

The Keystone: Trends in the Architecture & Engineering Industry



Chartwell Financial Advisory

Q4 2022

The Keystone: Trends in the Architecture & Engineering Industry

Chartwell’s architecture and engineering (AE) practice serves more than 150 industry clients throughout the United States. Our team has experience with AE firms of all types and sizes and specializes in providing ownership advisory, corporate finance, transaction opinion, and business valuation services to middle-market companies.

The Keystone focuses on current trends in M&A and public market activity within the AE sector.

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Welcome to the Q4 2022 edition of The Keystone! While poor stock market performance was primarily isolated to the first half of 2022, certain market conditions lingered (rising interest rates, inflation, and above average turnover). Nonetheless, financial performance remains positive for the majority of AE firms. The M&A market is essentially on track while the AE public market performance is relatively stable. Yet new challenges (both operational and financial) appeared in the second half of 2022, including R&D expense amortization and acute labor turnover reflecting wage inflation and employee willingness to pursue career/firm change. We haven’t even mentioned the IJIA... where are those projects?!

We hope you enjoy this edition of The Keystone and please let us know if there is any additional information you would like to see included in future issues. For those interested in related market information, we have a separate construction newsletter, The Blueprint, which is available on our website.

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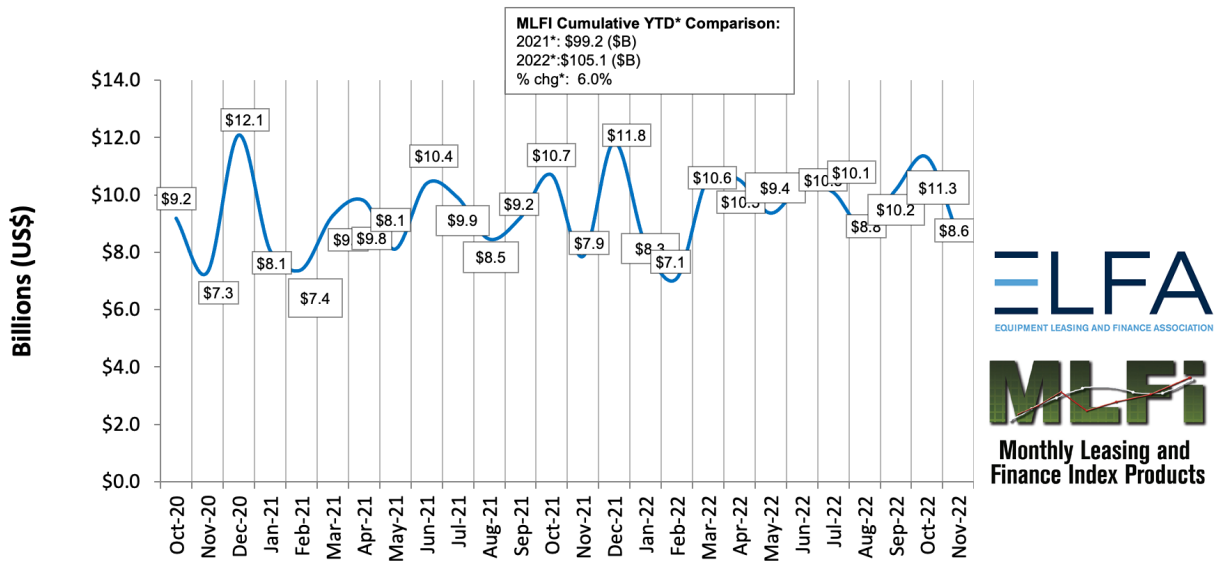
CapEx Growth Despite Rising Rates

CEO Perspective from Alan Sikora, First American Equipment Finance

As the Federal Reserve continues its efforts to slow the economy and fight inflation, it is not surprising that rates are expected to increase and remain high throughout 2023. What may come as a surprise, however, is that despite rising interest rates, investment in capital expenditures (CapEx)—and financing investment in CapEx—is on the rise as well.

According to the latest ELFA Monthly Leasing and Finance Index (MLFI-25), which reports economic activity from 25 companies representing a cross-section of the \$1.0 trillion equipment finance sector, new business volume of commercial equipment financed in November 2022 was up 9.0% (at \$8.6 billion) compared to November 2021. And year-to-date, cumulative new business volume is up by 6.0%—far outpacing GDP growth

MLFI-25 New Business Volume (Year-Over-Year Comparison)



Increased financing of CapEx might be the opposite of what is expected in these economic conditions, at least by historical standards. Typically, higher cost of capital leads to a cool down of CapEx and a subsequent decrease in commercial leasing and financing. So, what makes our current environment different? Here are a few observations from the past year and implications for the year ahead:

Pent-Up Demand Opens the CapEx Floodgates

Major supply chain disruptions and the resulting shortages forced businesses to delay or freeze their capital projects in 2020–2021. Though supply chain issues are ongoing, they are less severe now. This, combined with the pent-up demand from the past few years, led to a significant resurgence in capital spending as the economy reopened—which has steadily continued.

