000s)													
Units thousands	**1Q24**	**2Q24**	**3Q24**	**4Q24**	**1Q25E**	**2Q25E**	**3Q25E**	**4Q25E**		**2022**	**2023**	**2024**	**2025E**
United States	2,669	2,689	2,471	2,420	2,523	2,608	2,551	2,418		9,783	10,282	10,248	10,100
Canada	360	342	300	327	338	343	323	328		1,222	1,535	1,328	1,333
Mexico	922	1,047	983	993	963	1,067	1,066	996		3,263	3,743	3,944	4,093
Total NAFTA Build	**3,950**	**4,077**	**3,753**	**3,740**	**3,824**	**4,019**	**3,941**	**3,741**		**14,269**	**15,561**	**15,521**	**15,526**
% change y/y													
United States	3%	0%	-4%	0%	-5%	-3%	3%	0%		7%	5%	0%	-1%
Canada	-3%	-15%	-24%	-11%	-6%	1%	8%	0%		6%	26%	-14%	0%
Mexico	1%	9%	3%	8%	5%	2%	9%	0%		9%	15%	5%	4%
Total NAFTA Build	**2%**	**0%**	**-4%**	**1%**	**-3%**	**-1%**	**5%**	**0%**		**11%**	**9%**	**0%**	**0%**

Source: Wards, Cleveland Research, December 2024

December Class 8 Orders Up 38% y/y

N. American Class 8 Industry Net Orders
Thousands of units
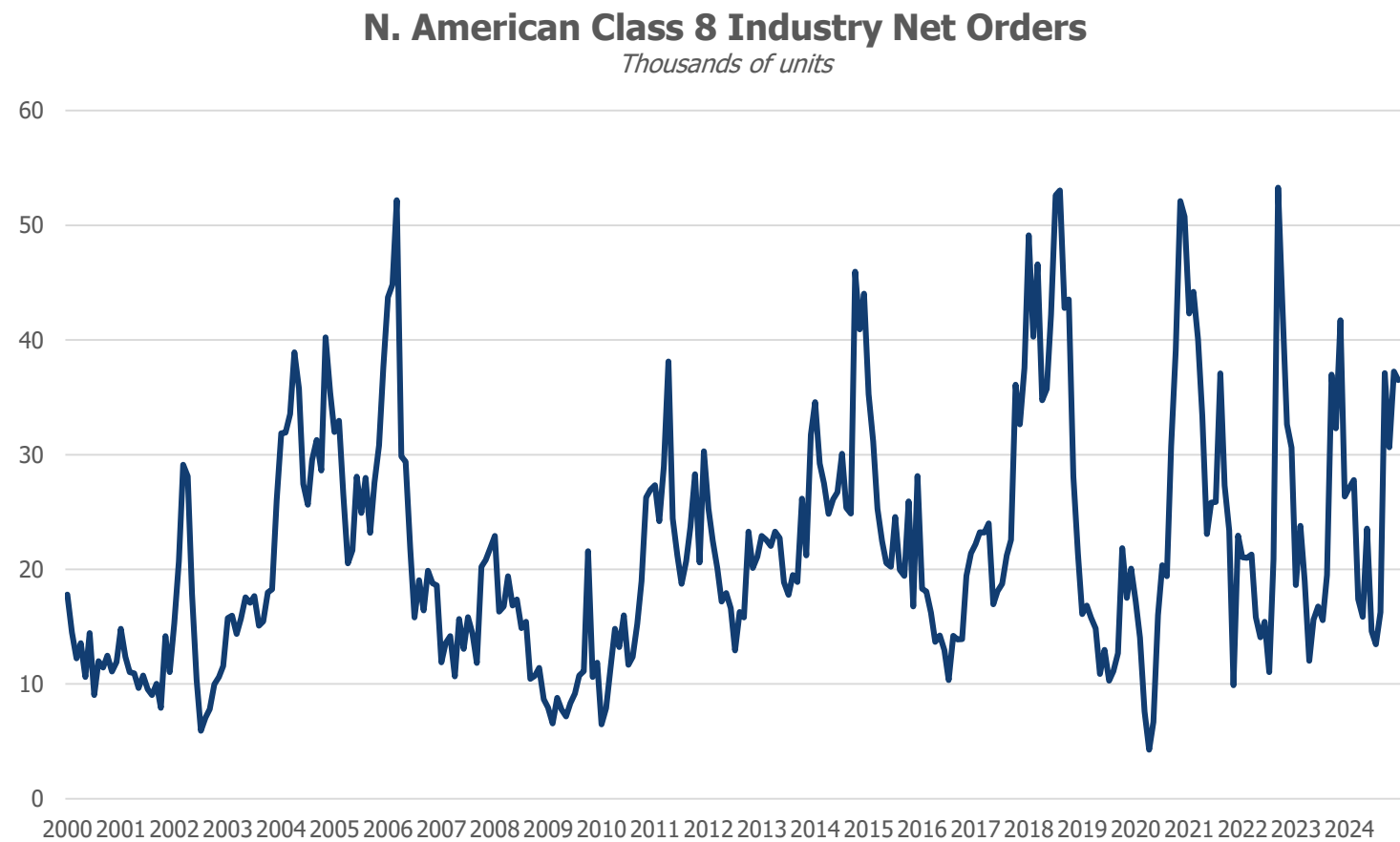
Source: ACT Research, CRC estimates

