



# GLOBAL PRIVATE EQUITY REPORT 2022

**BAIN & COMPANY** 

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Bain's work with PE firms spans fund types, including buyout, infrastructure, real estate, and debt. We also work with hedge funds, as well as many of the most prominent institutional investors, including sovereign wealth funds, pension funds, endowments, and family investment offices. We support our clients across a broad range of objectives:

**Deal generation.** We work alongside investors to develop the right investment thesis and enhance deal flow by profiling industries, screening targets, and devising a plan to approach targets.

**Due diligence.** We help support better deal decisions by performing integrated due diligence, assessing revenue growth and cost-reduction opportunities to determine a target's full potential, and providing a post-acquisition agenda.

**Immediate post-acquisition.** After an acquisition, we support the pursuit of rapid returns by developing strategic blueprints for acquired companies, leading workshops that align management with strategic priorities, and directing focused initiatives.

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**Exit.** We help ensure that investors maximize returns by preparing for exit, identifying the optimal exit strategy, preparing the selling documents, and prequalifying buyers.

**Firm strategy and operations.** We help PE firms develop distinctive ways to achieve continued excellence by devising differentiated strategies, maximizing investment capabilities, developing sector specialization and intelligence, enhancing fund-raising, improving organizational design and decision making, and enlisting top talent.

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## A Year for the Record Books

Dear Colleague:

When we started writing this report late last year, the focus was clear. The secular trend of accelerating private market activity had exploded in 2021. The industry set records in many areas, including deal and exit values. Fund-raising was robust, and buyout returns, buoyed by rising equity markets and strong GDP growth, remained attractive. Non-buyout private investing in areas like growth equity also showed dramatic increases.

Then the ground shifted, as it often does.

While we believe the outlook remains strong in 2022, several important factors will weigh on investors' minds as they think about doing deals. Covid-19–related issues have increased inflation to levels not seen in the US and other markets in 40 years. Russia's invasion of Ukraine has dialed up global disruption, causing uncertainty around supply chains, energy prices, and other economic factors, as well as untold human suffering, fear, and panic.

There's no way to know how these global disruptions will play out, but the reaction from the Federal Reserve and other central bankers will shape current and future dealmaking. One thing is certain: There are now inflation playbooks developing across the GP and LP landscape as investors race to protect margins and future returns. Please see "Private Equity's Inflation Challenge" for a full discussion of inflation's impact on investment markets.

In this, Bain's 13th *Global Private Equity Report*, we examine the industry's strengths, its challenges, and the evolutionary path that lies ahead. In addition to the critical statistics that characterize PE industry performance, please look for our assessments of investing in growth equity, the continued rise of Asia, and the new news on ESG—specifically how investors are making it work for them.

Given the pivotal importance of technology in private markets, we take a deep dive into the growth of software investing and look at the new and increasing importance of a well-defined sector strategy. We also dig into how technology due diligence can help investors make better decisions while de-risking assets prior to closing.

I have no doubt that 2022 will be a busy and exciting time for the PE industry. Investors will continue to grapple with repeatably creating alpha amid changing conditions with more competition. We at Bain look forward to continuing the discussion with our friends across the industry's ecosystem.



Hugh MacArthur  
Head of Global Private Equity



# The Private Equity Market in 2021: The Allure of Growth

In a record-breaking year, private equity investors made it plain that it's not just about buyout anymore.

**By Hugh MacArthur, Rebecca Burack, Christophe De Vusser, and Kiki Yang**

By just about any measure, private equity set a remarkable new standard for itself in 2021.

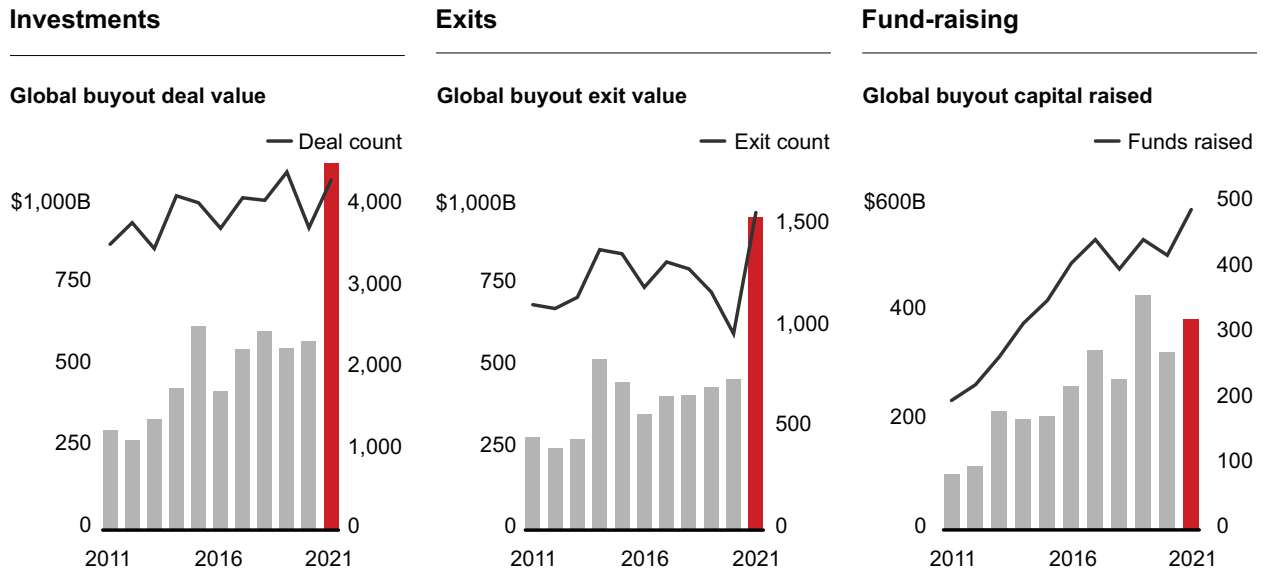
Buyout deal value and exits shot to stunning new records. General partners (GPs) had the second-best fund-raising year in the industry's history, capping a five-year run that has netted \$1.8 trillion in new buyout capital (see *Figure 1*). Funds boosted distributions to limited partners (LPs) and continued to deliver returns outpacing any other asset class. All in all—and despite the continued economic uncertainty brought on by the Covid-19 pandemic—private equity put a bold exclamation point on what has turned out to be a decade of outstanding performance.

With the exception of three months in early 2020 when dealmaking virtually ground to a halt, the pandemic itself has done little to slow the industry's momentum (see *Figure 2*). If anything, Covid sped things up. At the fund level, traveling less has made teams more efficient. (Almost half of LPs in a recent Coller Capital survey say they've made recent fund commitments with GPs they've never met in person.) And at a macro level, public and private investors have benefited mightily from the trillions in monetary stimulus that central banks have pumped into the global economy since March 2020 to combat the effects of Covid-related shutdowns.

The burst of liquidity has not only shored up portfolio companies wrestling with erratic demand and supply chain issues, but it has also ensured that debt to fund buyouts remains abundant and cheap. With record amounts of unspent capital waiting to be put into play, private equity investors were presented with ideal conditions to buy and sell companies. That fed a trend that has been building for years: The biggest, most experienced funds are raising the most money and doing ever bigger deals. Average deal size pierced through the \$1 billion mark in 2021 for the first time ever.

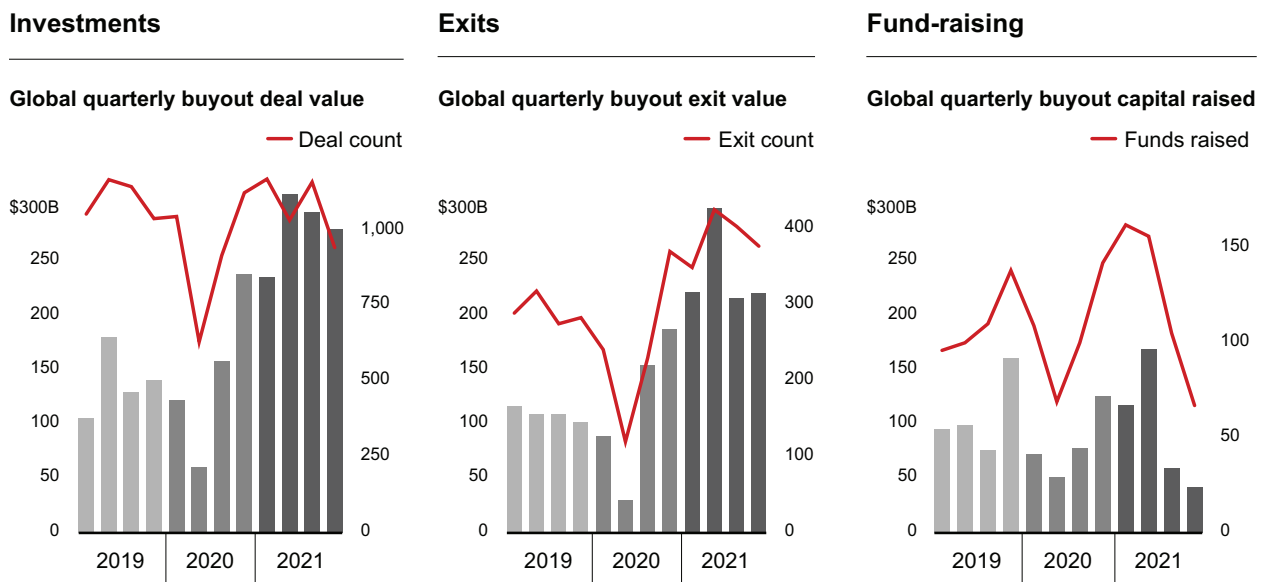
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**Figure 1:** The buyout market outdid itself in 2021, roaring to new records in deal value and exits, while keeping the gas on fund-raising



Notes: Investments—includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; Exits—bankruptcies excluded; IPO value represents offer amount and not market value of company; Fund-raising—includes closed funds only and represents the year in which funds held their final close; buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds  
Sources: Dealogic; Preqin; Bain analysis

**Figure 2:** Quarterly performance has trended upward across the board since the Covid-19 shock in Q2 2020



Notes: Investments—includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; Exits—bankruptcies excluded; IPO value represents offer amount and not market value of company; Fund-raising—includes closed funds only and represents the year in which funds held their final close; buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds  
Sources: Dealogic; Preqin; Bain analysis

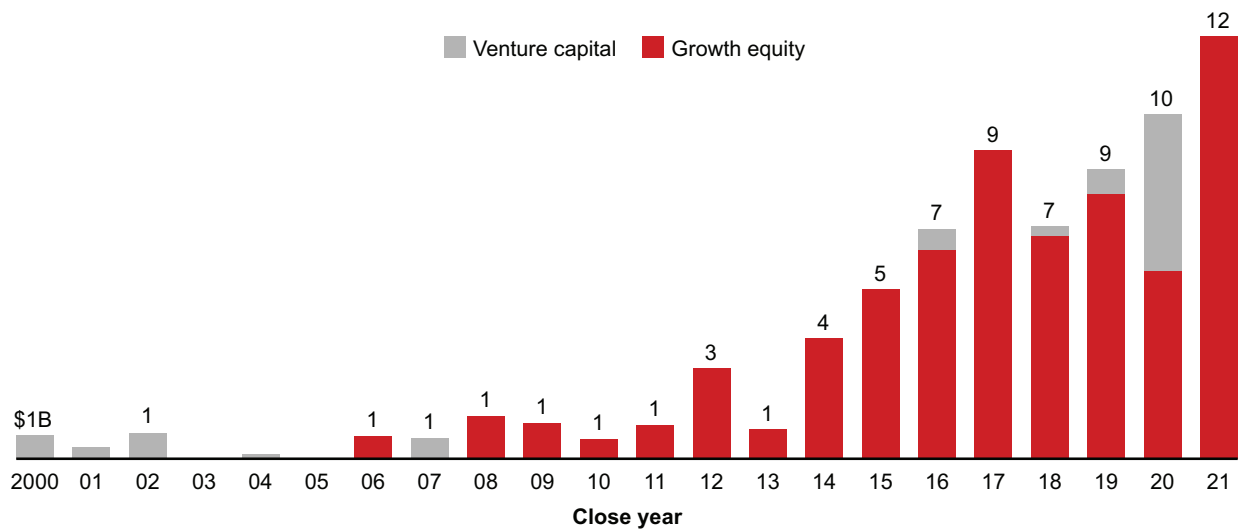
Supersizing helps explain why deal count was the one buyout metric that lagged all others. Although investment value doubled during the year, the raw number of buyouts transacted in 2021 hovered around the five-year average of 4,000. That was a clear pickup from Covid-capped 2020 levels, but it still lagged 2019.

For those close to the private equity industry, however, this data point will run counter to what they feel in their bones—that the frenzied number of deals done over the past year was anything but average. That’s because the buyout deal count doesn’t tell the full story of how the industry was spending its time. What began to crystallize in the data this year is that investors are shifting their focus in new directions. As the industry matures and private equity investors become more sophisticated, they are increasingly looking for types of specialization that may or may not be offered by a typical buyout fund.

Specialization’s pull is reflected in the fact that technology funds and those that invest in tech-enabled sectors like fintech or health tech have become by far the dominant theme in the buyout world. But the shift is also showing up in the stunning growth of subasset classes like growth equity, infrastructure, and secondaries, which isn’t reflected in the buyout numbers. The appetite for diversification has led investors to pump capital into areas they never would have considered in the past. New funds have sprung up to serve them, and older ones—particularly the large, diversified buyout funds—have pivoted accordingly (see Figure 3).

**Figure 3:** The largest buyout managers are rushing to meet investor demand for growth and venture funds

**Growth equity and venture capital raised by top 20 buyout firms (\$B)**



Notes: Venture capital includes early stage, early stage (seed), early stage (start-up), expansion/late stage, venture (general), and venture (debt); buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; 20 largest buyout fund managers defined by cumulative buyout fund-raising value from 2012 to 2021; excludes SoftBank Vision Fund; discrepancies in bar heights displaying the same value are due to rounding  
Sources: Preqin; Bain analysis

Consider the rapid rise of growth equity and late-stage venture capital—the gray area between buyout and start-up venture. These growth classes have been adding assets under management (AUM) at around twice the rate of buyout over the past decade and have been producing deals at an unprecedented clip. By 2021, growth equity and venture AUM had reached 82% of the buyout total.

The message for GPs is clear: While the private equity industry has been extraordinarily busy over the past year, it's not just about buyout anymore. Increasingly, investors are tracking down growth and diversification wherever they can find it across the broad private equity spectrum.

It's also evident that the industry's traditional focus on cost and efficiency is giving way to a widespread belief that technology-enabled growth and disruption are more potent drivers of value. As digital innovation transforms industry after industry across the global economy—a trend the Covid pandemic accelerated dramatically—investors are responding with trillions in new capital to fund the insurgents and help the incumbents bolster their competitiveness. They are also getting much more sophisticated in how they build growth into their allocations and whom they are willing to bet on. All of this favors deep expertise, focus, and the ability to move quickly and decisively in a hyper-competitive market.

As we look into 2022 and beyond, there are some nagging questions worth pondering. For one, 2021's massive run-up in dealmaking shares some of the characteristics we saw at the market's last peak in 2006–07, including a spike in large public-to-private deals. It's also possible that the pandemic's most lasting impact on the economy has yet to fully play out. Inflation touched off by global supply chain chaos and labor shortages could potentially turn an idyllic investing climate into something much more challenging. Rising rates threaten to temper the multiple expansion that has buoyed private equity returns for a generation (see *Figure 4*).

For GPs who have never lived through a period of inflation and rising rates, maintaining the kinds of returns LPs have come to expect will require developing new management muscles and value-creation capabilities. If 2021 taught us anything, differentiation and specialized expertise have never been more important.

Here's a deeper dive into how 2021 unfolded in private equity and some thoughts on what's to come.

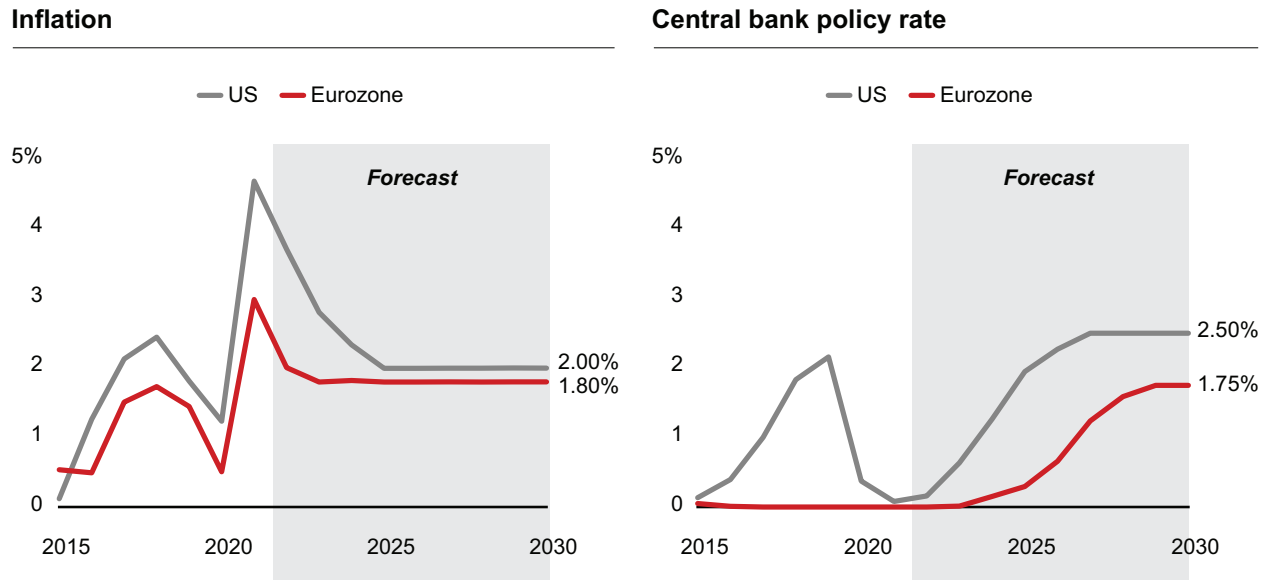
## Investments

Merely saying that private equity deal value set a new record in 2021 hardly does the industry justice. The \$1.1 trillion in buyouts doubled 2020's total of \$577 billion and shattered the old record of \$804 billion set back in 2006 during the exuberant run-up to the global financial crisis (see *Figure 5*). North America led the surge with \$537 billion in deals transacted and on its own matched the *global* total of a year ago. That said, every region has seen impressive growth in deal value since the Covid-related trough in early 2020 (see *Figure 6*).



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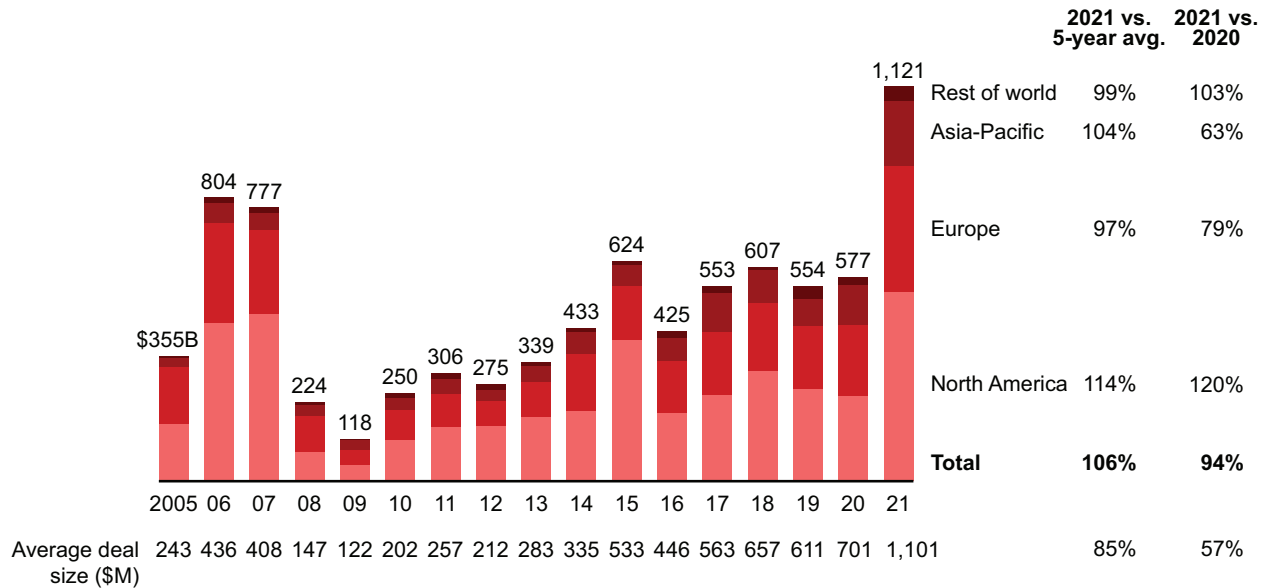
**Figure 4:** Rising inflation is expected to produce slow increases in interest rates in both the US and Europe



Notes: Central bank policy rate is the rate used by the central bank to implement or signal its monetary policy stance; inflation rate indicates the average percentage increase in the price of goods and services, comparing every month of the year with the corresponding month the previous year  
Source: Euromonitor International

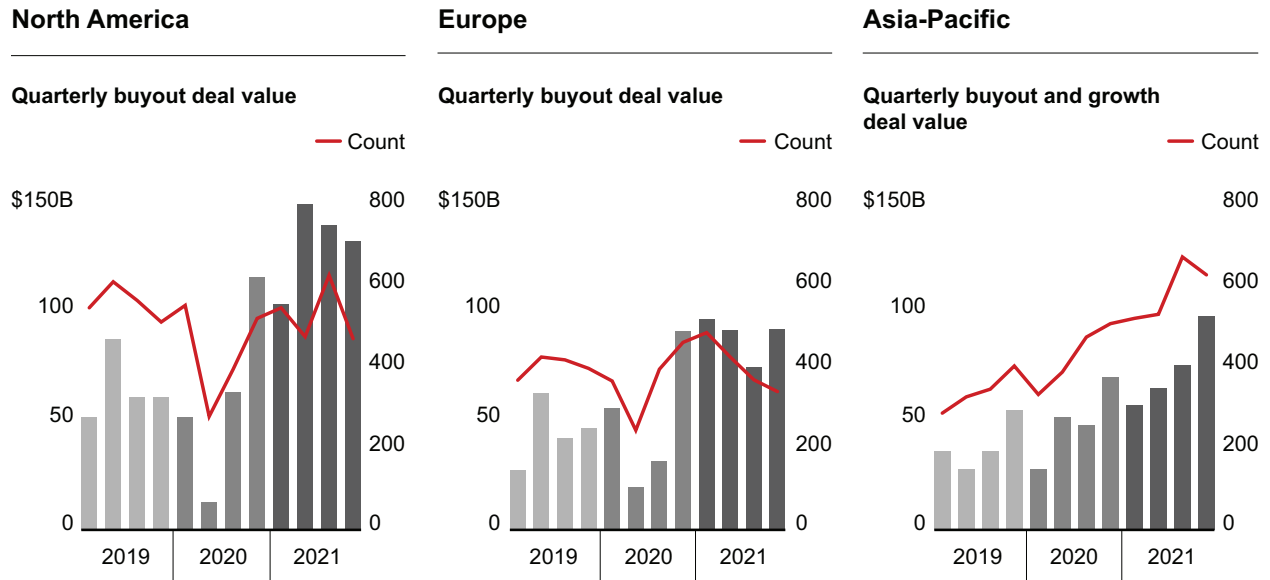
**Figure 5:** Buyout deal value roughly doubled in 2021, dwarfing the previous peaks and breaking through the \$1 trillion ceiling for the first time

**Global buyout deal value (\$B)**



Notes: Includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; geography based on target's location; average deal size calculated using deals with disclosed value only  
Source: Dealogic

**Figure 6:** Deal value surged globally, but the biggest increases came in North America as investors flocked to tech sectors concentrated in the US



Notes: North America and Europe—includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; geography based on target's location; Asia-Pacific—includes buyout, growth, early-stage, private investment in public equity, turnaround, and other deals; excludes real estate and infrastructure; excludes SPACs  
Sources: Dealogic; AVCJ; Bain analysis

Deal size, not deal count, was clearly behind the increase in value. While the number of individual deals jumped to nearly 4,300 in 2021, up 16% from 2020 levels, that doesn't explain the extraordinary growth in capital deployed. Rather, the multiyear trend toward bigger funds doing bigger deals accelerated in 2021. The 10 largest deals, including the more than \$30 billion investment in Medline Industries led by Blackstone, Carlyle, Hellman & Friedman, and GIC, accounted for 18% of total value.