Anticipated Rate Increases = More Fixed-Rate Financing

Throughout 2022 and already in 2023, companies sought out fixed-rate financing with the expectation that rates would be higher in the not-so-distant future. By utilizing fixed-rate financing for equipment acquisitions, business leaders can minimize their initial cash outlays, gain needed predictability for cash flow management, and align payments with expected cash inflows.

Labor Shortages Leading to Automation

The labor shortage across the country has persisted for many companies and is not expected to ease soon. To address this void, businesses have turned to automation—substantially increasing their investment in robotics and automation technologies to support their existing workforce, lower operational costs, and create needed efficiencies to meet demand. And we can expect this to remain a strategic priority in the years ahead: according to research by Interact Analysis, investment in automation is slated to grow from \$29.0 billion (2020) to \$67.0 billion in 2025.

CapEx Growth Despite Rising Rates (continued)

Financial Executives Diversifying Funding Sources

With a recession looming, relying on an established banking relationship as a single source of funding is too risky for some businesses. Many are getting ahead of potential changes in their bank's business by exploring other financing relationships to complement to their main bank.

Both the past year and year ahead present an interesting and unprecedented intersection of inflation, labor shortages, and supply chain constraints. Yet despite these economic headwinds, investment in capital projects has risen and will likely continue to grow in the coming years.

By investing in CapEx and using financing as a strategic tool, business leaders can build financial resilience and position themselves to take advantage of growth opportunities on the horizon. ■

About the Author

Alan Sikora is the CEO of First American Equipment Finance (FAEF), one of largest equipment finance companies in the U.S. and backed by the strength of City National Bank and RBC. He is also a member of City National Bank's Executive Council.

Alan joined First American in 2002 and has held various roles in credit, operations, and sales leadership. He has been the CEO of First American since 2015. In his role, he is responsible for the strategic direction of First American, one of the 20 largest bank-owned equipment finance businesses in the U.S. First American is an innovation leader and its 300+ colleagues deliver custom financing solutions to businesses nationwide.

Under his leadership, First American has been ranked by FORTUNE as a Best Workplace for Millennials, a Best Workplace in Finance and Insurance, and a Best Workplace for Women. People also recognized First American as one of the Top 100 Companies That Care in the U.S.

[Learn More About First American Equipment Finance](#)

Industry Involvement

Chartwell is a proud member of the country's leading engineering organization:



Upcoming Events

- February 8** **Capital Markets & Valuation Trends ACEC Webinar**
Presented by Chartwell experts Dan Kaczmarek & Joe Skorczewski
- February 21** **AEC M&A Insights and Forecast FAEF Webinar**
Presented by Chartwell experts Ryan Rassin & Joe Skorczewski
- February 22-24** **ESCA Leadership Summit Ft. Lauderdale, FL**
Chris Staloch will attend this event for S Corporation ESOPs
- April 24-27** **NCEO Annual Conference Kansas City, KS**
Chartwell is a proud sponsor of this national event for employee-owned companies
- May 10-11** **ACEC Texas Business Conference Dallas, TX**
Chartwell is a proud sponsor of this event for engineering firms
- June 11-14** **ACEC Annual Convention Washington, DC**
Tim Cleary, Ryan Graham, Joe Skorczewski, and Chris Staloch will attend this national event

Industry Activity Indicators

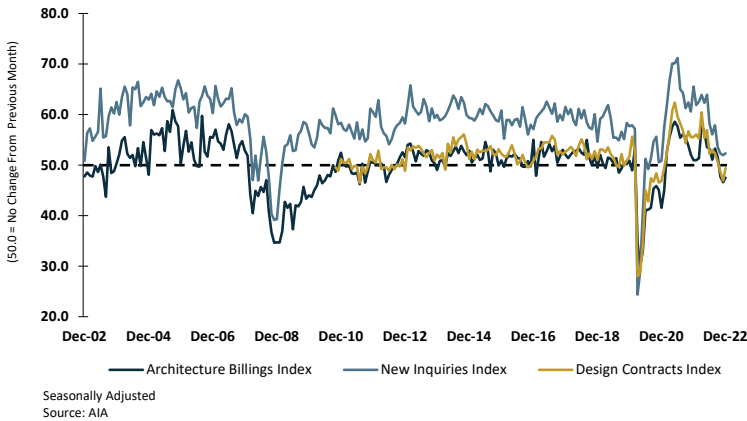
December 2022 Construction Spending			
	\$ Billion	3MMA	12MMA
Private Nonresidential	\$568.1	15.3%	8.7%
Manufacturing	\$122.2	42.4%	33.7%
Commercial	\$122.0	26.6%	21.4%
Power	\$97.3	(10.3%)	(10.6%)
Office	\$78.8	7.3%	(0.1%)
Healthcare	\$43.6	10.8%	7.8%
Communication	\$24.8	1.3%	(1.1%)
Lodging	\$21.2	38.6%	2.4%
Education	\$20.0	16.2%	16.2%
Public Nonresidential	\$373.8	12.0%	4.1%
Highway & Street	\$116.7	14.9%	6.7%
Education	\$84.1	6.4%	(2.9%)
Transportation	\$41.4	3.4%	(1.6%)
Sewage & Waste	\$32.9	21.0%	13.0%
Water Supply	\$23.4	30.1%	18.5%
Power	\$9.7	0.8%	14.5%