U.S. & Canada Ag Industry

U.S. & Canada Industry HHP Tractor & Combine Sales

Source: AEM, CRC estimates
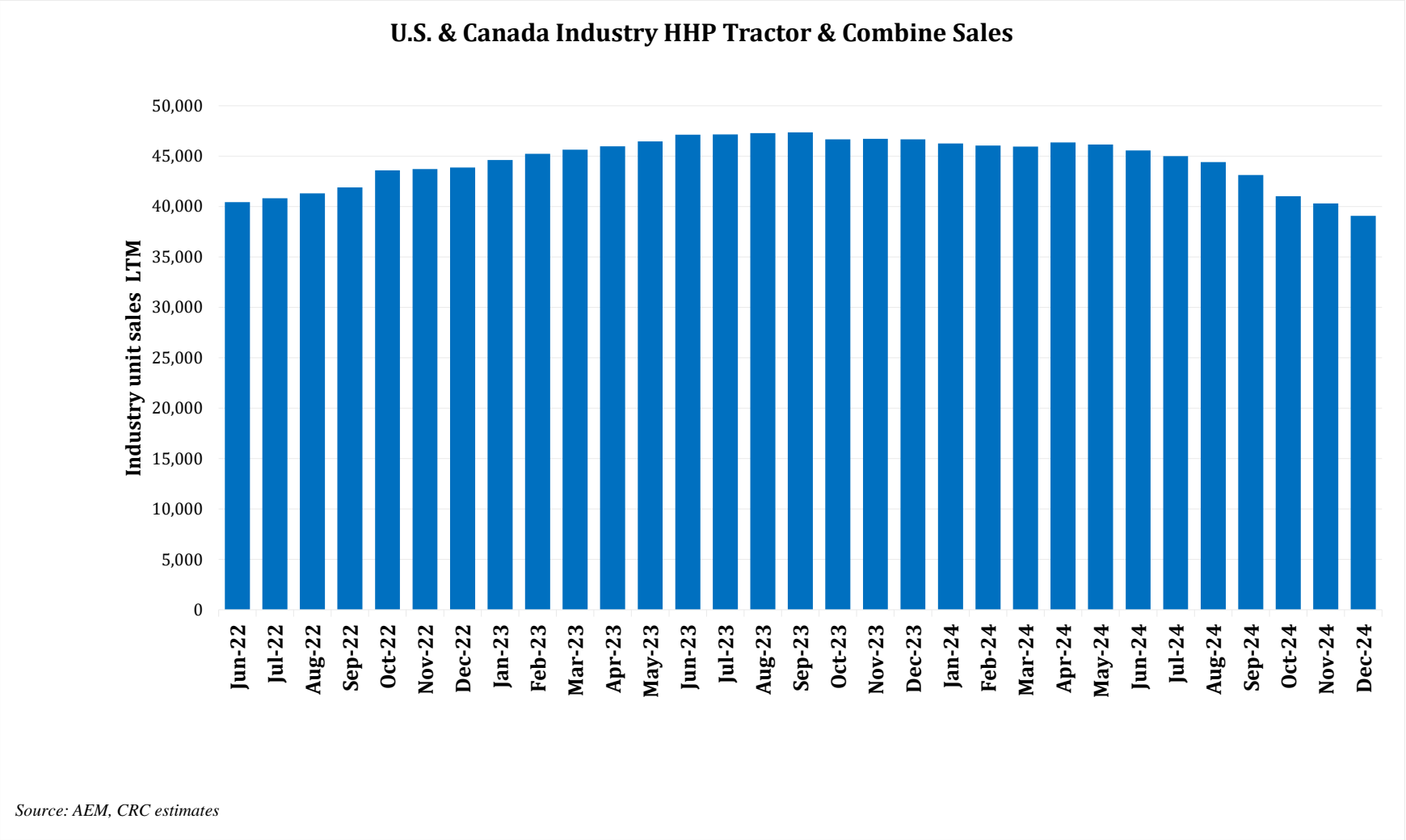
Economic Data

