Crowe

Manufacturing monitor

Trends in PE dealmaking

Executive summary

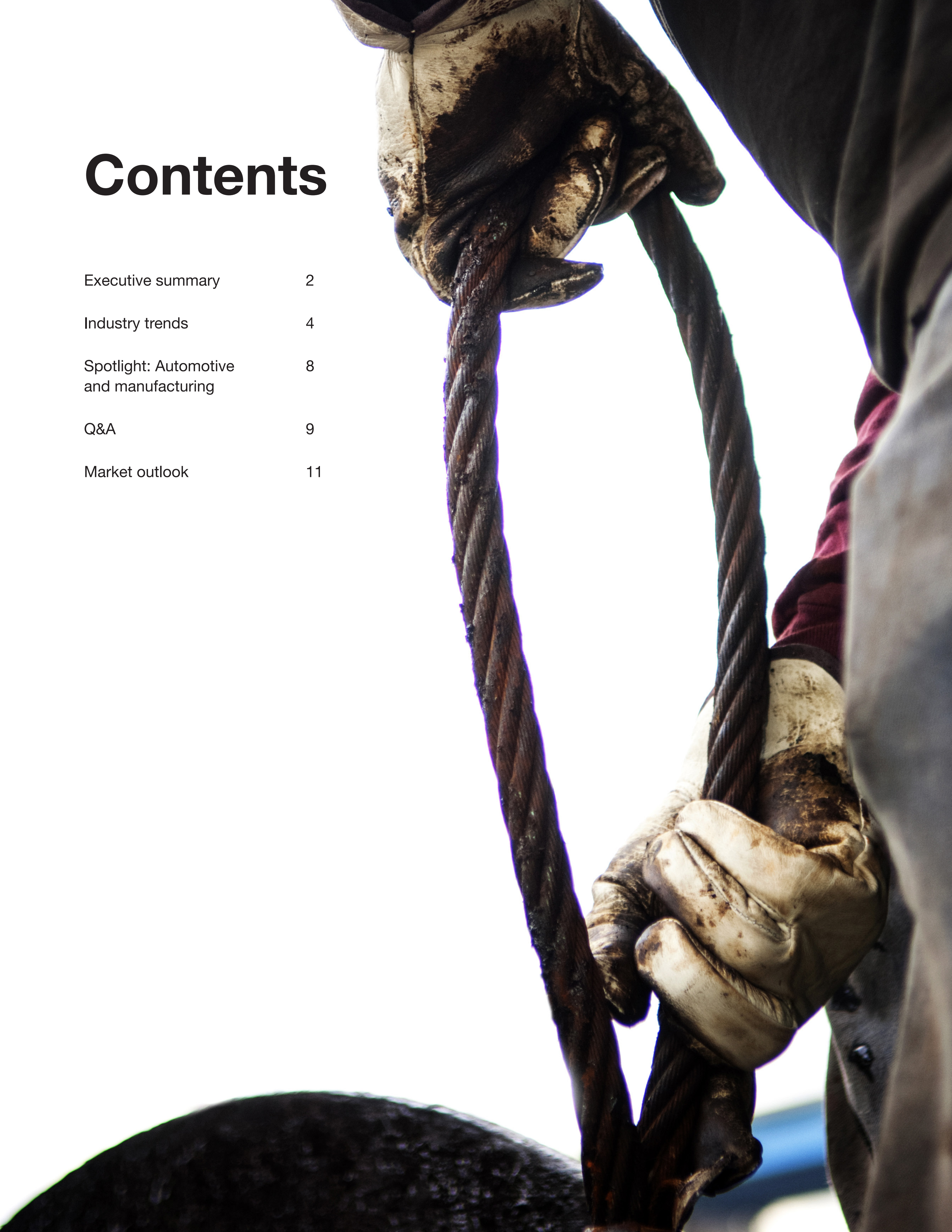
The manufacturing industry is a cornerstone of economic activity in the US, contributing significantly to GDP, international trade, and a robust supply chain. The fourth industrial revolution, referred to as "Industry 4.0," is underway with a focus on integrating new technologies into manufacturing, including Internet of Things, artificial intelligence & machine learning (AI & ML), and predictive maintenance.[1] Private investment data can reveal important trends surrounding consolidation and innovation. The following report provides detailed analysis of private equity (PE) and mergers & acquisitions (M&A) data in the US manufacturing industry. Key findings include:

- Manufacturers are facing several challenges, including expanded supply chain disruptions and inflated input costs. Early economic signals indicate cautious optimism for 2024, but volatility remains, and a full recovery is farther on the horizon.
- After reaching record heights in 2021, PE and M&A activity have both moderately declined as market conditions have worsened and investors focus on a more selective pipeline of portfolio companies. Larger deals continue to close despite stricter criteria and high interest rates, as investors are still willing to commit capital to the best-positioned companies.
- Add-on deals and strategic acquisitions remain significant drivers of private investment in manufacturing, contributing to industry consolidation.
- Cleantech, TMT, and industrials are among the top verticals that intersect with manufacturing. The transition toward electric vehicles (EVs) and widespread interest in reducing carbon emissions are motivating investment.
- Automotive manufacturers are contending with the EV transition, labor negotiations, and continued consolidation. PE activity in the space has slowed so far in 2023, but M&A activity has been more resilient.

1: "What Is Industry 4.0?" IBM, n.d., accessed November 22, 2023.