Seasonally Adjusted Annual Rate
Source: U.S. Census Bureau

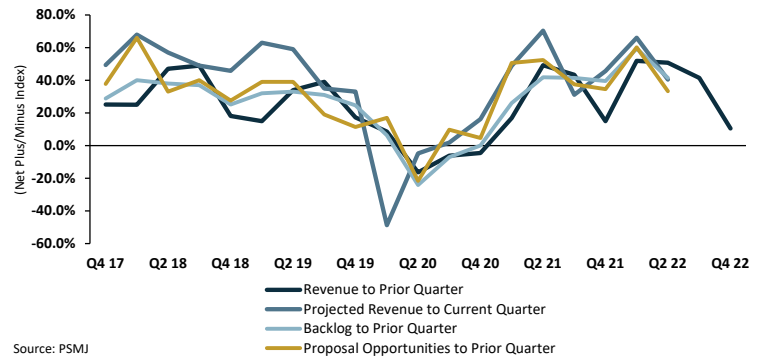
AIA Consensus Construction Forecast		
	2023	2024
Nonresidential Total	5.8%	0.8%
Commercial Total	2.6%	(1.4%)
Office	(0.5%)	(0.7%)
Retail & Other Commercial	3.0%	(2.9%)
Hotel	9.5%	5.3%
Industrial Total	15.1%	0.4%
Institutional Total	4.1%	3.8%
Health	5.5%	3.2%
Education	3.0%	4.6%
Religious	(0.4%)	0.2%
Public Safety	4.9%	4.6%
Amusement & Recreation	5.3%	2.4%

As of January 2023
Source: American Institute of Architects (AIA)

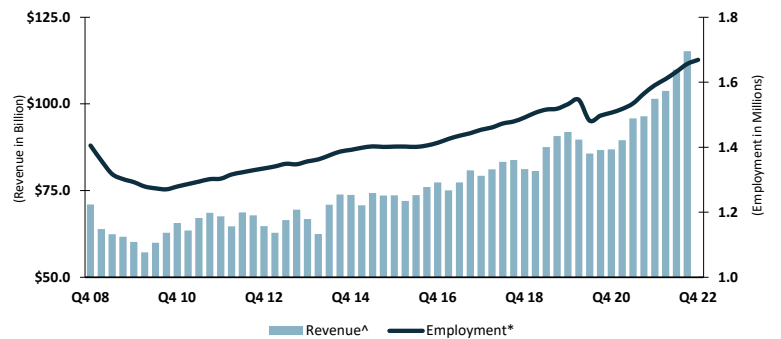
Work-on-the-Boards Survey Data



Revenue, Projected Revenue, Backlogs, and Proposal Opportunities



Engineering, Architectural, and Related Services

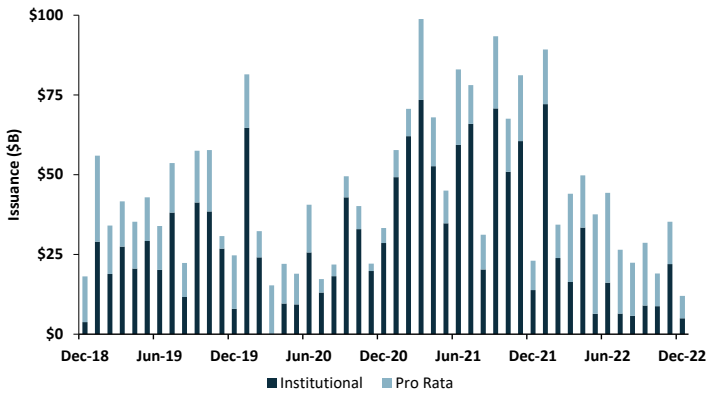


Capital Markets Update

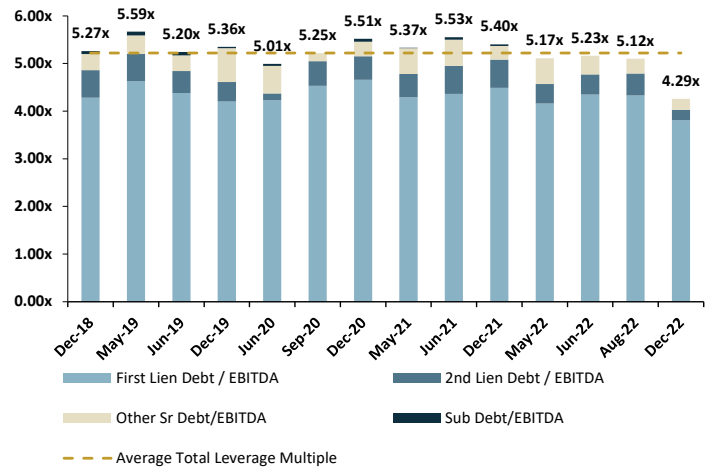
As a result of ongoing market turbulence, 2022 finished as one of the slowest years in terms of leveraged loan issuances.

