Biding time

M&A trends in Industrial Manufacturing

Q3'22

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Introduction

Braking and backfilling

Quickly rising interest rates continued to depress merger and acquisition (M&A) activity in the Industrial Manufacturing (IM) sector during Q3’22. Compared to both the previous quarter and the previous year’s Q3, the volume and value of transactions—both strategic and private equity (PE)—decreased in all subsectors.

Despite the market downshift, savvy dealmakers found appealing targets. IM players made deals to fortify supply chains, implement autonomous systems[1] while ensuring cybersecurity, and move faster into an electric vehicle (EV) future.

Aerospace and Defense (A&D) deal volume was down by 50 percent year-over-year, from 104 in Q3’21 to 52 in Q3’22. The advance of autonomous systems, including unmanned aerial vehicles (UAVs), or drones, accounted for many of the quarter’s transactions. Because such devices are vulnerable to cyber attacks, A&D firms should pursue vertical integration through strategic acquisitions of cybersecurity companies and capabilities. As commercial carriers and airports rely increasingly on autonomous technology, they also need a greater level of security across operations, from airline and air-traffic management systems to passengers’ personal data. Two Q3’22 deals aimed at cybersecurity include the merger between CIS Secure Computing Inc. and Intrepid Solutions and Services LLC, and the July investment by the AEI HorizonX–Boeing venture capital partnership in cybersecurity start-up Shift5.

The A&D sector’s race to expand its use of smart vehicles, including UAVs and autonomous navigation solutions, is aimed at reducing military and civilian casualties and collateral damage.

One addition to this arsenal, eVTOL (electric vertical takeoff and landing) aircraft, has attracted M&A professionals’ attention as opportunities to gain access to U.S. military contracts.

The increasing complexity of aircraft parts and components for both commercial and military purposes has created M&A opportunities in aircraft components, maintenance, repair, and overhaul (MRO), as well as aftermarket services. The top IM deal in the quarter was the $5.2 billion purchase of Atlas Air Worldwide, which provides outsourced aircraft and aviation operating services, by an investor group led by Apollo Global Management.

Opportunities for defense contracts from the United States Space Force are beginning to materialize. U.S. defense contracts are multiplying in the areas of low-orbit satellite technology and communication. A&D firms are investing in artificial intelligence (AI), edge computing, and machine learning technologies specifically for satellites and other spacecraft. In August, Slingshot Aerospace Inc., a provider of space simulation and analytics services, acquired Numerica Corp.’s Space Domain Awareness division, the only company with a low-orbit-to-geosynchronous-orbit day- and nighttime-optical sensor network.

Automotive deal volume shrank for the third straight quarter, down 15 percent to 74 in Q3 from 87 in Q2. Transactions were driven by the increasing demand for improved battery storage and charging technology to supply the future of EVs, as well as aftermarket components and maintenance for the used vehicle market. New car production rose in Q3’22, but strong demand has been keeping prices high despite rising interest rates—a situation certain to change over the next year as recession looms.

Meantime, the federal government’s 2050 deadline for achieving net-zero carbon emissions is turbocharging development to overcome the two critical gating factors to a full-scale migration to EVs: safe, efficient energy storage and a nationwide battery charging infrastructure. M&A transactions—such as Nikola Corp.’s purchase of Romeo Power, a maker of lithium-ion battery modules and packs for commercial vehicles—will expedite that transformation, which promises to deliver explosive growth.

Key statistics

-22% decrease in total IM deal volume from 2,450 in Q2 to 1,915 in Q3

-72% decline in total IM deal value from $155.1 billion in Q2 to $43.7 billion in Q3

40% PE share of IM deals in Q3’22. PE buyers accounted for 46.4 percent of total value.

[1] Source: See KPMG, “Electric-vehicle charging gets a $7.5 billion boost,” 2022.

In the infrastructure and construction industry, we believe that as modular construction makes inroads, consolidation may begin to reshape long-established patterns. This will ultimately move high-value-added activities upstream toward designers, owners, and developers and away from on-site trades. Strategists will be working to vertically integrate by gobbling up some of the many small, cash-strapped modular firms.

