Creating value in a turbulent world

M&A trends in industrial manufacturing

2022

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Introduction

Optimism prevails despite rising volatility

Following a record-breaking year in 2021, M&A activity in the industrial manufacturing (IM) sector was sluggish over the last 12 months, with deal volume falling by 17 percent, and deal value plummeting by 51 percent.[1] This trend was repeated across the various subsectors.

According to a recent KPMG survey of dealmakers in manufacturing, the major barriers to deals were the high cost of capital and interest rates, with half of respondents expecting to see a further decrease in activity in 2023.[2]

Private equity's (PE) share of industrial manufacturing deals remained steady at 40 percent, although PE buyers accounted for just over half of total IM transaction value. PE deals overall fell by 19 percent to 3,602, with value down by 28 percent to $201 billion.

The automotive subsector held relatively steady in terms of M&A volumes, with a decrease of 11 percent, although deal value slid significantly by 56 percent. M&A activity continues to be driven by vehicle electrification, as carmakers seek to acquire engine, battery and charging technology and infrastructure. Electric powertrain manufacturer Cummins' $3.8 billion acquisition of Meritor[3] exemplified this approach.

For aerospace and defense (A&D), total deal value was approximately $34 billion—a drop of 43 percent from the previous year. The largest transaction saw Advent International acquire Maxar Technologies for $6.4 billion.

Category expansion is the name of the game in engineering and construction (E&C) M&A. Nevertheless, M&A activity remains depressed as a contraction in the housing market and broader macroeconomic uncertainty have put several deals on hold. Despite deal volume only dropping by one-fifth, deal value was down by nearly half to $61.5 billion.

The transport and logistics deal landscape was dominated by PE Blackstone's $63 billion purchase of Italian infrastructure giant Atlantia.[4] But this wasn't enough to prevent a 57 percent plunge in transaction value for this subsector—despite a bright start to the year in terms of deal volume. Respondents to the KPMG survey remain optimistic about M&A prospects for 2023. Their top strategic priority is growth via

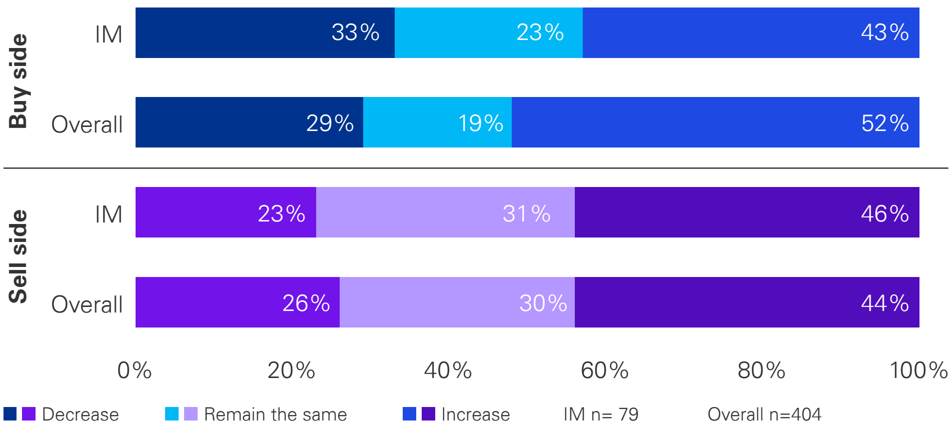
Key statistics

17% decrease in IM volume from 2021 to 2022, while IM deal value decreased 51 percent YoY.

77% of IM executives expect sell-side deal activity to remain the same or increase in 2023 as compared to 2022.

40% PE share of IM deals in 2022—PE buyers accounted for 52 percent of total value ($388.9 billion).

"Compared to the last 12 months, do you expect deal activity in your industry to increase or decrease over the next 12 months?"



[1] Source: Data was sourced from CapitalIQ, Refinitiv, Pitchbook, and KPMG analysis. See page 4 for further detail.