Macroeconomic Indicators

Raw Materials

Crude Oil (WTI)

$/Barrel	YTD Change	6%
1 year ago	$73.41	3%
6 months ago	$80.13	-5%
3 months ago	$70.56	8%
1 month ago	$69.46	9%
Current price	$75.89	

Crude Oil (WTI)

Source: Factset
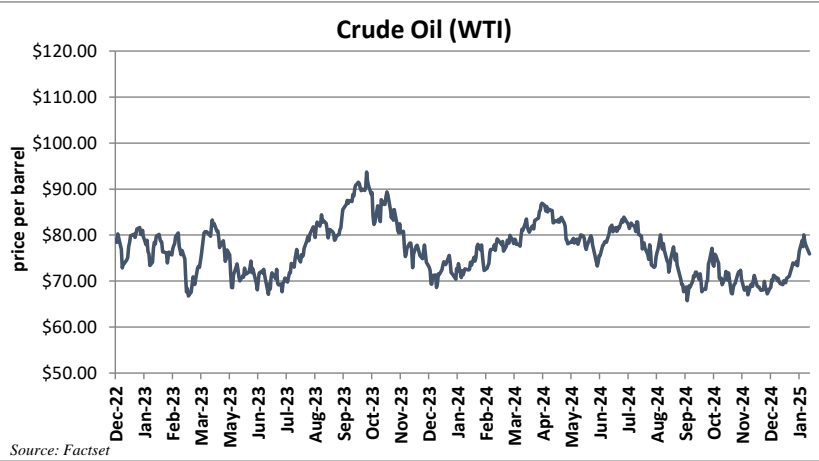
Natural Gas

$/Mmbtu	YTD Change	3%
1 year ago	$2.52	49%
6 months ago	$2.13	77%
3 months ago	$2.31	62%
1 month ago	$3.75	0%
Current price	$3.76	