For the foreseeable future, mega-mergers are likely to remain on pause. According to KPMG Economics, as central banks use higher interest rates to bring inflation down to manageable levels, any dealmaking in the next 12 months is likely to be on a smaller scale as players look to leverage new technologies.

Todd Dubner
Partner, Deal Advisory & Strategy
IM Leader

Investments to accelerate the EV transition

1. Honda Motor Company announced plans to establish a $4.4 billion joint venture in the U.S. with Korea’s LG Energy Solutions (LGES) to produce lithium-ion batteries.
2. In early 2023, Factorial Energy plans to open a new solid-state EV facility in the U.S. with an investment of $45 million in the facility.
3. In July 2022, the U.S. Department of Energy announced a $96 million funding opportunity to support decarbonizing the domestic transportation sector. The funding will focus on expanding EV charging accessibility.

By the numbers

Smaller, fewer deals, but M&A continues

Overall dealmaking in the IM sector during Q3 was down substantially both in volume and value.

The total number of strategic and private equity (PE) IM transactions decreased by 21.8 percent, from 2,450 to 1,915 from Q2, while the total value dropped more sharply, by 72 percent, from $155.1 billion in Q2 to $43.7 billion.

The top three deals in the sector were PE investments: the $5.2 billion acquisition of Atlas Air Worldwide Holdings by a consortium led by Apollo Global Management; Bain Capital's $3.1 billion purchase of the Tokyo-based Evident Corporation (formerly Olympus Scientific Solutions); and a $3 billion combination of reinvestment by Bain Capital and investment by BC Partners in Italian packaging company Fedrigoni.

The fourth biggest deal was strategic—the $2.7 billion acquisition of Resolute Forest Product by the Domtar subsidiary of Paper Excellence Group, a privately held holding company.

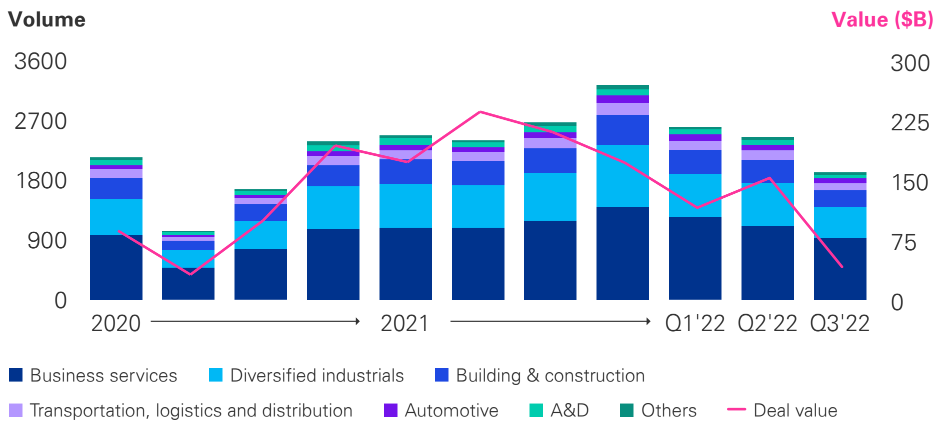
Ramahi Sarma-Rupavtarm on the changed M&A environment

Credit market factors are increasing the uncertainty in financial sponsor bids, making strategics with strong balance sheets more competitive.