- Q4 2022 saw an uptick in activity compared to Q3 2022 across various sectors in the debt capital markets and was largely driven by refinancings associated with nearer term maturities versus M&A
- Across the board, leverage levels decreased on capital markets transactions as lenders prepare for an upcoming recessionary environment, regardless if issuers are experiencing headwinds
- Borrowing costs continue to rise driven by Federal Reserve activity; though, there has been some compression on spreads for quality issuers

U.S. Leveraged Loan Issuance



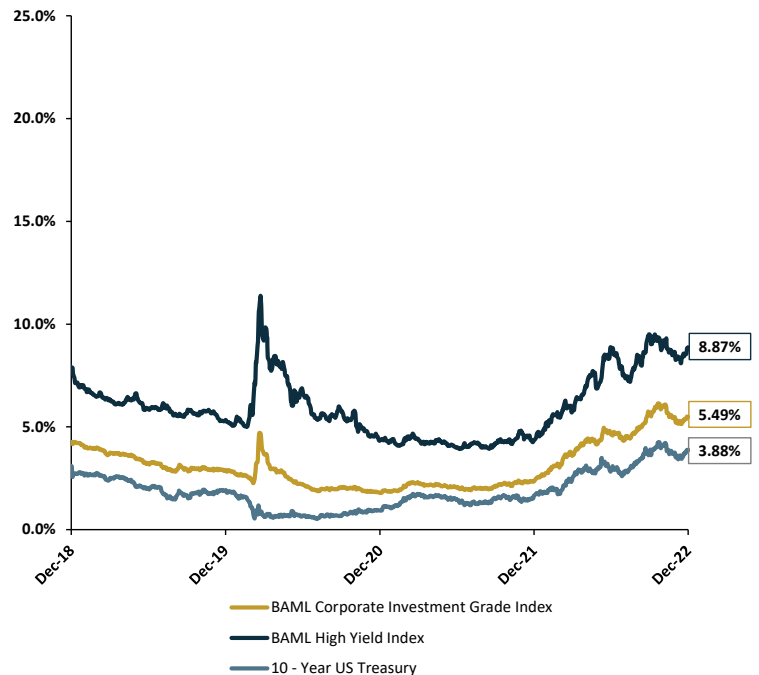
Historical Debt Multiples of Highly Leveraged Loans



Historical Interest Rates



Current Interest Rates



Merger & Acquisition Activity - Q3 & Q4 2022

Western Region				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
7/1/2022	Catalyst Environmental Solutions Corporation	AWR Environmental Corporation	Oakland, CA	Environmental engineering services
7/12/2022	Enercon Services, Inc.	Ardent Environmental Group, Inc.	Corona, CA	Environmental engineering services
7/15/2022	Bowman Consulting Group Ltd.	Project Design Consultants, LLC	San Diego, CA	Civil engineering services
7/21/2022	Environmental Systems Group	KC Harvey Environmental, LLC	Bozeman, MT	Environmental engineering services
7/25/2022	10 Design	SB Architects, Inc.	San Francisco, CA	Architecture services
8/3/2022	Heritage-Crystal Clean, LLC	Patriot Environmental Services, Inc.	Wilmington, CA	Environmental engineering services
8/29/2022	Covanta Holding Corporation	Biologic Environmental Services and Waste Solutions	Hayward, CA	Environmental engineering services
9/12/2022	Ardurra Group, Inc.	T-O Engineers, LLC	Meridian, ID	Civil engineering services
9/21/2022	Anser Advisory, LLC	RLH Engineering, LLC	Windsor, CO	Construction engineering services
10/1/2022	Shannon & Wilson, Inc.	Hultgren-Tillis Engineers	Concord, CA	Civil engineering services
10/10/2022	SOCOTEC Consulting, Inc.	Trinity Engineering, Inc.	Rohnert Park, CA	Architecture and structural engineering services
10/10/2022	Coffman Engineers, Inc.	Shigemura, Lau, Sakanashi, Higuchi And Associates, Inc.	Honolulu, HI	Structural engineering services
10/11/2022	Boecore, Inc.	Ascension Engineering Group, LLC	Colorado Springs, CO	Space system engineering services
10/21/2022	CMT Technical Services	CTC-Geotek, Inc.	Denver, CO	Geotechnical engineering services
10/27/2022	EIS Holdings, LLC	Eagle Environmental Consulting, Inc.	Wheat Ridge, CO	Environmental engineering services
11/1/2022	David Evans Enterprises, Inc.	Rock Solid Civil LLC	Boise, ID	Civil engineering services
11/1/2022	Total-Western, Inc.	Roberts Engineers	Tustin, CA	Multi-service consulting engineering services
11/2/2022	NV5 Global, Inc.	Intrepid Engineering LLC	Las Vegas, NV	Mechanical and electrical engineering services
11/4/2022	Bowman Consulting Group Ltd.	Substantially all of the assets of SEI Engineering, LLC	Paonia, CO	Civil and structural engineering services
11/30/2022	Winding Inc.	Mc Cully, Mac M. Corporation	Moorpark, CA	Mechanical engineering services
12/1/2022	Haley & Aldrich, Inc.	Cal Engineering & Geology, Inc.	Walnut Creek, CA	Geotechnical engineering services
12/5/2022	Akela Engineering and Consulting	DEC Engineers, Inc.	San Diego, CA	Mechanical engineering services