Natural Gas

Source: Factset
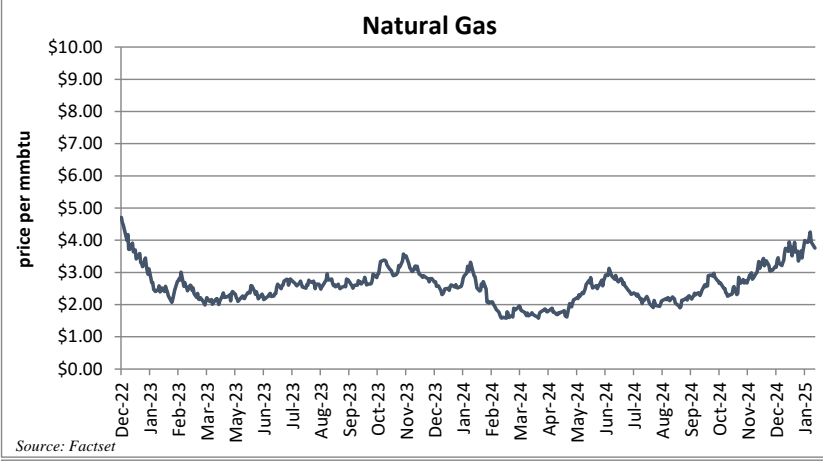
Polypropylene

$/Ton	YTD Change	0%
1 year ago	$1,030.48	-1%
6 months ago	$1,062.29	-4%
3 months ago	$1,081.70	-5%
1 month ago	$1,032.57	-1%
Current price	$1,024.23	

Polypropylene

Source: Factset
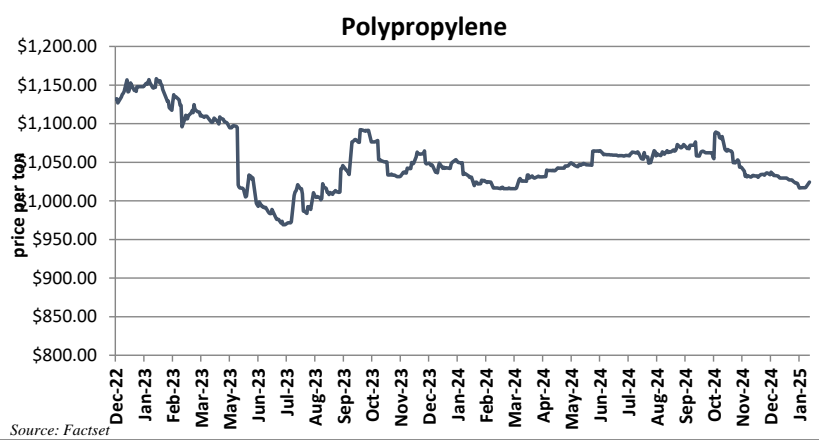
Butadiene Rubber

$/Ton	YTD Change	1%
1 year ago	$1,679.86	10%
6 months ago	$2,088.20	-11%
3 months ago	$2,296.29	-19%
1 month ago	$1,837.78	1%
Current price	$1,852.63	

Butadiene Rubber

Source: Factset
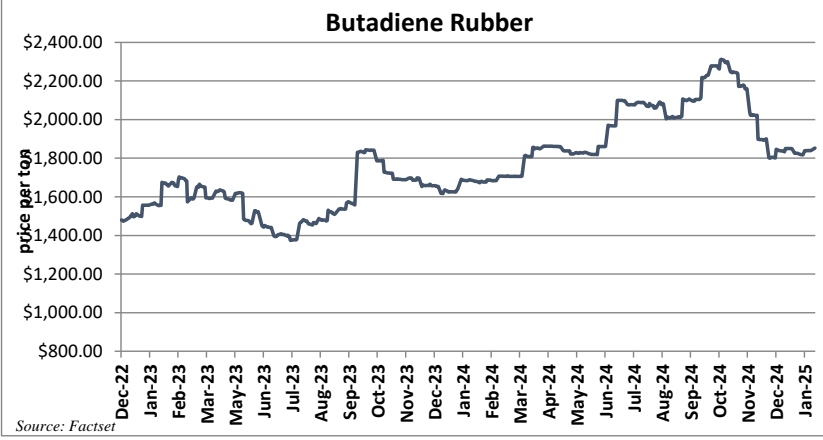
Raw Materials

Domestic Hot Rolled Steel

Domestic HR Steel		
$/ton	YTD Change	-3%
1 year ago	$1,070.00	-36%
6 months ago	$657.00	5%
3 months ago	$705.00	-2%
1 month ago	$679.00	1%
Current price	$688.00	