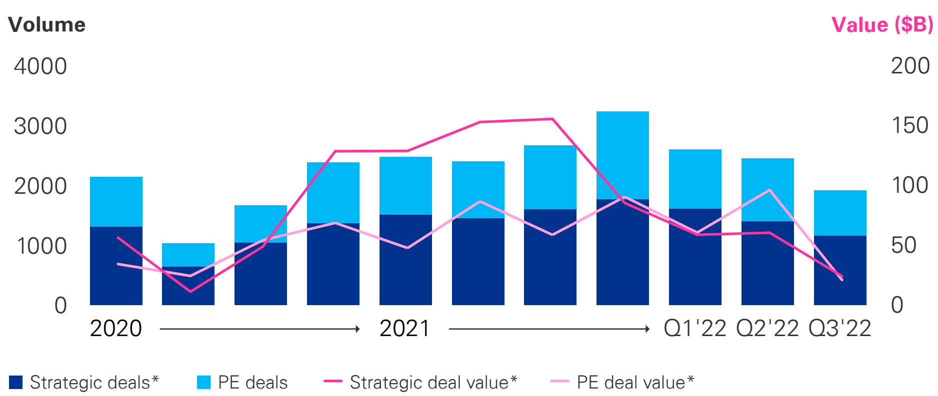
Top IM deals in Q3'22

Acquirer	Target	Value (billions)
Apollo Global Management, Hill City Capital, J.F. Lehman & Company	Atlas Air Worldwide Holdings	$5.2
Bain Capital	Evident Corporation (formerly Olympus Scientific Solutions)	$3.1
BC Partners	Fedrigoni	$3.0
Domtar Corporation	Resolute Forest Products	$2.7

U.S. IM activity by sector



U.S. Strategic and PE IM deals



*Includes SPAC deals (U.S. $5.4 bn SPAC value and 10 SPAC volume for Q3'22)

About the data: Data was sourced from CapitalIQ, Refinitiv, Pitchbook, and KPMG analysis. The values and volumes data cited are for U.S. deals announced during each quarter. Previously published statistics may be restated to incorporate new data and/or changes in deal outcomes.

By the numbers

Automotive M&A trends

Downshifting

The overall value of Automotive M&A deals plummeted 78.6 percent, from $11.4 billion in Q2’22 to $2.4 billion in Q3’22.

The top deal, at $0.8 billion, was between Next.e.Go, the Germany-based EV manufacturer, and Athena Consumer Acquisition Corp., a SPAC. The partnership will enable the car company to go public.

XL Fleet, a leader in fleet electrification solutions for Class 2-6 commercial and municipal vehicles, acquired Spruce Power, the largest privately held owner and operator of residential rooftop solar systems in the U.S., for $0.6 billion. The deal is a cornerstone of XL Fleet’s new corporate strategy to become a leading provider of subscription-based solutions for rooftop solar, battery storage, and EV charging.

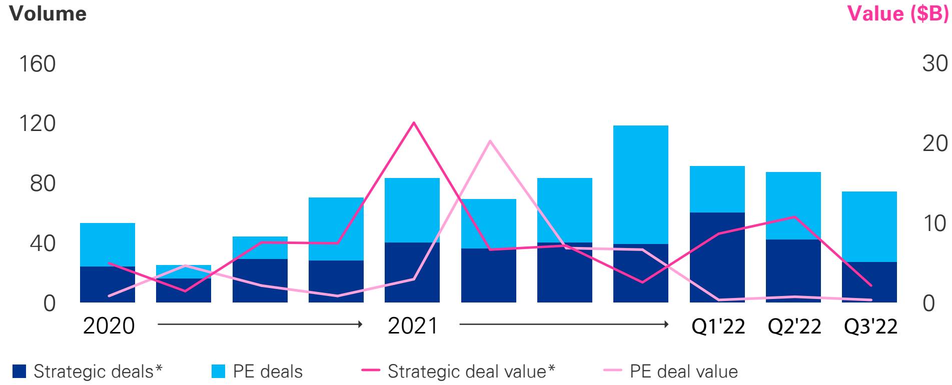
Strengthening its position in vehicle replacement parts, Dorman Products acquired SuperATV, a leading independent supplier to the powersports aftermarket, for $0.5 billion.

Automotive deal value and volume

Q3’22

74 deals
-14.9%

$2.4 billion
-78.6%



*Includes SPAC deals (U.S. $0.8 bn SPAC value and 1 SPAC volume for Q3’22)

Top U.S. automotive deals in Q3’22

Acquirer	Target	Value (billions)
Next.e.GO Mobile	Athena Consumer Acquisition Corp.	$0.8
XL Fleet Corp.	Spruce Power	$0.6
Dorman Products	SuperATV	$0.5