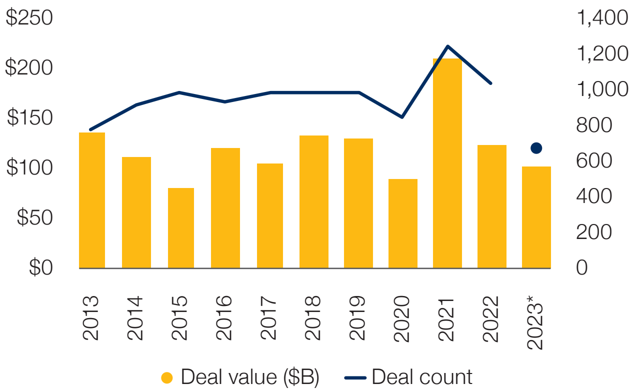
Contents

Executive summary	2
Industry trends	4
Spotlight: Automotive and manufacturing	8
Q&A	9
Market outlook	11



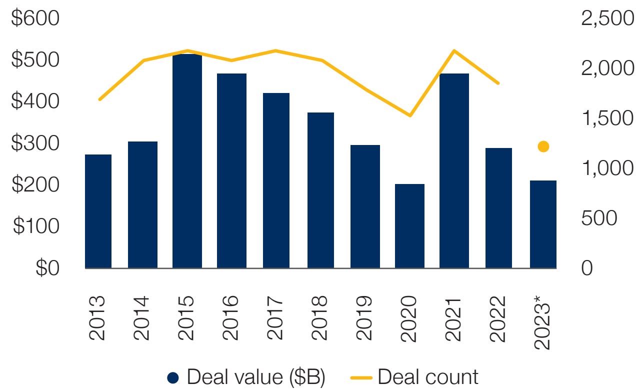
Industry trends

Figure 1: **Manufacturing PE deal activity**



Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 2: **Manufacturing M&A activity**



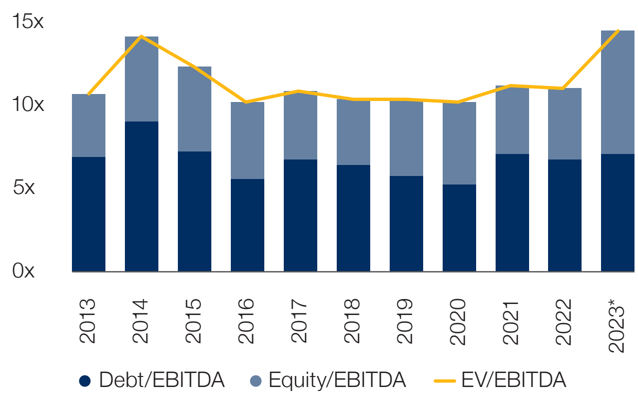
Source: PitchBook • Geography: US • *As of November 7, 2023

Economic uncertainty continues to weigh on private dealmaking in the US manufacturing industry.

Several major themes are at play in the US manufacturing industry. Concerns about economic growth remain widespread and have contributed to softer demand in several industries, impacting manufacturers. Federal Open Market Committee projections for 2024 real GDP growth are positive but low as of September 2023,[2] indicating the likely avoidance of a recession. The high-interest-rate environment has contributed to rising input and inventory costs, and supply chain snares continue to weigh on distribution plans, particularly through a freight industry faced with overcapacity and high fuel costs. The Federal Reserve's recent pause on rate hikes reflects progress in its fight against inflation, with the concept of a "soft landing" appearing more attainable. Assuming this progress continues, manufacturers can expect growth in operating costs to slow in the near term.

Financing costs would decline as well, which is of note for not only manufacturers but also PE investors in the space. Private investment can drive growth and innovation in an industry, but high interest rates have reduced the accessibility of leverage required for transactions and cut into returns for investors, weighing on PE activity as a whole. In general M&A, debt usage remains at its lowest mark in the past decade, although sample sizes are low. Coupling that with a surprising jump in EV/EBITDA multiples, it is clear that financial sponsors and companies are ready to increase equity contributions in the deals that they

Figure 3: **Median manufacturing M&A multiples**



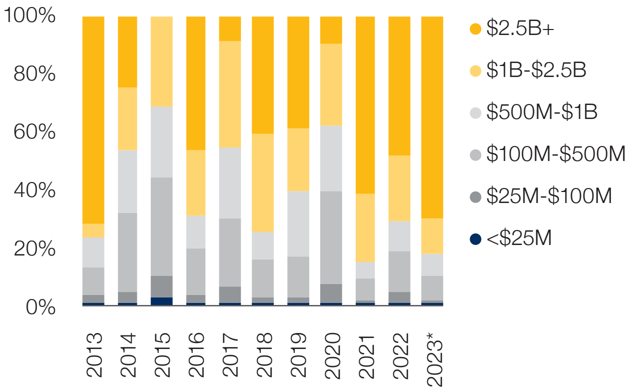
Source: PitchBook • Geography: US • *As of November 7, 2023

can get done in this tumultuous climate. However, this is also occurring because fewer deals are getting done than in the past, given a broad array of macroeconomic risks and increased costs of borrowing in the past couple years (Figure 3).