Merger & Acquisition Activity - Q3 & Q4 2022

Western Region (continued)				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
12/6/2022	RMA Group Inc.	NWGC II, Inc.	Wilsonville, OR	Geotechnical and environmental engineering services
12/19/2022	CONSOR Engineers, LLC	Project Engineering Consultants, LLC	West Jordan, UT	Civil and environmental engineering services
12/21/2022	H. W. Lochner, Inc.	KOA Corporation	Monterey Park, CA	Traffic and transportation engineering services
12/22/2022	Qualus Power Services Corporation	Tri Sage Consulting	Reno, NV	Power engineering services

Southwestern Region				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
7/7/2022	Universal Engineering Sciences, LLC	Speedie & Associates, Inc.	Phoenix, AZ	Geotechnical and environmental engineering services
7/12/2022	Universal Engineering Sciences, LLC	Rock Engineering & Testing Laboratory Inc.	Corpus Christi, TX	Geotechnical engineering services
8/2/2022	Rick Engineering Company, Inc.	Cypress Civil Development, LLC	Tucson, AZ	Civil engineering services
9/1/2022	ICF International, Inc.	Blanton & Associates, Inc.	Austin, TX	Environmental engineering services
9/19/2022	Ardurra Group, Inc.	Shephard-Wesnitzer, Inc.	Sedona, AZ	Civil engineering services
9/28/2022	ENTACT, LLC	USA Environment, LP	Deer Park, TX	Environmental engineering services
10/5/2022	John Staurulakis, LLC	Mitchell Engineering Inc	Wills Point, TX	Telecom engineering services
10/31/2022	urban-gro, Inc.	Substantially all of the assets of Dawson Van Orden, Inc.	Houston, TX	Mechanical and electrical engineering services

Midwestern Region				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
7/5/2022	DCCM, LLC	RQAW Corporation	Fishers, IN	Full service consulting engineering services
7/26/2022	Copley Equity Partners	LJB Inc.	Miamisburg, OH	Full service consulting engineering services
8/9/2022	Alliance Technical Group, LLC	EcoTest Energy Services, LLC	Oklahoma City, OK	Environmental engineering services
8/11/2022	Exponential Technology Group, Inc.	BGM Electronic Services, LLC	Auburn Hills, MI	Electronic engineering services
9/1/2022	Quest Defense Systems & Solutions Inc.	EXB Solutions, Inc.	Minneapolis, MN	Systems engineering services
9/6/2022	Private Investment Group	Lake Superior Consulting, LLC	Duluth, MN	Energy infrastructure engineering services

Merger & Acquisition Activity - Q3 & Q4 2022

Midwestern Region (continued)				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
9/14/2022	JLG Architects Ltd.	292 Design Group, Inc.	Minneapolis, MN	Architecture services
12/21/2022	T.Y. Lin International Group Ltd.	Greeley and Hansen LLC	Chicago, IL	Water and wastewater engineering services

Northeastern Region				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
7/1/2022	American Energy Partners, Inc.	Austin Master Services, LLC	Pottstown, PA	Environmental engineering services
7/1/2022	DRAW Collective	Eckles Architecture and Engineering, Inc.	New Castle, PA	Architecture services
8/2/2022	CDR Maguire Inc.	McTish, Kunkel and Associates	Allentown, PA	Environmental engineering and land surveying services
8/29/2022	Bowman Consulting Group Ltd.	Anchor Consultants, LLC	Chadds Ford, PA	Transportation engineering services
8/29/2022	Environmental Systems Group	BEM Systems Inc.	Chatham, NJ	Environmental and civil engineering services
9/7/2022	Verdantas LLC	Environmental Strategies & Management, Inc.	Norton, MA	Environmental engineering services
9/27/2022	Haley Ward, Inc	LEI Partners, Inc.	Glastonbury, CT	Environmental engineering services
10/3/2022	WSP USA	Odeh Engineers, Inc.	North Providence, RI	Structural engineering services
10/3/2022	Michael Graves Architecture & Design	Jose Carballo Architectural Group PC	Hackensack, NJ	Architecture services
10/17/2022	MOREgroup	E4H Environments for Health Architecture	Boston, MA	Architecture services
10/28/2022	Trilon Group, LLC	Consulting and Municipal Engineers, LLP	Parlin, NJ	Multi-service consulting engineering services
10/28/2022	Stantec Inc.	L2Partridge, LLC	Philadelphia, PA	Architecture services
12/1/2022	Atwell, LLC	Ben Dyer Associates, Inc.	Mitchellville, MD	Civil engineering services
12/5/2022	Bowman Consulting Group Ltd.	H2H Geoscience Engineering, PLLC	Troy, NY	Geotechnical engineering services