By the numbers

Aerospace & Defense M&A trends

Grounded

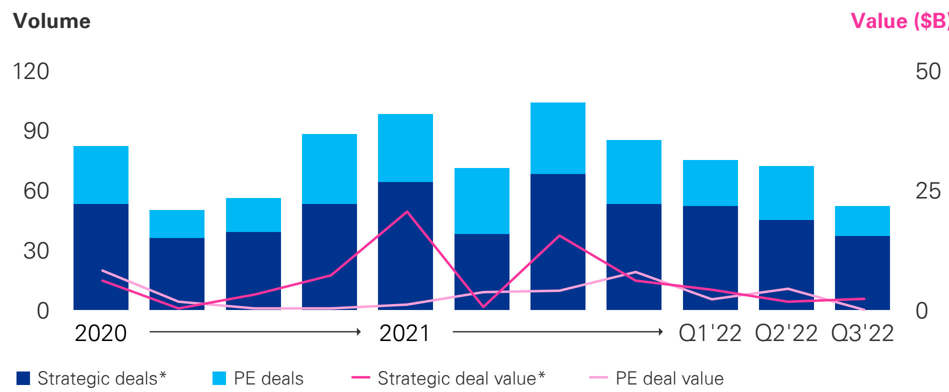
The overall value of Aerospace & Defense industry deals declined 61.6 percent from $6.1 billion in Q2’22 to $2.3 billion in Q3’22. At the same time, deal volume fell 27.8 percent, from 72 in Q2 to 52 in Q3.

The only category that showed an uptick in both volume and value was SPAC investment. The three SPAC transactions in Q3, versus none in the previous quarter, totaled $2 billion.

The infusion of $0.6 billion from Pono Capital Corp., a SPAC, to Aerwins Technologies Inc., maker of a luxury hoverbike, gives the air mobility company the ballast to be publicly listed on the NASDAQ Capital exchange.

Aerospace & Defense deal value and volume

Q3’22	
52 deals	**$2.3 billion**
-27.8%	-61.6%



*Includes SPAC deals (U.S. $2.0 bn SPAC value and 3 SPAC volume for Q3’22)

Top Aerospace & Defense deal in Q3’22

Acquirer	Target	Value (billions)
AERWINS Technologies	Pono Capital Corp.	$0.6

Adil Khan on notable aerospace trends

Commercial Aerospace is expected to be squeezed by continued OEM demands to add capacity, improve efficiency, and drive innovation while facing margin pressures from high inflation and persistent supply chain challenges.

By the numbers

Engineering, Infrastructure, & Construction M&A trends

Sustainability takes hold

Infrastructure and Construction dealmaking slowed in Q3’22 by 29.2 percent, from 349 strategic, PE, and SPAC transactions in Q2’22, to 247. Meantime, the overall value of those deals plunged nearly 80 percent from $16.5 billion in Q2’22 to $3.5 billion in Q3’22.

The top deal was MasTec Inc.’s strategic $1.1 billion purchase of Infrastructure and Energy Alternatives (IEA) in a stock and cash transaction. With this acquisition, MasTec, an infrastructure construction company, adds IEA’s renewable energy and specialty civil expertise to its clean energy and infrastructure segment.

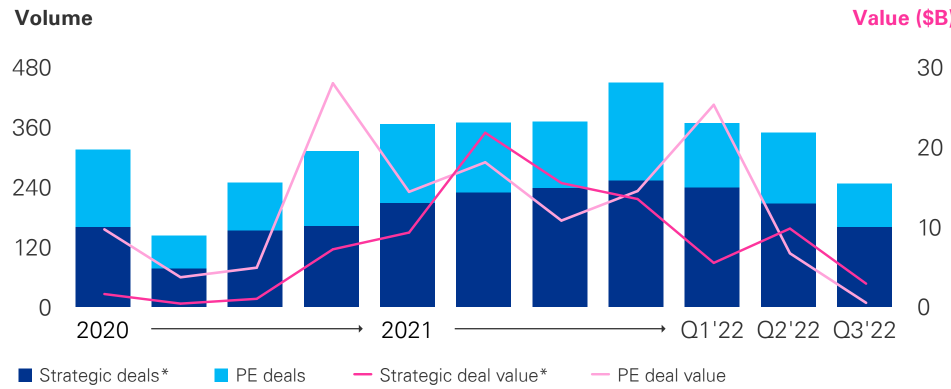
DiamondHead Holdings, a SPAC, invested $0.6 billion in starter-home builder Great Southern Homes, enabling the latter to be publicly listed, while DiamondHead will be renamed United Homes Group and trade under a new ticker symbol.