Manufacturing PE activity has held steady through most of the past decade, with upward of $100 billion in cumulative deal value generated in most years. Activity so far in 2023 appears on pace to match the total value closed in 2022 across notably fewer deals, as a smaller population of companies are able to secure large buyouts (Figure 1). The industry is aligned with a broader trend of greater investor selectivity seen throughout the private

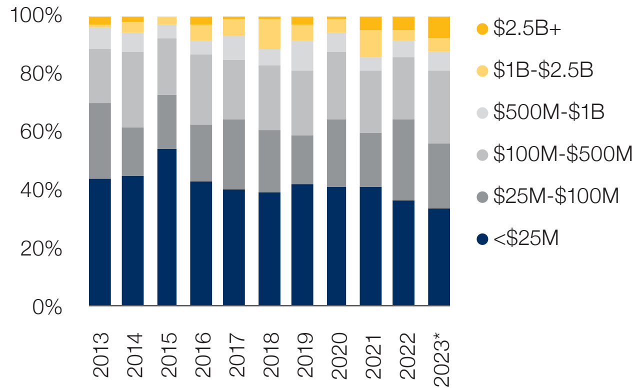
2: "Summary of Economic Projections," Federal Open Market Committee, September 20, 2023.

Figure 4: **Share of manufacturing PE deal value by size bucket**



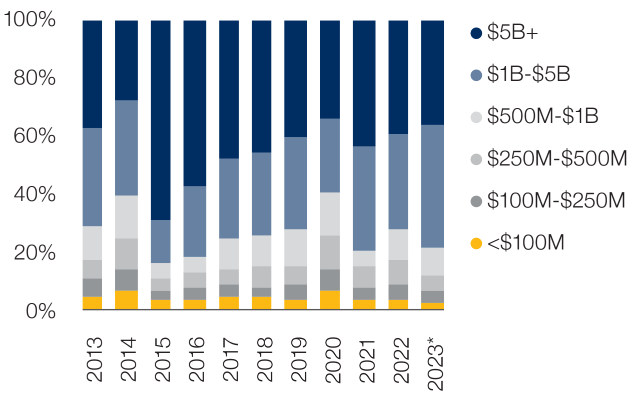
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 5: **Share of manufacturing PE deal count by size bucket**



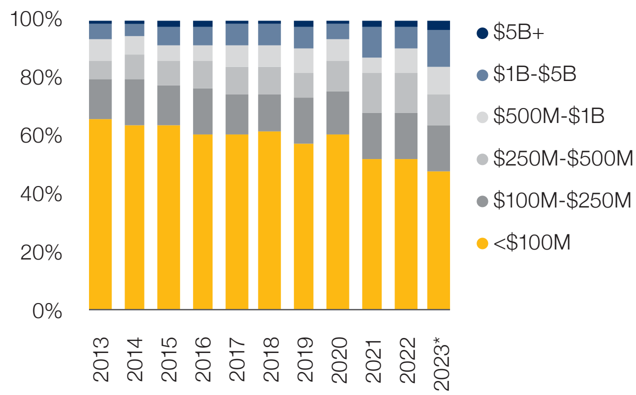
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 6: **Share of manufacturing M&A value by size bucket**



Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 7: **Share of manufacturing M&A count by size bucket**



Source: PitchBook • Geography: US • *As of November 7, 2023

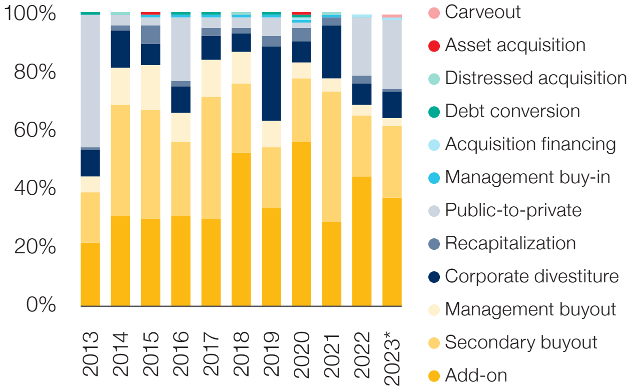
markets since 2022. M&A activity in the space follows similar trends, with deal count standing at just over 1,000 completed transactions for the year thus far, putting 2023 on pace to have even fewer deals than in 2020 or 2013, the lowest years for deal volume in the past decade (Figure 2). Overall M&A deal value is down moderately as well.

Interestingly, significantly sized deals are still occurring at a fair clip in 2023, even amid the slower market pace overall. PE deals over $1 billion account for 82.0% of total deal value YTD, up from 70.4% in 2022 (Figure 4), and 12.5% of total deal count YTD, up from 8.6% in 2022 (Figure 5). HVACR manufacturer Copeland closed the largest PE deal YTD with its $8.4 billion buyout, with investor Blackstone mentioning the company's focus on energy-efficient solutions as part of its future growth strategy. Deals of $1 billion or more also account for more of the slumped M&A tallies than in past years, which speaks to how quality deals can still get done, and also to the later stages of consolidation that occurred in hard-pressed manufacturing segments throughout the decade (Figure 6).

PE firms turn to take-privates and minority stake deals in a tougher market, while add-ons remain a major driver of industry consolidation.

