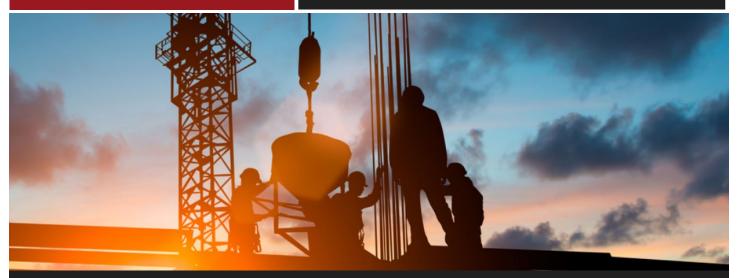
MOCA + Touchplan

MOCA Systems, Inc.

Today's Construction Economy



Second Quarter 2024

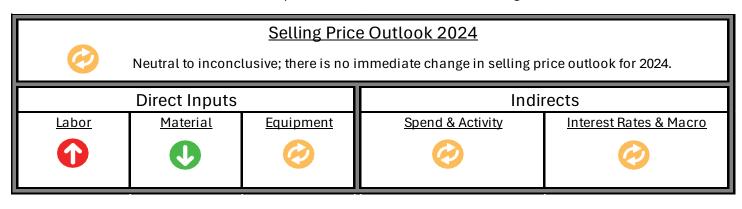
MOCA Systems, Inc

Executive Summary

U.S. nonresidential construction spend is elevated but slowing, backlogs remain high, and the project pipeline has shifted into low gear. Construction wages and active employment continue to increase even as the number of job openings has declined, highlighting the need for qualified workers as retirements continue. Material prices, aside from copper and aluminum, have generally moved down, and most logistics issues have begun to resolve. Although there are a slew of softening macroeconomic factors coupled with elevated interest rates, the construction market appears to be taking them in stride with limited impacts. Ultimately, when we look at the rest of 2024, we do not anticipate any price action either up or down to selling price, and we continue to anticipate elevated levels going forward.

The Market's Message

Indicators continue to suggest that the market remains at a strong peak with some end-market variation. The immediate implication for 2024 selling price is that it will remain high and steady. There has been some softening in fundamentals though, and we expect a continued reduction in contractor backlog which would set conditions for a softer selling price in 2025. We look at both direct and indirect inputs to determine The Market's Message.



The leading services and software provider for the Architecture, Engineering, and Construction industry

Direct Inputs — Labor

Even as the overall U.S. unemployment rate increased to 4.1% in June,¹ construction labor continues to reflect strength with 27K active workers added from May to June² and a 1.07% increase in hourly earnings Q/Q.³ Perhaps in a sign of some normalization, construction job openings fell at the end of the first quarter⁴ and quits increased to their highest level in 12 months.⁵ Even with some signs of cooling, demand for labor remains robust.

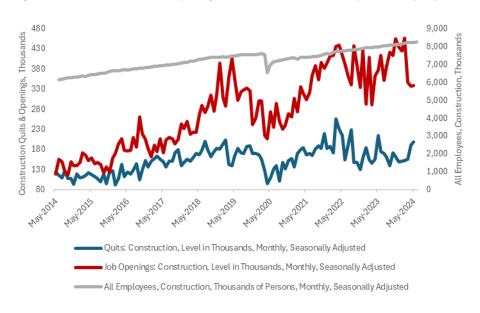


Figure 1: Construction Quits and Openings, Level in Thousands, Monthly, Seasonally Adjusted

Source: U.S. Bureau of Labor Statistics

"... the headline job growth number emerging from the establishment survey may be overstating U.S. economic strength while also delaying the Federal Reserve's response to potentially emerging economic weakness."

- Anirban Basu, Chief Economist, Associated Builders and Contractors (ABC), June 2024⁶

"I continue to believe that nonresidential contractors remain very busy overall and are eager to hire more workers."

- Ken Simonson, Chief Economist, Associated General Contractors of America (AGC), June 2024⁷

The Market's Message

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Labor continues to be strong despite some normalization in job openings. Due to structural demographic shifts demand for skilled labor is anticipated to outstrip supply for the foreseeable future. We anticipate labor to sustain upward pressure on selling price in 2024.