Source: Factset
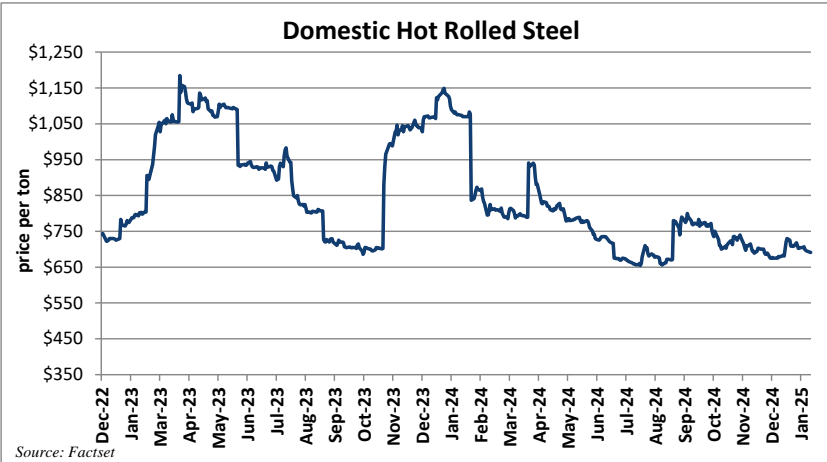
Copper

Copper		
$/ton	YTD Change	8%
1 year ago	$3.79	13%
6 months ago	$4.24	1%
3 months ago	$4.36	-2%
1 month ago	$4.10	5%
Current price	$4.29	

Source: Factset
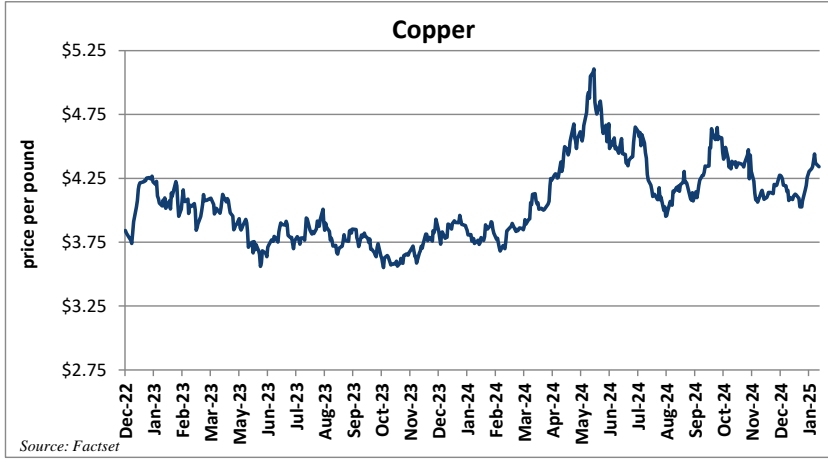
Aluminum

Aluminum		
$/ton	YTD Change	5%
1 year ago	$2,122.00	24%
6 months ago	$2,312.00	14%
3 months ago	$2,582.50	2%
1 month ago	$2,483.00	6%
Current price	$2,635.50	

Source: Factset
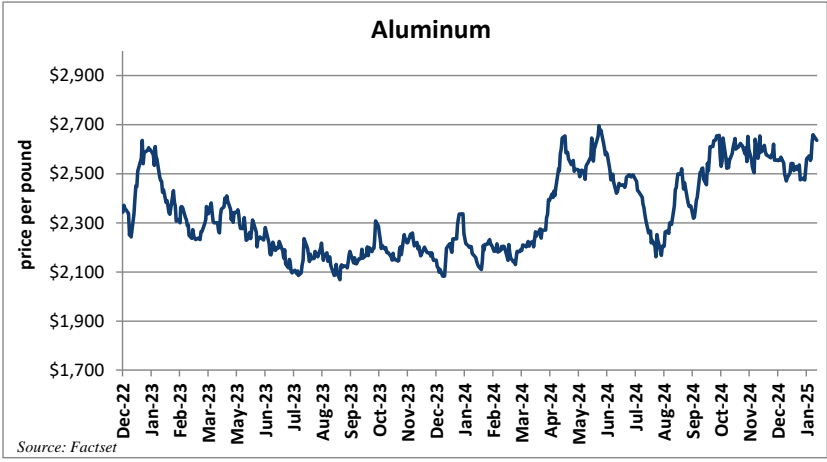
Iron Ore

Iron Ore		
$/ton	YTD Change	-2%
1 year ago	$135.88	-25%
6 months ago	$108.45	-6%
3 months ago	$101.62	0%
1 month ago	$103.84	-2%
Current price	$101.59	