But the real impact came in the market's broad middle, where the number of \$1 billion-plus deals roughly doubled (see Figure 7). That helped increase average deal size by 57%, pushing it past the \$1 billion threshold for the first time.

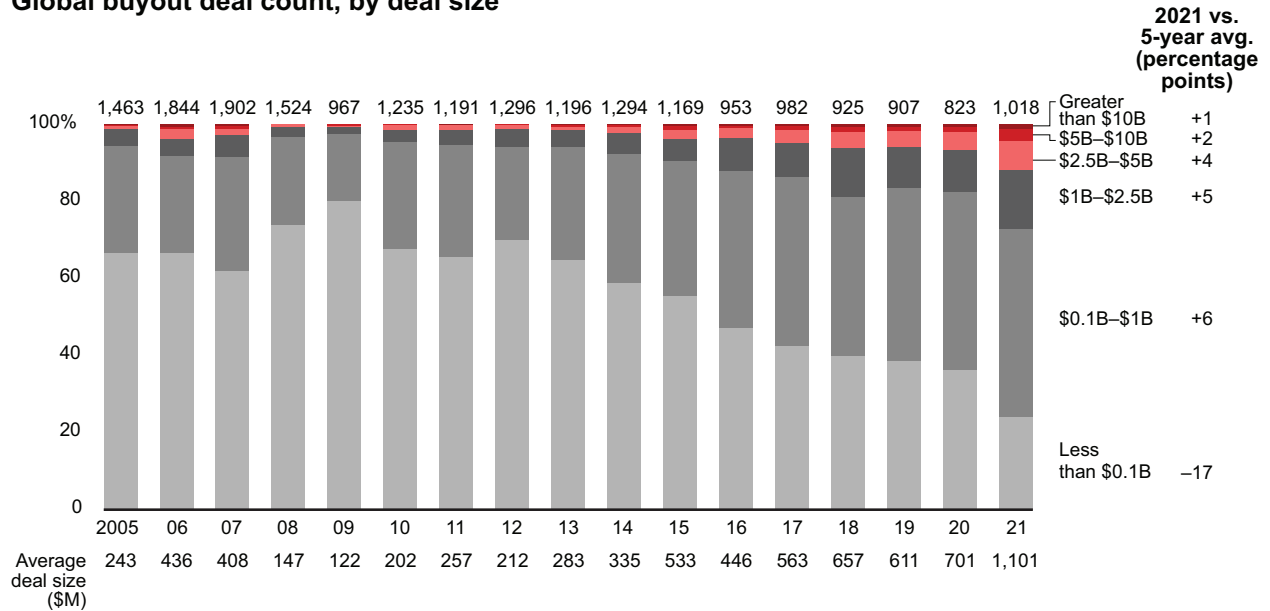
The stunning increase in 2021 deal value owes to a number of factors. The first is the sheer volume of capital sloshing through the market. After 10 years of steady growth, dry powder set yet another record in 2021, rising to \$3.4 trillion globally, with approximately \$1 trillion of that sitting in buyout funds and getting older (see Figures 8 and 9).

Well before the pandemic, the mountain of unspent capital was already putting pressure on GPs to put money to work in ever larger deals. Then the trillions in Covid-related stimulus added oxygen to the mix. The combination created a burst of activity in sectors across the board, but especially in technology and tech-enabled industries, where deal valuations tend to be higher.

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**Figure 7:** Capital is flowing toward ever-larger deals, pushing average deal size above \$1 billion for the first time in 2021

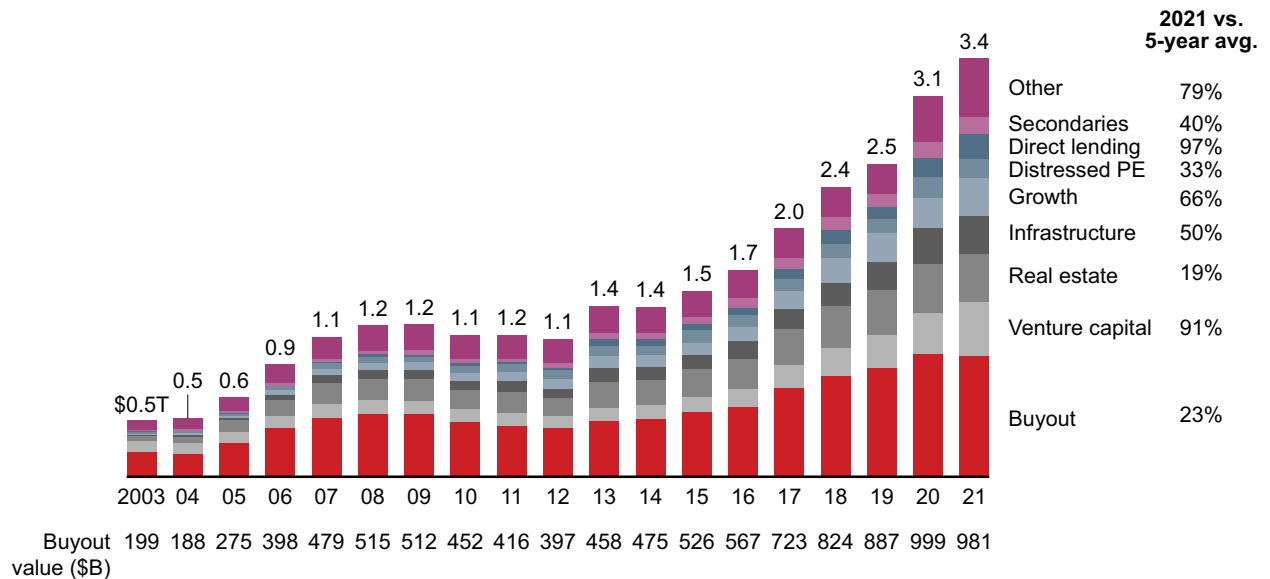
**Global buyout deal count, by deal size**



Notes: Includes disclosed deals only; includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change; average deal size calculated using deals with disclosed value only  
Source: Dealogic

**Figure 8:** The stairstep increase in unspent capital resulted in another record in 2021, increasing pressure on private equity firms to do more deals

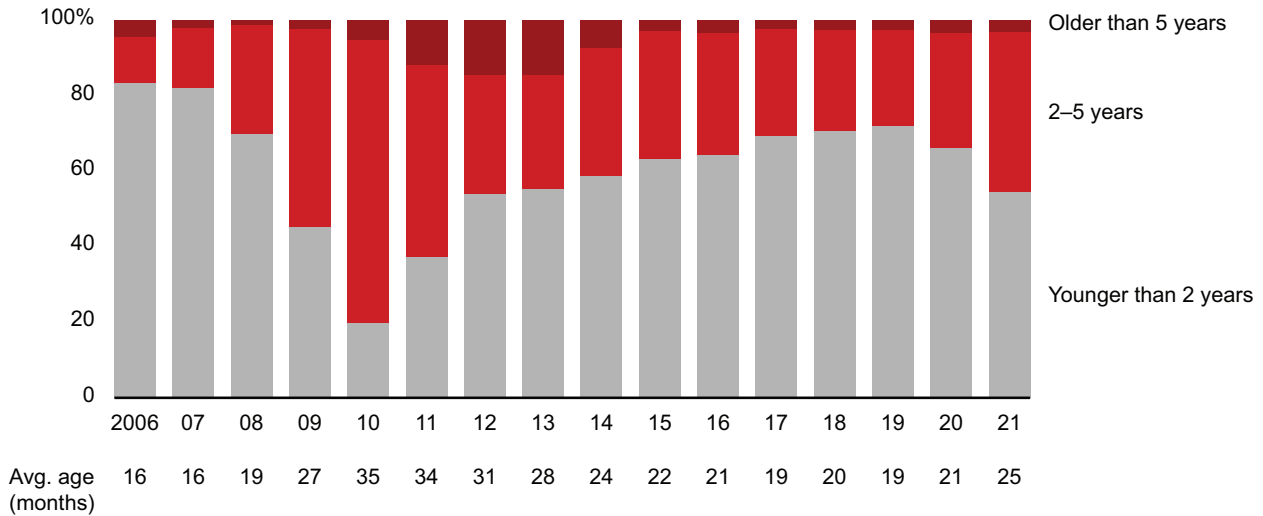
**Global private capital dry powder, by fund type (\$T)**



Notes: Other category includes fund-of-funds, natural resources, and mezzanine; buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; discrepancies in bar heights displaying the same value are due to rounding  
Source: Preqin

**Figure 9:** The dry powder in buyout portfolios also aged slightly during the year but was in line with the five-year average

**Global buyout dry powder, by age**



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; age calculated based on the vintage year of the fund and year of analysis; excludes vintage years before 2000 and capped at six years prior; average age of dry powder estimated as a weighted average of dry powder by vintage year, going back to 2000; buyout funds assumed to have seven years to deploy  
Sources: Preqin; Bain analysis

Perhaps not surprisingly, the opportunity to put large amounts of capital to work produced a sudden and sharp increase in public-to-private (P2P) deals, especially in North America and the Asia-Pacific region. These take-private transactions soaked up \$469 billion in capital globally, a 57% one-year increase, and were largely responsible for 2021’s record-setting value total (see Figure 10).

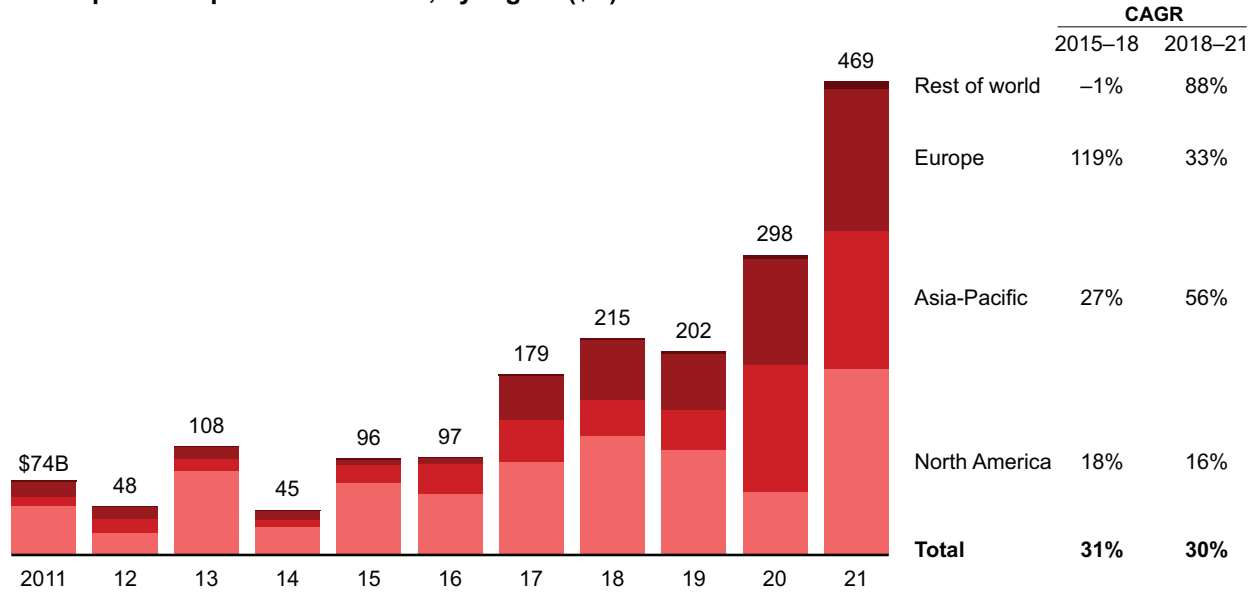
P2P deals by nature absorb a lot of capital because they tend to involve very large, established companies that often aren’t getting much love from the public markets. The ideal candidate offers steady cash flow, reasonable revenue growth, and a balance sheet that can support high enough levels of debt to generate strong returns.

The last time the market produced such a notable increase in large P2P transactions was in the run-up to the global financial crisis in 2006–07. That, of course, produced mixed results. While there were several notable home runs, a significant number of those deals proved to be overpriced and directionless. As a group, they produced lousy returns—a multiple of invested capital of roughly 1.5x, with a single-digit internal rate of return.

So is this year’s spike in P2P activity cause for concern? The impact of these deals was significant in both periods. In 2006, take-private transactions in the US made up around 91% of the sudden increase in value from 2005; in 2021, they accounted for 42% of the increase. Investors paid rich multiples for these companies in both time periods, but valuations in 2021 were actually higher: Multiples paid on

**Figure 10:** Public-to-private deals spiked globally in 2021 as buyout funds rushed to put money to work

**Global public-to-private deal value, by region (\$B)**



Notes: Transactions based on announcement date; includes announced deals that are completed or pending, with data subject to change; geography based on target's location  
Sources: Preqin; Dealogic; AVCJ; Bain analysis

P2P deals in 2007 on an enterprise value (EV) basis were 12.6 times earnings before interest, taxes, depreciation, and amortization (EBITDA)—or 1.3 times the market average. In 2021, P2P multiples were 19.3 times EV/EBITDA, or 1.6 times the average.

What really distinguished the 2006–07 time frame was that the deals were significantly larger, both in absolute terms and relative to the rest of the market. Among the top 10 P2P deals in those years, not one was below \$24 billion. The largest in 2021, by contrast, was McAfee at \$15.4 billion, including debt (see Figure 11). Because those deals were so huge, they required consortia of buyers—groups of large private equity funds cobbled together quickly just to get the deal done. The rush to close in those frothy times meant due diligence was often lax or nonexistent, and the management-by-committee ownership structures got in the way of establishing a clear value-creation plan.

Not only were 2021's P2P deals smaller by comparison, but they were typically done by one or two buyers with deep expertise in the sector—Thoma Bravo buying cybersecurity firm Proofpoint, for instance. The prices paid also reflect a clear bias toward tech deals, which command higher multiples, on average (see Figure 12). Those prices will inevitably dial up the heat on deal sponsors to execute effectively on clearly defined value-creation plans. But the chances of success are likely greater for a single firm with a long track record in a sector than for a group of odd bedfellows lacking a coherent value-creation plan.

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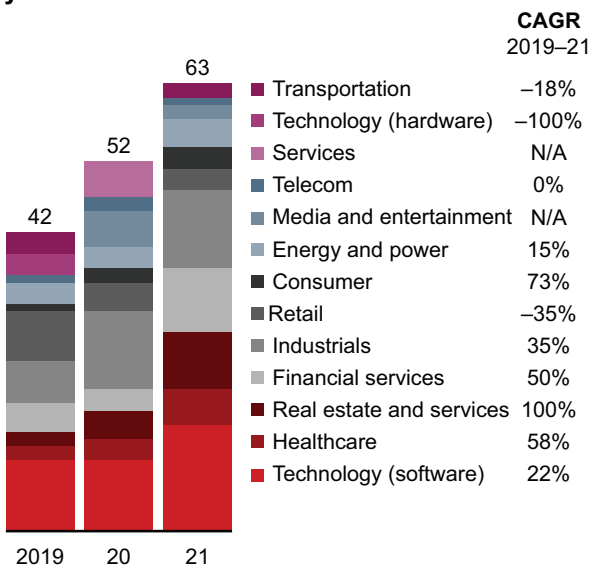
**Figure 11:** The largest public-to-private transactions in North America

Target	Sector	Deal value (\$B)	Acquirer(s)
McAfee	Technology (software)	15.4	Advent International, Permira, Crosspoint Capital Partners, Canada Pension Plan Investment Board, GIC, Abu Dhabi Investment Authority
CyrusOne	Real estate and services	15.3	KKR, Global Infrastructure Partners
Proofpoint	Technology (software)	12.3	Thoma Bravo
QTS Realty Trust	Real estate and services	8.0	Blackstone
TEGNA	Media and entertainment	8.0	Apollo
CoreLogic	Technology (software)	7.5	Stone Point Capital, Insight Partners
Inovalon	Technology (software)	7.3	Nordic Capital, Insight Partners, 22C Capital
Michaels Companies	Retail	6.5	Apollo
Medallia	Technology (software)	6.4	Thoma Bravo

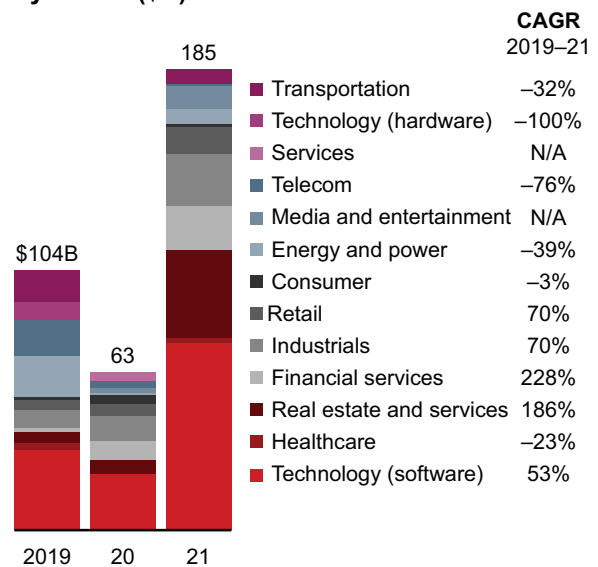
Notes: Includes announced deals that are completed or pending, with data subject to change; value includes assumed debt and is calculated on fully diluted shares outstanding  
Sources: Preqin; Dealogic; AVCJ

**Figure 12:** Deals for companies in technology and tech-enabled sectors dominated public-to-private deal count and value

**North American public-to-private deal count, by sector**

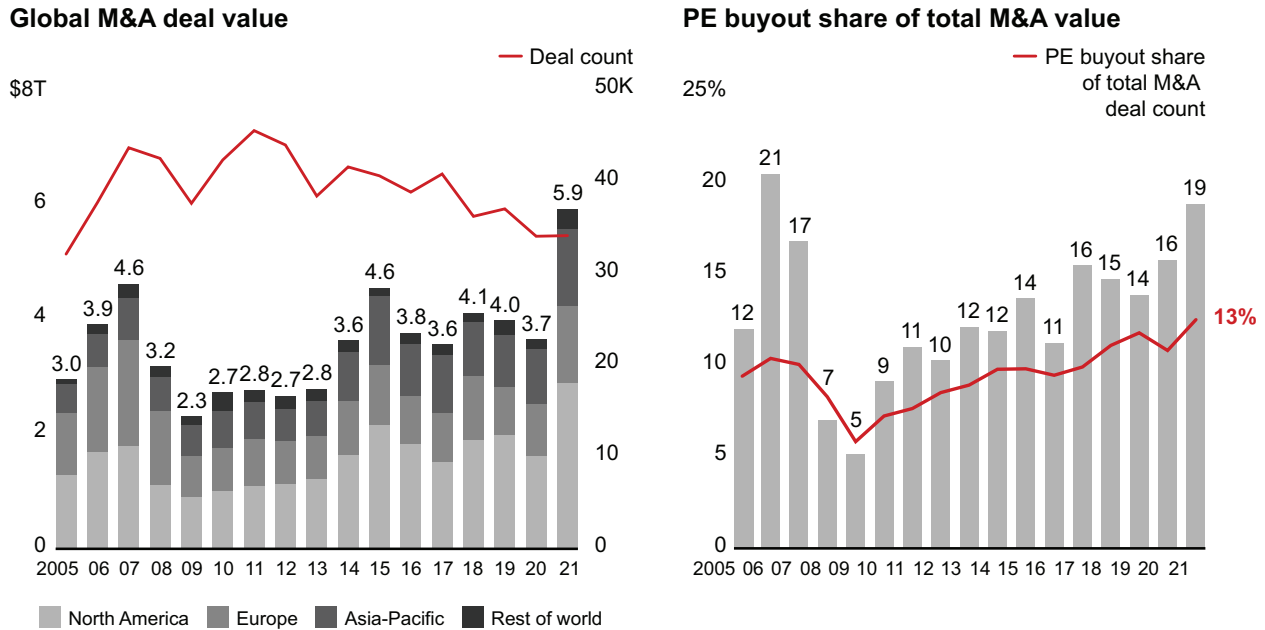


**North American public-to-private deal value, by sector (\$B)**



Notes: Transactions based on announcement date; includes announced deals that are completed or pending, with data subject to change; geography based on target's location; sector based on target's specific industry group  
Sources: Preqin; Dealogic; AVCJ; Bain analysis

**Figure 13:** As global M&A value shot to its own record in 2021, private equity’s share of the total continued to rise



Notes: Excludes government acquisitions; includes add-ons; excludes loan-to-own transactions and acquisitions of bankrupt assets; PE buyout deals exclude SPACs  
Sources: Dealogic; Bain analysis

What’s clear from the dry powder data is that buyout firms were heavily incented to put money to work in P2P deals last year. There is simply too much capital waiting in the wings, and large take-private transactions are an especially efficient way to write big checks. Indeed, by deploying large amounts of capital quickly over the last three years, buyout firms have seen their share of M&A activity globally rise to 19%, its highest level since 2006 (see Figure 13).

The push, however, has come at a cost: Average buyout multiples in 2021 rose 9% to 12.3x in North America, and, despite a slight decline, still stood at a lofty 11.9x in Europe (see Figure 14).

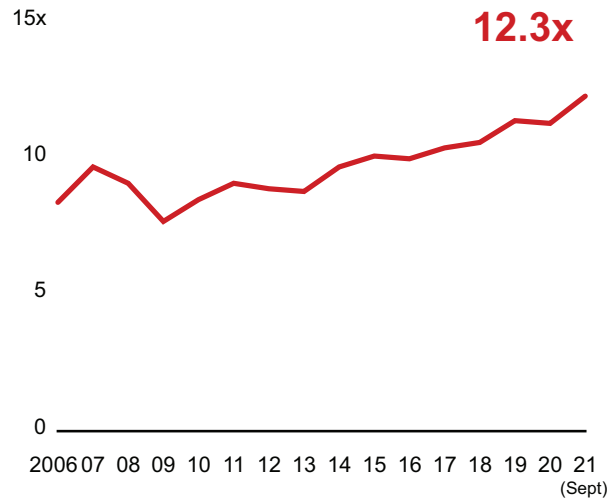
The rising market share (at rising prices) may signal a willingness on the part of private equity funds to outbid corporate buyers and other rivals for prized assets. Whether that makes sense will ultimately depend on a buyer’s reason for paying full price. In some cases, funds may simply be outbidding the competition because they have money to spend. But in many cases, private equity owners have themselves become corporate buyers. Add-on transactions have accounted for almost 20% of all deal value over the past five years, as funds use acquisitions to turn portfolio companies into scale players. Because those deals tend to offer synergies and strategic benefits, the buyer can often afford to pay a premium.

The increased level of pricing across the industry may also reflect something else: the bet that more and more investors are making on technology-fueled growth. While investment has remained robust

**Figure 14:** Buyout multiples in the US and Europe remained in the stratosphere amid competition for assets and an industry shift toward growth and technology

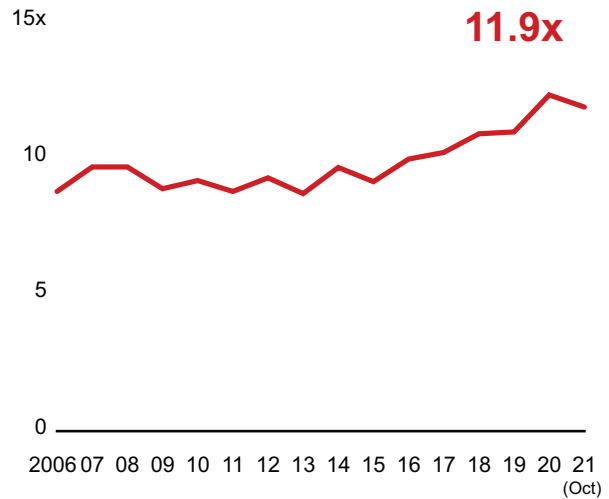
**US**

Average EBITDA purchase price multiple for leveraged buyout transactions



**Europe**

Average EBITDA purchase price multiple for leveraged buyout transactions



Source: S&P LCD

across sectors, one in three buyouts now involves a technology company (see Figure 15). Counting the growing number of sectors, like fintech, healthcare, and business services, where outperformance is increasingly a function of technology expertise, the percentage may be more than half.