¹ Unemployment Rate (UNRATE) | FRED | St. Louis Fed (stlouisfed.org)

² All Employees, Construction (U.S.CONS) | FRED | St. Louis Fed (stlouisfed.org)

³ Average Hourly Earnings of All Employees, Construction (CES2000000003) | FRED | St. Louis Fed (stlouisfed.org)

⁴ Job Openings: Construction (JTS2300JOL) | FRED | St. Louis Fed (stlouisfed.org)

⁵ Quits: Construction (JTS2300QUL) | FRED | St. Louis Fed (stlouisfed.org)

⁶ News Releases | ABC: Nonresidential Construction Adds 17,100 Jobs

⁷ Construction's labor shortage continues, despite dip in open jobs | Construction Dive

Direct Inputs — Material

A short squeeze in copper on the Chicago Mercantile Exchange (CME) skyrocketed U.S. prices to a record high \$5.18/lb on May 15th, a \$0.45/lb premium over the London Metals Exchange (LME) price across the Atlantic⁸ which has pushed finished copper prices higher. This contrasts movement in most other materials; lumber, aggregates, as well as steel and iron have all softened recently. There has been little change in new orders for construction materials since Dec 2021,⁹ and order backlog has hovered around \$100M since about the same time.¹⁰

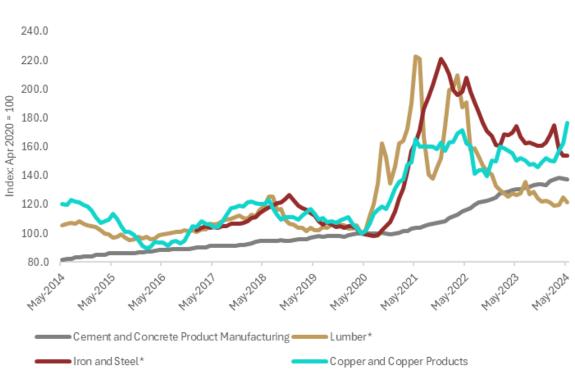


Figure 2: Construction Materials PPIs, Index (Apr 2020 = 100), Monthly, Seasonally Adjusted Where Noted (*)

Source: U.S. Bureau of Labor Statistics

"With contractor confidence regarding profit margins at the lowest level in seven months according to ABC's Construction Confidence Index, falling materials prices and the prospect of lower interest rates in 2024 are welcome developments for the construction industry."

The Market's Message

- Anirban Basu, Chief Economist, Associated Builders and Contractors (ABC), June 2024¹¹

Though copper is increasingly impactful for construction projects, the balance of price movement in materials is softening. We anticipate downward price movements in materials to give owners room to negotiate a lower selling price from contractors in the back half of 2024.

⁸ Manufacturers' New Orders: Construction Materials and Supplies (ACMSNO) | FRED | St. Louis Fed (stlouisfed.org)

⁹ Manufacturers' New Orders: Construction Materials and Supplies (ACMSNO) | FRED | St. Louis Fed (stlouisfed.org)

¹⁰ Manufacturers' Unfilled Orders: Construction Materials and Supplies (UCMSUO) | FRED | St. Louis Fed (stlouisfed.org)

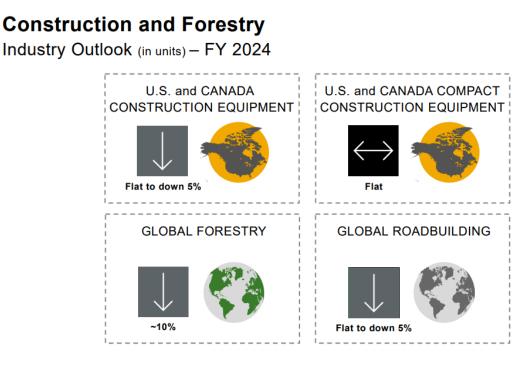
¹¹ <u>News Releases | ABC: Construction Materials Prices Decrease in May</u>