Source: Factset
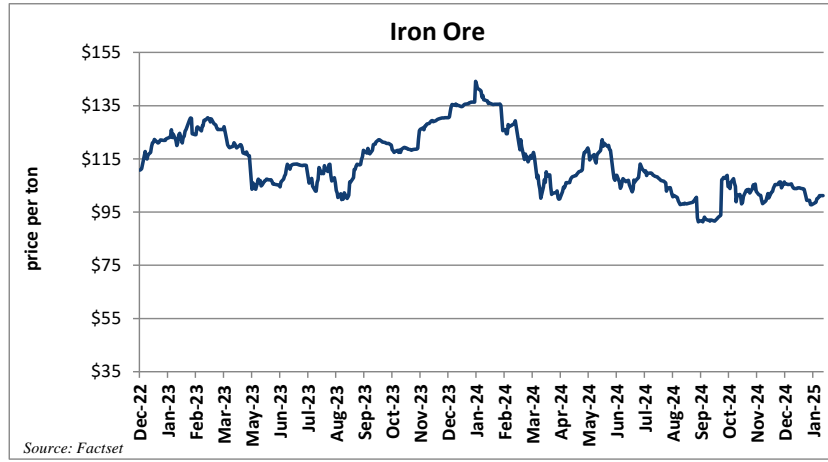
Raw Materials

Nickel		
$/ton	YTD Change	5%
1 year ago	$15,935.00	-1%
6 months ago	$16,105.00	-2%
3 months ago	$16,715.00	-5%
1 month ago	$14,965.00	6%
Current price	$15,850.00	

Source: Factset

Lumber		
$/bf	YTD Change	6%
1 year ago	$548.00	7%
6 months ago	$501.50	17%
3 months ago	$526.00	11%
1 month ago	$569.00	3%
Current price	$584.50	

Source: Factset

Zinc		
$/ton	YTD Change	-3%
1 year ago	$2,459.00	17%
6 months ago	$2,717.00	6%
3 months ago	$3,123.00	-8%
1 month ago	$2,958.00	-2%
Current price	$2,887.00	