This wholesale change in how private equity investors approach the market shifts the investment calculus from underwriting cost to underwriting growth, which tends to justify higher multiples. However, this sort of investing is a different ball game in many ways. Understanding what’s changing in a given sector and underwriting both value and risk will require different motions for firms more accustomed to making money the old way. Consider the investment Blackstone has made over the last couple of years to build a growth capability that can help power returns across the entire firm.

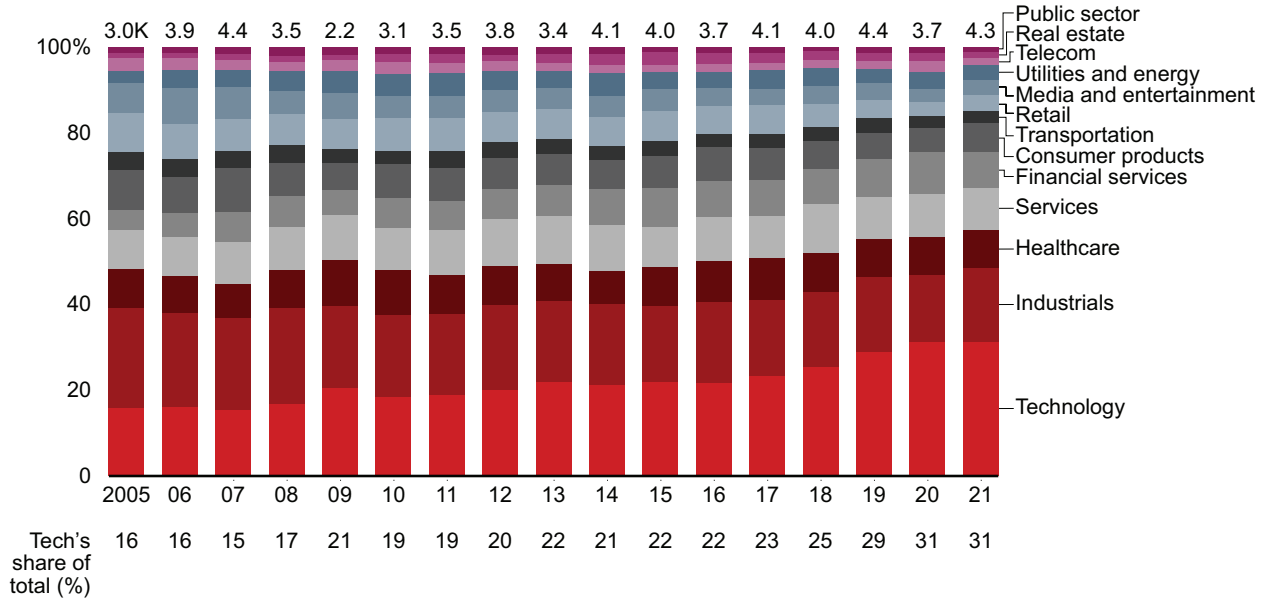
The move into technology and growth is part of a pronounced shift toward specialization in the private equity industry. As mentioned earlier, LPs are increasingly looking to meet specific needs and allocations by investing across sectors and asset classes. That is spurring robust expansion in a variety of sector specializations, as well as in areas like secondaries, infrastructure, long-term funds, and venture capital.

Infrastructure funds, for instance, have evolved since the days when they were primarily focused on investing in cash-generating public infrastructure like toll roads. They have broadened their focus to sectors that ostensibly are operating businesses but derive most of their value from real estate



**Figure 15:** Dealmaking across sectors remained steady, but technology continues to account for more than 30% of all buyouts

**Global buyout deal count, by sector (thousands)**



Notes: Includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change  
Source: Dealogic

and other hard assets. Antin Infrastructure Partners IV, for instance, spent around \$700 million in 2021 to acquire Hippocrates Holding, a leading Italian pharmacy platform. Macquarie Asia Infrastructure Fund 2 acquired AirTrunk, a company that develops and operates large-scale data centers across the Asia-Pacific region.

These are steady, moderate-growth businesses for which funds set lower return hurdles. But because LPs value balancing their allocations with this kind of exposure, infrastructure funds have grown rapidly, attracting \$120 billion in new capital in 2021 and besting their five-year average by 30%.

**Exits**

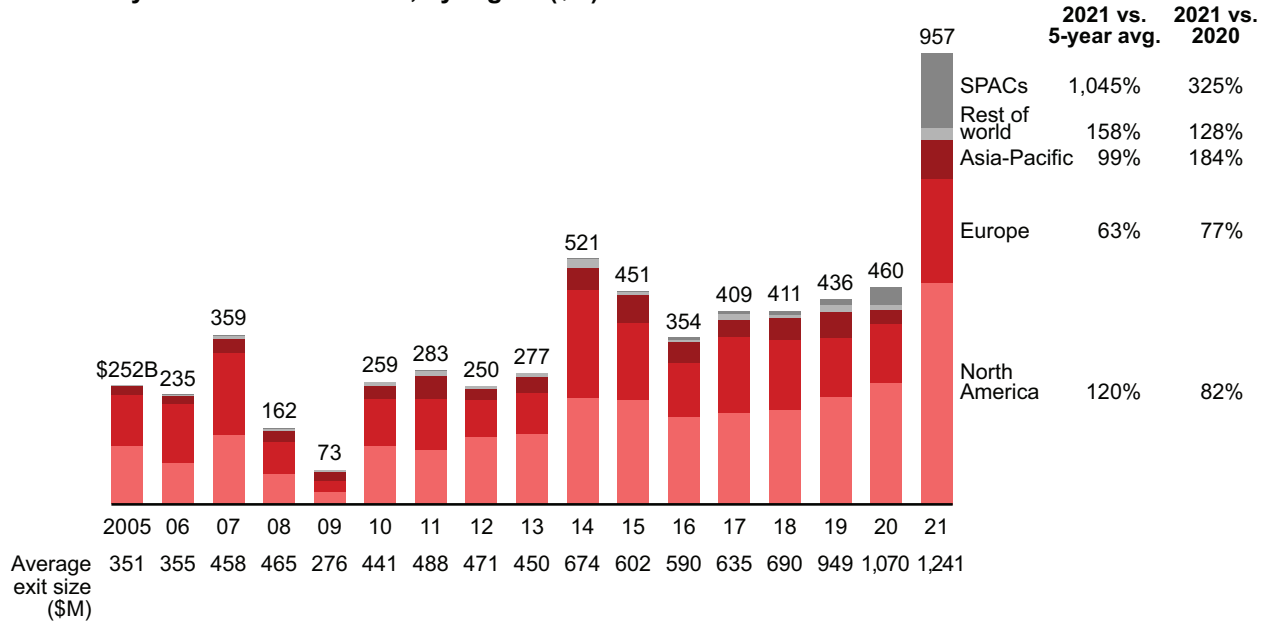
As vibrant as the market for investments was in 2021, exit markets were just as strong. Buyout funds unloaded \$957 billion in assets globally, more than doubling a strong 2020 total and beating the five-year average by 131%. Once again, North American funds captured the most value, and the technology sector produced the largest share of deals. Yet exit activity showed extraordinary growth around the world, especially in the Asia-Pacific region (see Figures 16 and 17).

This uncommon performance was made possible by an equally uncommon alignment in the markets. Each and every exit channel—both old and new—was about as attractive as it could be in 2021 (see Figure 18).

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**Figure 16:** Buyout exit value smashed through the previous record set in 2014, energized by vibrant growth globally

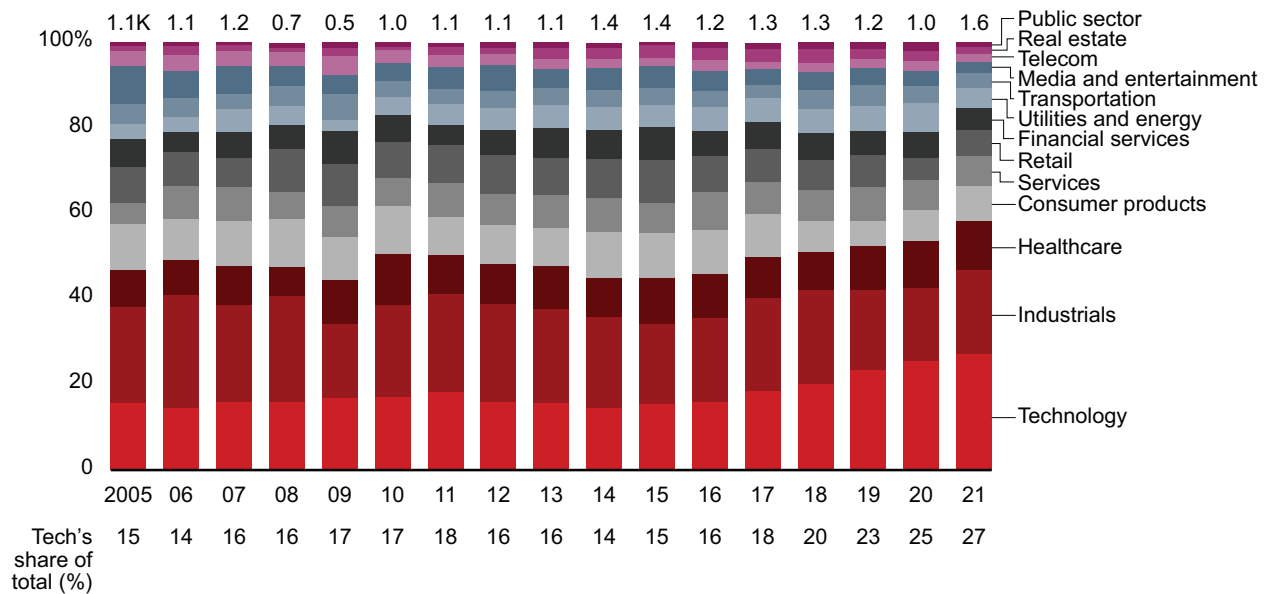
**Global buyout-backed exit value, by region (\$B)**



Notes: Includes partial and full exits; bankruptcies excluded; IPO value represents offer amount and not market value of company  
Sources: Dealogic; Bain analysis

**Figure 17:** Technology continued to build on its outside share of buyout exit volume

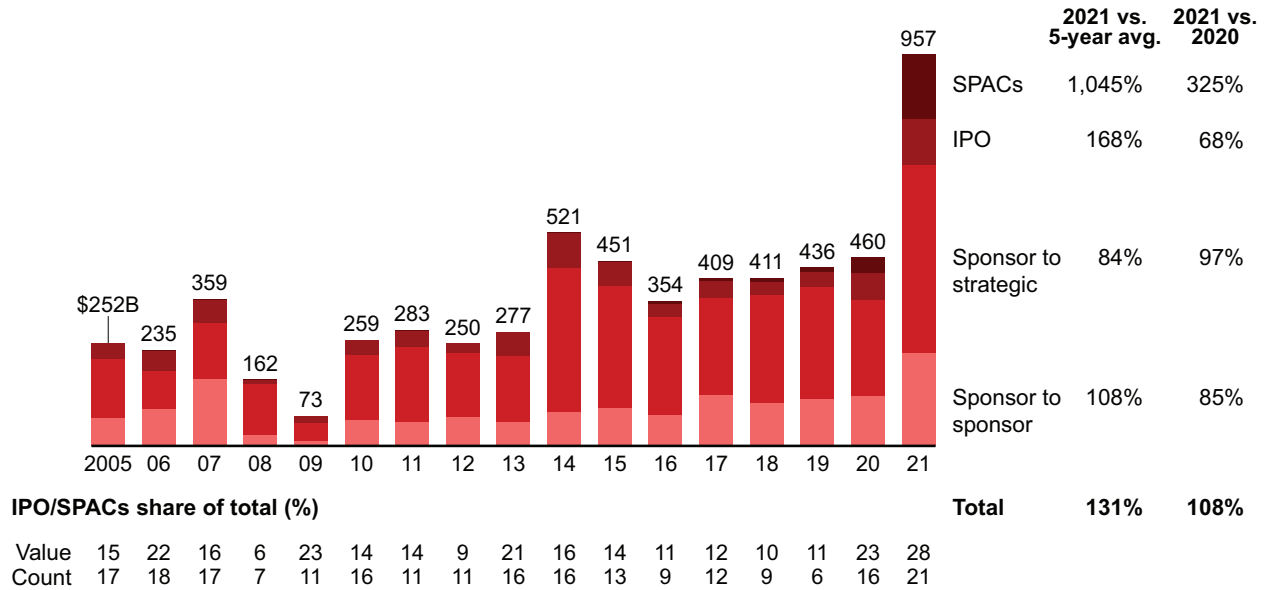
**Global buyout-backed exit count, by sector (thousands)**



Notes: Includes partial and full exits; bankruptcies excluded; IPO value represents offer amount and not market value of company  
Source: Dealogic

**Figure 18:** Unlike most years, in 2021 every private equity exit channel showed remarkable growth

**Global buyout-backed exit value, by channel (\$B)**



Notes: Includes partial and full exits; bankruptcies excluded; IPO value represents offer amount and not market value of company  
Sources: Dealogic; Bain analysis

Massive amounts of dry powder drummed up deals between sponsors. Soaring public markets led to a burst in IPO activity. Rising stock prices and better-than-expected economic growth gave corporate buyers ample currency for strategic deals. The rise in special-purpose acquisition companies (SPACs) also played a role, albeit mostly in the growth sphere. Prices were soaring, markets were hungry, and the cost of debt was near zero.

For GPs, this perfect storm environment meant one thing: If any asset in your portfolio was ready to sell, now was the time to do it.

Corporations, which tend to view private equity ownership as a seal of approval, were the most voracious buyers of former portfolio companies, pumping \$458 billion into the market, or double what they spent a year earlier. Sponsor-to-sponsor deals were next at \$228 billion, with SPACs coming in third at \$158 billion (although that number includes the full value of deals in which buyout firms owned minority shares). What made the SPAC volume stand out was the fact that it rose from just \$37 billion in 2020, a 325% increase. IPOs also grew rapidly, adding \$112 billion in volume, up from \$67 billion in 2020, as sponsors rushed to take advantage of soaring equity markets, particularly in the US.

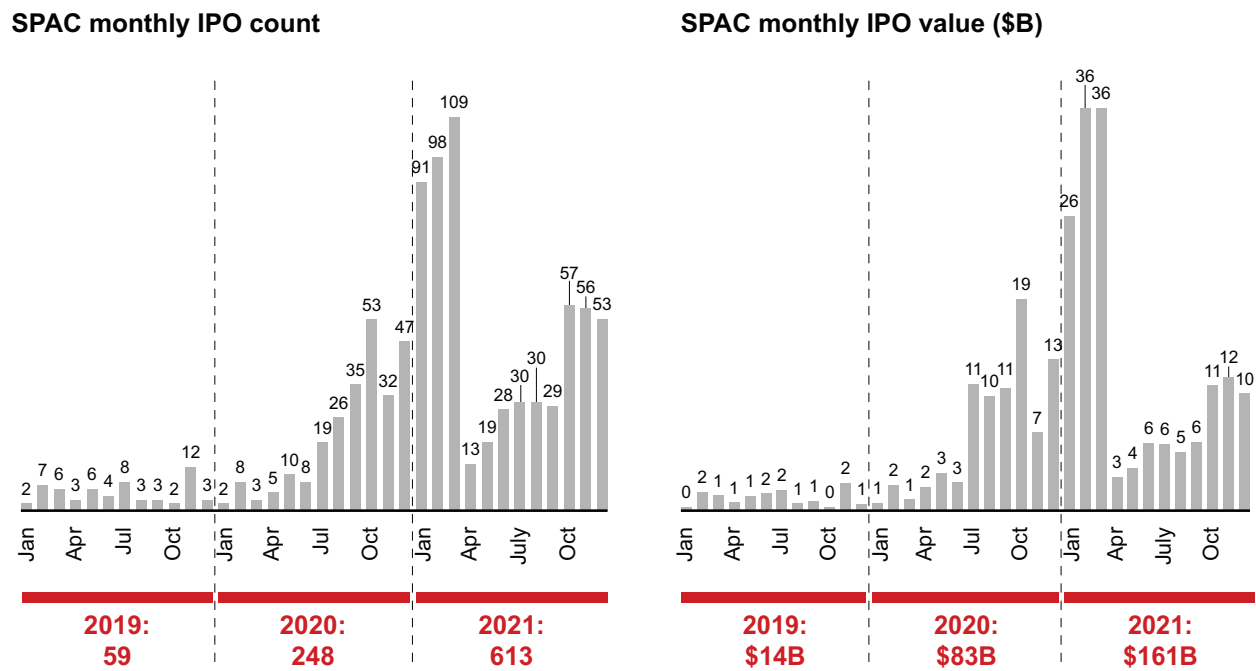
The rise, fall, and rise again of SPAC IPOs over the past two years has been a sight to behold. Once an arcane financing vehicle few had ever heard of, SPACs burst into the mainstream in 2020, with new

issues reaching a fever pitch in early 2021. SPACs are shell companies with no operations that raise capital through an IPO and use the proceeds (alongside PIPE financing and, sometimes, debt) to fund one or more mergers, which then form the basis of an ongoing public entity. They typically are on a time clock, meaning they have to spend the money within a given time frame, a period that has been slipping in new deals from 24 months to between 12 and 18 months.

SPAC IPOs grew rapidly in 2020 amid roaring equity markets and reached a peak of \$36 billion in funds raised each month in February and March of 2021. But then regulatory and accounting issues, combined with declining post-merger SPAC share prices, dramatically reduced new issues, and value plummeted to \$3 billion in April. Since then, volume has slowly revived as SPAC sponsors began offering investors better terms, including overfunded trusts, shorter expiration periods, and more investor-friendly warrant structures. The market settled into a relatively steady cadence of about 30 SPAC IPOs per month over the summer before increasing again in the fourth quarter to a level closer to 60 per month (see Figure 19).

It’s easy to forget that, despite all the volatility, the SPAC boom had created an army of 575 public shell companies as of December 2021, a number that has been growing pretty steadily for two years. Those shell companies are stalking the market for targets and are highly motivated; many of them will expire in early 2023 if they aren’t successful in putting the money to work.

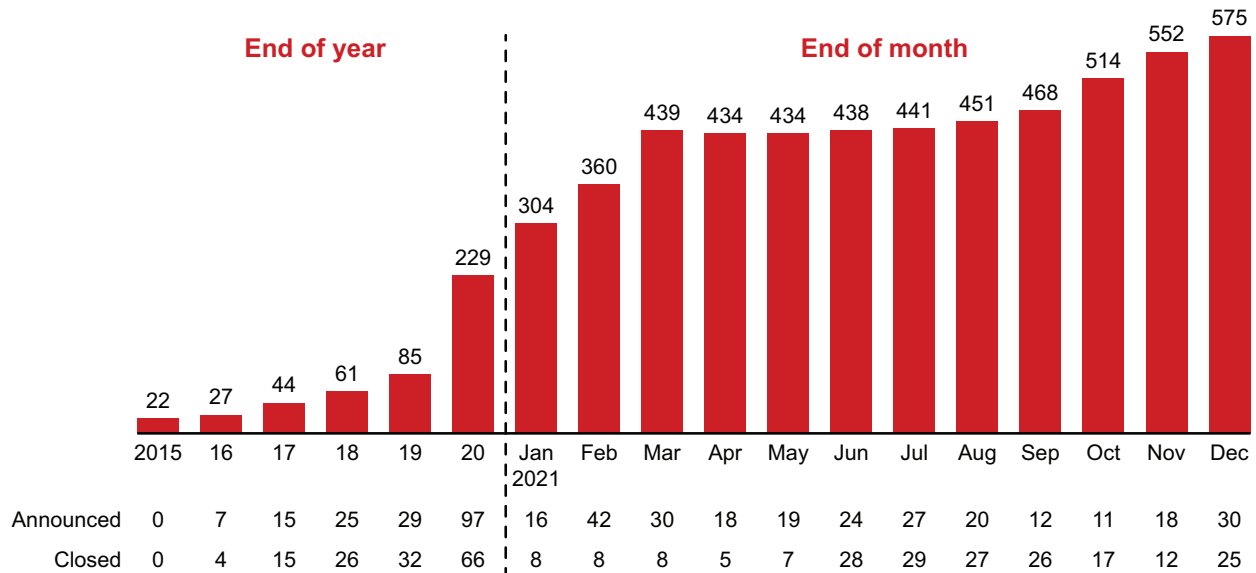
**Figure 19:** While SPACs crashed in April 2021, the market found new traction as the year went on



Source: SPAC Research

**Figure 20:** Despite the volatility in SPAC IPO issuance, the number of SPACs searching for merger partners has been climbing since 2020

**Number of SPACs searching for a target**



Notes: Announced and closed refer to the number of SPACs that either announced or closed a deal within a given year or month; searching refers to the cumulative number of SPACs that have listed but not yet announced a transaction  
 Source: SPAC Research

If they were to succeed, they would create new public companies at a pace not seen since the dot-com boom of the late 1990s. Indeed, the 575 “searching SPACs” represent around 12% of the more than 4,000 public companies listed in the US (see Figure 20).

That seems unlikely, however. At the SPAC merger pace set in the fourth quarter of 2021, more than 200 SPACs would be forced to liquidate by March 2023.

The long-term impact of SPACs on the buyout world is hard to evaluate. SPAC deals to date have trended heavily toward flashy, high-growth venture-type companies rather than the larger, more established companies found in buyout portfolios. It’s possible that will change as the SPAC market evolves, but given their volatility, it’s difficult to handicap their staying power. Performance remains an issue; a Bain analysis of market returns for various cohorts of SPACs shows they have badly trailed the S&P 500 over the past two years. How the market plays out over the next 6 to 24 months will likely determine the long-term steady state of SPAC IPO issuance and its impact on the private equity industry.

Even as GPs tapped exit channels with a vigor unseen in years, they were seeding the growth of the secondary market, an alternative channel that gives funds the flexibility to delay or transform exits depending on what’s happening with individual companies and markets.

While private markets outperform public markets over every time period, the one big disadvantage for investors is a lack of liquidity. LP capital is typically locked up for a period of three to five years, and GPs are under pressure to pay it back after that period, even if they still see value in holding an asset. By creating a market for preexisting investor commitments, secondaries provide liquidity that solves the problem on both sides; it gives LPs a way out when they need it and allows GPs to stay involved with a promising asset as long as they see fit.

Over the past several years, special-purpose vehicles, continuation funds, and other vehicles have emerged that allow GPs to transfer existing commitments between funds, freeing up LP capital or resetting the clock.

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Even as GPs tapped exit channels with vigor, they were seeding the growth of secondaries, an alternative channel that gives funds the flexibility to delay or transform exits.

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Firms are also buying up secondary funds or building secondary expertise to increase their exposure to what is emerging as a new asset class. CVC, for instance, recently said it would acquire Glendower Capital, while Franklin Templeton acquired Lexington Partners. TPG, meanwhile, hired two secondary experts from Landmark Partners, which itself was acquired by Ares Management. Because these vehicles are hard to classify, existing data sources understate their growth. But anecdotal evidence suggests secondaries are expanding rapidly, and 86% of LPs in the Collier Capital survey said they expect the class to keep up the growth over the next three years.