ABM Industries, a large provider of integrated facility services, made a $0.5 billion strategic deal to acquire Ravenvolt, which makes advanced turnkey microgrid systems. ABM also announced a commitment to the Science Based Targets Initiative, an organization that encourages firms to set emissions-reduction targets and other ambitious climate actions.

Engineering, Infrastructure, & Construction deal value and volume

Q3’22

247 deals	**$3.5 billion**
-29.2%	-78.8%



Top Engineering, Infrastructure, & Construction deals in Q3’22

Acquirer	Target	Value (billions)
MasTec	Infrastructure and Energy Alternatives	$1.1
Great Southern Homes	DiamondHead Holdings Corp.	$0.6
ABM Industries	Ravenvolt	$0.5
Ingevity	Ozark Logistics, Ozark Materials	$0.3

Rudi Moreno on how supply chain disruptions affect M&A activity

Buyers are having to conduct additional diligence to isolate the impacts of short-term supply chain issues from the underlying profitability of the business. We are seeing some delays in M&A activities as buyers and sellers work through this additional diligence to get to a fair valuation.

By the numbers

PE M&A trends

Biding time

Private equity (PE) activity in the Industrial Manufacturing (IM) sector in Q3’22 was depressed, with 28.1 percent fewer deals than in Q2’22. Those deals were significantly smaller also—their total value came to $20.2 billion, down 78.8 percent from Q2’22’s $95.4 billion.

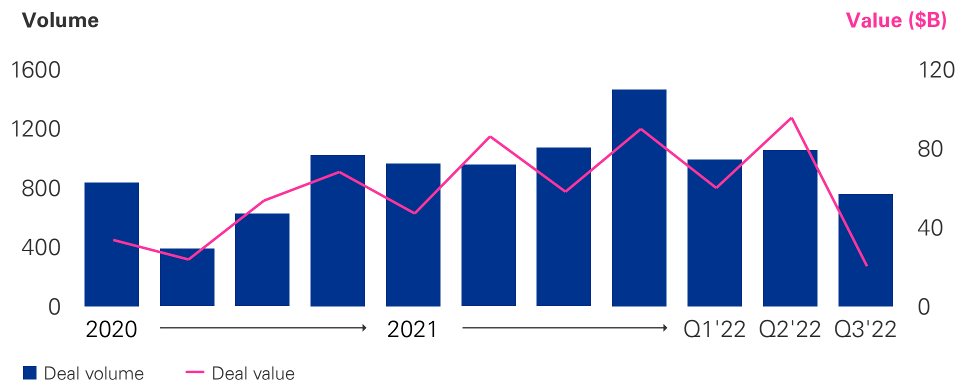
Several big transactions overshadowed the majority. Atlas Air Worldwide Holdings, a $3.2 billion global outsourcing company serving freight, commercial, charter, and military customers, attracted the attention of an investment consortium comprising Apollo Global Management, Hill City Capital, and J.F. Lehman & Co. The $5.2 billion deal will take Atlas private.

Bain Capital, which had acquired Italian paper and packaging manufacturer Fedrigoni in 2017, agreed to share ownership with rival buyout fund BC Partners for $3 billion. Fedrigoni is researching sustainable materials and working with customers to transition from plastic to paper packaging, with an eye toward the European Union’s proposed sustainability targets.

PE deal value and volume

Q3’22

758 deals	**$20.2 billion**
-28.1%	-78.8%



Top PE IM deals in Q3’22

Acquirer	Target	Value (billions)
Apollo Global Management, Hill City Capital, J.F. Lehman & Company	Atlas Air Worldwide Holdings	$5.2
Bain Capital	Evident Corporation (formerly Olympus Scientific Solutions)	$3.1
Bain Capital, BC Partners	Fedrigoni	$3.0
New Mountain Capital	PerkinElmer (Applied, Food and Enterprise Services Businesses)	$2.5