Source: Factset

Labor Market

Unemployment Rate

Source: Fred

Average Hourly Earnings Growth (y/y)
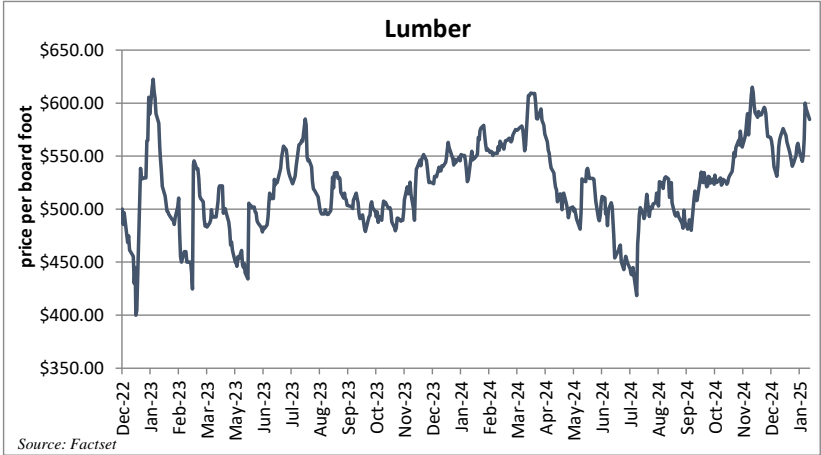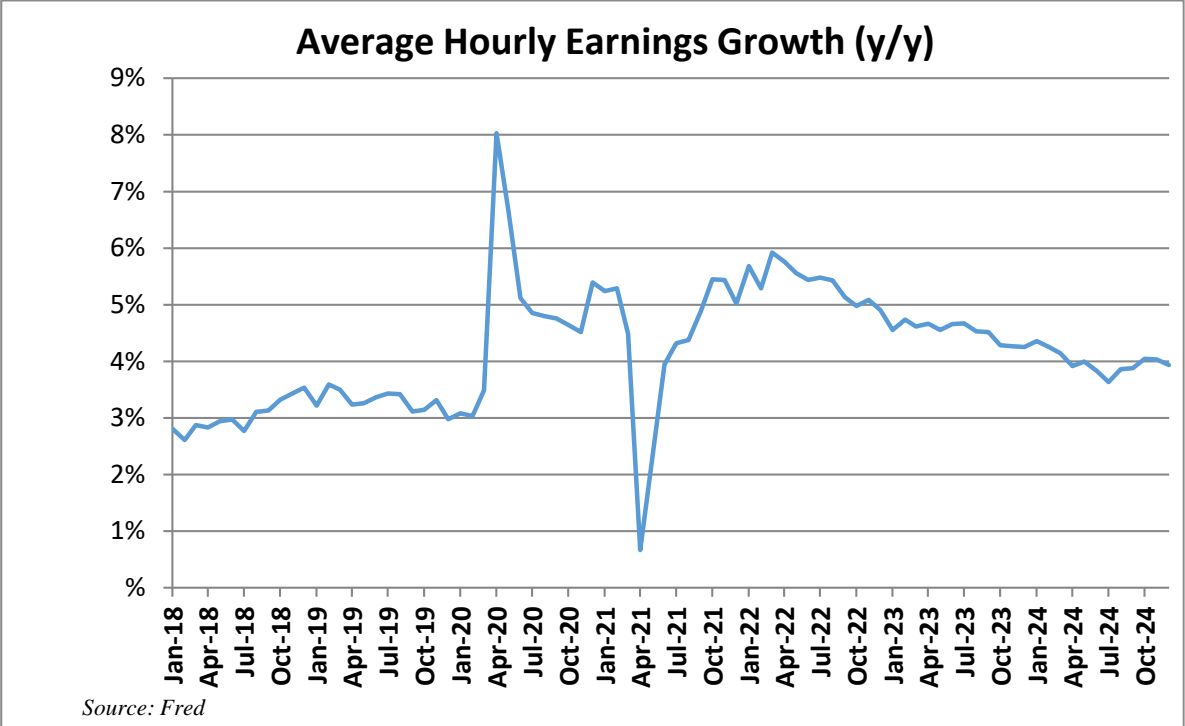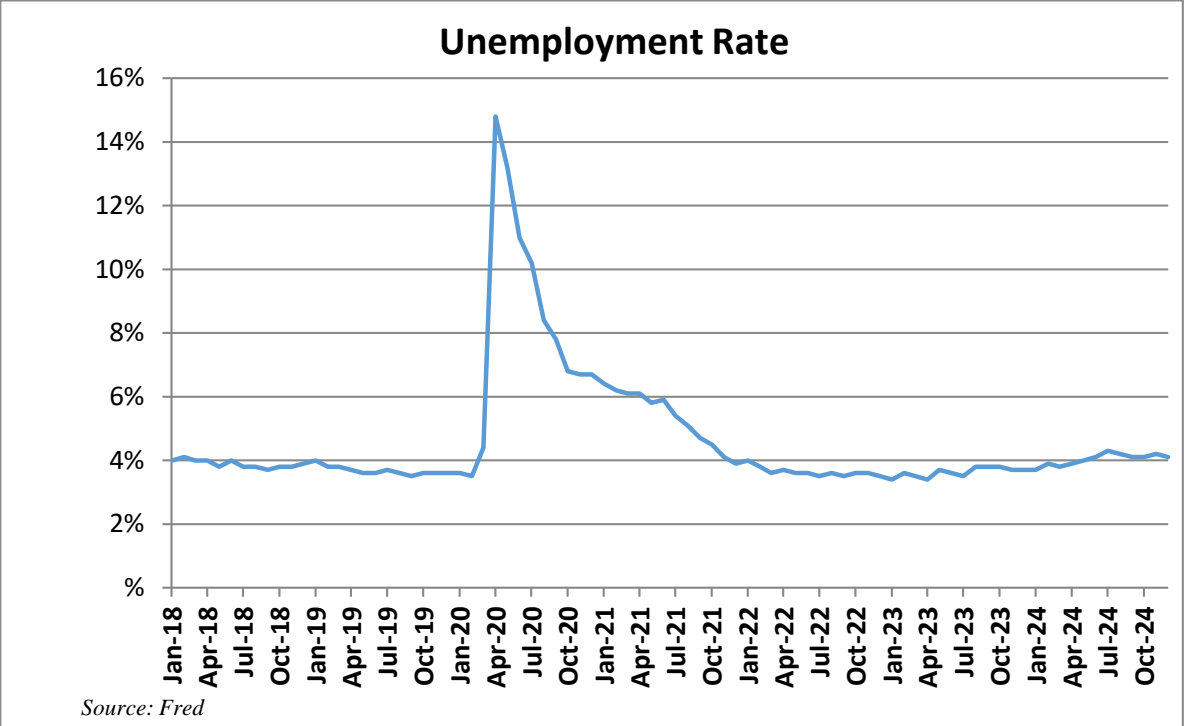
Source: Fred