## Fund-raising

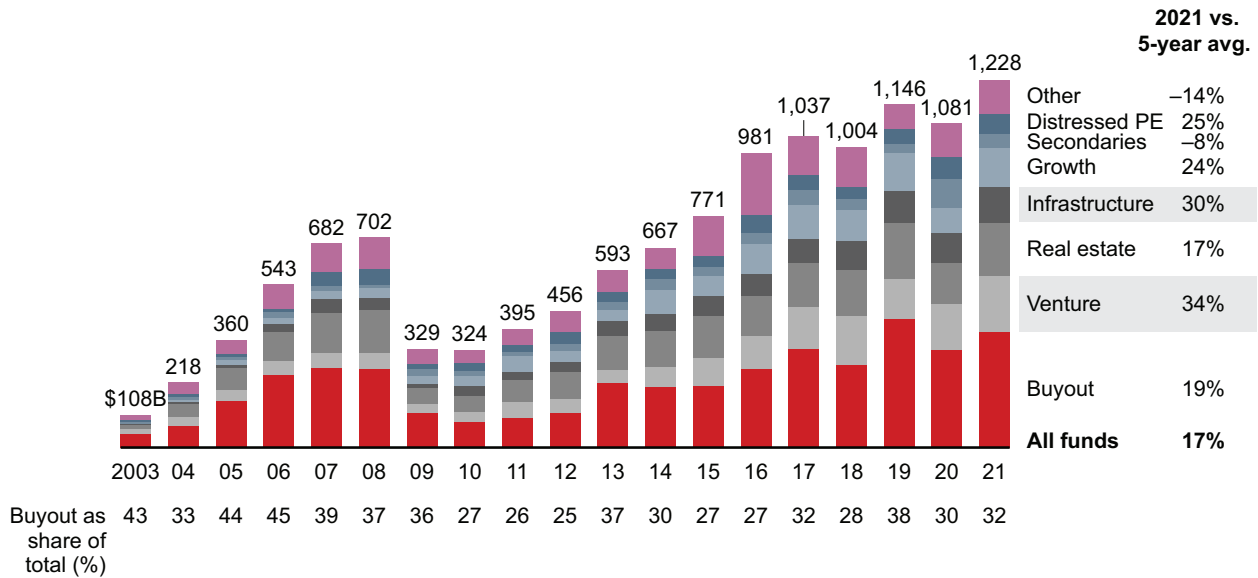
In a year marked by new records set, private market fund-raising didn't disappoint. Global funds raised across the full private capital spectrum hit \$1.2 trillion, a 14% increase from the 2020 total and the highest level ever reached. Buyout funds raised \$387 billion in 2021, their second-best year ever. But growth, venture, and infrastructure all grew faster relative to their five-year averages, and buyout's share of the total has flattened at around 30% over the past several years (see Figures 21 and 22).

Investor enthusiasm for private equity shows no signs of waning. A full 88% of LPs surveyed by Preqin in 2021 said that they expect to increase or maintain their PE allocations this year, and 95% said they will do so over the longer term. The enthusiasm translated into a strong year on the road for most funds and a now-familiar pattern in fund-raising: The big get bigger. More funds closed in 2021, the average size kept creeping upward, and the majority closed at or above target (see Figure 23). The largest funds—those with assets under management greater than \$5 billion—continued to attract almost half of all buyout capital raised (see Figure 24).

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**Figure 21:** Amid a record-setting year in global private capital raised, buyout held its own, but venture and infrastructure funds stood out

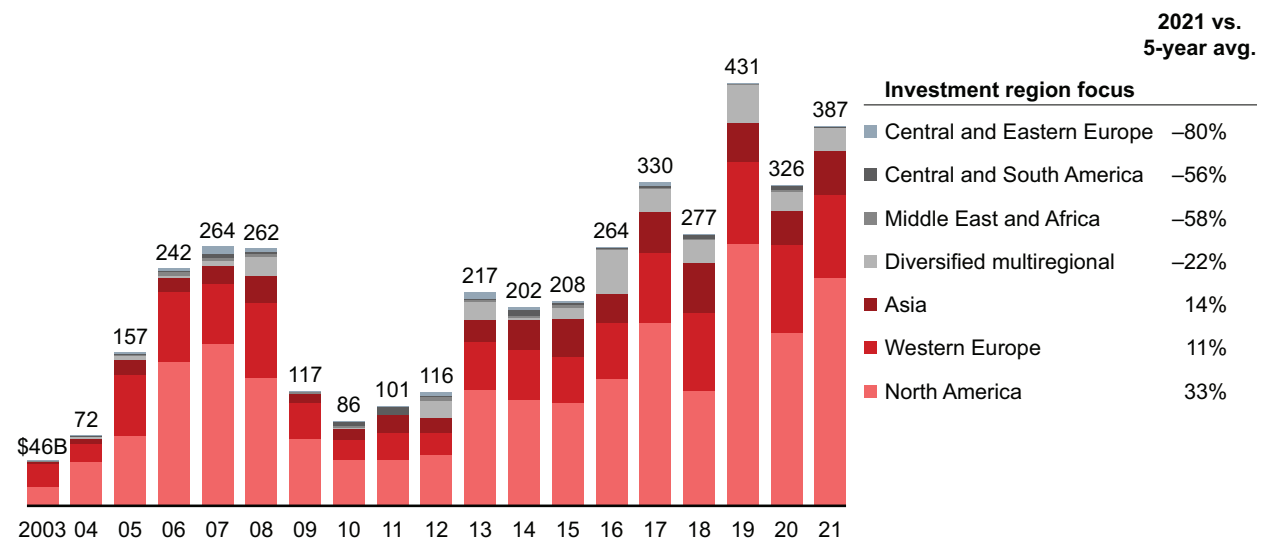
**Global private capital raised, by fund type (\$B)**



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; includes funds with final close and represents the year in which funds held their final close; excludes SoftBank Vision Fund  
Source: Preqin

**Figure 22:** Buyout funds posted their second-best fund-raising year ever, and the capital is targeted largely at major markets

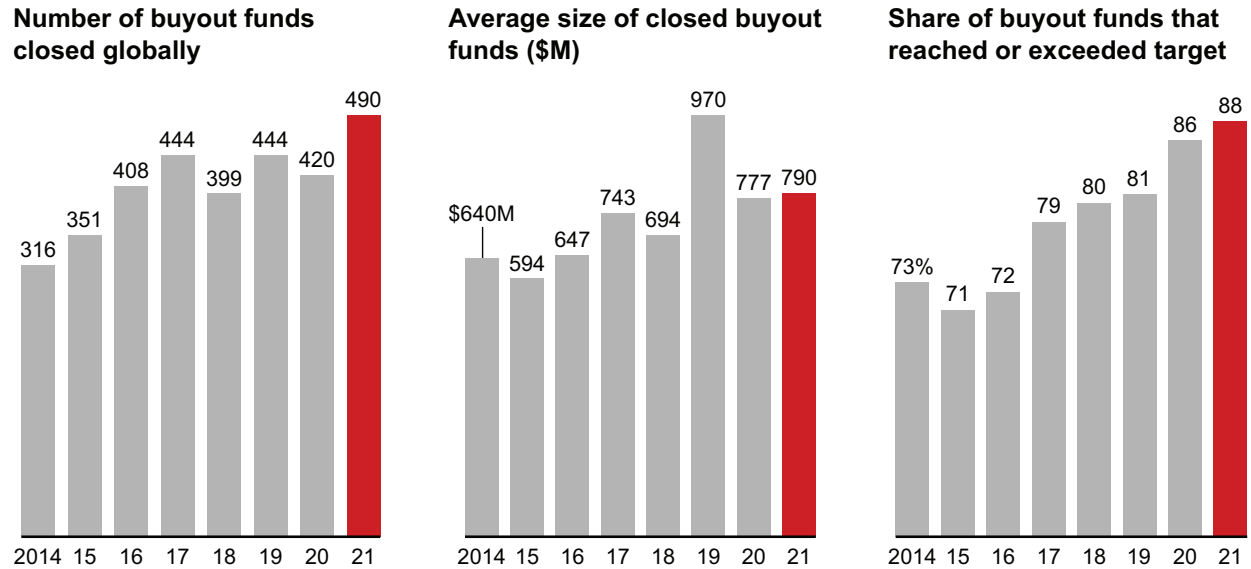
**Global buyout capital raised, by investment region focus (\$B)**



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; includes funds with final close and represents the year in which funds held their final close; excludes SoftBank Vision Fund  
Source: Preqin

Global Private Equity Report 2022

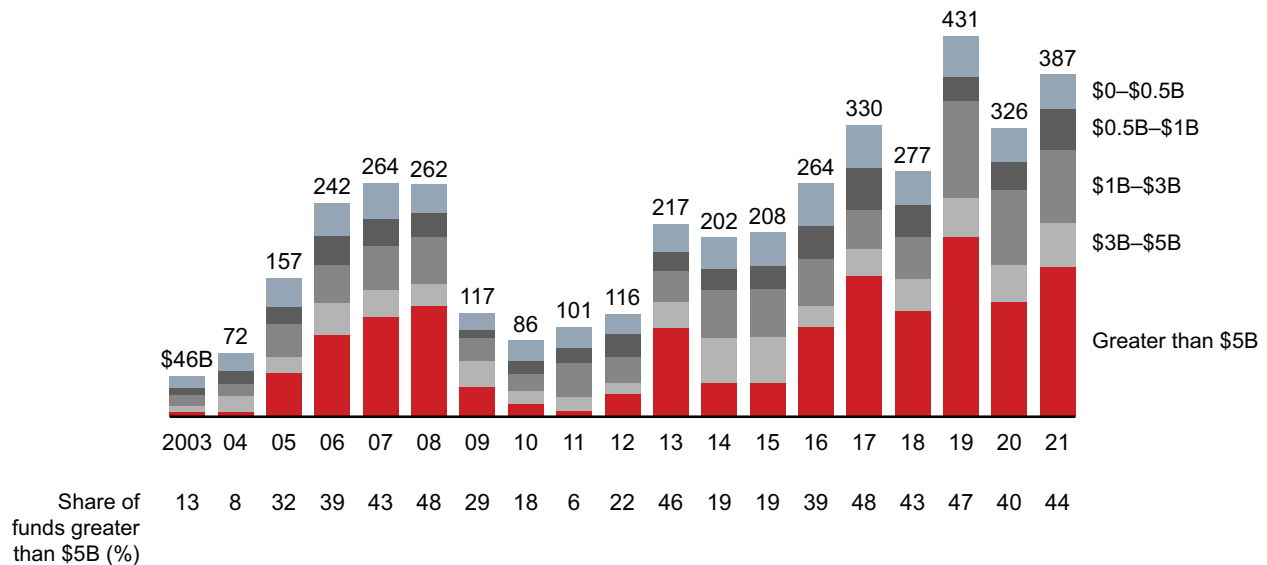
**Figure 23:** More funds closed globally, average fund size increased slightly, and the majority of funds reached or exceeded their target



Notes: Number of buyout funds closed includes all funds closed globally, except those for which the final value is not available; average size is the total value raised by those funds divided by the total number of funds; share of buyout funds that reached or exceeded target includes all buyout funds that closed in the respective year for which both the fund-raising target and value of the final funds raised is known; buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds  
Sources: Preqin; Bain analysis

**Figure 24:** Funds with more than \$5 billion in assets continued to capture the largest share of capital raised

Global buyout capital raised, by fund size (\$B)



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; includes funds with final close and represents the year in which funds held their final close; excludes SoftBank Vision Fund  
Source: Preqin



The industry’s marquee buyout funds, in fact, have developed a comfortable routine with their LPs. While historically they might have raised a large flagship fund every three to five years, they’re pulling that schedule forward, coming back to investors every one or two years and raising an even larger fund. Hellman & Friedman, for example, raised \$24 billion (vs. \$20 billion targeted) for its X fund in 2021, less than three years after raising \$17 billion for fund IX. Stepping up in this way has accelerated the supersizing trend. Among the top 20 managers, the average flagship fund size jumped from \$12 billion to \$17 billion between the last two fund-raising cycles.

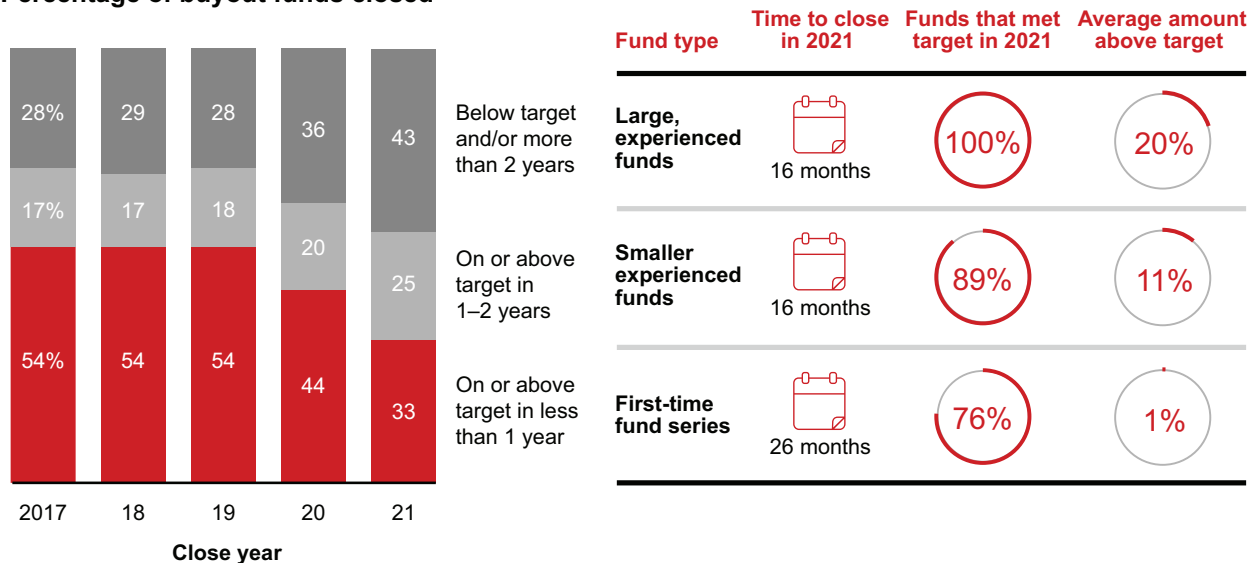
For most funds, however, closing took longer in 2021 than it had in previous years. The percentage of funds that hit their target in less than a year dropped from 44% to 33%, and if you were in the market’s middle or below, it was especially challenging (see Figure 25).

As we discussed in last year’s report, fund-raising within the buyout category has shifted significantly. LPs clearly have a bias toward size and experience in the funds they choose. But they are also rewarding funds that have specialized expertise or a unique angle on creating value.

For the first two-thirds of private equity’s relatively brief history, the industry was shaped by the classic buyout fund, one geared to hunt for value in a number of industries and sectors with a diversified portfolio. Since 2010, however, these classic funds have been losing share to specialists—firms that have carved out clear areas of expertise and exploited them aggressively, including hyperfocused

**Figure 25:** It took longer for funds overall to hit their targets in 2021, although large funds with established track records had an easier time

**Percentage of buyout funds closed**



Notes: Includes all buyout funds that closed in the respective year for which both the fund-raising target and value of the final funds raised is known, as well as the time taken to close the fund-raising; buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; large, experienced funds are those with more than \$5 billion in assets, excluding first-time funds; some columns do not total 100% due to rounding  
Sources: Preqin; Bain analysis

subsector funds, growth funds, ESG specialists, long-hold funds, etc. The share of capital raised for classic funds has slipped from a recent peak of 80% in 2013 to 69% at the end of 2021. That was a slight improvement from 2020, but the trend is still evident.

This is rewarding diversified giants like KKR or Carlyle that can quickly stand up funds to take advantage of investor trends. It is also benefiting funds that are right in the middle of hot sectors like software, healthcare, or fintech, along with new funds that offer an innovative way to tap a certain market. Consider Arctos, a fund that buys and sells minority stakes in sports teams. It was on the road for 18 months in 2020 and 2021 and raised its first \$3 billion in capital.

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The message in fund-raising patterns is unambiguous: Funds that have an angle, especially a tech-related angle, are the ones raising money the fastest.

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Investors certainly aren't all looking for such exotica, but the message in fund-raising patterns is unambiguous: Funds that have an angle, especially a tech-related angle, are the ones raising money the fastest. As LPs become more and more sophisticated in how they split up their private equity allocation, they are looking for targeted solutions that stand out from the crowd in terms of experience, focus, and performance.

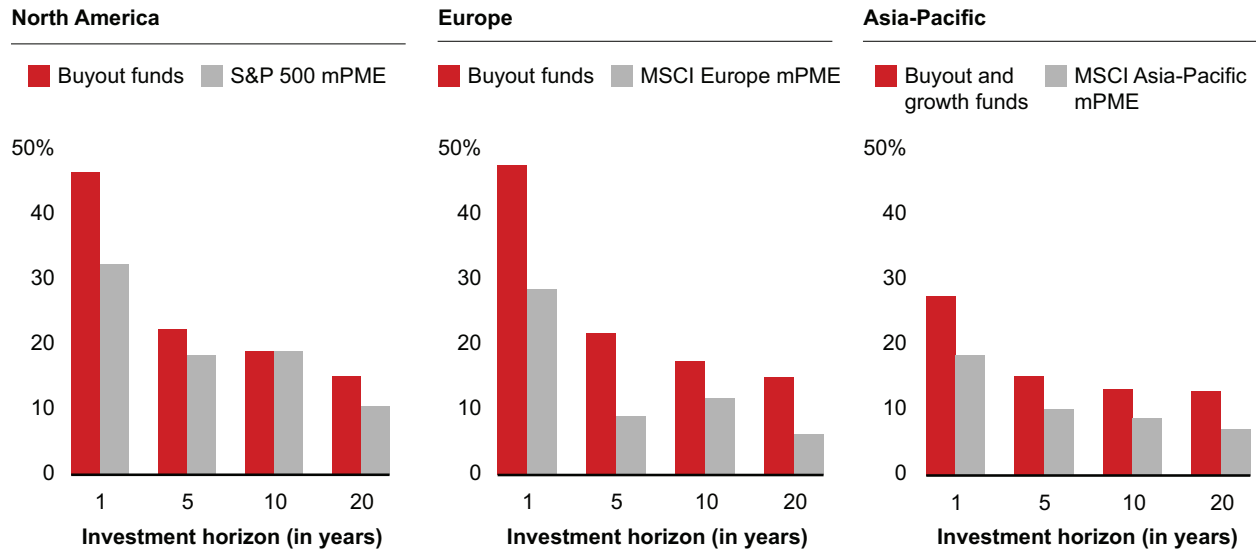
## Returns

As far as returns go, private equity continued to deliver for investors in 2021. Buyout funds on average have generated stronger pooled net IRR than public markets across multiple time periods and geographies (see *Figure 26*). As has been the case over the past several years, the outperformance has been narrowest in the US, where the long technology-driven rally in the public averages has closed the historical gap with private equity.

The argument could be made that a narrow gap plays to the public markets' favor, since private equity offers less liquidity. But as we've seen, limited partners seem more enthusiastic about private equity in recent years, not less. There are a couple of reasons to expect this isn't likely to change unless the private markets begin to disappoint. First, the surge in US equities since the global financial crisis has been a historical anomaly, which sophisticated investors know is likely to revert to the mean eventually. Second, the public rally is less monolithic than it seems. The strong appreciation has been driven

**Figure 26:** Buyout fund returns continue to outpace public equities across all time periods and around the world, although the gap is narrowest in the US

**End-to-end pooled net IRR (as of Q3 2021) for ...**



Notes: Data for US and Asia-Pacific calculated in US dollars; data for Europe calculated in euros; Europe includes developed economies only; Cambridge Associates Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions  
Source: Cambridge Associates

disproportionately by a handful of very large tech companies like Apple, Amazon, and Microsoft, meaning public investors are disproportionately increasing exposure to these companies as well.

Private equity continues to offer broader exposure, less volatility, and returns that are better over time, especially at the top tier (see Figure 27). That helps explain why respondents to Prequin’s 2021 survey of LPs remain highly satisfied with their private equity allocations. A full 95% said that the performance of their PE portfolio met or exceeded their expectations in the past year, although some predict a bit of cooling in the coming year (see Figure 28).

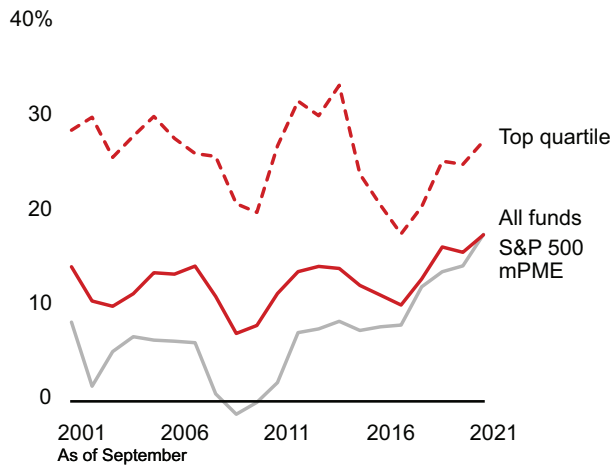
Returns in private equity, of course, aren’t monolithic either, which is why LPs have tended to reward certain funds over others. In the years since the global financial crisis, for instance, returns from technology, business services, and financial services have increased relative to performance before the crisis, and capital flows to these tech and tech-enabled sectors have risen. The broad consumer sector, on the other hand, has declined in performance (see Figure 29).

As we discuss elsewhere in this report, strong sector investing is all about expertise; picking the right companies in any sector can produce top-tier returns. What investors are looking for is differentiated performance, and they are clearly rewarding the funds that can deliver.

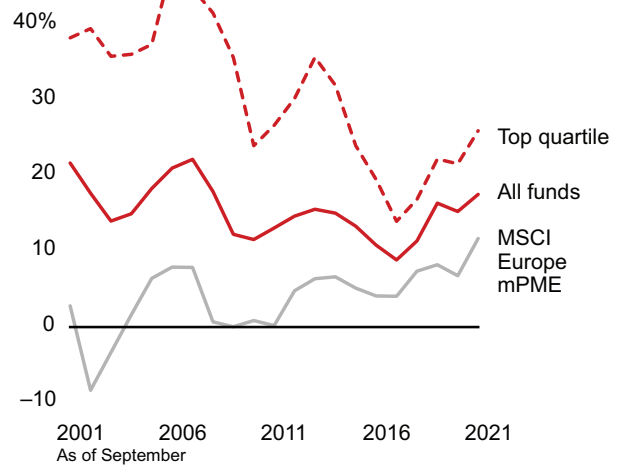
**Figure 27:** While public and private market returns have converged recently in the US, top-tier funds continue to outperform the S&P 500 by a wide margin

**10-year horizon pooled net IRR for ...**

**US buyout funds**



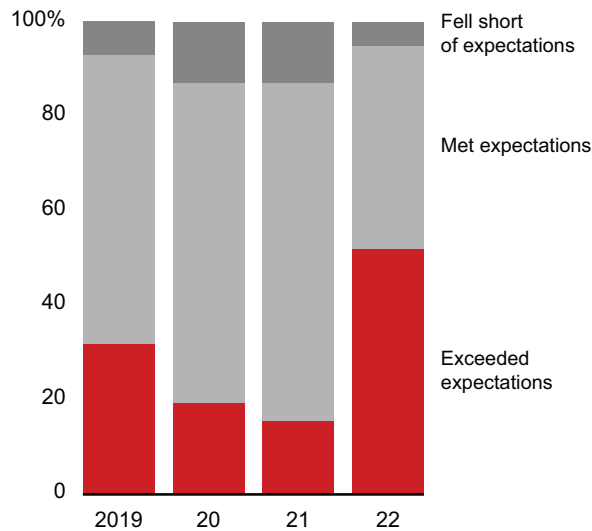
**European buyout funds**



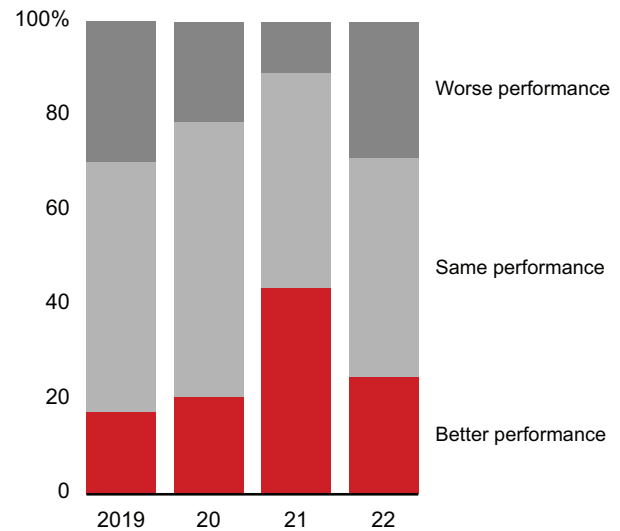
Notes: Data for US calculated in US dollars; data for Europe calculated in euros; Cambridge Associates Modified Public Market Equivalent (mPME) replicates private investment performance under public market conditions  
Source: Cambridge Associates

**Figure 28:** Private equity returns continue to meet investor expectations, although a higher percentage of LPs see some cooling ahead

**Q: Has the performance of your PE portfolios lived up to your expectations in the past year?**



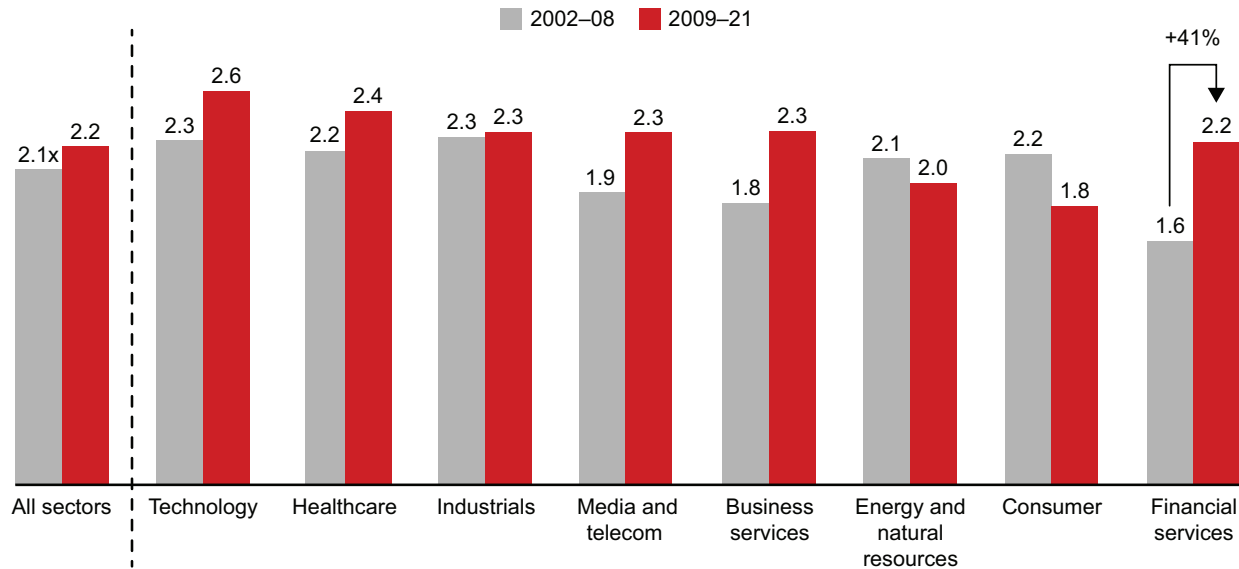
**Q: What are your return expectations for your PE portfolios in the coming year?**



Source: Preqin

**Figure 29:** Sector returns have generally been strong since the global financial crisis, with some exceptions

**Median multiple on invested capital, by investment year**



Notes: Includes fully realized, global buyout deals with more than \$50 million in invested capital; excludes real estate  
Source: DealEdge

## Asia on the rise

Over the past decade, the share of assets under management focused on the Asia-Pacific region has grown significantly faster than AUM focused on the rest of the world. The region has grown 2.4 times faster than North America and 3.0 times faster than Europe (which it passed for second place in 2018). It finished 2021 with a 30% share of total AUM (see Figure 30).