Deep dive

Modular construction may drive consolidation across the value chain

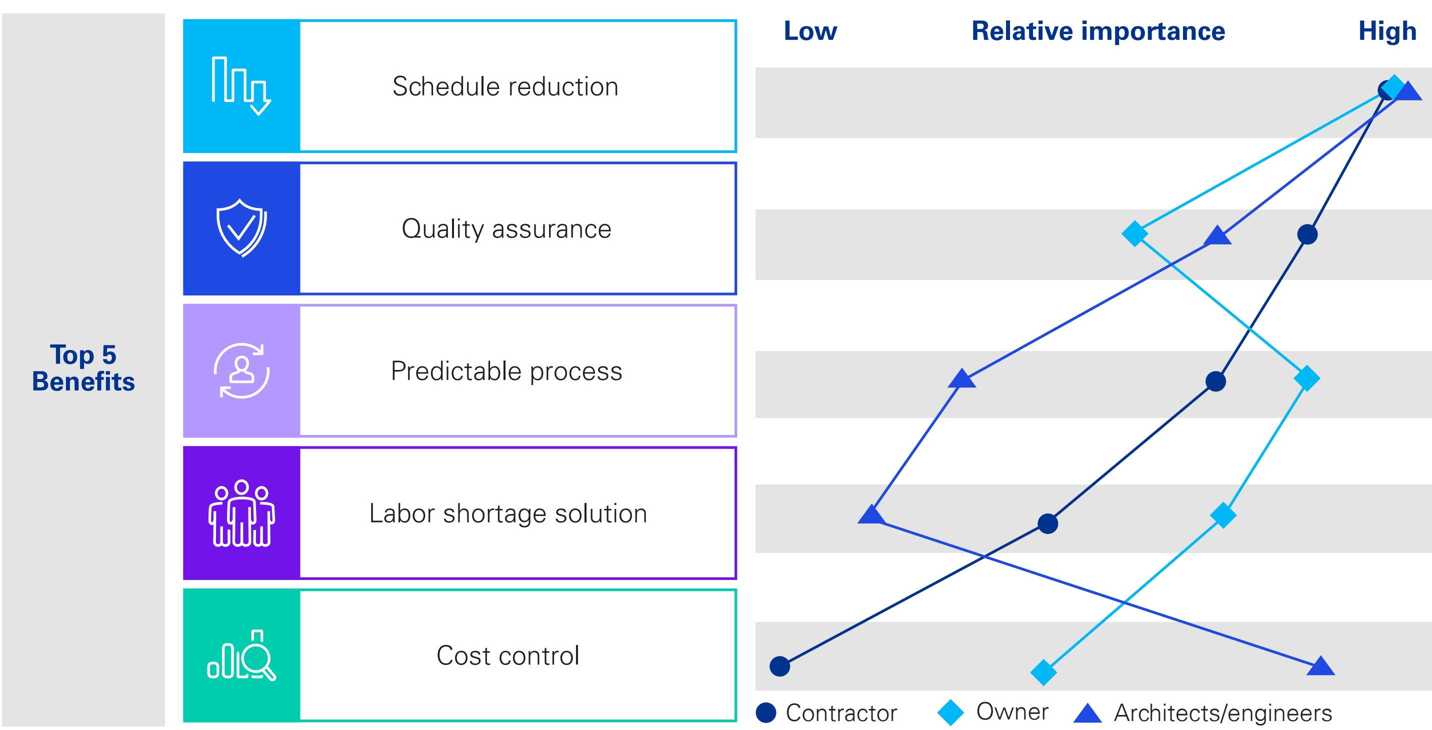
Modular construction (also referred to as prefabricated or industrialized construction) is well positioned to take share in certain construction markets. This will reshuffle value-driving activities, and therefore profits, across the value chain, and in so doing create opportunities for industry restructuring through M&A.

Long-standing labor shortages and cost increases plaguing all aspects of the construction industry could be alleviated by the time and cost savings derived from modular construction. In a 2020 report by Dodge Data & Analytics, 77 percent of trades sector respondents cited increased productivity as a top factor that would influence their use of prefabrication. Nearly three quarters (69 percent) believed the need to remain competitive dictates a move to modular, and 63 percent cited improved cost performance.[2]

In addition, external pressure in the form of government and regulatory initiatives to reduce waste and carbon emissions is ramping up. Modular component fabrication can address these issues through demonstrable advantages including reduced energy consumption, waste, and emissions, as well as simplified, replicable compliance reporting and management.