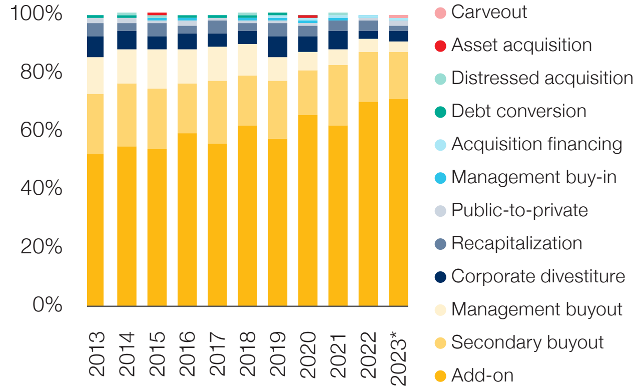
PE firms have gradually become more involved in the consolidation of the manufacturing industry over the past decade, with add-on deals accounting for more than half of total buyout deal count over the past four years (Figure 9). Secondary buyouts and take-privates have also driven significant portions

Figure 8: **Share of manufacturing PE buyout value by type**



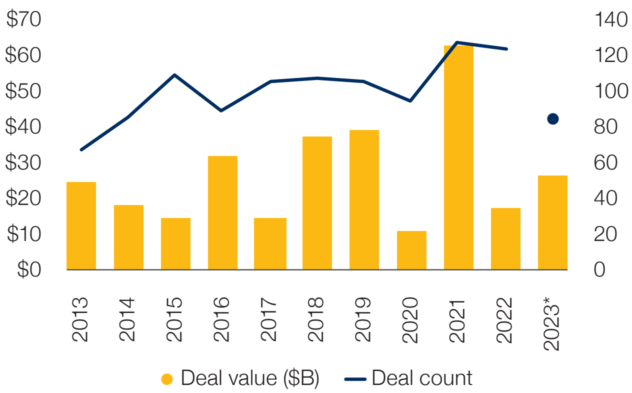
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 9: **Share of manufacturing PE buyout count by type**



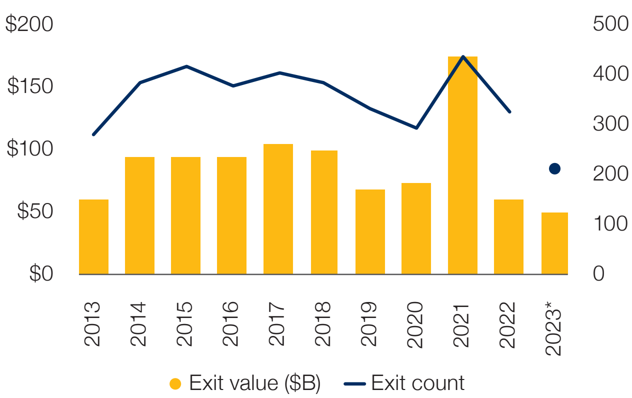
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 10: **Cross-border manufacturing PE deal activity**



Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 11: **Manufacturing PE exit activity**



Source: PitchBook • Geography: US • *As of November 7, 2023

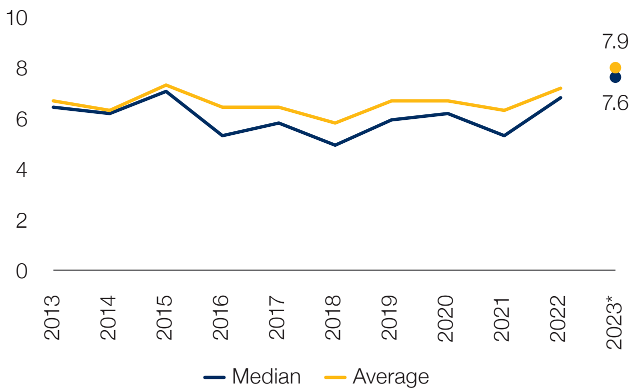
of total buyout value since 2022 (Figure 8), when the market began to take a downward turn. Attractive business models in fragmented markets such as industrial supplies provide an abundance of opportunities for firms to execute buy-and-build strategies. In fact, the industrials vertical is the largest driver of manufacturing deal value with $14.9 billion generated across 57 deals YTD. Other top verticals that commonly intersect with manufacturing PE investments include cleantech, TMT, and Lifestyles of Health and Sustainability & wellness. For manufacturing M&A activity, cleantech, TMT, and industrials stand out as the primary focal points, speaking to consolidation as well as ongoing financial sponsor activity thanks to their elevated dry powder and somewhat longer-term horizons.

Minority-stake growth & expansion deals are a small part of total PE activity in manufacturing, but their share of total deal count has ticked up to 19.9 YTD, which, if maintained through the end of the year, would represent their highest share on record. Higher lending costs and difficult market conditions have led some firms to diversify through minority-stake participation, which speaks to the ongoing evolution of private market investments through nontraditional channels and participants.

Cross-border manufacturing deals have been impacted by global tensions and supply chain shifts.