Direct Inputs — Equipment

New construction equipment orders have remained elevated in the second quarter¹² while backlog continues to gradually decline from a peak of \$12.298 Bn in August 2022, arriving at \$9.379 Bn in May 2024.¹³ There has also continued to be a deceleration in price increases taken by manufacturers since November 2023.¹⁴

Large manufacturers have staked their positions of cooling demand clearly. John Deere has announced layoffs and closures at its U.S. operations while reporting a net income of more than \$10.16 Bn in 2023. In their May earnings call they proposed a \$7 Bn forecast for 2024 citing higher costs, lower shipment volumes, and cautious customers. Similarly, Caterpillar's construction industries segment realized a 5% decrease in sales for Q1 2024 globally.¹⁵

Figure 3: John Deere Construction and Forestry Industry Outlook, Fiscal Year 2024, Q2 Earnings Call



Source: Deere & Company Forecast as of 16 May 2024

"Notably, our production volumes will decline more than demand in the back half as we're taking proactive steps to drive down field inventories."

- Josh Beal, Director of Investor Relations, John Deere, May 2024¹⁶

The Market's Message

Equipment manufacturers are proactive and cautious not to exceed industry demand and to protect their backlog. The market appears to be balanced here, and there is no foreseeable impact on selling price in 2024.

¹² Manufacturers' New Orders: Construction Machinery Manufacturing (A33CNO) | FRED | St. Louis Fed (stlouisfed.org)

¹³ Manufacturers' Unfilled Orders: Construction Machinery Manufacturing (A33CUO) | FRED | St. Louis Fed (stlouisfed.org)

¹⁴ Producer Price Index by Commodity: Machinery and Equipment: Construction Machinery and Equipment | FRED | St. Louis Fed (stlouisfed.org)

¹⁵ Caterpillar Inc. - 1Q 2024 CATERPILLAR INC. EARNINGS CONFERENCE CALL

¹⁶ John Deere - 2Q Earnings Call

Indirects — Spend and Activity

The total U.S. construction industry is projected to expand by 2.5% in 2024, driven by sustained elevated spend in nonresidential; particularly in manufacturing and transportation according to GlobalData. Nonresidential put in place grew 6.2% Y/Y May 2024 holding mostly level M/M.¹⁷ Similarly, nonresidential spending has held basically flat posting a -0.05% decline M/M May. While spend remains historically elevated, the pace of expansion has generally flattened.

Similarly, the Architectural Billings Index (ABI), which leads nonresidential construction activity by 9-12 months, has increased its pace of softening to 42.4 in May from 48.3 in April (<50 represents declining billings vs. previous. reading).¹⁸ The Midwest region is the softest while the institutional sector has slowed more than other sectors.