The shift toward Asia and away from Europe, in particular, reflects the dominant trends in private equity today: the rapid rise of technology and venture investing. Asia-Pacific investors have long been focused on growth more than buyout, but that trend has been even more pronounced over the past several years. Venture AUM focused on Asia-Pacific hit 46% of the total in 2021, up from 13% in 2010. Asia has lost a little ground to other regions in growth equity AUM over the past two years but still commands a share of 52%. While the region’s share of buyout AUM remains relatively low at just 12%, that too has grown rapidly (by 50%) since 2010 (see Figure 31).

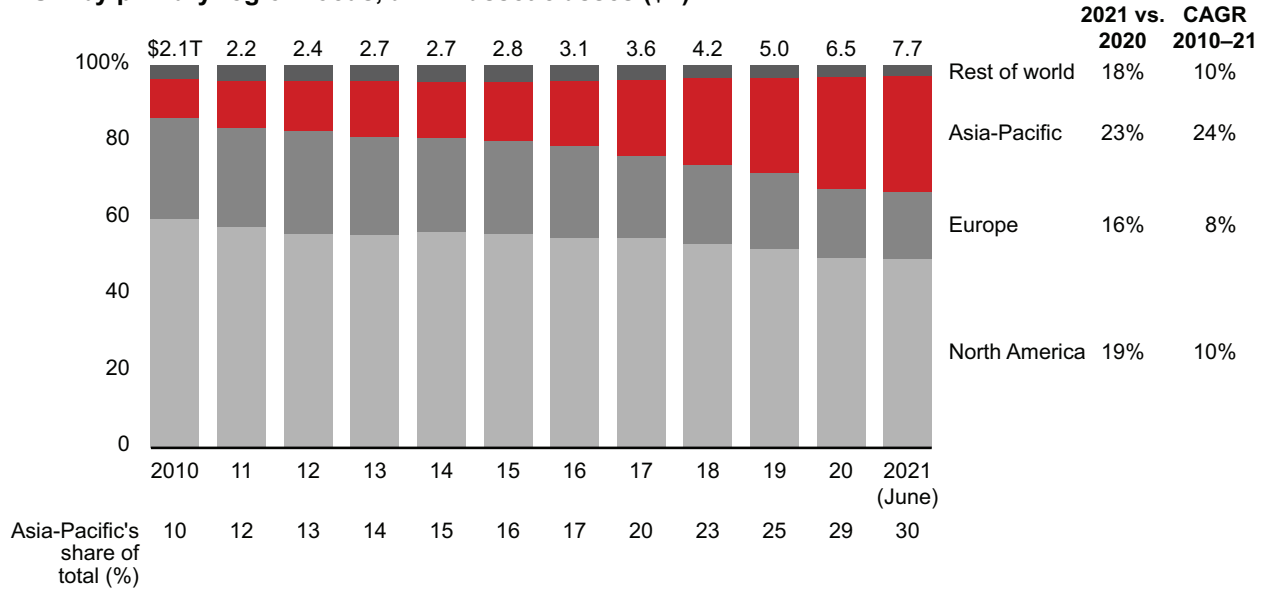
Unsurprisingly, the bulk of this growth capital is focused on technology. Tech deals made up just over half of all deals done in the region in 2021, vs. 31% globally (see Figure 32).

Within the tech sector, activity was highly concentrated (about half) on e-commerce, software, and online services. Greater China and India, which accounted for \$128 billion and \$61 billion in deal

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**Figure 30:** Capital focused on Asia-Pacific, which has grown significantly faster than that aimed at North America and Europe, now commands a 30% share

**AUM by primary region focus, all PE asset classes (\$T)**

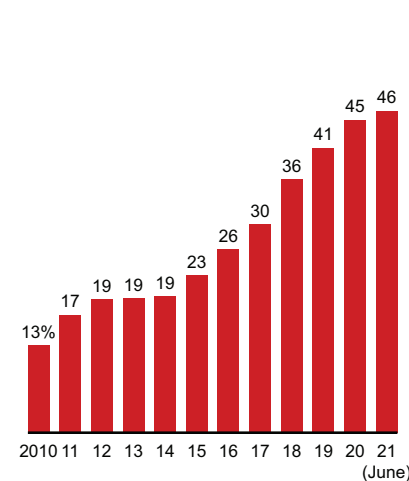


Notes: Asia-Pacific includes Asia and Australasia; rest of world includes Africa, Caribbean and South America, Middle East and Israel, and diversified multiregional funds  
Source: Preqin

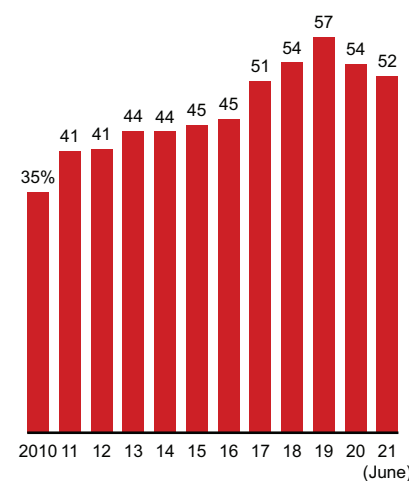
**Figure 31:** Roughly half of global venture and growth equity capital is focused on Asia-Pacific

**Asia-Pacific’s share of AUM for ...**

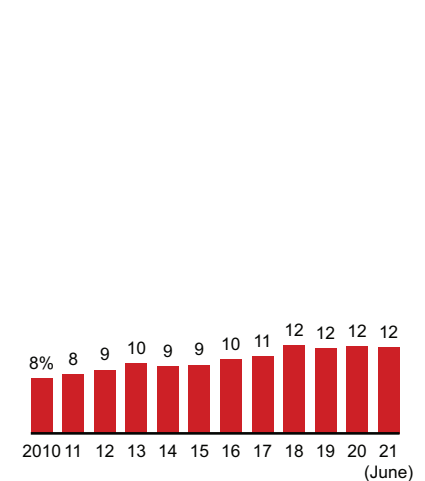
**Venture**



**Growth equity**



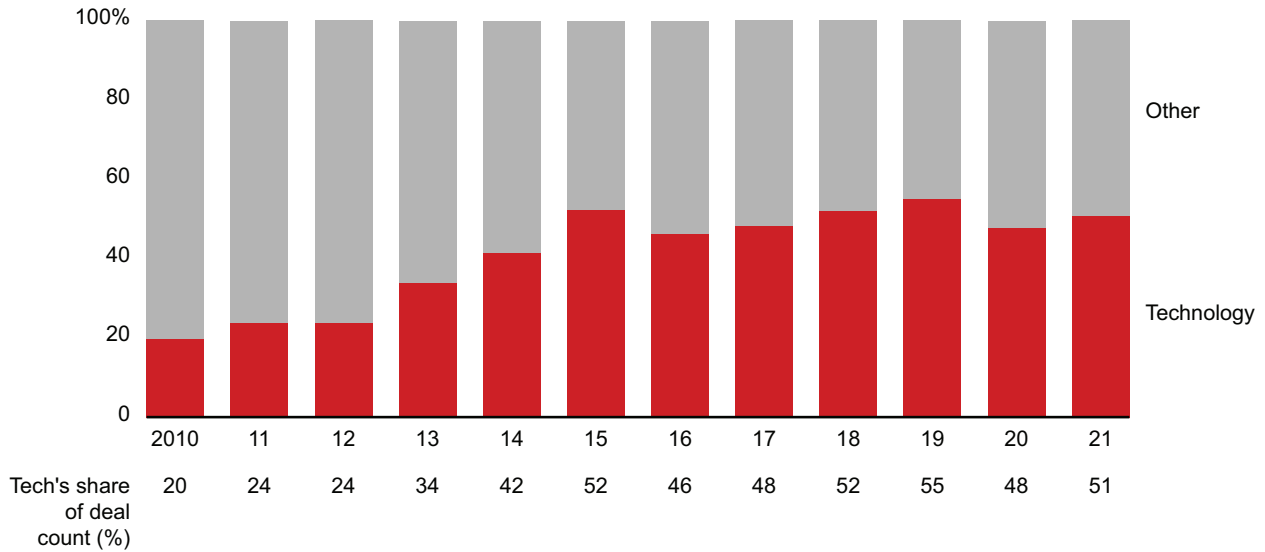
**Buyout**



Notes: Asia-Pacific includes Asia and Australasia; buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds  
Sources: Preqin; Bain analysis

**Figure 32:** The technology sector has accounted for roughly half of all Asia-Pacific deals done since 2015

**Asia-Pacific deal count, by sector**



Notes: Technology includes computer and information technology deals; includes buyout, growth, early-stage, private investment in public equity, turnaround, and other deals; excludes real estate and infrastructure  
Sources: AVCJ; Bain analysis

value in 2021, respectively, were the most vibrant markets, with some of the biggest deals. When India’s online retailer Flipkart sought an injection of \$3.6 billion, a diverse collection of investors showed up, including the Canada Pension Plan Investment Board and hedge fund Tiger Global.

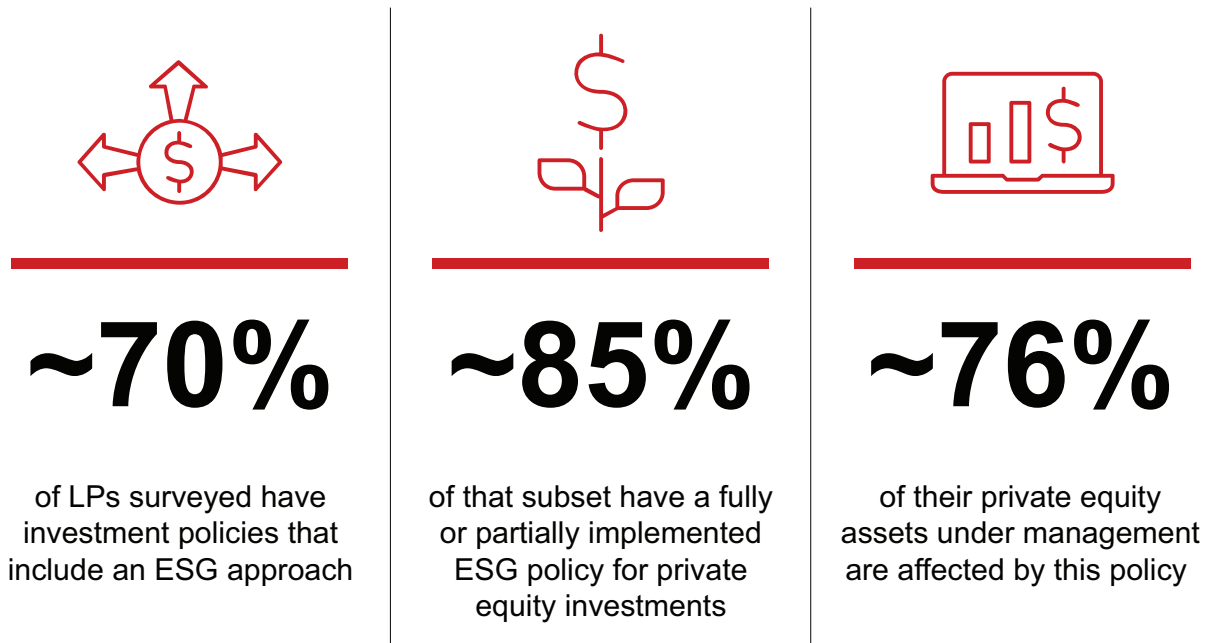
Other recent big deals in the region have included Carlyle’s \$3 billion investment in Indian IT services company Hexaware, SoftBank’s \$1.7 billion investment in South Korean travel platform Yanolja, and a \$1.5 billion funding round raised by Lalamove, an on-demand logistics company based in Hong Kong.

**Closing the ESG measurement gap**

Since we wrote about creating value through ESG in this report a year ago, environmental, social, and corporate governance issues have only gained currency among consumers, employees, and investors. Yet as more and more LPs and GPs seek ways to implement meaningful ESG strategies, they inevitably encounter a measurement gap that makes it difficult to gauge success.

A lack of specific data standards and best practices related to ESG is hampering investors’ ability to consistently evaluate ESG performance across their PE portfolios. Even where high-quality data exists, firms and institutions may lack the capacity to collect, analyze, and report on it.

These challenges come through clearly in a survey of LPs conducted jointly by Bain and the Institutional Limited Partners Association (ILPA). When asked about the role ESG plays in their current

**Figure 33:** A majority of limited partners are weaving ESG considerations into their investment decisions

Source: ILPA-Bain ESG Survey, 2021 (n=103)

and future private equity strategies, these organizations were unambiguous: ESG is becoming an increasingly important factor in making investment decisions.

Approximately 70% of respondents have made ESG a part of their investment policies. Of those, around 85% have a specific ESG policy related to private equity allocations, and those policies affect about 76% of their private equity assets under management (see Figure 33). Half of all respondents said ESG is additive to investment performance, although regional differences remain. In Europe, 70% agree that strong performance on these issues increases valuation premiums, while in North America, that percentage drops to 38%.

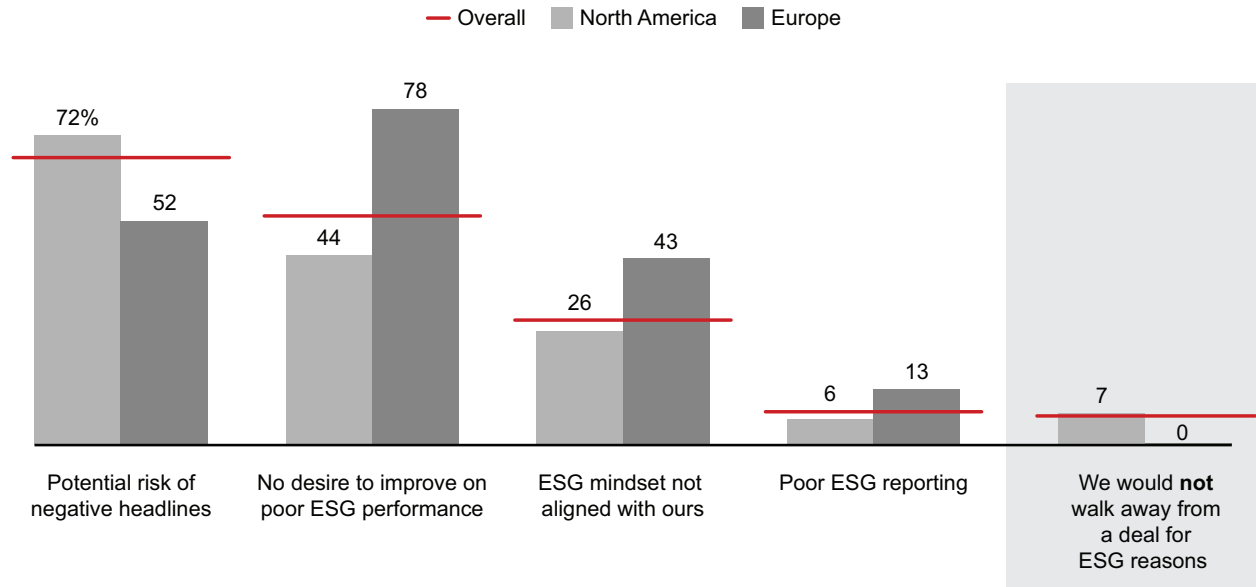
The overwhelming majority of LPs (93%) said they would walk away from an investment if it posed an ESG concern. But, again, there were regional differences. The biggest concern in North America would be the potential for negative headlines; in Europe, LPs would be more likely to walk away if a company showed no desire to improve performance on these issues (see Figure 34).

Regional differences aside, enthusiasm for ESG among LPs is evident. Yet fewer than 20% of respondents said they ask their GPs for ESG reporting based on key performance indicators. This may be a matter of not asking for what you can't have, since the preponderance of GPs aren't able to provide those reports anyway. Fewer than 25% of GPs, for instance, have the ability to report on scope 1 or 2 carbon emissions all or most of the time. And only around 35% can readily provide a full-scope report on all principal ESG indicators, ranging from carbon emissions to corporate corruption (see Figure 35).



**Figure 34:** LPs are fully prepared to walk away from an investment based on a company’s ESG performance

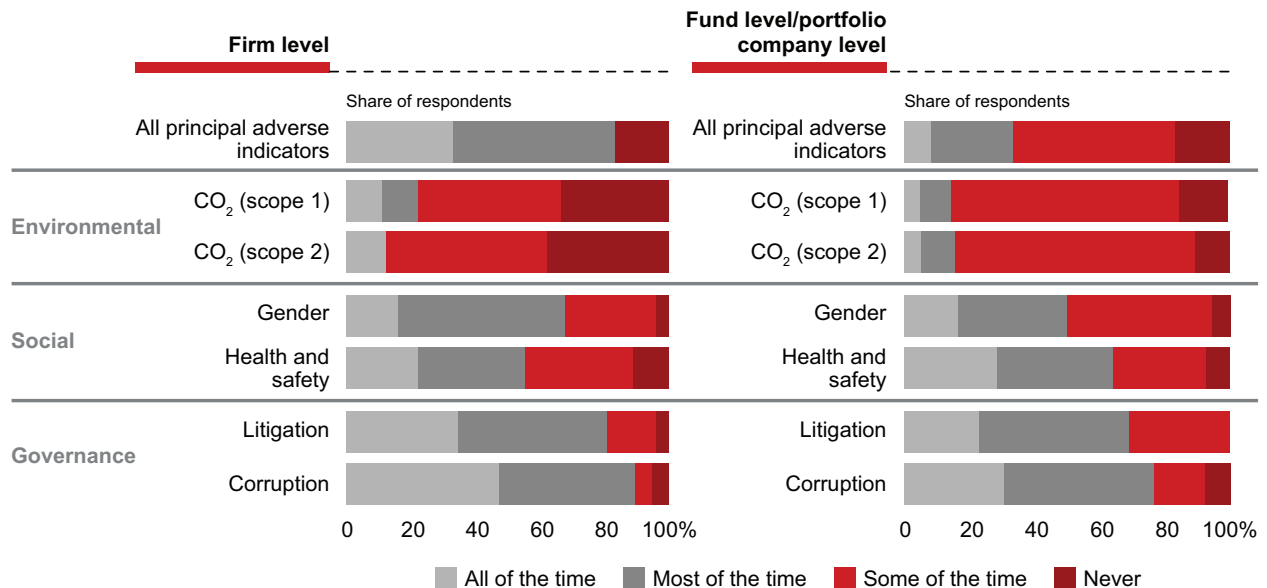
**Percentage of respondents who would walk away because of ...**



Notes: Respondents could select up to two responses; “other” response not shown  
Source: ILPA-Bain ESG Survey, 2021 (n=103)

**Figure 35:** Most general partners are unable to provide investors with a reliable and steady flow of ESG performance data

**GPs’ ability to provide relevant data across most frequently requested key performance indicators**



Note: Only the top two key performance indicators for each category shown  
Source: ILPA-Bain ESG Survey, 2021 (n=103)

When thinking about closing this persistent gap between intent and execution, it's easy to play the skeptic. Action on ESG has always suffered from the fact that it is a broad, sometimes nebulous concept that encompasses a multitude of issues. It is highly unlikely the investing world will develop a universal theory for what good looks like in every industry sector across every aspect of ESG. Given the complexities involved, that has all the characteristics of a holy grail.

But those leading the charge on ESG are finding ways to quantify performance anyway. They are using traditional benchmarks, as well as newly developed ones, to provide transparency around how sustainable, equitable, and responsible they are across their firms and portfolios. And, importantly, they are finding innovative ways to use those insights to help drive better returns.

GPs and portfolio companies are learning to adapt metrics like Net Promoter Score<sup>SM</sup> to gauge how ESG performance is affecting the loyalty of customers and employees. Third-party services like Persefoni are emerging to help companies understand and measure impact around common issues like their carbon footprint. Others, like EcoVadis, have developed sustainability rankings for individual companies and their supply chains. Meanwhile, bespoke benchmarks are being created sector by sector as more work is done to figure out how to do good and produce outstanding returns at the same time.

The Bain/ILPA survey is hardly alone in signaling that companies and their owners will have to find ways to boost performance on these issues or risk losing faith among their most critical stakeholders. For private equity, it's not just a matter of doing the right thing but of doing what's required to thrive into the future. It's also important to recognize that action is better than waiting for answers. The best approach to closing the measurement gap is to get moving and do something, then try to be transparent about what you have done and the impact it is having.



# Chasing Disruption: The Brave New World of Growth Investing

Growth equity and late-stage venture funds are changing how the game is played.

**By Arpan Sheth, Usman Akhtar, and Bill Halloran**

The first thing to know about growth investing is that it has rapidly emerged as one of the most dynamic segments of the private equity industry. The second thing: It's a high-velocity game with a different set of rules.

While growth investing has always been a part of the private equity universe, it has largely stood off to one side. Buyout firms, limited by their mandates, have tended to leave growth companies and noncontrol deals to specialists or firms focused on Asia, where leveraged buyouts with majority stakes are far less common.

But the disruptive power of digital technology has forced growth equity and late-stage venture capital to the fore over the past few years, and fast-moving investors with innovative new business models have joined the battle to control this burgeoning market. The numbers are striking. Growth and venture assets under management have expanded at about twice the rate of traditional buyout AUM over the past 10 years and in 2021 comprised a full 82% of the traditional buyout total (see *Figure 1*).