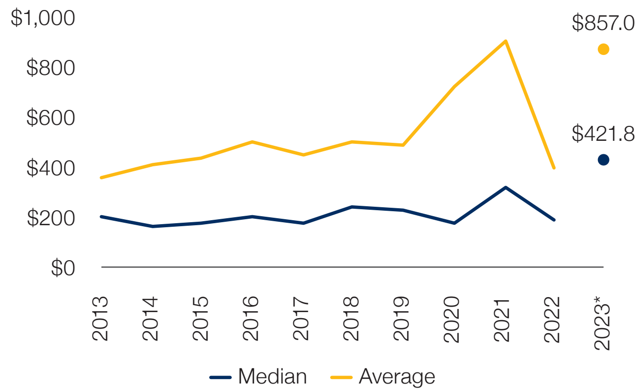
Cross-border investment activity often carries increased exposure to geopolitical tensions and regulatory changes, which heightened in 2022 amid the war in Ukraine. Cross-border PE dealmakers in manufacturing were resilient despite these challenges, with deal count barely decreasing between 2021 and 2022 (Figure 10). Deal value, however, declined

Figure 12: **Median and average manufacturing PE holding period (years)**



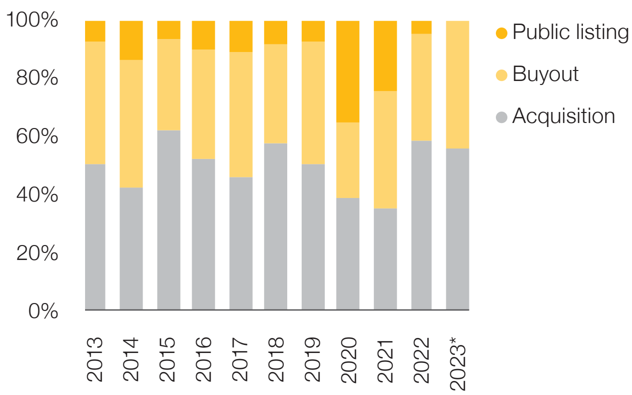
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 13: **Median and average manufacturing PE exit value ($M)**



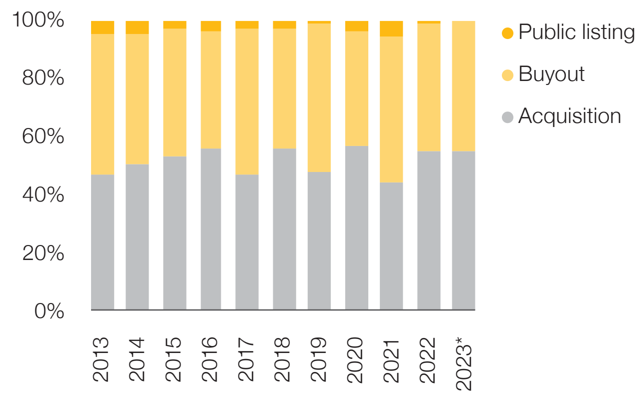
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 14: **Share of manufacturing PE exit value by type**



Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 15: **Share of manufacturing PE exit count by type**



Source: PitchBook • Geography: US • *As of November 7, 2023

significantly in the same period as valuation cuts drove deal sizes down. Challenges persist in 2023, but deal value YTD already exceeds last year's level by nearly $10 billion, while deal count lags with 83 deals YTD compared with 124 in 2022. Heightened tensions between the US and China are directing more attention to alternative cross-border investment routes as the two nations seek to reduce their dependence on each other. Semiconductor manufacturing has taken center stage in this environment, with the US CHIPS and Science Act of 2022 enacted to bolster domestic production of semiconductors, a sector currently dominated by Taiwan. The restructuring of global supply chains toward the US and its allies, known as reshoring and friendshoring, respectively, have been identified as areas of focus by the US federal administration. Increased sanctions and protectionist trade policies will apply downward pressure on US private investment in China and its allies while supporting activity with other nations such as Mexico and India. For now, the top countries that invest in the US through PE transactions are Canada, the UK, and France.

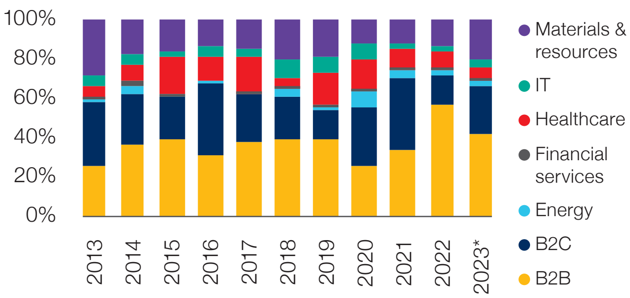
The exit environment remains challenging, and holding periods are extending.

PE exit activity remains in the shadow of 2021's peak highs as firms contend with lower portfolio company valuations and dim prospects in the public markets, though strategic acquisitions and secondary transactions are still viable options for some (Figure 11). Acquisitions outnumber buyouts YTD, and no public listings have closed (Figure 15). PE holding periods are ticking up due to the ongoing subdued exit period (Figure 12). It remains to be seen how much longer that timeline may affect the restructuring needs of PE portfolio managers. Of the exits that have occurred, some are more sizable than others, pushing the proportion of larger exits to new highs overall.

Spotlight

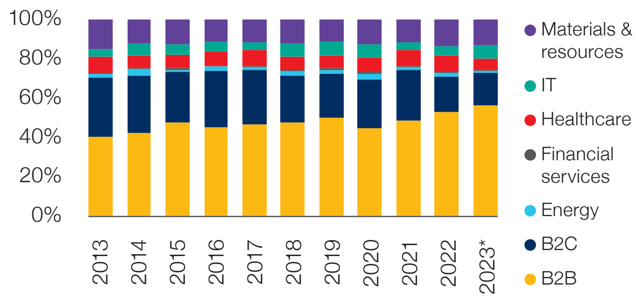
Automotive and manufacturing

Figure 16: **Share of manufacturing PE deal value by sector**



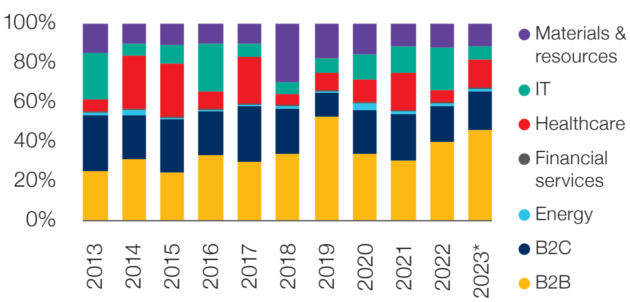
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 17: **Share of manufacturing PE deal count by sector**