	US Construction Spend (\$USD Millions, Nominal, SAAR)								US Construction Spend (M/M%) (\$USD Millions, Nominal, SAAR)					US Construction Spend (Y/Y%) (\$USD Millions, Nominal, SAAR)				
		Total	No	nresidential	Ma	anufacturing	с	ommercial	Total		Nonresidential	Manufacturing	Commercial		Total	Nonresidential	Manufacturing	Commercial
January-22	\$	1,810.4	\$	888.4	\$	98.8	\$	115.0	3.02	2%	2.91%	6.43%	5.49%		13.05%	4.90%	29.25%	27.38%
February-22	\$	1,852.8	\$	905.1	\$	101.2	\$	118.8	2.34	1%	1.89%	2.43%	3.30%		17.25%	8.68%	32.46%	33.21%
March-22	\$	1,878.7	\$	912.6	\$	104.7	\$	119.0	1.40	1%	0.83%	3.47%	0.19%		16.63%	7.99%	32.88%	26.89%
April-22	\$	1,918.3	\$	937.7	\$	112.1	\$	123.8	2.11	.%	2.75%	7.07%	4.06%		18.62%	11.85%	46.10%	30.26%
May-22	\$	1,930.7	\$	940.4	\$	116.9	\$	126.3	0.65	6%	0.29%	4.32%	2.00%		18.44%	12.05%	52.16%	34.12%
June-22	\$	1,918.1	\$	952.5	\$	117.4	\$	130.2	-0.65	6%	1.28%	0.44%	3.08%		16.98%	13.67%	47.77%	37.18%
July-22	\$	1,925.9	\$	984.9	\$	127.7	\$	135.8	0.41	.%	3.41%	8.79%	4.31%		15.92%	16.67%	57.16%	40.48%
August-22	\$	1,915.4	\$	990.8	\$	129.7	\$	136.0	-0.55	%	0.60%	1.51%	0.16%		14.92%	17.14%	58.58%	38.07%
September-22	\$	1,914.3	\$	1,007.6	\$	138.3	\$	137.9	-0.06	6%	1.69%	6.68%	1.36%		14.66%	20.12%	67.43%	39.50%
October-22	\$	1,907.8	\$	1,013.9	\$	139.6	\$	142.2	-0.34	%	0.62%	0.90%	3.15%		13.19%	20.00%	61.86%	40.24%
November-22	\$	1,913.4	\$	1,033.4	\$	150.4	\$	143.2	0.29	%	1.93%	7.74%	0.71%		10.72%	19.76%	62.24%	35.01%
December-22	\$	1,922.4	\$	1,052.2	\$	155.8	\$	146.0	0.47	%	1.82%	3.62%	1.90%		9.39%	21.89%	67.93%	33.90%
January-23	\$	1,932.3	\$	1,066.8	\$	163.2	\$	142.0	0.52	2%	1.38%	4.74%	-2.70%		6.74%	20.09%	65.28%	23.50%
February-23	\$	1,945.0	\$	1,087.0	\$	167.8	\$	142.2	0.65	%	1.89%	2.82%	0.17%		4.97%	20.10%	65.90%	19.76%
March-23	\$	1,964.8	\$	1,107.4	\$	179.2	\$	142.9	1.02	.%	1.87%	6.80%	0.46%		4.58%	21.34%	71.25%	20.08%
April-23	\$	1,990.3	\$	1,135.0	\$	194.6	\$	145.9	1.30	%	2.49%	8.59%	2.10%		3.76%	21.03%	73.68%	17.82%
May-23	\$	2,011.8	\$	1,139.2	\$	194.7	\$	145.7	1.08	\$%	0.38%	0.03%	-0.15%		4.20%	21.14%	66.54%	15.33%
June-23	\$	2,023.0	\$	1,147.5	\$	197.7	\$	144.8	0.56	6%	0.72%	1.55%	-0.63%		5.47%	20.47%	68.39%	11.18%
July-23	\$	2,027.4	\$	1,142.3	\$	196.9	\$	144.3	0.22	.%	-0.45%	-0.42%	-0.30%		5.27%	15.98%	54.13%	6.26%
August-23	\$	2,047.4	\$	1,159.9	\$	201.4	\$	143.9	0.99	9%	1.54%	2.29%	-0.32%		6.89%	17.06%	55.31%	5.75%
September-23	\$	2,055.2	\$	1,166.8	\$	195.4	\$	144.4	0.38	8%	0.60%	-2.98%	0.41%		7.36%	15.80%	41.25%	4.76%
October-23	\$	2,071.1	\$	1,182.4	\$	202.6	\$	138.0	0.77	%	1.34%	3.68%	-4.44%		8.56%	16.63%	45.14%	-2.95%
November-23	\$	2,090.7	\$	1,201.0	\$	212.0	\$	135.1	0.94	1%	1.57%	4.65%	-2.10%		9.26%	16.22%	40.98%	-5.66%
December-23	\$	2,101.3	\$	1,204.1	\$	212.9	\$	132.4	0.51	.%	0.26%	0.42%	-1.99%		9.31%	14.43%	36.62%	-9.26%
January-24	\$	2,122.2	\$	1,206.8	\$	223.1	\$	130.7	1.00	1%	0.23%	4.80%	-1.30%		9.83%	13.12%	36.69%	-7.95%
February-24	\$	2,133.8	\$	1,208.3	\$	224.4	\$	129.9	0.54	1%	0.12%	0.59%	-0.64%		9.71%	11.15%	33.73%	-8.69%
March-24	\$	2,135.8	\$	1,211.8	\$	225.7	\$	129.4	0.09	9%	0.30%	0.59%	-0.37%		8.70%	9.43%	25.96%	-9.45%
April-24	\$	2,142.1	\$	1,210.0	\$	231.1	\$	127.5	0.30	1%	-0.16%	2.36%	-1.51%		7.63%	6.61%	18.74%	-12.65%
May-24	\$	2,139.8	\$	1,209.3	\$	234.1	\$	126.8	-0.11	.%	-0.05%	1.33%	-0.54%		6.36%	6.15%	20.27%	-12.99%
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Table 1: U.S. Construction Spending, Monthly, Millions \$USD, Seasonally Adjusted at an Annual Rate (SAAR)