Southeastern Region				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
7/1/2022	WGI, Inc.	The Atlantic Group, LLC	Huntsville, AL	Geospatial and surveying services
7/1/2022	RESPEC Company LLC	DeLisi Fitzgerald, Inc.	Fort Myers, FL	Civil engineering services
7/15/2022	CDG Engineers & Associates, Inc.	Shield Engineering, Inc.	Charlotte, NC	Environmental engineering services

Merger & Acquisition Activity - Q3 & Q4 2022

Southeastern Region (continued)				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
7/18/2022	Ardurra Group, Inc.	300 Engineering Group, PA	Miami, FL	Environmental engineering services
8/1/2022	Montrose Environmental Group, Inc.	TriAD Environmental Consultants, Inc.	Nashville, TN	Environmental engineering services
8/1/2022	Orcutt Winslow Architecture USA, LLC	Helman Hurley Charvat Peacock / Architects, Inc.	Orlando, FL	Architectural services
8/7/2022	WK Dickson & Co., Inc.	Edison Engineering, Inc.	Dallas, GA	Civil and environmental engineering services
8/29/2022	Modjeski And Masters, Inc.	Flanders Engineering Group, Inc.	Middleburg, FL	Electrical and power engineering services
9/20/2022	TranSystems Corporation	SEPI Engineering & Construction, Inc.	Raleigh, NC	Civil engineering services
9/29/2022	O'Donnell & Naccarato, Inc.	Douglas Wood Associates, Inc.	Miami, FL	Structural engineering services
10/3/2022	Vanasse Hangen Brustlin, Inc.	Gerstenmaier Consulting, LLC	Richmond, VA	Landscape architecture, land planning, and civil engineering services
10/17/2022	DCCM, LLC	Matthews Design Group, LLC	Saint Augustine, FL	Civil engineering services
10/18/2022	Surveying And Mapping, LLC	Echezabal & Associates, Inc.	Tampa, FL	Environmental engineering services
10/31/2022	Bernhard Capital Partners Management, LP	Boston Government Services, LLC	Oak Ridge, TN	Nuclear engineering services
11/2/2022	Rimkus Consulting Group, Inc.	Delta Engineering & Inspection, Inc.	Sarasota, FL	Structural engineering services
11/14/2022	Magnolia River Services, Inc.	Aptus Group USA, LLC	Charlotte, NC	Infrastructure engineering services
11/17/2022	CHA Consulting, Inc.	Eckler Engineering, Inc.	Coral Springs, FL	Multi-service consulting engineering services
11/17/2022	David Kuo	Architectural Investments, Inc.	Louisville, KY	Architecture services
12/6/2022	Alliance Technical Group, LLC	GBMC & Associates, Inc.	Bryant, AR	Environmental engineering services
12/7/2022	McMillan Pazdan Smith, LLC	Virgo Gambill Architects	Augusta, GA	Architecture services

International (select)				
Announce/ Close Date	Acquirer	Target	Target HQ Location	Target Description
9/23/2022	Tetra Tech, Inc.	RPS Group plc	Abingdon, UK	Consulting engineering services
9/27/2022	Arcadis NV	IBI Group Inc.	Toronto, ON	Infrastructure, transportation, and related engineering services
12/6/2022	WSP Global Inc.	BG Bonnard & Gardel Holding SA	Lausanne, SUI	Infrastructure and environmental engineering services

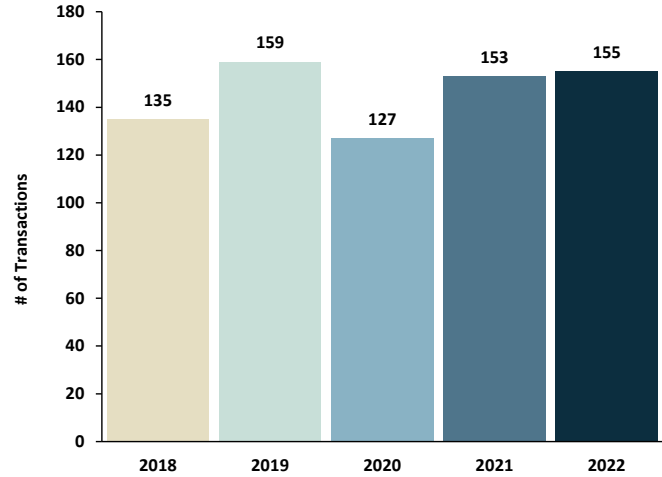
Source: Capital IQ, Data as of 12/31/2022