Initially considered primarily for residential applications (e.g., Katerra), modular construction is increasingly gaining traction in other building types where site conditions are challenging (i.e., poor site access, lack of storage space, limited labor supply), and where the application is repeatable (e.g., a building is "copy pasted" across locations). This dynamic is bringing modular construction to the forefront for offices, schools, government and military, agriculture, medical and healthcare, and hospitality facilities.

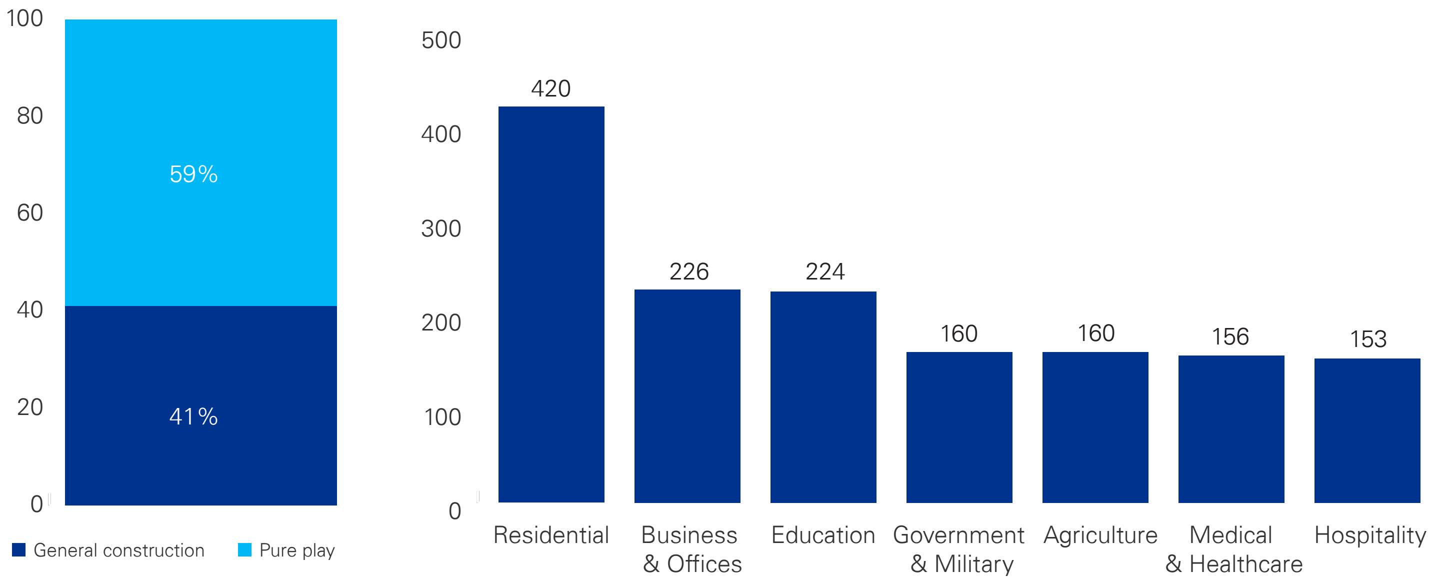
Modular construction benefits different players differently



[2] Source: "Prefabricated and Modular Construction 2020: SmartMarket Report," Dodge Data & Analytics

Modular construction suits a growing variety of applications

Modular companies by type



Modular construction requires different design, building, and installation capabilities compared to traditional construction. It will also require rethinking business models, given the fact that "copy-pasted" designs mean fewer billable hours for architects and structural engineers.

For construction managers, less off-site construction results in lower coordination needs and therefore reduced risk. However, that may reduce the perceived value they provide to building owners and developers. For the trades, labor implications are profound, as factory-based manufacturing will change the type of talent required, their hours, and working conditions. It will also introduce opportunities for robotics and other manufacturing technologies, while creating new sources of conflict with unions.