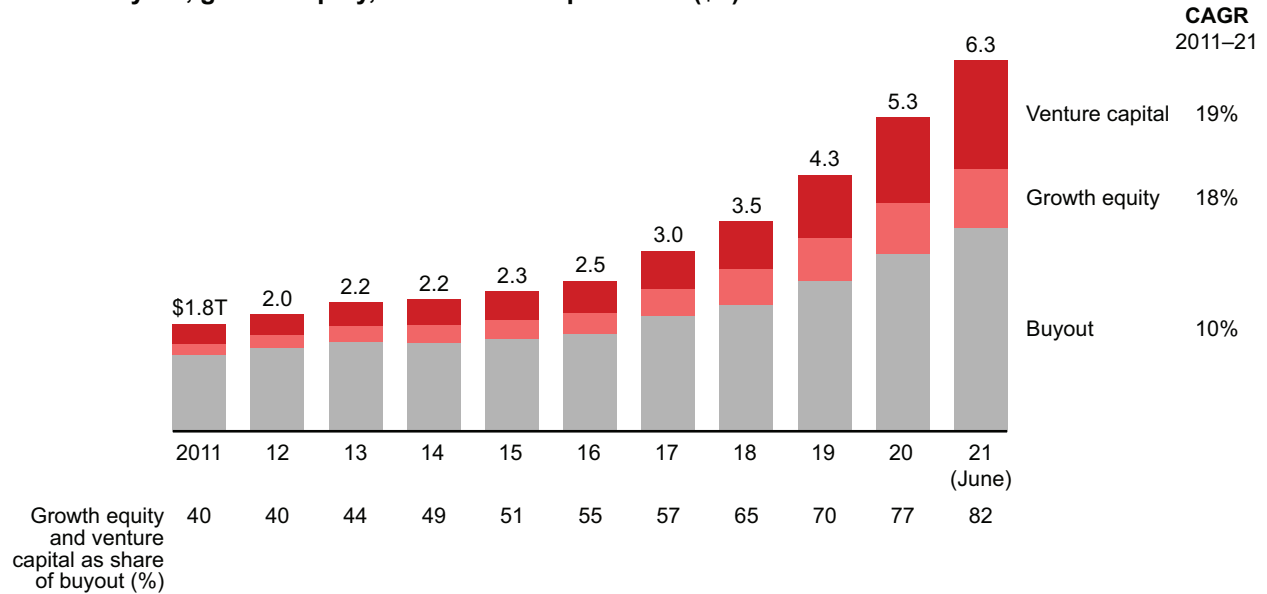
The pattern in capital deployed has been similar: Growth equity and late-stage venture capital funding has grown at 1.5 times the pace of buyout funding and now represents 61% of the traditional buyout total (see *Figure 2*).

The rapid expansion has been a global phenomenon. Double-digit growth in capital deployed has occurred in North America, Europe, and Asia, across a range of sectors stretching from consumer products to financial services (see *Figures 3 and 4*). Capital deployed in India alone has grown 48% annually over the past five years, driven by the potential of the country's vast Internet economy.

Global Private Equity Report 2022

**Figure 1:** Growth equity and venture capital assets under management have grown at around twice the pace of buyout AUM over the past decade

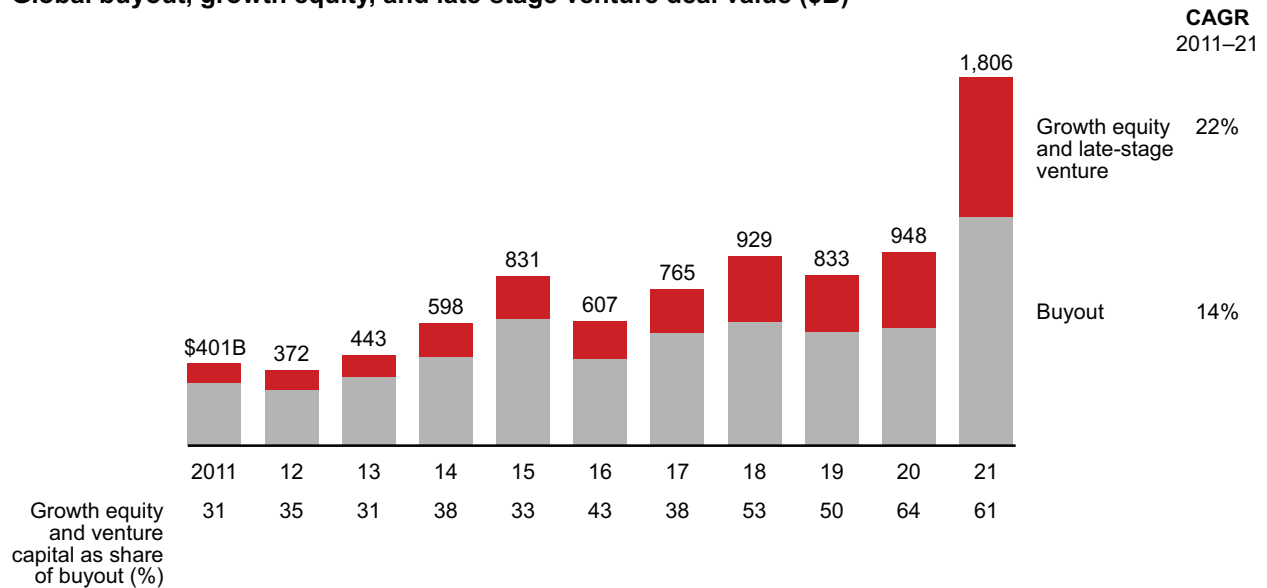
**Global buyout, growth equity, and venture capital AUM (\$T)**



Note: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds  
Source: Preqin

**Figure 2:** Growth equity and late-stage venture funds are also putting capital to work at a faster pace than buyout funds

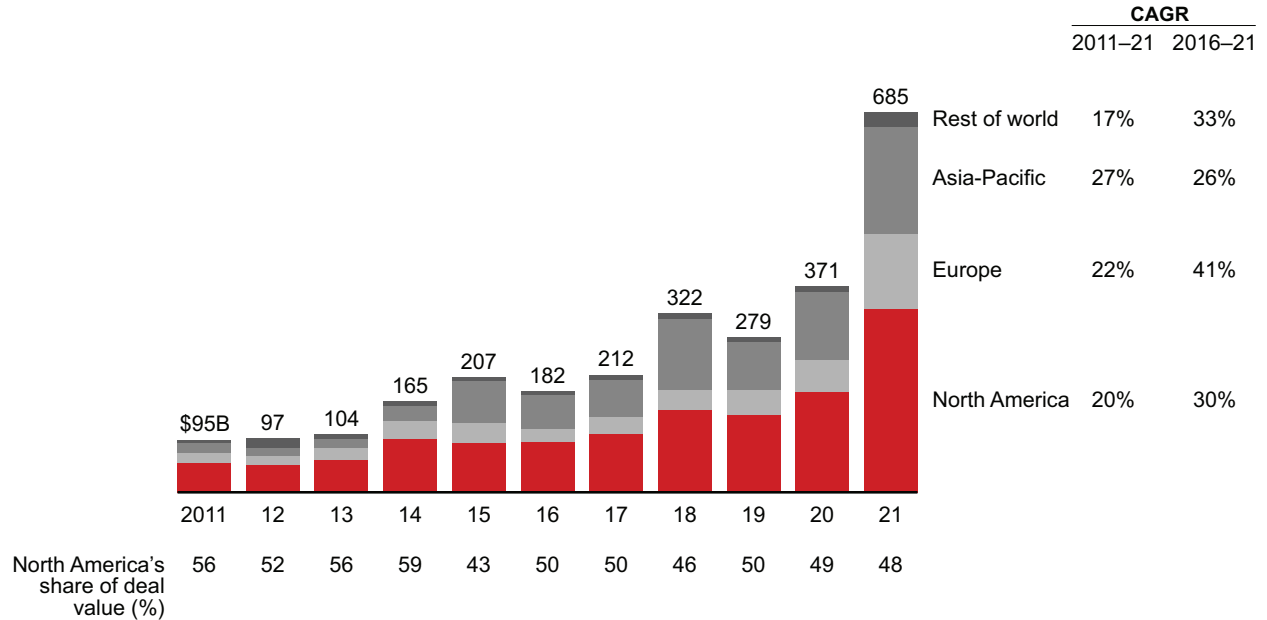
**Global buyout, growth equity, and late-stage venture deal value (\$B)**



Notes: Includes add-ons; excludes SPACs; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change  
Sources: PitchBook; Dealogic; Bain analysis

**Figure 3:** Growth investing has been expanding rapidly in markets worldwide

**Global growth equity and late-stage venture deal value (\$B)**

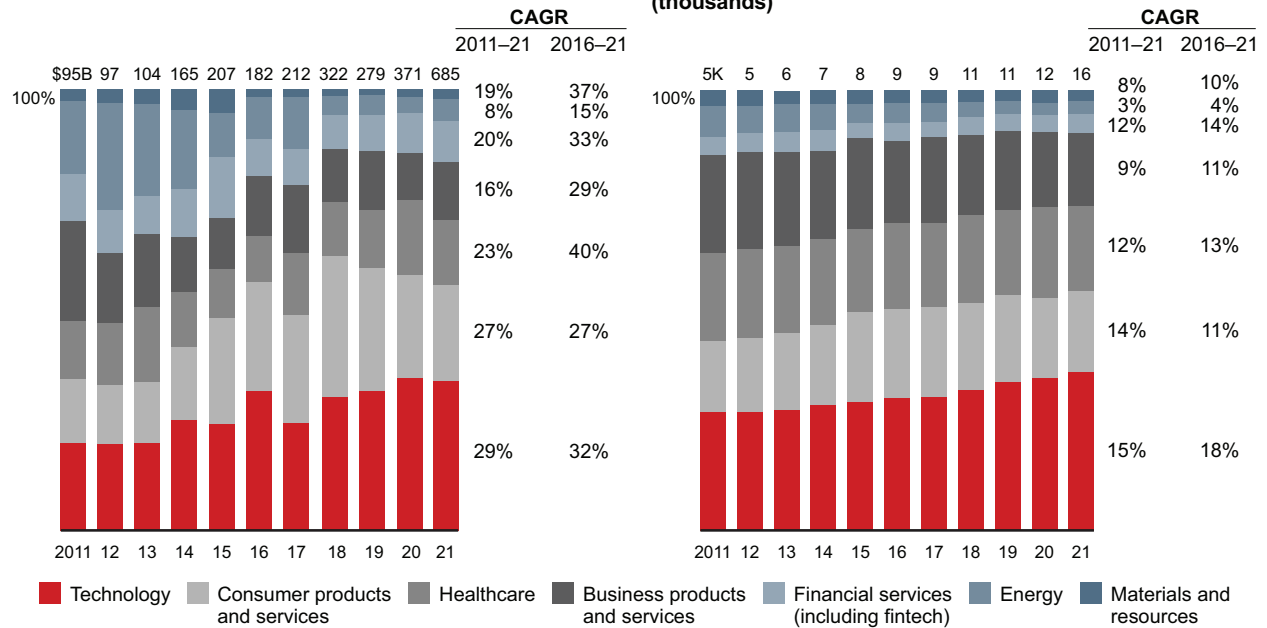


Source: PitchBook

**Figure 4:** Technology is by far the largest growth investing target, but interest in financial services and healthcare is surging

**Global growth equity and late-stage venture deal value (\$B)**

**Global growth equity and late-stage venture deal volume (thousands)**



Source: PitchBook

It's frankly too early to pick winners and losers in this space. Amid the diversity of players flooding into the market, there is no "right" strategy for growth investing, and as results emerge in the coming years, we will likely see that multiple models work, much as they do in the buyout world.

But one thing is already clear: The digital disruption that's fueling growth investing across the global economy has inspired equally disruptive business models tuned to capitalize on it. Led by a group of fast-moving hedge and crossover funds, investors in this space are finding ways to act more quickly, deploy capital more aggressively, and in some cases accept lower return hurdles, on the assumption that volume and velocity will make up for it.

That's given this vibrant market a higher metabolism than the buyout space and is challenging traditional firms to think hard about how to compete differently. The sector's promise has inspired a number of the industry's top buyout firms, including Blackstone, Bain Capital, TPG, and KKR, to launch large growth funds. All have had to adjust their approach, while adding capability and talent, to compete effectively in a very different market segment.

## A technology-driven flywheel

With so many different types of investors pouring into the market, it's hard not to wonder whether the pace of technological change can continue to provide enough targets for the sheer volume of capital chasing growth opportunities. But what's powering the growth of growth—and attracting a new breed of investor—is a belief that the digital disruption shaking the global economy is still in its early stages.

Investors are energized by the idea that technology has given companies the means to compete in entirely different ways, allowing them to take significant share of high-potential markets. And many of these disruptors are generating growth without a heavy investment in fixed capital. That gives them economics that are highly compelling to investors—or will be, at scale.

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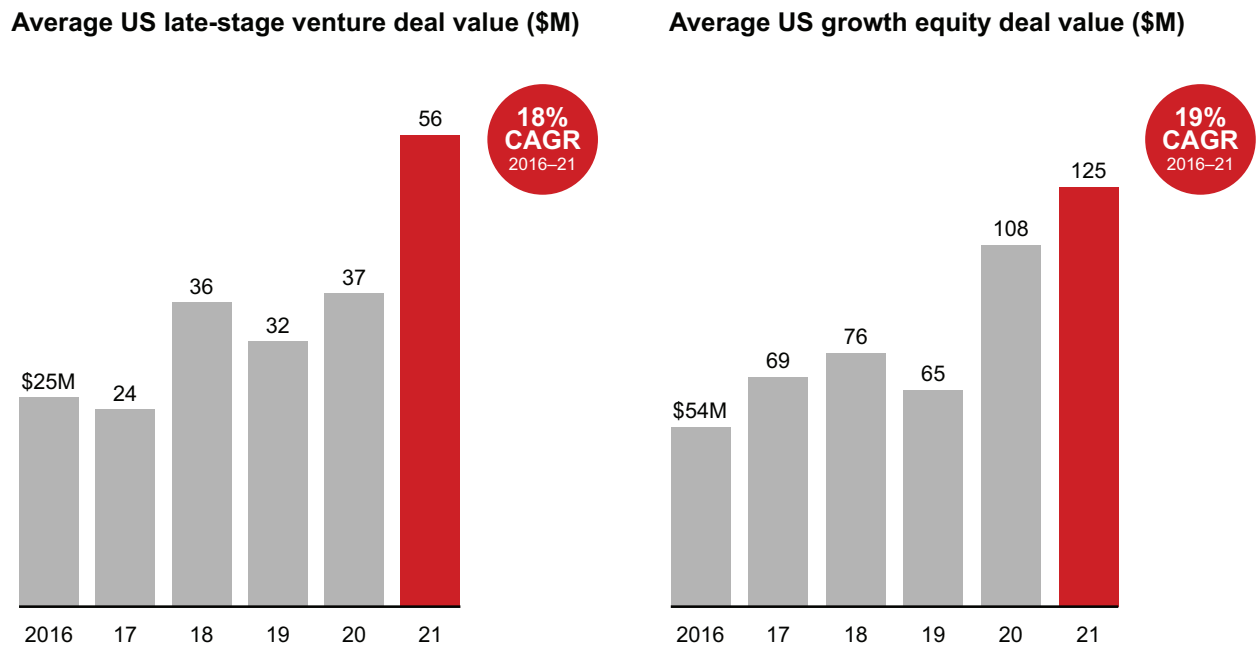
Historically, growth investing has occupied the gap between early-stage venture capital and traditional buyout investing. Often billed as the best of both worlds, it targets companies that have matured past the highest-risk start-up phase of their development but still have the potential to generate high

growth and high returns. Unlike buyouts, which are predicated on control and leveraged returns, these deals are typically agnostic about control and involve little or no debt. Founders and company owners become partners, and a shared vision is often what seals the deal with a capital provider.

Over the past few years, the line between growth and buyout has steadily blurred as the size and scope of these deals have increased. Companies with disruptive business models like Stripe and Chime are opening up opportunities to take on very large incumbents in segments with vast addressable markets. They are also producing technology and software that allow other companies to reinvent themselves and how they compete. In many cases, this has led to stunning growth and a voracious appetite for capital to fuel the journey to scale. It explains why several new unicorns—companies valued at \$1 billion or more—now appear on the market almost daily instead of a couple times per year.

Growing companies are also staying private longer. While in the past most growth companies eventually turned to the public markets to finance their expansion, many today are waiting and tapping the deep pools of private capital readily available to help them grow. Initial public offerings are hardly going away, but companies are reaching a much later stage of growth before subjecting themselves to the notoriously distracting and expensive IPO process. That has steadily pushed up the average deal size in the growth equity and late-stage venture markets, bringing it much closer to the range historically attractive to buyout investors targeting more mature companies (see Figure 5).

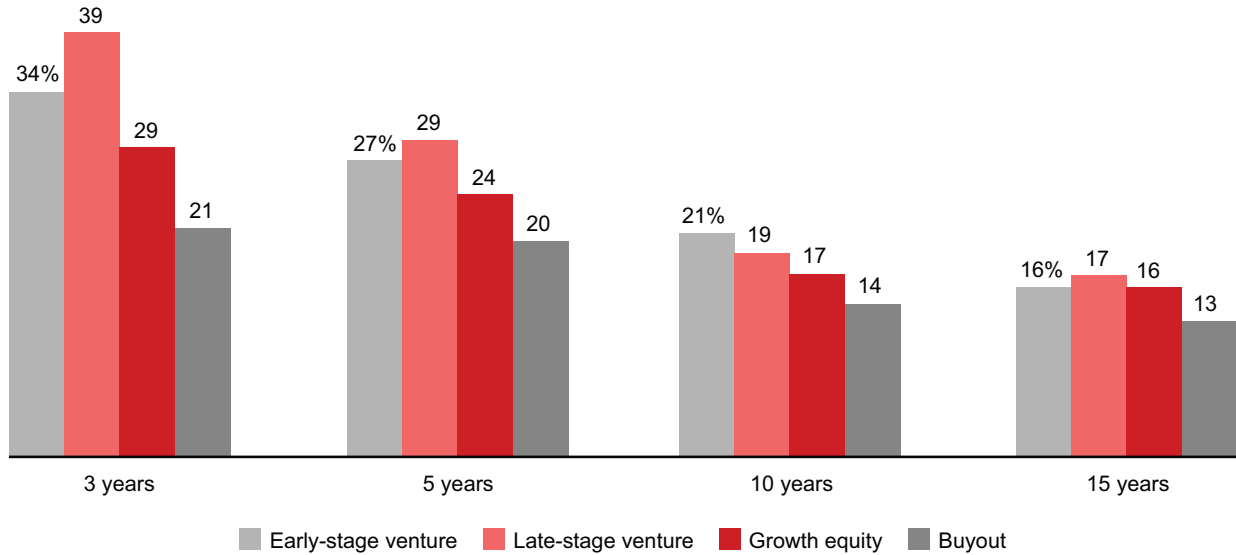
**Figure 5:** As deal sizes increase, growing companies can stay private longer, creating a structural shift in how businesses are financed



Source: PitchBook

**Figure 6:** Venture capital and growth equity returns have significantly outpaced buyout returns, particularly across short time horizons

**Pooled horizon net IRR, global funds (as of June 30, 2021)**



Notes: Funds classified based on best intended investment focus, including data such as leverage/control stakes in underlying companies, general partner's own disclosure, financial statements, and other factors; returns calculated based on net return to limited partners  
 Source: Cambridge Associates

The symbiosis between companies and investors has created a flywheel effect. The rapid growth of insurgent companies and the serial emergence of unicorns is demonstrating how explosive revenue growth in this era can be—and how profitable at scale. That is attracting torrents of private capital, which is being rewarded with stronger returns across all time horizons than private equity generally (see Figure 6).

Through September 2021, the median relative velocity of value creation from earlier rounds for late-stage venture capital companies was 78%, according to PitchBook. Selling a company in 2021 on average produced a 2.7x step-up in valuation from the previous round, while IPO exits produced a 1.7x step-up. The velocity of returns has encouraged limited partners to increase their allocations every year and is prompting new investors to find ways in. The growing pool of capital and steady supply of targets keep the flywheel spinning.

**Faith in disruption**

The question is whether this virtuous cycle does, in fact, have the staying power to support the kinds of elevated valuations investors are paying. There's no reliable answer, of course, and the general euphoria around growth is certainly producing some questionable transactions. But there are also reasons to believe that this surge in technology-based investing has a stronger foundation than many cycles in the past—most notably the dot-com bust at the turn of the century.

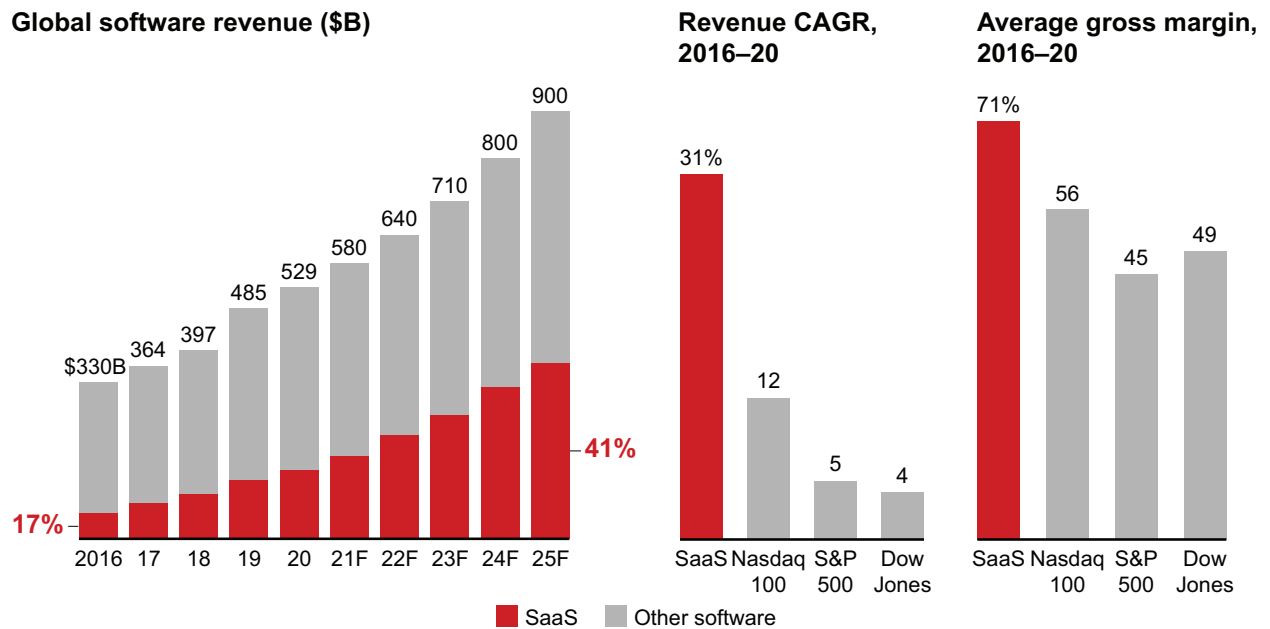


Unlike many dot-com darlings, which had zero profits and an unclear path to self-sufficiency, the companies at the center of growth investing today tend to have stronger economics and large addressable markets. A prime example is the proliferation of software-as-a-service (SaaS) companies like Snowflake and UiPath that are rapidly disrupting the software industry. SaaS vendors use the cloud to supply software and services to other companies via subscription. The model has grown quickly because it allows customers to reduce their capital expenditures on technology while giving them maximum flexibility to shift gears as markets change.

SaaS companies are capital light in that they don't require much in the way of hard assets or fixed costs. They do need lots of capital to fund software development and customer acquisition. But once they establish scale, they have gross margins in the 70% range and embed themselves with customers in ways that are sticky and noncyclical. SaaS companies were on track to carve out 30% of the \$580 billion software market in 2021, up from 17% five years earlier, and they show no sign of slowing their assault (see Figure 7). Not surprisingly, this performance and high expectations for what's to come have made SaaS a key focus of growth investors, accounting for around 30% of total deal value in 2021.

But growth and late-stage venture investors are finding targets across the global economy as technology supercharges massive old-line industries like finance, retail, restaurants, and business services. Longtime growth sectors like life sciences also continue to provide investors with a steady flow of

**Figure 7:** SaaS businesses are not only disrupting the \$580 billion software market but are doing so with strong economic profiles



Notes: Revenue CAGR based on sum of revenue of index companies; SaaS represented by the BVP Nasdaq Emerging Cloud Index (revenue growth aligned with Gartner research)  
 Sources: Bloomberg; S&P Capital IQ; Gartner; IDC; Bain analysis

fast-growing targets. Fintech, which has seen 33% annual growth in deal value since 2016, has joined SaaS as a particular focus of growth equity. Investors are racing to fund the new generation of technology-enabled competitors that are shaking up an industry long dominated by massive incumbents.