Chartwell Commentary

Merger & Acquisition Observations

Although U.S. M&A deal volume declined 22.0% while aggregate deal value decreased by a drastic 42.2%, those covering the AE market specifically would report insulation and separation from the global M&A market. Most practitioners would say we have yet to experience a slowdown in AE M&A transactions anecdotally or through market data. On an annualized basis, 2022 was very similar in terms of deal activity to 2019 and 2021. Demand for companies remains strong from both strategic and financial buyers, particularly as private equity and family offices continue to reach lower into the middle market. Sellers remain plentiful based on demographics and the myriad of challenges that arise while transitioning ownership and/or leadership internally to the next generation.

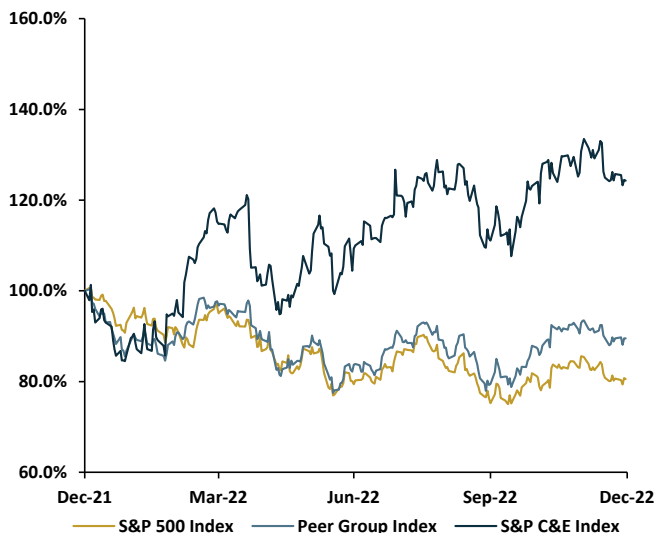
M&A Activity: AE Industry



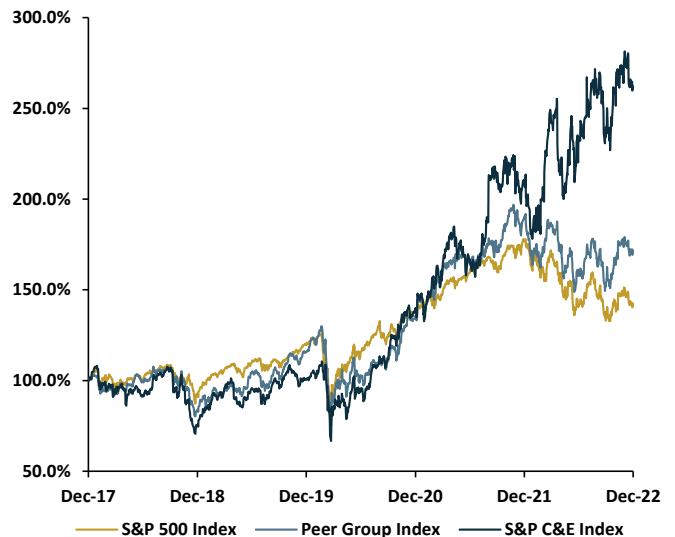
Guideline Public Company Observations

The rationale behind the AE public market performance for 2022 is very similar to six months ago. Companies continue to perform on a revenue (+9.1%) and EBITDA (+13.2%) basis—and better yet—are expected to generate record margins over next twelve months. However, AE firms have not been immune to the broad market declines as the peer group index is highly correlated to the S&P 500 index. As a result, multiples have retracted. Eight of the 10 companies (with available data) experienced a contraction, which represents an average decline of 22.2%! We will monitor whether the AE financial performance continues to outpace the market and if/when equity prices react to reflect that fact pattern.