[2] Source: KPMG Annual Senior Executive M&A Survey, December 2022

[3] Source: "Cummins Buying Meritor In $3.7 Billion Deal, Accelerating Auto Supplier Consolidation," Forbes, February 22, 2022

[4] Source: "Blackstone and Benetton family take Atlantia private in blockbuster infrastructure," Bocconi Students Investment Club, May 1, 2022

geographic and/or channel expansion, as well as salesforce enhancement. M&A, however, ranked second on their strategic to-do list.[5] Sixty-eight percent expect buy side deal volume to increase or stay the same, and even more - 77 percent - expect sell side deal volume to increase or stay the same.

Looking ahead to 2023, we see the following trends driving IM deal activity helping pave the way from traditional to smart industrials:

- **Rationalization of complex portfolios to focus on core strengths, with regular divestments creating value for shareholders.** In the recent KPMG report, *Divesting in a downturn: Staying committed to a long-term strategy has its rewards*, we argue that economic stress can serve as a useful catalyst to divest.
- **A rise in buying and separating, as evidenced by the spin-off of Cummins' filtration business (Atmus Filtration Technologies) into a new company.[6]** In another example, Qualcomm outbid competitors for Veoneer in a $6 billion deal, retaining the high technology division of the automotive safety business and selling off the remainder.[7] In the absence of corporate buyers, sellers are also attracted by spin-offs, although these are by no means a slam dunk for value creation—they require strong capabilities on the part of buyers, something we discuss in greater detail later in this report, where we observe the growing number of PEs using their expertise to succeed in this space (see page 11).

In a challenging macroeconomic environment, combined with often unrealistic seller expectations over price, buyers will require an "all-synergies-on-deck" approach for deals to get done, with a high degree of confidence in synergy estimates. Indeed, the rising complexity of transactions calls for a relentless pursuit of synergies and constant attention to preventing value leakage. For more on this, see our paper *Navigating complex M&A*.

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IM Leader

[5] Source: KPMG Annual Senior Executive M&A Survey, December 2022

[6] Source: "Cummins Filtration Announces 'Atmus Filtration Technologies' As The Company's Name Upon Becoming A Standalone Company," Cummins Newsroom, November 10, 2022

[7] Source: "Qualcomm acquires Veoneer for $4.5 billion, canceling its agreement with Magna," TechCrunch, October 4, 2021

By the numbers

Activity falls amid recessionary fears

Although IM deal volume fell from its record high in 2021, U.S. IM companies participated in over 8,000 deals in 2022—higher than 2018-2020. Across subsectors, A&D suffered the greatest decrease in volume (30 percent) while automotive experienced the most narrow decline of just 11 percent.

But deal value suffered from the rising cost of capital and broader economic uncertainty, dropping by more than half to below the $400 billion mark.

PE dominated the rankings, with Blackstone's acquisition of Atlantia dwarfing all other deals in terms of value.[8] Even though transaction volume and value both fell, PE had a relatively stronger year compared to other buyers.

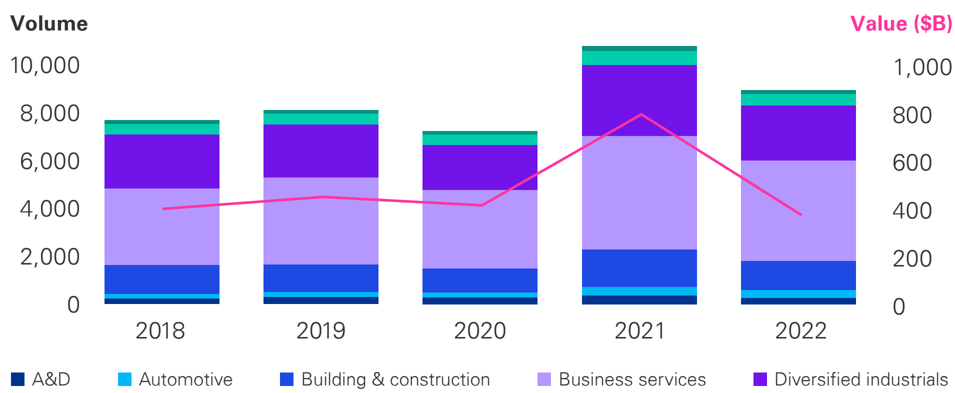
Strategic deal value dropped by more than 55 percent, as corporate buyers were deterred by financial limitations and concerns over postdeal complexity. None of the individual subsectors managed to retain their 2021 value levels, with business services experiencing the greatest year-over-year decline, plunging by almost 60 percent to just $76.8 billion in total deal value, lower than in any of the previous five years.