These upstarts are reaching into every corner of finance, a sector that accounts for more than 20% of global gross domestic product. Companies like Chime and Revolut in banking, Robinhood in trading, and Upstart in lending are redefining their subsectors and broadening access to a younger, more tech-savvy customer. An entire ecosystem of companies has reshaped payments for an era of online commerce, while start-ups embracing blockchain technology have transformed currency and how it flows through the economy. A recent PwC report on the industry showed that 90% of global financial services firms fear losing revenue to fintech challengers.

Many of these companies are still prioritizing growth over profits, but investors are willing to bet that scale will ultimately generate strong, defensible earnings. A good example is Stripe, a fintech company with explosive growth that has taken significant share from incumbents in the arcane world of electronic payments.

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Headquartered in San Francisco and Dublin, Stripe offers software that makes it relatively simple for merchants to embed e-commerce capabilities and accept payments online and in mobile applications. In return, Stripe takes a tiny sliver of each payment that crosses its platform, generating a steady stream of revenue. With 14 global offices, the company can process payments from anywhere in the world and has recently begun to enter new markets, such as deposit services and lending. Gross revenue was expected to jump 50% in 2021 to \$11 billion—or \$2.4 billion after fees. A \$600 million funding round in 2021 valued the company at more than \$94 billion, a nearly threefold increase from a year earlier.

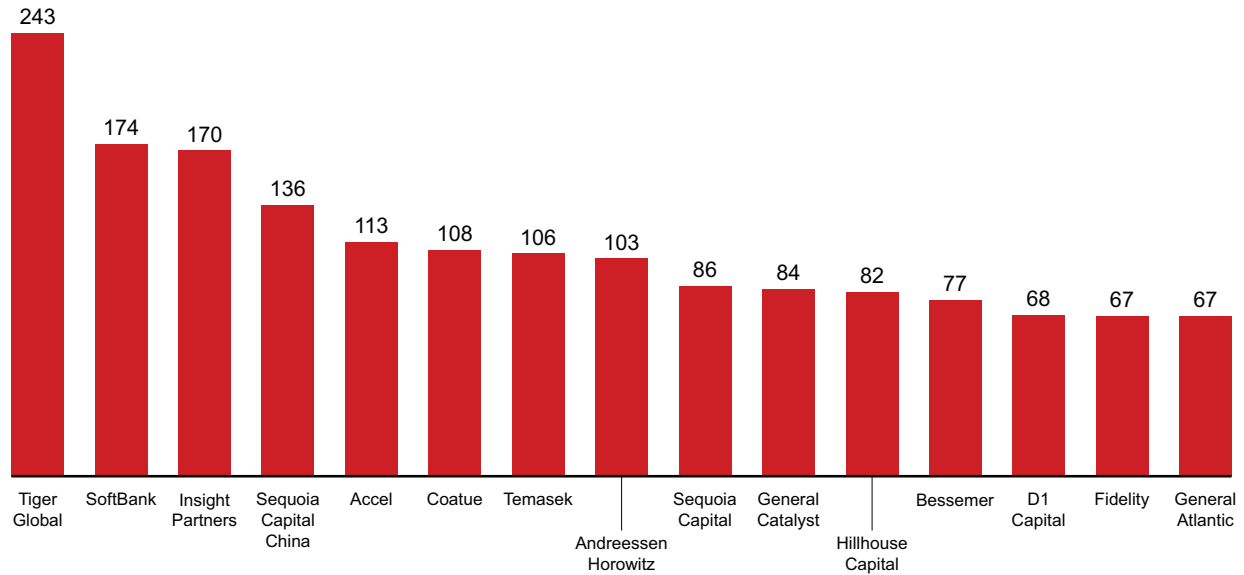
### **High velocity, high prices**

Valuation increases like Stripe's have attracted a broad range of growth investors. The top 15 by deal count in 2021 included a diversity of fund types (see *Figure 8*).

Hedge/crossover funds like Tiger Global and Coatue have been prolific, high-velocity investors. They've been joined by traditional growth fund Insight Partners and venture funds like Sequoia Capital, Accel, and Andreessen Horowitz. SoftBank, with \$140 billion across its two Vision Funds, has entered growth

**Figure 8:** The largest growth investors in 2021 were a diverse, fast-moving group

**Top 15 investors by number of late-stage venture and growth investments, 2021**



Note: Excludes investors primarily focused on angel or seed investing  
 Source: PitchBook

investing in recent years, while Singapore’s Temasek has established itself as a significant global player, making active direct investments and participating as a limited partner. Others, like investment manager Fidelity, have also found ways to get into the game.

In terms of capital deployed and deal velocity, the leaders in the diversified buyout world are moving more cautiously. You have to expand the deal count list to the top 50 investors to find the growth funds of the global multiline private equity firms. But while these firms are adding expertise and building competence in growth, they make no apology for avoiding a radical change in style. They believe the core value-creation capabilities that have worked so well in the buyout world will ultimately produce strong top-tier results in growth investing as well.

A close look at three types of funds highlights the diversity of business models.

**Hedge and crossover funds**

Hedge fund and crossover investors have set the pace in growth equity in recent years and are most responsible for changing how the game is played. They put a premium on lightning-fast decision making, aggressive equity funding, and an agnostic approach to control. It is a sharp departure from the deliberative, high-touch buyout model, based on majority ownership, leverage, and active value creation.

Led by Tiger Global, which has \$95 billion in AUM, they have bought more companies more rapidly than any other fund type. Their presence in the market largely explains why the velocity of investment in growth equity and late-stage venture capital was five times what it was for buyout in 2021, despite the higher risk profile of the average target company.

A few key factors characterize how these funds go to market.

- They are highly thematic, meaning investment is informed by a firmly held belief that technology—specifically disruptive software—remains significantly undervalued, despite the run-up in valuations over the past 10 years. These firms trust that insurgents will continue to change the rules of engagement in industry after massive industry, and that the companies gaining traction can continue to grab large chunks of market share for years to come.
- They're committed to moving as quickly as possible to invest in the right opportunities, even if it means paying stretch multiples or funding companies that compete in the same vertical. Investing in both Robinhood and Public.com, for instance, is a bet on the democratization of trading and the belief that there may be room for multiple winners. It's also a hedge: Even if only one of them prevails, the fund still wins.
- They have flexible capital that allows them to invest across business stages—seed, venture, growth, pre-IPO, and public equity. That lets them be as opportunistic as possible, in ways traditional buyout funds with more restrictive charters can't be.
- They operate with high-caliber investment teams that are much smaller as a percentage of AUM than those at most private equity funds, especially the big ones. This ensures that they remain nimble decision makers who can pull the trigger on deals faster than the competition.

A critical component of this model is using best-in-class third-party partners. Rather than investing heavily to build internal capabilities, these funds rely on a broad ecosystem of expertise and resources for functions such as deal sourcing and due diligence. Unlike buyout funds that are used to rolling up their sleeves and getting involved in management decisions, these funds tend to take a more hands-off approach, giving founders the capital they need and allowing them to follow their vision.

They are happy, for instance, to give portfolio companies leeway to determine the expertise they need and invest where required. That's fine with many target company founders and executives. Several have said publicly that when they were looking for fresh capital, hedge funds and crossover investors had an advantage over other bidders. They came to the table with a high degree of conviction about the target business, had a full appreciation of the opportunities ahead, and expressed confidence in the management team. Growth companies are used to speed and agility. Hedge and crossover funds are organized to deliver.

## Traditional growth equity players

This set of funds has always been classified as growth investors. They were established from the start to invest in the niche between early-stage venture capital and buyout firms. Historically, however, they've more closely resembled buyout investors in terms of the pace of dealmaking. In recent years, they've responded to increased opportunity and capital availability by getting involved across funding rounds—from early-stage to buyout—and expanding geographically.

More critically, they've found ways to speed up their metabolism. Insight Partners, a trailblazing growth equity player that is said to be raising a new \$20 billion fund, is a good example.

In 2021, Insight more than doubled the number of deals it did compared with a year earlier, while more than tripling its deal value. That made it the No. 3 player in the market in terms of deal volume, behind Tiger Global and SoftBank. What changed is that Insight very deliberately scaled up the model that had led to its earlier success so it could do more volume. It has rapidly added managing directors and teams, increasing headcount by close to 45% over the past year. It has opened offices in Silicon Valley, Tel Aviv, and London and is teaming up on deals with crossover investors like Tiger Global, Coatue, and Dragoneer in funding rounds for companies like CRED, Databricks, and BharatPe.

Insight launched in 1995 and prides itself on identifying disruptive industry trends and businesses early in their life cycle through a proprietary company database, an extensive network of industry advisers, and a “sourcing engine” of associates, who are constantly reaching out to founders and CEOs. It has long had a broad mandate to invest across growth stages, enabling the firm to get into promising businesses early. It then participates in later funding rounds, increasing involvement with its best investments over time.

While the hands-off approach of the hedge funds clearly appeals to some company owners, Insight is betting there are just as many who recognize the value of partnership with an investor that has deep expertise in a sector. The firm has invested heavily in building what it calls Insight Onsite, a group of 100 operating professionals who can provide portfolio management teams with free support. The group offers expertise in everything from strategy and commercial excellence to product development and M&A.

When Yevgeny Dibrov, the CEO of IoT security firm Armis, went looking for \$1.1 billion to fund growth, Insight's combination of industry experience and value-added operational support was highly attractive. “It is due to the depth of their domain expertise that they really understand the enterprise IoT device challenge we are looking to solve and the size of the market opportunity,” he said. That gave Insight an edge over other bidders—including corporate players. In January 2020, the firm landed a majority stake in the company alongside CapitalG and existing investors.

## Buyout funds

Traditional PE firms are limited in their ability to chase growth equity deals by their fund mandates, which tend to demand controlling interests and board seats. Yet the allure of growth and the increasing maturity of the companies looking for private funding have inspired a number of diversified buyout firms to get in the game by establishing growth-specific funds with flexible mandates.

Blackstone, which manages \$881 billion in assets across a diverse set of funds, is one of them. It raised \$4.5 billion for Blackstone Growth, its first-ever fund devoted to growth equity, and built a team of growth specialists led by Jon Korngold, an 18-year growth equity veteran from General Atlantic. The expansion was part of a broader, firmwide shift in philosophy under Jonathan Gray, who became Blackstone's day-to-day leader in 2018. As the *Wall Street Journal* reported, "For the next leg of its expansion, the firm is focused on companies with big growth prospects, even if it has to pay up for them."

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Not unlike the hedge funds, Blackstone has a thematic belief in growth and disruption that now runs across all of its funds. But Blackstone is also betting that it can win in growth equity without playing the high-velocity, low-touch game that distinguishes those competitors. The buyout giant has said it doesn't plan to blanket sectors with investments like the high-velocity players. It wants to do what it does in buyout: find winning individual businesses and back each of them with talent, expertise, and significant capital.

Blackstone is, however, investing in growth-oriented capabilities. Like Insight, it plans to make full use of a firmwide portfolio support team of more than 100 operating professionals. And it recently took steps to shift that group's focus from cost-cutting to growth. In May 2021, the firm elevated Jennifer Morgan, former co-CEO of SAP, to replace ex-GE vice chairman Dave Calhoun (who left Blackstone in 2019 to run Boeing) as head of the operations group. It has also appointed Courtney della Cava as head of talent and leadership, to identify the right expertise and advisers to support investment and portfolio teams. These moves signal a fundamental shift in emphasis toward helping companies build commercial excellence and accelerate revenue growth.

Building up branding expertise under former Droga5 executive Jonny Bauer has been one important priority. Blackstone believes that a key starting point for any business transformation is defining a

company's brand—and that doesn't mean simply creating a better logo. It's about helping portfolio companies define a vision for what the company will ultimately become and how to make that vision meaningful for customers.

When Blackstone helped create Candle Media, a new entertainment company led by former Disney executives Kevin Mayer and Tom Staggs, Bauer spent months on this definition process with Mayer and Staggs. They envisioned building a world-class producer of streaming content and then extending the brand into commerce, gaming, and social media. Blackstone's historical strength in M&A helped the new company quickly purchase children's content producer Moonbug Entertainment for \$3 billion and Reese Witherspoon's Hello Sunshine for \$900 million. It also invested \$60 million for an 11% stake in Will Smith and Jada Pinkett Smith's Westbrook, which produced the 2021 film *King Richard*.

“There is no scaled, born-for-this-generation content-creation and commerce company, and we think we can create that,” said Joe Baratta, global head of Blackstone Private Equity, in an interview with *The Information*.

But the branding capabilities are also intended to benefit the firm as a whole. Bauer, for instance, has helped reposition multiple brands for Therma Holdings, a clean and affordable energy company acquired by Blackstone Energy Partners in 2020. “The brand question is relevant for every single company we're buying, not just branded companies,” Baratta said. Knowing how to catalyze growth, in other words, isn't just the purview of growth investors.

The evolution of growth equity is still in its early innings, making it hard to assess what will constitute a winning strategy over the long term. We're clearly seeing a diversity of approaches, and most likely there will be room for multiple ways to win.

Firms on the outside looking in need to ask themselves several key questions:

- Have we developed the sector expertise and deep thematic insights that will help us decide where to invest?
- Do we have deep enough sourcing networks across geographies, sectors, and stages of corporate development?
- Do we have the diligence capabilities and resources to assess deals at pace and make decisions with enough conviction to win?
- Do we have a differentiated value proposition that will resonate with founders, who get to choose with whom they partner?

Growth equity is a ferociously competitive, high-stakes market, dominated by fast-moving investors unafraid to go big to win a deal. Competing against them will require commitment to investing in a specialized set of capabilities and finding ways to build deep expertise.



# How Private Equity Keeps Winning in Software

High multiples aren't as scary as they seem, but differentiated expertise is critical in this burgeoning sector.

**By David Lipman, Christopher Perry, Jayne Zecha, and Jonny Holliday**

When venture capitalist Marc Andreessen famously wrote in 2011 that “software is eating the world,” private equity investors were clearly paying attention. Since then, private investments in software and technology have exploded to become the industry’s dominant area of focus, and investors continue to flood the zone with new capital.

The \$284 billion in tech deals private equity investors closed in 2021 accounted for 25% of total buy-out value and 31% of deal count during the year, comprising by far the largest share for any single sector (see *Figure 1*). Software deals made up \$256 billion, or 90% of the total tech value, with much of that activity involving public-to-private (P2P) transactions. Indeed, \$105 billion, or 41% of the software total, involved buyouts of large, maturing public companies like Proofpoint and Cloudera that had lost some of their luster with retail investors despite continued growth prospects.

What’s clear is that investor appetite for B2B software and technology is only increasing. Since 2016, tech funds have raised more than \$270 billion, or 13% of the total capital raised globally during that period (see *Figure 2*). Massive \$5 billion-plus specialist funds like those sponsored by Thoma Bravo, Vista Equity, and Silver Lake have accounted for 62% of technology fund-raising since 2016 (see *Figure 3*). But multisector players like Blackstone, Bain Capital, KKR, and TPG have also made their presence felt. In addition to investing out of their general funds, each has raised a \$1 billion-plus fund aimed at technology, and they are increasingly looking to expand into earlier-stage growth equity investments.

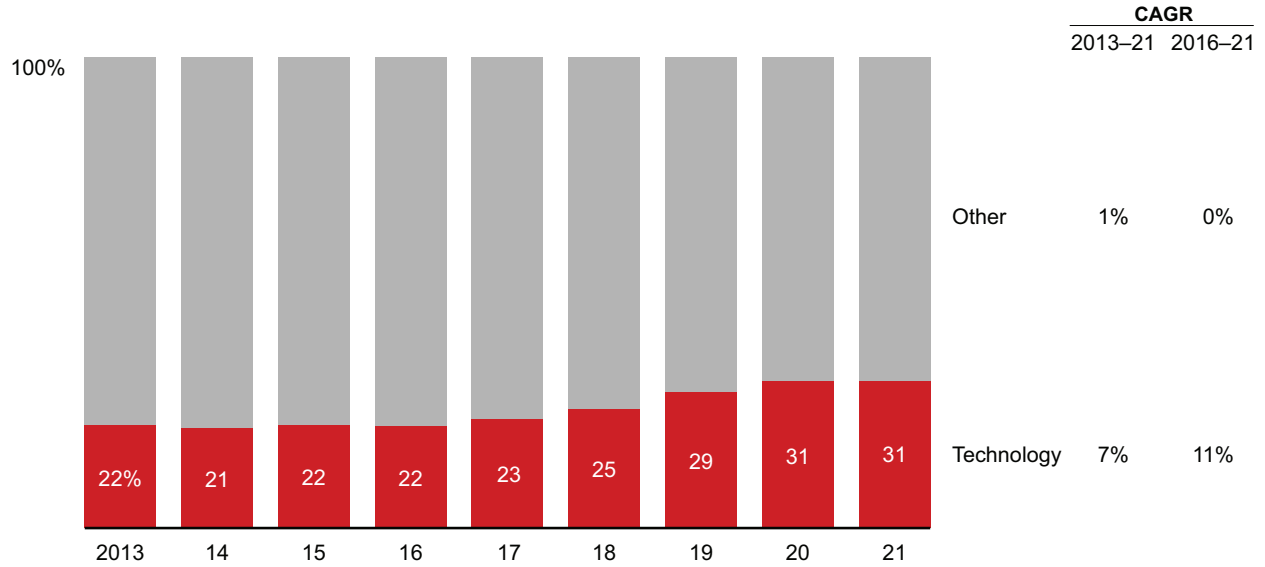
The basic rationale behind this decade-long burst of activity is the same one Andreessen spelled out in 2011. He argued in the *Wall Street Journal* that technology and networking had matured to a tipping



Global Private Equity Report 2022

**Figure 1:** Technology now accounts for 31% of the buyout market and has become the industry’s dominant area of focus

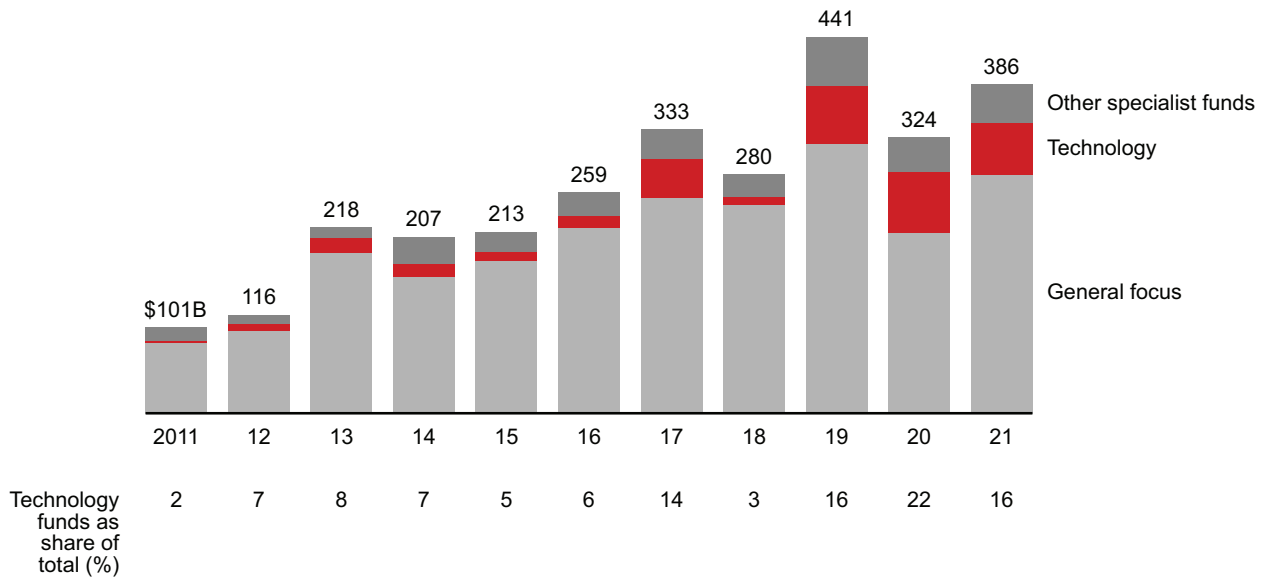
**Global buyout deal volume**



Notes: Includes add-ons; excludes loan-to-own transactions and acquisitions of bankrupt assets; based on announcement date; includes announced deals that are completed or pending, with data subject to change  
Source: Dealogic

**Figure 2:** Private capital aimed at technology has expanded over the past decade as a percentage of total buyout capital raised

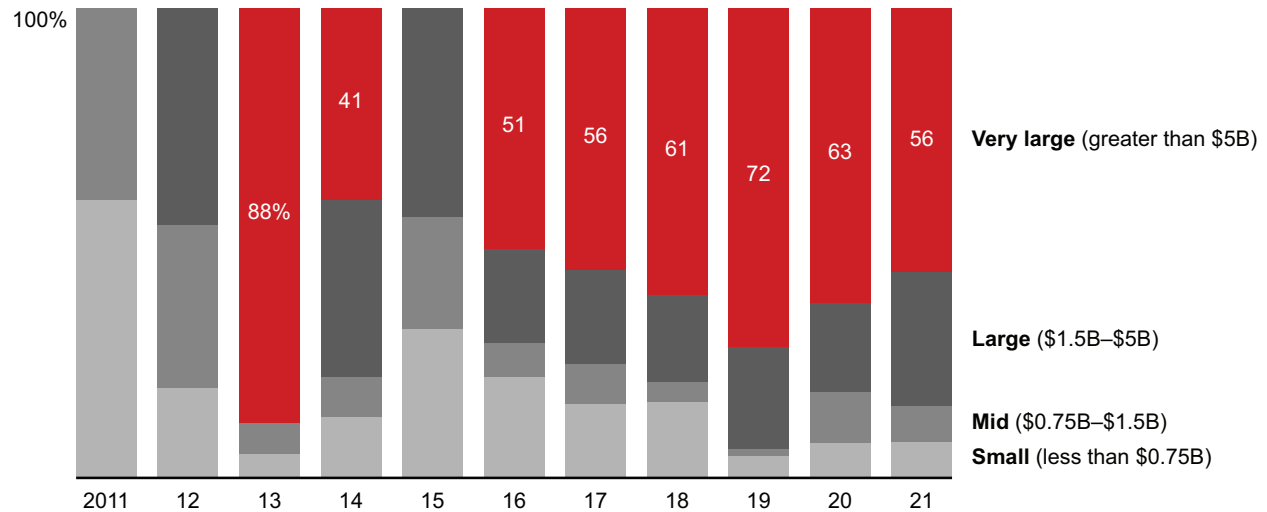
**Global buyout capital raised (\$B)**



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; includes funds with final close and represents the year in which funds held their final close; excludes SoftBank Vision Fund; fund specialization determined using data from Preqin, PitchBook, and company websites  
Sources: Preqin; Bain analysis

**Figure 3:** Technology megafunds have dominated fund-raising activity for the last six years

**Global technology buyout funds raised, by value**



Notes: Buyout category includes buyout, balanced, coinvestment, and coinvestment multimanager funds; includes funds with final close and represents the year in which funds held their final close; excludes SoftBank Vision Fund  
Sources: Preqin; Bain analysis

point that was ushering in a structural shift in the global economy. Disruptors were increasingly “invading and overturning established industry structures,” and software was altering how a growing number of major businesses and industries operated. Many of the companies that emerged to take advantage of this paradigm shift have since matured into prime buyout candidates. And a growing number of investors are convinced the shift is still in its early stages.