These changes will reorganize the drivers of value, and therefore profit pools. Two themes clearly emerge from our analysis of the impacts:

- "First mover" advantages for players that develop the capabilities and expertise in this nascent technology and can address customer concerns around construction quality through their experience—enabling them to gain share
- "Integrator" advantages for players that combine design, manufacture, and build capabilities for consistency of design and quality of execution. This could be achieved through partnerships or M&A, enabling them to reduce cost and risks to retain a higher share of profits.

However, modular know-how is highly fragmented. We identified more than 450 modular companies[3] with presence in the U.S., the overwhelming majority of which are small and bootstrapped, and more than 60 percent are pure-play. Although big players and private equity firms have made few investment inroads to date, the landscape affords opportunities for consolidation.

The exact impact on an individual business will vary with its exposure to risk areas—geographic and end-market concentration and specialization, for example—but most players need to carefully survey the current landscape. Investors and business leaders should be aware of the potential financial impact and plan mitigation strategies, because the most exposed may only have a narrow window to transform to a modular-friendly business model.

Serena Crivellaro
Managing Director
IM Advisory

[3] Source: KPMG teamed with Grata to conduct this research. Grata is a private company intelligence engine that streamlines the process of finding information and gaining visibility into the entire private company market, and acquiring relevant insights and intelligence into target companies. We would like to thank Grata for their collaboration in this research study.

Outlook

Buckle up

Industrial manufacturing M&A isn't immune from the concerns threatening the U.S. economy. In Q3'22, the Federal Reserve began what will be a several-month process of aggressively hiking interest rates. The federal funds rate will likely top out at around 4.5 percent by the time the Fed achieves its goal of slowing inflation—and that increase risks precipitating a recession in 2023.

Rising interest rates and market volatility have already tamped down both the overall volume and value of merger M&A transactions. The total number of deals in Q3'22 was down by 21.8 percent from Q2'22 and 28.1 percent from Q3'21. Those figures are likely to continue decreasing for the next few quarters.

Meanwhile, the need for more resilient supply chains remains. The Russia-Ukraine war hasn't just thrown energy markets into disarray, it has disrupted supply chains for auto and airplane parts and key materials for electric vehicle batteries. M&A transactions that backfill or plug gaps—such as Nikola's all-stock purchase of Romeo Power—are smart, strategic moves and small enough to be achievable in a high-interest environment.

Filling holes in cyber defenses is more critical than ever. The WannaCry ransomware virus, which remains a threat five years after it appeared, is just one infamous example. Smaller strategic transactions to strengthen cybersecurity capability, such as the AEI HorizonX-Boeing investment in Shift5, are viable moves to make now.

The intended result of the Fed's rate hikes is rising unemployment and consequently a lower level of consumer demand and spending, spelling pain for manufacturers that are sensitive to consumer demand. If, as anticipated, hiring slows and layoffs occur, the few bright spots through Q3, such as production of information processing and other business equipment, may dim. This could occur just as supply chain disruptions, in the new car market for example, are beginning to ease.

As European economies raise interest rates to battle their own economic problems, the dollar is rising appreciably against other currencies. While a strong dollar may encourage dealmakers to look for bargains overseas, any recession will not be confined to the U.S., so value shoppers will need patience before seeing a return on their investment.

Scott Heery
Partner
IM Advisory

Key considerations for the near future

We continue to emphasize three priorities for dealmakers to succeed:

1. **Study the underbrush:** Identify weaknesses and seek smaller deals that vertically strengthen the organization.
2. **Do more to retain skilled employees:** The "great resignation" is real. Adapt to the hybrid workplace or lose staff.
3. **Sustainability counts for more:** Whether airplanes or vehicles, technologies that reduce dependence on fossil fuels are the future. Maintenance & repair operations (MRO) are also key to sustainability.

Todd Dubner on disruptive technologies in IM M&A

Our research highlights that companies that frequently transact—both acquire AND divest—tend to trade at a premium to market. We expect that the disruptive technologies reshaping industrial markets will continue to drive M&A shifts in business portfolios.

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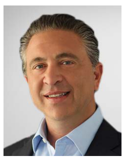

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