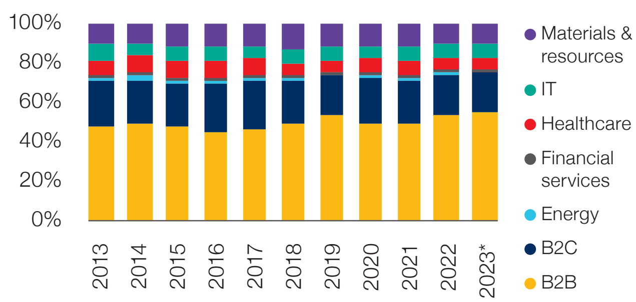
Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 18: **Share of manufacturing M&A value by sector**



Source: PitchBook • Geography: US • *As of November 7, 2023

Figure 19: **Share of manufacturing M&A count by sector**



Source: PitchBook • Geography: US • *As of November 7, 2023

Automotive manufacturers face hurdles including labor initiatives and pressure to pursue EV production, resulting in slower dealmaking and greater consolidation.

Another major theme in US manufacturing is the automotive industry's transition toward EVs. Introducing these complex new product lines is a slow and ongoing process for most major incumbent vehicle manufacturers, and potential disruptors face high barriers to entry. Coupled with the 2023 United Auto Workers strike and newly ratified contracts for General Motors, Ford Motor, and Stellantis,[3] the automotive industry's EV transition will be a notable case study in manufacturing transformation and the impact of federal legislation. The Inflation Reduction Act of 2022 introduced incentives for EV purchases and restrictions on the production of related technology, such as semiconductors used in EV chargers.[4] Manufacturers in the auto space have closed several major PE deals in recent years, contributing to the wider B2C industry's portion of total deal value and count, which is typically the second-largest driver of activity, trailing only the B2B industry (Figures 16 and 17).

Autonomous vehicles (AVs) present another opportunity for investors to gain exposure to transformative technology, with several of the largest automotive PE deals on record secured by General Motors subsidiary Cruise. Road safety incidents involving AVs and stalled federal legislation challenge widespread adoption, however.

So far this year, automotive manufacturer dealmaking has slowed materially with just six PE deals closed YTD compared with 29 in 2022. Consolidation, however, has been more resilient, with 20 M&A deals closed YTD compared with 36 in 2022. The market backdrop of fewer exit options and desire to compete at scale have made M&A deals an attractive option for automotive manufacturers.

3: "Done Deals: UAW Confirms Ratified Contracts With GM, Ford and Stellantis," The Detroit News, Breana Noble, November 20, 2023.
4: "Fact Sheet: Biden-Harris Administration Announces New Private and Public Sector Investments for Affordable Electric Vehicles," The White House, April 17, 2023.

Q&A

Crowe specialists weigh in

Andrea M. Meinardi

CPA – Managing Partner, Manufacturing

Andrea has more than 20 years of experience providing services to middle-market, nonpublic clients in the manufacturing industry in the areas of financial statement audits, employee benefit plan audits, and financial reporting. She has assisted both domestic and foreign-owned entities with significant international operations and reporting requirements.

John Kurkowski

CPA – Managing Partner, Private Equity

John has more than 30 years of experience conducting audits and reviews as well as providing financial advisory services to privately held and publicly traded clients in manufacturing, distribution, and service industries. John also oversees the delivery of M&A solutions to help private equity firms and their portfolio companies maximize value—from investment to realization.

Among the macroeconomic and market changes that manufacturing businesses have been grappling with all year, which do you think are the most impactful?

As supply chains have steadied and interest rates have risen, we've noticed a shift toward inventory management issues. The significant rise in interest rates and the tightening of the credit markets have both contributed to softened demand. The biggest impact here is on hard goods, as most companies use a line of credit to purchase hard goods. Because rates were so low for so long, companies could build up inventory. As interest rates increased, businesses struggled to optimize inventory to preserve profits. We've been helping our clients with strategies to reduce inventory and avoid overbuying going forward (because the cost of capital has gone up).

While it's less of a struggle to get a product, we're encouraging clients to embed resiliency in their supply chain with some redundant sources. However, if companies don't also address forecasting and enterprise resource planning (ERP), they could get into a situation where they've cut the inventory, but any supply chain snags could create more ripple effects. That's why it's important to "de-risk" the supply chain, identify what's coming, and find alternate sources. We're seeing more companies consider onshoring to add resiliency to their supply chain, with dual sourcing in both Asia and the Americas. Bringing in a third party can also help with strategic sourcing, as a third party can help both locate new suppliers and potentially negotiate more effectively. The bottom line is, we're shifting from a need to get product however possible to a need for flexibility and elasticity in the supply chain—which requires a shift from the mindset of procurement to true strategic sourcing.