Transportation and logistics (T&L) saw strategic deal value fall by a huge 79 percent, although the impact was softened by a marginal (1 percent) increase in PE deal value, meaning that overall T&L deal value declined by 58 percent. Automotive PE deal value was also down significantly—by 76 percent year-over-year, while the value of strategic automotive deals fell by less (37 percent) as corporates continued to invest in EVs.

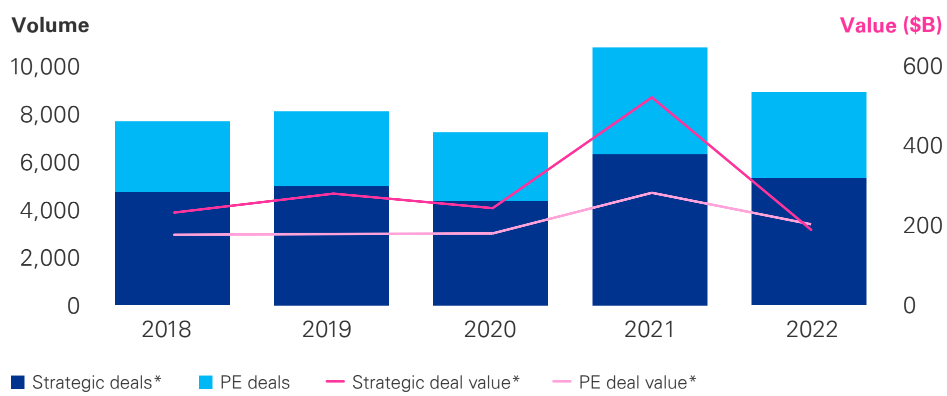
Top IM deals 2022

Acquirer	Target	Value (billions)
Blackstone, Edizione	Atlantia	$63.0
Blackstone, Abu Dhabi Investment Authority	Emerson Electric	$14.0
Brookfield Renewable Partners, Cameco Corporation	Westinghouse Electric Company	$7.9
Ritchie Bros.	IAA	$7.3

U.S. IM activity by sector



Strategic and PE IM deals



*Includes SPAC deal volume and value

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 between 1/1/2022 and 12/10/2022. Deal values are only presented based on publicly available deal data and are not exhaustive. Previously published statistics may be restated to incorporate new data and/or changes in deal outcomes.

[8] Source: "Blackstone and Benetton family take Atlantia private in blockbuster infrastructure," Bocconi Students Investment Club, May 1, 2022

By the numbers

Automotive M&A trends

EV transition continues to drive deals

Of all the IM subsectors, automotive has had the steadiest 12 months for M&A, with deal volume down marginally at 314 and deal value of $33.1 billion. While well below 2021 activity, 2022 automotive deal value and volume still outpaced 2018-2020. Interestingly, there has been a shift from PE to strategic deals in terms of value, which bucks the trend in other subsectors and reflects automotive corportates' race to electrify vehicles.

Indeed, the electric vehicles (EV) transition is the driving force behind transactions, which have continued in the wake of rising financing costs. Deals in the auto aftermarket, for instance, are increasingly focused on consolidation of auto parts, and EV-specific and powertrain- agnostic parts.