One-Year Index Performance



Five-Year Index Performance



AE Index Market & Financial Performance - Q4 2022

		Enterprise Value			Equity Value		
Company	Ticker	12/31/ 2022	H2 Δ	LTM Δ	12/31/ 2022	Q2 Δ	LTM Δ
Jacobs Solutions Inc.	NYSE:J	18,146	(9.9%)	(11.9%)	15,202	(7.0%)	(15.7%)
AECOM	NYSE:ACM	12,937	22.5%	6.9%	11,776	28.0%	7.1%
WSP Global Inc.	TSX:WSP	17,390	16.0%	(7.8%)	14,445	8.3%	(15.4%)
SNC-Lavalin Group Inc.	TSX:SNC	4,674	7.2%	(18.8%)	3,095	2.6%	(27.8%)
Parsons Corporation	NYSE:PSN	5,390	18.8%	42.2%	4,787	14.2%	39.1%
Stantec Inc.	NYSE:STN	6,713	8.3%	(5.1%)	5,310	9.4%	(15.0%)
Tetra Tech Inc.	NasdaqGS:TTEK	7,775	5.2%	(15.5%)	7,692	4.9%	(15.9%)
NV5 Global Inc.	NasdaqCM:NVEE	2,086	12.6%	(4.0%)	2,059	13.8%	(3.2%)
Montrose Environmental Group Inc.	NYSE:MEG	1,552	25.4%	(36.2%)	1,319	31.6%	(36.6%)
Willdan Group Inc.	NasdaqGM:WLDN	341	(28.3%)	(37.9%)	237	(34.8%)	(47.3%)
Bowman Consulting Group Ltd.	NasdaqGM:BWMN	315	101.3%	42.0%	295	81.1%	22.9%
Average		7,029	16.3%	(4.2%)	6,020	13.8%	(9.8%)
Median		5,390	12.6%	(7.8%)	4,787	9.4%	(15.4%)

\$ in millions

Source: Capital IQ, Data as of 12/31/2022

LTM = Last Twelve Months

Company	Revenue			EBITDA			EBITDA Margin		
	LTM \$	LTM Δ	NTM Δ	LTM \$	LTM Δ	NTM Δ	5-Year Avg.	LTM	NTM
Jacobs Solutions Inc.	14,923	5.9%	6.2%	1,311	(2.8%)	12.9%	7.8%	8.8%	9.3%
AECOM	13,148	(1.4%)	5.8%	872	6.6%	10.4%	5.6%	6.6%	6.9%
WSP Global Inc.	8,204	8.1%	NA	780	13.2%	NA	8.5%	9.5%	NA
SNC-Lavalin Group Inc.	5,531	(1.8%)	(0.3%)	261	272.3%	83.7%	5.7%	4.7%	8.7%
Parsons Corporation	4,043	10.0%	9.3%	370	18.5%	5.9%	NA	9.2%	8.9%
Stantec Inc.	3,090	9.1%	12.4%	358	4.4%	56.5%	11.6%	11.6%	16.2%
Tetra Tech Inc.	2,836	11.1%	6.7%	368	22.4%	7.4%	11.4%	13.0%	13.1%
NV5 Global Inc.	786	15.6%	6.5%	125	23.0%	20.3%	13.8%	15.9%	18.0%
Montrose Environmental Group Inc.	549	7.3%	7.7%	63	(12.1%)	27.9%	NA	11.5%	13.7%
Willdan Group Inc.	408	13.9%	28.0%	16	(16.7%)	124.3%	6.8%	3.9%	6.9%
Bowman Consulting Group Ltd.	228	65.3%	28.5%	13	68.9%	202.9%	NA	5.9%	13.8%
Average	4,886	13.0%	11.1%	413	36.2%	55.2%	8.9%	9.1%	11.5%
Median	3,090	9.1%	7.2%	358	13.2%	24.1%	8.2%	9.2%	11.2%

\$ in millions

Source: Capital IQ, Data as of 12/31/2022

LTM = Last Twelve Months | NTM = Next Twelve Months

AE Index Implied Market Multiples – Q4 2022

Company	Enterprise Value / EBITDA					H2 Δ	LTM Δ
	5-Year Avg.	12/31/ 2021	6/30/ 2022	12/31/ 2022	12/31/ 2023E		
Jacobs Solutions Inc.	14.8x	15.3x	13.5x	13.8x	12.3x	+0.3x	-1.4x
AECOM	13.1x	14.8x	12.5x	14.8x	13.4x	+2.4x	+0.0x
WSP Global Inc.	19.9x	27.4x	18.2x	22.3x	NA	+4.1x	-5.1x
SNC-Lavalin Group Inc.	NA	NA	15.4x	17.9x	9.7x	+2.5x	NA
Parsons Corporation	NA	12.1x	14.1x	14.6x	13.7x	+0.5x	+2.4x
Stantec Inc.	15.6x	20.6x	18.0x	18.7x	12.0x	+0.7x	-1.9x
Tetra Tech Inc.	21.7x	30.6x	21.9x	21.1x	19.7x	-0.7x	-9.5x
NV5 Global Inc.	15.9x	21.4x	15.1x	16.7x	13.9x	+1.6x	-4.7x
Montrose Environmental Group Inc.	NA	33.8x	17.2x	24.5x	19.2x	+7.3x	-9.3x
Willdan Group Inc.	20.1x	28.6x	20.7x	21.3x	9.5x	+0.5x	-7.3x
Bowman Consulting Group Ltd.	NA	28.0x	20.2x	23.5x	7.8x	+3.3x	-4.5x
Average	17.3x	23.3x	17.0x	19.0x	13.1x	+2.0x	-4.1x
Median	15.9x	24.4x	17.2x	18.7x	12.9x	+1.5x	-4.6x

Source Data Provided by Capital IQ as of 12/31/2022
LTM = Last Twelve Months

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