We've also noticed a shift in pricing. During the pandemic, price increases were pushed through at unprecedented rates. We found some companies weren't on top of those price increases and were either late in passing them through to their customers or didn't pass them through at all. The clients who stayed on top of the shifts and maximized those price increases were better able to stabilize margins. As things have calmed, we are beginning to see businesses reconsider and revisit those price increases.

From a macroeconomic perspective, it's also important to consider the health of consumers, as they drive almost 70% of the gross domestic product,[5] as well as the continued roll out of government programs and spending that will affect certain sectors, like infrastructure.

Which key regulatory changes or potential shifts are you watching closely, and why?

Our team continuously monitors any pending or proposed legislation for tax implications. Both the business interest limitation in Internal Revenue Code (IRC) Section 163(j), which is affected by raising interest rates, and the changes to IRC Section 174, which allows businesses to amortize or deduct certain research and development costs, have created unexpected taxable income for many businesses. However, we've successfully worked through these challenges with some of our clients and we're waiting to see how Congress may further consider Section 174.

We're also looking carefully at how the private markets (private equity and private credit) might see increased regulation because of how much capital has moved into these markets.

We're seeing more clients ask about managing environmental, social, and governance (ESG) expectations and requirements for their business. The proliferation of ESG-related regulations

5: "Shares of Gross Domestic Product: Personal Consumption Expenditures," U.S. Bureau of Economic Analysis, n.d., accessed December 8, 2023.

in the US and European Union (EU), in particular, is driving significant compliance efforts while increasing the risk of supply chain disruptions. Regulators, investors, customers, and other stakeholders are increasingly pressing for transparency and data-driven reporting around key ESG metrics. Those metrics include climate risk and greenhouse gas emissions; diversity, equity, and inclusion measures; anti-human trafficking efforts; and broad supply chain due diligence. It's vital for manufacturing clients to understand these issues and source reliable data present to their stakeholders. A variety of ESG-related regulatory changes may affect manufacturing businesses, both recently implemented or proposed. The Securities and Exchange Commission's proposed climate rule has garnered a lot of attention and could be finalized in Q1 2024. The recently enacted California climate reporting requirements will affect thousands of public and private companies that do business in the state. The EU's Corporate Sustainability Reporting Directive and Carbon Border Adjustment Mechanism are complex, with significant new reporting obligations. In fact, US companies supplying products to EU customers are already feeling the impact of data surveys and new procurement obligations. Product compliance regulations related to per- and polyfluoroalkyl substances and California Proposition 65 are expanding as well. We continue to watch developments in the ESG space closely, especially considering the number and frequency of these shifts.

Based on your experience with manufacturing clients this year, plus the industry trends context, which risks are still underrated for such businesses?

Continued shortages of skilled labor and pressure on wages—with no real end in sight—continue to force our clients to examine ways to increase efficiencies, versus focusing on optimizing costs. Overall, we're working with clients to make their current workforce more efficient and effective, balancing their employees' quality of life and level of work with rising wages and the hidden costs of overtime. We're also helping clients compete in the marketplace when it comes to labor. Many of our clients are seeing other manufacturing or distribution businesses open in their area with more attractive working conditions or salaries. In fact, as inflationary pressures have driven up entry-level wages, we've noticed that the wage premium typically associated with manufacturing jobs (compared to retail or food service, for example) has significantly decreased. With the generational shift in priorities around work environments and wages, it's vital for manufacturers to understand their offerings while balancing employee and business needs.

Cybersecurity tends to be a massively underrated risk. Many manufacturers don't see their businesses as prime targets, so they are not taking appropriate steps for protection. However, this lack of defense makes certain companies attractive to cyberthreats, and methods of breeching cybersecurity (like phishing) are getting more complex. For example, we are seeing multiple clients conned into sending money wires. Additionally, many of our clients don't realize that a cyberattack doesn't need to take down their whole system to do serious damage to their business. Often, smaller incidents can pile up and cause just as much, if not more, harm. That's why it's vital for manufacturers to be proactive and consider seeking help from an experienced third party that can their assess current measures and recommend new approaches.

On the flip side, what are some of the promising signs that dealmakers and executives within the space may not be discussing as widely?

With China's sluggish economy and supply chain issues, there are significant opportunities to continue to repatriate manufacturing back to the United States. Also, there are opportunities for further automation.

While same-store sales are flat this year and there is conflicting data around consumer spending, there is some optimism that demand will pick up soon. As retailers were struggling with inventory levels, they started buying more from their distributors. In the near future, we see demand picking up with the manufacturers who are supplying those distributors. The pandemic showed companies they can run their business and problem solve in a variety of ways, while still maintaining resiliency. We saw businesses cut costs in anticipation of a market drop, and when that didn't happen as expected, that money went to the bottom line. Some companies also recognized where remote work is beneficial, whether through positive effects on their selling, general, and administrative footprints, the ability to access new workforces and offshore positions, or reducing office space.

We are hearing that some investors feel like the credit markets have started to offer more clarity. We know rates likely will stay flat for now, and we might see the Fed decrease rates in the third and fourth quarters. What's currently driving up rates in the private equity space are the margins between the Fed rate and bank rates, which are above normal levels, driving up rates for private equity activity. We're seeing those margins align with historic margins, which should drive down the rates by at least 1%. All of this, along with valuation expectations beginning to adjust, suggests a rebound in 2024 deal activity.