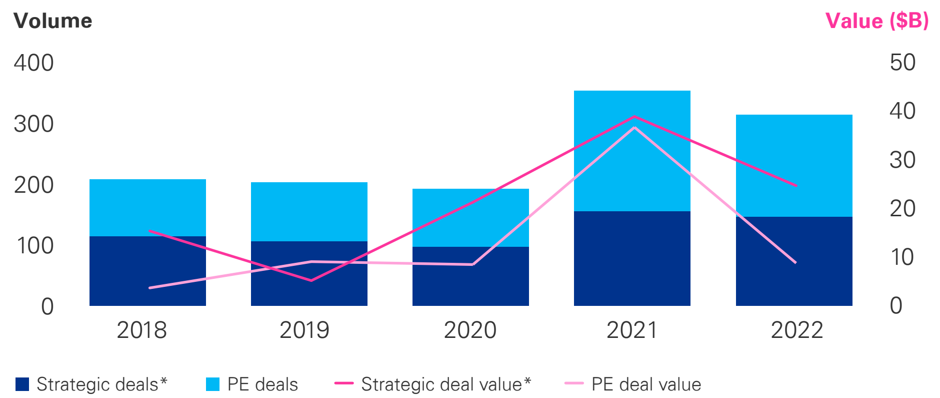
Topping the 2022 rankings was Apollo Fund's $7.1 billion acquisition of Tenneco, a leading maker of automotive products for OEM and aftermarket customers.[9] In another notable deal, chipmaker Qualcomm and SSW Partners' purchased Swedish automotive tech company Veoneer for $4.5 billion, with SSW selling Qualcomm the advanced driver assistance system business.[10]

Automotive supplier BorgWarner's $500 million investment in semiconductor manufacturer Wolfspeed reflects the growing reliance of vehicles on chips.[11] And PE Brookfield Business Partners acquired automotive software company CDK Global for $6.41 billion.[12]

Automotive deal value and volume

2022

314 deals	**33.1 billion**
-11.0%	-56.0%



*Includes SPAC deal volume and value

Top automotive deals 2022

Acquirer	Target	Value (billions)
Apollo Funds	Tenneco	$7.1
Aptiv	Wind River Systems	$4.3
ECARX Holdings	COVA Acquisition Corp.*	$3.8
ICONIQ Holding Limited	East Stone Acquisition Corporation*	$2.5

*Transactions were SPAC mergers

[9] Source: "Apollo to take Tenneco private for $7.1bn," Financier Worldwide, May 2022
[10] Source: "Qualcomm acquires Veoneer for $4.5 billion, canceling its agreement with Magna," TechCrunch, October 4, 2021
[11] Source: "BorgWarner invests in Wolfspeed," electrive.com, November 17, 2022
[12] Source: "Brookfield to buy automotive software maker CDK Global for $6.41 bln," Reuters, April 7, 2022

Aerospace & defense M&A trends

Consolidation and diversification on the agenda

It was a subdued year for the A&D sector, with a 29 percent decrease in the number of deals and a hefty 43 percent decline in deal value.

Digital transformation is a huge driver of deals. The largest transaction of the year, Advent International's $6.4 billion purchase of Maxar Technologies, reflects the shift to technology-driven defense and insights.[13]

Space is growing in importance as a defense domain and in the civilian segment, and space-aligned companies are continuing to access public markets. For example, space exploration company Intuitive Machines announced its plan to go public via merger with special acquisition company Inflection Point in a deal worth $815 million.[14] In another merger, valued at $4.7 billion, A&D technology innovator L3Harris acquired propulsion systems company Aerojet Rocketdyne to further enhance national defense and space exploration initiatives.[15]

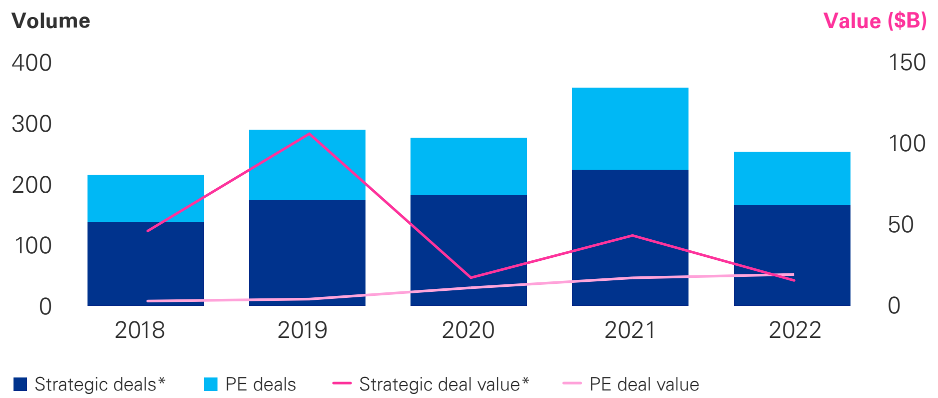
The highly fragmented government services sector continues to consolidate as contractors seek differentiated offerings aligned to high growth markets and scale economies spurred by PE firm roll-up strategies. Additionally, aerospace companies are seeking to reduce their reliance on a depressed commercial aviation sector by diversifying into defense via M&A.