Source: US Census Bureau, St. Louis Fed (FRED)

"The decline in the May ABI score continues a year and a half of weakness in design billings at U.S. architecture firms. Over the past nine months, volatility has increased, and scores have softened more significantly, with the May score the weakest reported since the end of the pandemic recession."

- Kermit Baker, PhD, Chief Economist, American Institute of Architects (AIA), June 2024¹⁹

The Market's Message

Although there is slowing in growth from construction spend and the activity pipeline has shifted into low gear, spend remains historically elevated. Given how much demand is in the marketplace, owners may have difficulty negotiating with contractors who maintain a large backlog; we provide a neutral outlook for selling price in 2024.

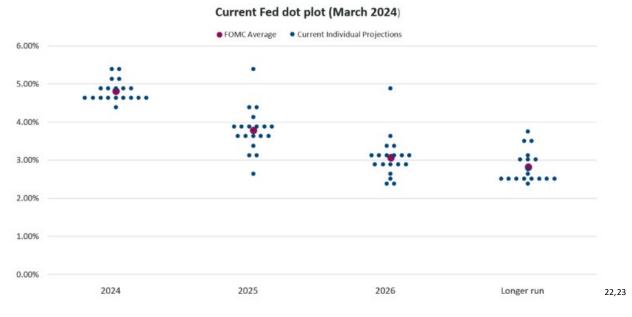
¹⁷ Press Release (census.gov)

¹⁸ ABI May 2024: Business conditions at architecture firms continue to soften (aia.org)

¹⁹ Architecture business conditions decline in May, AIA/Deltek Architecture Billings Index Reports

Indirects — Interest Rates and Macroeconomic Situation

The Federal Open Market Committee (FOMC) left the Effective Federal Funds target range steady at 5.25%-5.50% for a 7th consecutive meeting in June 2024, in line with forecasts. Policymakers do not expect it will be appropriate to reduce rates until they gain greater confidence that inflation is moving sustainably toward 2%. Meanwhile, the dot plot showed policymakers see only one rate cut this year and four reductions in 2025. Back in March, the Fed was seeing three cuts in 2024 and three in 2025. The Fed made no revisions to GDP growth projections and still sees the economy expanding 2.1% in 2024, and 2% in 2025 and 2026 respectively.^{20,21}



Source: Chatam Financial, Fed Summary of Economic Projections^{21, 22}

Additional geopolitical concerns including recent EU, UK, French, and upcoming U.S. elections have had some impact on equities markets, but there has been little reported impact on construction decisions. With ongoing conflict in Ukraine, Israel/Gaza, and a fading shipping/logistics threat, the global economy appears to have shrugged off these shocks with limited impact.

The Market's Message

While rates are elevated from the lows spanning the global financial crisis and COVID crisis periods, they remain historically within the normal range. A decline in rates is expected to put upward pressure on construction spending activity as it becomes more attractive to borrow. For now, there is no clear interest rate change that would allow owners to negotiate a lower selling price thus, we state no impact on the selling price.

²⁰ Testimony by Chair Powell on the semiannual Monetary Policy Report to the Congress - Federal Reserve Board

²¹ United States Fed Funds Interest Rate (tradingeconomics.com)

²² Fed Dot Plot vs. Historical Forward Curves | Chatham Financial

²³ Fed Holds Rates, Continues to Forecast Three 2024... | Chatham Financial