Market outlook

The global economic outlook remains cautiously optimistic, and manufacturers will feel the effects of further volatility acutely.

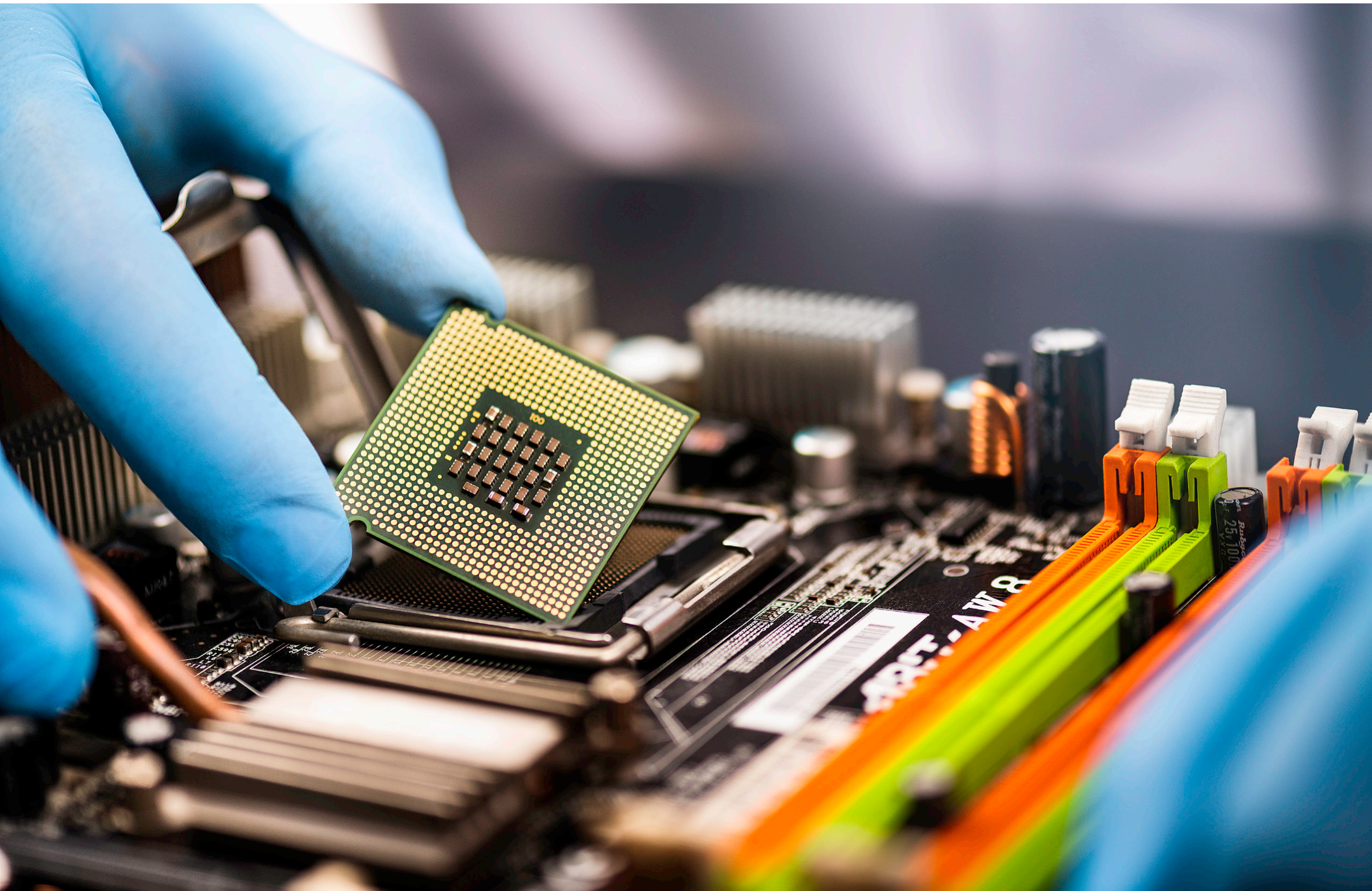
The global economic outlook remains cautiously optimistic, and manufacturers will feel the effects of further volatility acutely. The ability to control costs and maintain efficient distribution channels will be critical over the next several quarters even amid more positive economic signals, such as slowing inflation. Private investment activity remains an important driver of overall growth and innovation in the industry despite a slower pace of dealmaking.

Private investment in the manufacturing industry will follow emerging technologies, such as AI & ML and expanded applications for 3D printing, and additive manufacturing in spaces such as healthcare and customized consumer goods. Robotic process automation and smart-factory technologies have also garnered attention among manufacturers seeking greater efficiencies in their operations. B2B manufacturers will continue to drive a significant portion of private dealmaking with a particular focus on industrial products. The broader focus on corporate carbon emissions and sustainability efforts will drive dealmaking in cleantech and related verticals.

Automotive manufacturers will continue acquiring and making direct investments in electronic and autonomous vehicle technologies alongside public sector support. A complete transition to a majority EV automotive industry is a long way off, however, as manufacturers must contend with short-term market challenges and long-term infrastructure limitations. In the meantime, production of hybrid vehicles and strategic consolidation will likely increase.

Methodology

PitchBook utilized its standard report methodologies for PE and M&A deal activity, found here. Data reflects only completed deals and utilizes primary PitchBook industry and vertical codes.



crowe.com