Aerospace & defense deal value and volume

2022

253 deals
-29.3%

$33.9 billion
-43.1%



*Includes SPAC deal volume and value

Top aerospace & defense deals 2022

Acquirer	Target	Value (billions)
Advent International (Shonnel Malani)	Maxar Technologies	$6.4
L3Harris Technologies	Aerojet Rocketdyne Holdings	$4.7
The Carlyle Group	ManTech International	$4.2
Vertex Aerospace Services	Vectrus	$2.1

[13] Source: Maxar Technologies To Be Acquired By Advent International for $6.4 Billion," Maxar Technologies Press Release, December 16, 2022

[14] Source: "Inflection Point Acquisition Files S-4 on $815M Intuitive Machines Deal," DealFlow's SPAC News, October 13, 2022

[15] Source: "L3Harris To Acquire Aerojet Rocketdyne," L3Harris Press Release, December 18, 2022

By the numbers

Engineering, infrastructure, and construction M&A trends

Fundamentals remain strong

Despite not reaching the heights of 2021, both deal value and volume for the E&C sector remained healthy during the past 12 months, exceeding the levels from the 2018-2020 period. M&A activity has been driven by a desire to expand into new categories, including high-growth areas such as solar, battery and energy management, and data centers. However, a cooling housing market, along with general macroeconomic uncertainty, caused a significant drop in activity, with several deals parked or shelved.

In the single biggest deal of the year, Cameco and Brookfield Renewable came together to acquire nuclear powerhouse Westinghouse Electric for $7.9 billion—a transaction that positions nuclear power at the heart of the energy transition.[16] Other major deals centered on the building products market, such as Clayton, Dubilier & Rice's acquisition of Cornerstone Building Brands for $5.8 billion,[17] and KPS Capital Partners' purchase of architectural hardware, glass and glazing systems leader Oldcastle Building Envelope for $3.45 billion.[18]

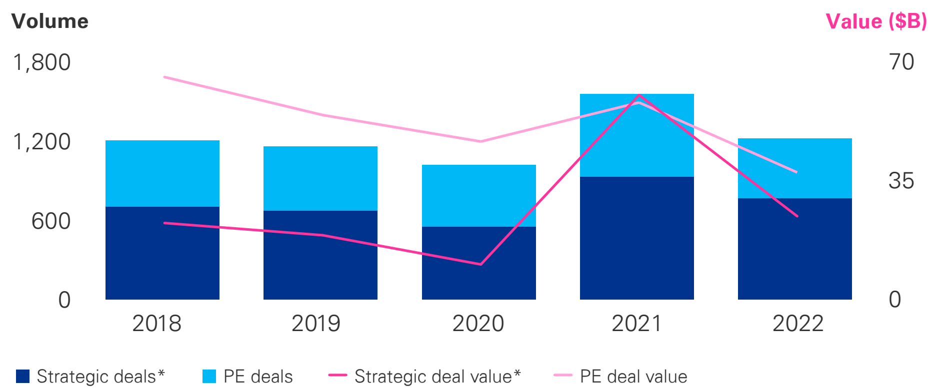
The future looks bright, with billions of dollars of government investment in construction (through the IIJA, IRA, and CHIPS Acts) finally starting to move through the system, creating a surging wave of demand and lots of attractive investment opportunities in construction and related services.

The sector still faces a tremendous shortage of housing units, especially at the affordable level, which should spur an explosion of activity in the multifamily market and creates opportunities for deals. But, as input prices fall, margins may come down, which could impact business valuations and therefore affect the attractiveness of targets.