Inflation

Headline Consumer Inflation
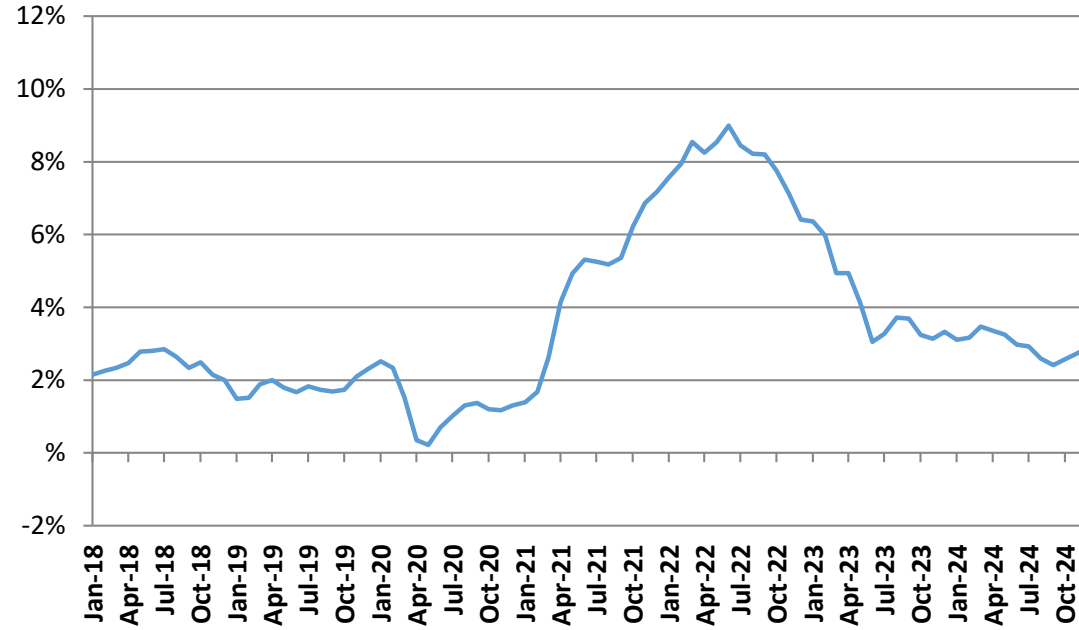
Source: Fred

Core Consumer Inflation

Source: Fred

Appendix