Engineering, infrastructure, and construction deal value and volume

2022

1,218 deals	**$61.5 billion**
-21.7%	-47.8%



*Includes SPAC deal volume and value

Top engineering, infrastructure, and construction deals 2022

Acquirer	Target	Value (billions)
Brookfield Renewable Partners and Cameco Corporation	Westinghouse Electric Company	$7.9
Clayton, Dubilier & Rice	Cornerstone Building Brands	$5.8
KPS Capital Partners	Oldcastle Building Envelope unit of CRH	$3.8
Nucor Corporation	C.H.I. Overhead Doors	$3.0

16 Source: "Cameco and Brookfield Renewable Form Strategic Partnership to Acquire Westinghouse Electric Company," Brookfield Renewable Partners press release, October 11, 2022

17 Source: "Cornerstone Building Brands to be Acquired by CD&R for $5.8 billion," Clayton, Dubilier & Rice Newsroom, March 7, 2022

18 Source: "KPS Capital Partners to Acquire Oldcastle BuildingEnvelope Inc. from CRH Plc," KPS Capital Partners LP Press Release, February 28, 2022

By the numbers

Transportation & logistics M&A trends

A slowing pace—but opportunities to deliver efficiencies

M&A activity increased in the first half of 2022 on the back of healthy valuations from the pandemic years, due to rising e-commerce and global supply chain challenges. The second half of the year proved to be a different story, with a slowing deal market as supply chains normalized, freight prices eased, and economic conditions worsened. In the U.S., West Coast port congestion declined from its peak in Q4'21 due to decreasing import volumes and the redirection of container ships toward East Coast ports.

Consequently, deal volume fell by 19 percent and value by 57 percent—although these figures are still above prepandemic levels.

The deal market was dominated by Blackstone and Benetton's acquisition of toll road and airport management giant Atlantia for $63 billion—the largest M&A in the entire IM sector by a wide margin.[19] Other notable deals include an Apollo-led group's purchase of aircraft and aviation services business Atlas Air for $5.2 billion[20] and JetBlue's $3.8 billion acquisition of Spirit Airlines, creating the U.S.' fifth largest airline.[21]

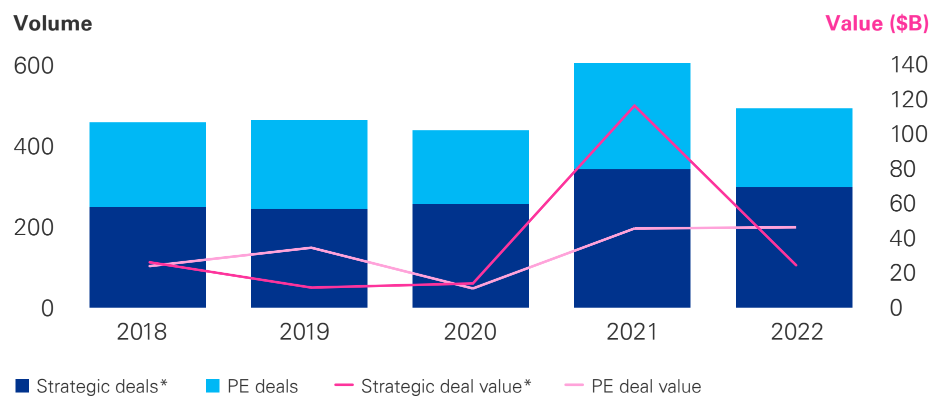
High diesel prices and driver shortages have pushed up trucking salaries. While fuel costs are moderating, driver wages remain high, which should increase costs in 2023 and dampen buyer enthusiasm somewhat. In the rail sector, increasing tensions between workers and management could reduce the attractiveness of potential acquisition targets.

Despite economic uncertainty and rising interest rates, technology innovations and labor shortages (specifically drivers) should continue to drive M&A activity in the sector, albeit likely at a lesser pace than 2021 and early 2022.

Transportation & logistics deal value and volume

2022

492 deals	**$69.8 billion**
-18.7%	-56.7%



*Includes SPAC deal volume and value

Top transportation & logistics deals 2022

Acquirer	Target	Value (billions)
Blackstone, Edizione	Atlantia	$63.0
Apollo Global Management, Hill City Capital, J.F. Lehman & Company	Atlas Air Worldwide	$5.2
JetBlue Airways	Spirit Airlines	$3.8
Flexjet	Horizon Acquisition Corporation II	$3.1

[19] Source: "Blackstone and Benetton family take Atlantia private in blockbuster infrastructure," Bocconi Students Investment Club, May 1, 2022

[20] Source: "Atlas Air Worldwide to be Acquired by Investor Group Led by Apollo Together With J.F. Lehman & Company And Hill City Capital for $5.2 Billion," Atlas Air Worldwide Newsroom, August 4, 2022

[21] Source: "How will JetBlue's $3.8b acquisition of Spirit Airlines affect consumers?," News@NorthEastern, October 20, 2022

By the numbers

PE M&A trends

A constant search for value

In a year that started off brightly but steadily dimmed in terms of deal activity, PE managed to avoid some of the worst impacts of the economic and financial headwinds. Deal volume fell by 19 percent to 3,602, and deal value by one-third to $201 billion. PE's share of IM deals stayed steady at 40 percent, with PE buyers accounting for 52 percent of total IM transaction value.

Blackstone was responsible for the year's two largest deals: the aforementioned purchase (with Benetton) of Atlantia for $63 billion,[22] and the $14 billion acquisition of a majority stake in Emerson's Climate Technologies business.[23] Another key deal involved Apollo Funds $7.1 billion capture of global mobility solutions player Tenneco.[24]

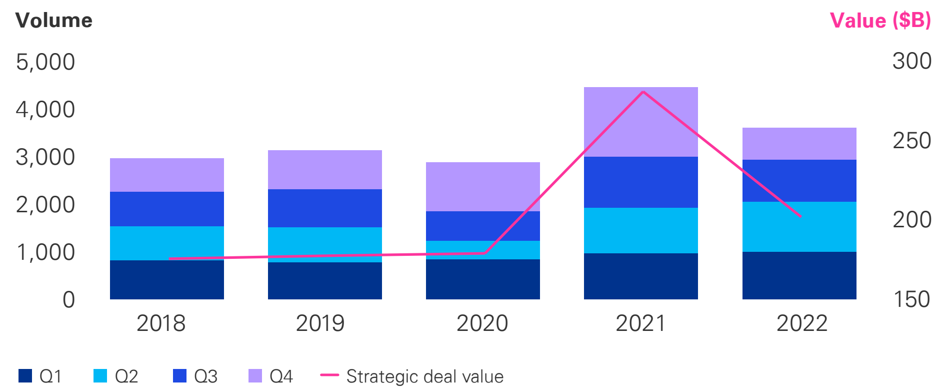
Looking ahead to 2023, expect PE to be heavily involved in consolidation of small-and midsize businesses that are likely to be squeezed by restrictive loans and tighter credit standards across the IM sector.

PE deal value and volume

2022

3,602 deals
-19.1%

$201.3 billion
-28.2%



*Includes SPAC deal volume and value

Top IM PE deals 2022

Acquirer	Target	Value (billions)
Blackstone, Edizione	Atlantia	$63.0
Blackstone, Abu Dhabi Investment Authority	Emerson Electric	$14.0
Apollo Funds	Tenneco	$7.1
Advent International (Shonnel Malani)	Maxar Technologies	$6.4

[22] Source: "Blackstone and Benetton family take Atlantia private in blockbuster infrastructure," Bocconi Students Investment Club, May 1, 2022

[23] Source: "Emerson to Sell Majority Stake in Climate Technologies to Blackstone in Transaction Valuing the Business at $14.0 Billion," Blackstone Press Release, October 31, 2022

[24] Source: "Apollo to take Tenneco private for $7.1bn," Financier Worldwide, May 2022

Deep dive

Carve out, fix up, sell off

In a tough business environment, with inflation raging, and a recession around the corner, corporates are under pressure to reprioritize. And there is no shortage of candidates for disposal. As of December 2022, KPMG analysis of more than 1,400 listed companies in North America with annual revenue over $1 billion revealed that more than one third had underperforming divisions. KPMG analysis shows a similar story unfolding in the IM sector, where 32 percent of 347 companies had segments that underperformed. And this is just for reported segments. Looking beyond this sample, there are likely many more underperforming IM assets that are candidates for disposal.

The trouble is, finding strategic buyers for noncore assets is tricky when parts of a business are less attractive. Many public companies do not want to take on a mixed bag of good and challenging assets. Enter private equity, which loves the jobs others hate—PEs thrive on buying and separating legacy assets, cleaning them up, and adding value before selling those assets in a three- to five-year timeframe.

Take Francisco Partners, which purchased healthtech business Qualcomm Life from parent Qualcomm in 2019. Francisco had viewed Qualcomm Life's progress over several years and had a real feel for its strengths. During the pandemic, the PE brought in extra capability (via another strategic acquisition) and pivoted the company toward monitoring of hospital patients. The resulting business was rebranded as Capsule Technologies and sold to Royal Philips in April 2022 for $635 million—a gross IRR of 233 percent and an MOIC of 11x.[25]

In another instance, energy equipment manufacturer Howden was acquired by KPS Capital Partners from Colfax Corporation in an extremely complicated global corporate carve-out deal in 2019. Working with Howden's capable management team, KPS set about to transform the company into an autonomous, innovative, world-class air and gas handling platform, tilting the business toward sustainable solutions like carbon capture, wastewater treatment, and energy recovery. As a result, Howden achieved record orders, revenue, and profitability before being sold to Chart Industries for $4.4 billion in November 2022.[26]

Both of these cases demonstrate how PEs see value where others do not, and are prepared to invest in the businesses they carve out, acquiring additional strategic capabilities and focusing on growth through dynamic leadership.

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[25] Deal of the Year: Francisco Partners carves out Capsule with surgical precision," Francisco Partners website, April 1, 2022

[26] "KPS Capital Partners to Sell Howden to Chart Industries," KPS Capital Partners website, November 9. 2022

Outlook

Picking winners in an uncertain environment

The global economy is expected to slow in 2023. A mild recession is anticipated in the U.S. as the Federal Reserve further tightens financial conditions, and keeps them tight, to bring inflation back in line with its 2 percent target. Much could depend on how quickly China's economy opens up following the relaxation of COVID-19 restrictions, developments in the war in Ukraine, and different governments' attempts to control inflation.

The economic outlook in 2023 is challenging, but there may be tailwinds for the IM industry. Federal legislation such as the CHIPs Act, which is intended to strengthen domestic semiconductor production, may boost manufacturing and drive resiliency in supply chains.

Subsectors like chip and electric battery plants are expected to pick up pace, boosting the overall IM industry. Larger IM companies are passing costs onto suppliers and trying to get rid of inventory, which can stress smaller businesses and subsequently turn them into acquisition targets. In automotive, on the other hand, carmakers are trying to build up inventory, with a positive knock-on for suppliers. However, sales should stay depressed because of skyrocketing financing costs.

Global M&A is expected to pick up in the second half of the year. In our global survey of dealmakers, 43 percent on the buy-side expect an increase in deals, while 57 percent on the sell-side forecast a rise in M&A activity. Respondents say the main deal drivers are depressed assets that fit their needs, plus a surplus of cash on the balance sheet.

Key considerations as we look ahead

In pursuing M&A in an economic downturn, IM dealmakers should think about the following:

1 Divest for value

Many large IM companies have, for a variety of reasons, built up complex portfolios that can absorb costs and resources. Regular divesting can create value for shareholders, enabling buyers like PE to pick out the gems and develop them at pace, leaving the seller with assets more closely aligned with core capabilities and strategic priorities.

2 Don't throw out the automotive baby with the bathwater

The EV transition may be the driving force behind transactions, but makers of powertrain-agnostic parts will remain a safe bet for the long-term—and some may even benefit from the EV revolution.

3 Revenue synergies matter

In a recent KPMG survey of senior executives across multiple industries, 58 percent say that revenue synergies are as important, or more important, than cost synergies when valuing a target.[27] Buyers should expect to pay for—and deliver on—revenue synergies in 2023 as PE firms looking to invest a year's worth of dry powder may put further upward pressure on valuations.

[27] Source: December 2021 survey of 345 senior executives, "Navigating complex M&A—How to win in the age of the complex deal"

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With an IM specialization, our teams bring both transactional and operational experience, delivering rapid results and value creation.

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