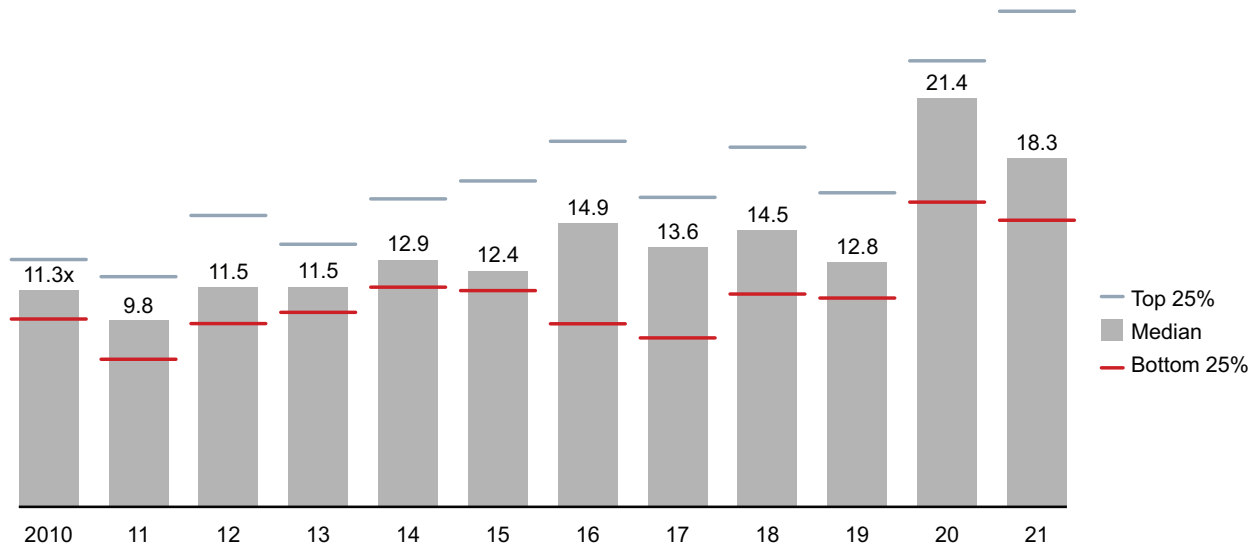
**The valuation question**

Unsurprisingly, the resulting competition for deals in the software sector has led to ever-higher multiples and regular speculation that valuations may be getting ahead of themselves (see Figure 4). Yet the performance of these investments has so far provided a firm rebuttal to the skeptics. While fast-growing technology companies are typically associated with higher risk, the mature or maturing enterprise software companies private equity has gravitated toward have actually turned out to be less risky and volatile than other investments.

A Bain & Company analysis of technology deals over the past decade shows that, while hurdle rates for software investments have been about the same as for other industries (a target internal rate of return of around 22% on average), software investments were more likely to outperform and by a wider margin. They were also less likely than buyouts in other sectors to lose money (see Figure 5).

**Figure 4:** Software buyout multiples have hit new heights as more capital floods the sector

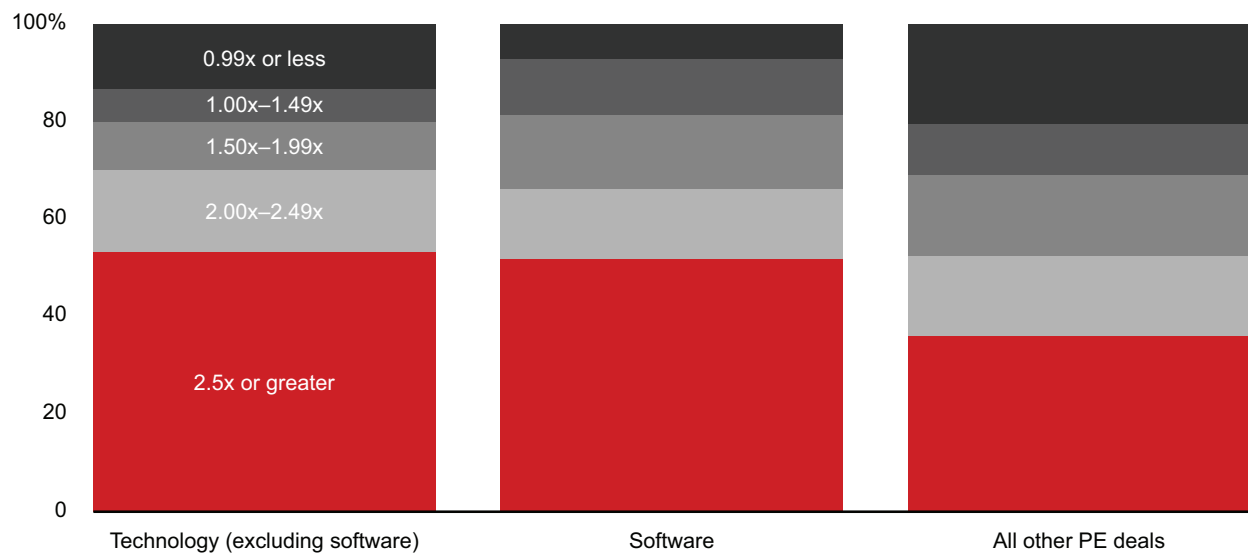
**Average EV/EBITDA multiple for global software buyouts**



Notes: Includes multiples for global software buyouts with more than \$50 million in invested capital entered or exited between 2010 and 2021; 2021 data as of December 14, 2021  
Source: DealEdge

**Figure 5:** Software and technology have outperformed other PE investments over the last decade, with fewer write-offs and more than half of deals returning 2.5x or greater

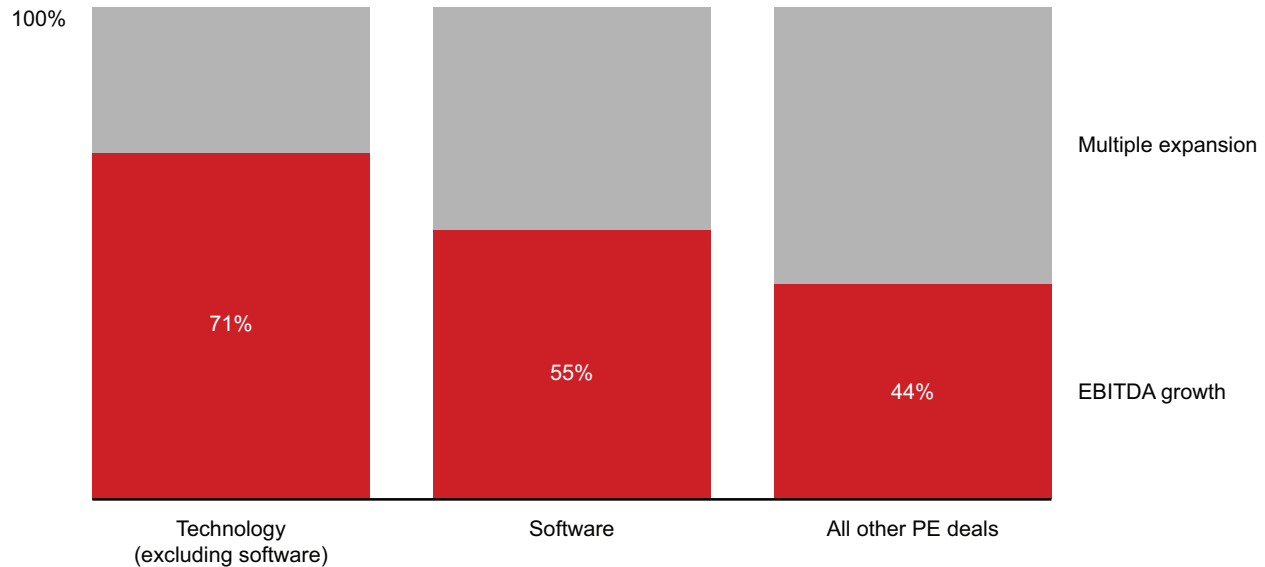
**Share of deal volume by multiple on invested capital**



Note: Includes fully realized global buyouts with more than \$50 million in invested capital entered between 2010 and 2021  
Source: DealEdge

**Figure 6:** Compared with the rest of the PE universe, software and technology sector returns rely more on EBITDA growth than on multiple expansion

#### Drivers of value creation by sector



Note: Includes fully realized global buyouts with more than \$50 million in invested capital entered between 2010 and 2021  
Source: DealEdge

The composition of those returns is also on firmer ground. Despite the rapid expansion in technology valuations over the past decade, data from DealEdge shows that software and tech deals have both received a larger portion of their returns from earnings growth than have private equity deals generally. Multiple expansion has been the biggest factor in generating returns for PE deals more broadly (see Figure 6).

Every target is different, of course, but these superior return characteristics have a lot to do with the operating models typical of enterprise software companies. In many ways, they are tailor-made for leveraged buyouts. While they tend to have strong revenue growth, they are also capital light; there are no factories or other hard assets to suck up capital. They do require investment to acquire and maintain scale, but once there, fat gross margins mean they tend to churn out a steady stream of cash.

This is especially true of software-as-a-service (SaaS) companies, which use subscription models to smooth out revenue and cash generation. In the early days of SaaS, the worry was that subscriptions would make it easy for customers to jettison a software provider in hard times. But that hasn't turned out to be the case. In fact, enterprise software is especially sticky. Once a company comes to rely on a cybersecurity solution or enterprise resource planning system, for instance, it's hard to replace it, even when the macro or industry outlook sours. The cash flow, therefore, is not only steady but relatively noncyclical, ensuring that there will be plenty of cash to service the kind of debt levels taken on to enhance leveraged buyout returns.

These characteristics help explain the surge of large P2P software deals in 2021. The software companies going private are often prime buyout candidates because they face the kinds of “mature company” issues that are difficult to solve under the glare of public ownership. They might have multiple business lines acquired over time that lack synergy and efficiency. A set of legacy businesses might be weighing down another set of growth businesses. Many older software companies face the challenge of shifting to SaaS models, which requires new pricing and revenue-capture capabilities. This can lead to subpar margin profiles at the business-unit level that are not well understood by the public markets.

The firms generating top-quartile returns in tech combine differentiated expertise in specific sub-sectors with the ability to help management teams solve these kinds of issues post-acquisition. They also recognize that the steady performance of software companies means they can value these assets differently. While software multiples are hovering at historic highs, investors should be able to accept lower hurdle rates commensurate with the lower risk. All else being equal, this maintains the heat under valuations across the sector. Much like the inverse relationship between bond prices and yields, asset prices move in the opposite direction of return expectations. So as investors adjust hurdles downward, multiples should continue to move higher, benefiting current owners.

## A full and promising pipeline

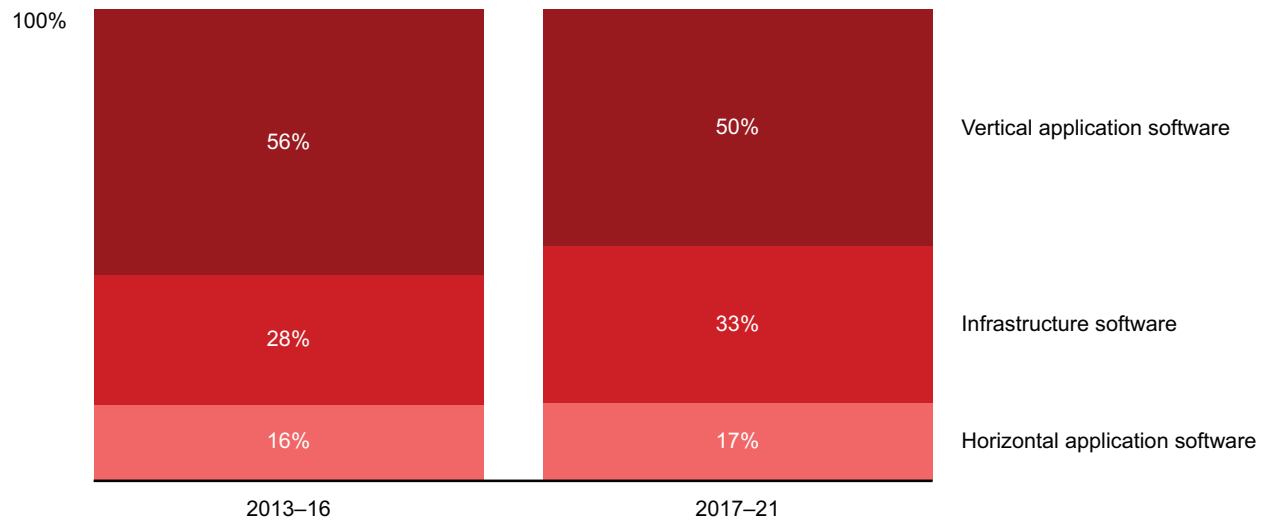
A Bain analysis of investments by the largest technology-focused investors from 2017 to 2021 shows that they have made some key shifts over the past five years. An earlier emphasis on vertical application software—products like retail inventory management systems that solve specific problems for a specific kind of customer—has given way to a growing focus on companies developing infrastructure and horizontal software (see *Figure 7*). The fintech vertical is one glaring exception. Fintech’s share of tech portfolios has grown by 30% as investors look to stay involved in the ongoing digital transformation of banking and finance.

Infrastructure categories like cloud computing and cybersecurity have increased their relative share in tech portfolios by 60% and 20%, respectively, while horizontal applications such as marketing technology (martech) and customer relationship management have each jumped 13%. As these assets return to the market over the next five years, they will create the next wave of leveraged buyouts by providing attractive pockets of opportunity for future acquirers. Importantly, these subsectors are also benefiting from sustained tailwinds that show few signs of letting up.

**Cloud computing.** Remote delivery of software has been a thing in the technology universe since Salesforce introduced it in 1999. But over the past five years, cloud companies have captured 60% of IT market growth. While many thought growth would start to level off this year, cloud computing got a significant boost from Covid-19, as the pandemic demonstrated to companies globally the importance of flexible, disaster-resistant computing power. The majority of enterprise spending on cloud technology has so far come from tech-savvy segments of the economy, but adoption is growing among traditional industries as more and more types of companies recognize the utility and value of cloud deployment. The consensus of independent market research firms suggests that cloud spending will continue to grow in the range of 18% to 29% annually through 2024.

**Figure 7:** Technology fund portfolios are increasingly comprised of companies that develop infrastructure and horizontal application software

**Technology investor buyout and add-on deal volume, North America**



Notes: Includes deals by technology investors with headquarters in North America; includes announced/completed deals by year of deal close; excludes deals invested in PE/hedge fund general partners; deal value refers to total amount invested across all investors  
 Source: SPS by Bain & Company

**DevOps.** Since cloud computing goes hand in hand with DevOps, cloud growth will also increase demand for companies supplying the software tools that make this burgeoning technology management model possible. DevOps merges application development with a company’s operations to speed up the delivery of products and services—and it works best in a cloud environment. According to Bain’s 2021 DevOps Pulse Survey, most companies these days are using DevOps in some capacity, and around 50% use it for the majority of their applications. As the pace of adoption accelerates, however, that percentage should grow to 90% over the next three years, driving double-digit growth for the companies whose technology enables DevOps across the development life cycle.

**Martech.** Technology-driven marketing tools are changing the way companies interact with their customers. They allow teams to use customer data and analytics to sharpen marketing efforts and increase customer intimacy. The subsector is growing rapidly as companies across industries race to understand their customers better and deliver more personalized experiences. According to the CMO Council, 70% of CEOs see marketing as critical to revenue growth and are willing to increase investment in technology that can raise their game. That means more opportunity for private equity, especially given that the martech ecosystem is highly fragmented. With over 7,000 vendors, there will be a steady stream of targets and opportunities for M&A strategies.

## The path to value

As attractive as the software sector continues to be for investors, it is also the domain of specialists. Firms like Thoma Bravo and Vista—as well as the longstanding dedicated teams at generalist funds—have come to understand the game better than anyone else and have built strong, deep organizations calibrated to press their advantage.

The challenge software investors face isn't just heavy competition for deals and rich asset multiples; those conditions exist across the private equity universe. What makes technology different is the complexity of the businesses, the constantly evolving nature of their industries, and the often pressing need for management teams to transition from all-out growth to sustainable profitability at scale. The firms producing top-tier results in software have developed any number of winning strategies to deal with these layers of complexity. But as a group they tend to have three things in common.

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The most effective general partners add significant value by helping management teams build new capabilities, processes, and operating models, while providing access to networks of specialized expertise.

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**An emphasis on active ownership.** The maturing software companies buyout firms tend to target are often at a critical stage of development. The founders or management team might have done a good job managing growth. But they sometimes lack the skill sets and capabilities needed to sustain that growth at scale. The most effective general partners see that as an opportunity to add significant value by helping management teams build new capabilities, processes, and operating models, while providing access to networks of specialized expertise.

Hg Capital, for example, has developed a new platform it calls the Hg Hive, a centralized repository of expertise and resources designed to accelerate learning and best-practice sharing across its portfolio. The Hive is a network of several thousand professionals and third-party subject matter experts, organized as a community that benefits the Hg portfolio. It features various centers of excellence focused on product, sales and marketing, diversity, and ESG, giving portfolio company management instant access to specialized knowledge and playbooks so they don't have to start from scratch to build new capabilities.

The rapid emergence of cloud and SaaS business models within the software industry is providing a rich vein of opportunity for new owners to add value post-acquisition. Switching to SaaS means optimizing software development for a subscription model, while adopting DevOps to speed up product

enhancements and turn software engineers into service providers, not just code writers. It also requires new go-to-market capabilities focused on selling directly to customers—skills that include increasing customer satisfaction, boosting subscription renewals, and maximizing opportunities to cross-sell and upsell. Metrics change from metering one-time license sales to managing annual recurring revenue. Fluency in using tools such as Net Promoter Score<sup>SM</sup> to track loyalty and prevent churn becomes a core competency.

These issues all came into play for a sponsor that took private a large software company. While the target had made its mark selling on-premise systems to large enterprise clients, its next phase of growth relied on developing management tools that could draw on disparate pools of data in the cloud and make sense of them using artificial intelligence. The transition to a subscription model was central to the strategy.

Making SaaS work meant the software company had to transform its sales, marketing, and customer success organizations. To sharpen its sales effort, the company implemented a global standardized account management system, which allowed it to segment and prioritize 80 strategic accounts. It then developed account strategies for each one and defined detailed sales plays to optimize how the company approached them. The recognition that demand generation was a much bigger factor in the SaaS world triggered an overhaul of the company's website interface and how it was using search engine optimization and paid media to increase its sales pipeline. In-market pilots using a sprint-based test-and-learn approach accelerated improvements to the marketing effort.

Maintaining an ongoing transactional relationship with subscription customers also required a different approach to working with them post-sale. Not only did that mean retraining customer service reps to meet new customer demands and drive upsell revenue, but it also became essential to integrate the customer success and sales organizations to improve consistency of support across the organization.

The results have been impressive. The customer pipeline has increased by more than 40%, and the company has seen a 15% increase in lead generation. The new emphasis on customer support has also paid off in an 85-point increase in Net Promoter Score. The sponsor recently completed a successful public offering of the rebuilt software firm at a substantial increase in value from its acquisition price.

**Hyperfocus.** More than in any other sector of the economy, technology investing demands differentiated expertise capable of generating proprietary insights and pattern recognition. The most effective tech specialists understand that this requires a disciplined focus on the subsectors (or sub-subsectors) they know best.

While top-quartile firms may have a range of focus areas, they recognize that winning depends on developing expertise in all of them. That requires a deep bench of internal talent and capabilities, as well as access to broad ecosystems of experts and resources that can provide added support. This pool of knowledge enhances every stage of the value-creation cycle: finding the most promising targets, underwriting value in ways most appropriate to a given subsector, and providing portfolio companies a rich well of talent post-acquisition to help navigate across an ever-changing industry landscape.



In July 2021, for instance, when Thoma Bravo took Proofpoint private in a deal valued at \$12.3 billion, it was the culmination of a multiyear, multibillion-dollar bet on the sector. Thoma Bravo has been investing heavily in security since acquiring Entrust and Tripwire in 2009 and 2011, respectively. To date, it has made over 25 major investments in the sector, and the pace has accelerated in recent years to match the rapid growth and complexity of cyberthreats. Since 2019, the firm has spent at least \$8 billion investing in Sophos, Veracode, ConnectWise, and Imperva, among others. Yet the push has been highly targeted. The firm has maintained a deliberate focus on what it knows best—subsectors such as endpoint security, content security, network security, and identity access management.

This disciplined focus has led to differentiated expertise. Thoma Bravo lists seven investment professionals as cybersecurity specialists, a much higher concentration in a single sector than most firms. Its deal teams have developed the kind of high-level pattern recognition that allows them to understand which trends are most meaningful in the space and which companies are best positioned to capitalize on them. Teams know which key performance indicators are critical to measuring success and how companies at various stages of growth and development should be performing against them. They recognize how to unlock pockets of value by improving salesforce effectiveness or sharpening cross-selling and pricing strategies. They can tap into high-quality networks and relationships built over years of investing.

It all adds up to an ability to find the right targets, diligence them faster and more effectively than rivals, and then work with management teams to develop and execute the right value-creation plan.

**Flexibility in capital deployment.** One implication of buyout investors deepening their expertise and networks in technology is that they are seeing opportunities to target companies at earlier stages of development. Their funds, however, tend to have restrictive mandates that prevent them from making minority investments in growth-stage companies. So they have increasingly been launching early-stage discovery funds like Blackstone Growth, Bain Capital Tech Opportunities, or KKR's Next Generation Technology Growth. Minority-stake software deals have grown 25% annually since 2015, while buyout deals have grown only 5%.

Firms are also finding ways to stay invested in good deals longer, either by turning a minority deal into a control stake or maintaining an interest in a promising company post-exit. This has to be balanced with the need to return capital to limited partners, but the logic of staying with a winner is compelling. Many software companies play in winner-take-most markets, where it may be difficult to maintain exposure by finding other good investments. As noted earlier, it's also true that as these companies mature, they develop sticky relationships with customers that drive steady, reliable cash flow, making it attractive to stay involved longer in their life cycle. Finally, as PE firms develop expertise in a sector, they also deepen their ability to add value to portfolio companies, especially as their strategies mature.

Hg Capital, for instance, recently took a majority stake in Sovos through its flagship Saturn 2 fund, four years after the firm initially took a controlling interest in the company through the Hg Capital 7 fund. Sovos develops tax software to help multinational or multijurisdiction businesses manage

compliance wherever they operate. Rather than only trying to develop software that could solve for different tax rules and regulations in markets across geographies, it has become a serial acquirer of smaller software companies globally.

Hg's global M&A expertise and focus on tech related to regulation had helped Sovos bring a more strategic approach to its international footprint expansion. And as the company moved to consolidate and integrate its new partners, Hg saw an opportunity to participate more fully in the next wave of growth.

## Managing the risk

The enduring appeal of software companies over the past decade has been their power to disrupt. More than any other aspect of the digital revolution, software has demonstrably changed how we live and conduct business. All indications suggest that enterprise software will continue to fuel the economy, generating rich opportunity for private equity investors.

But as buyout firms negotiate a fiercely competitive market characterized by chronically high asset multiples, three points stand out.

- First, investors shouldn't expect that strong software assets will see multiple declines from today's levels. As we've noted, the superior economics and ongoing growth prospects for B2B software companies will continue to put upward pressure on multiples. For the foreseeable future, buyout firms will have to be prepared to stretch and pay up for the most attractive assets.
- Second, you'd better know what you're doing. Paying full price with conviction requires deep expertise, both internally and through an ecosystem of advisers and experts. The firms that lead this market know how to do their homework. They develop truly proprietary insights, underwrite them in due diligence, and then develop a clear and robust value-creation plan that can be executed practically during ownership.
- Finally, generating returns given high purchase multiples will require digging in to help management teams prepare for the next phase of growth. That means improving capabilities, operating more efficiently, and developing the kinds of commercial excellence initiatives that are critical to growth at scale. It could also involve building a new SaaS business model, expanding globally, or moving into unfamiliar adjacencies.

Business building at this stage of the game is all about helping portfolio companies avoid the stall-out that so often accompanies scale. Software companies still have a lot more of the world to consume. For buyout firms, the strongest returns will come from helping them do so as mature, efficient competitors.



# Raising Sector Strategy to the Next Level

Sector strategy is about more than tapping what's hot—it's about using data to determine where you can win.

**By Or Skolnik, Nadim Malik, and Brenda Rainey**

As capital becomes increasingly commoditized across global markets, it's no surprise that more and more private equity firms are specializing to gain an edge.

That might mean anything from focusing on a specific style of deal to seeking opportunities that fit an investor's particular value-creation profile. But more often than not, it means sector specialization, as deal teams seek ways to source deals others can't and identify ways to create value that others don't see.

The mistake some investors make when choosing sectors, however, is assuming that strong market growth equates with superior returns. That can certainly be the case for, say, software or healthcare specialists if they have enough differentiated expertise to stand out from the crowd. But the firms achieving sustainable success in sector investing recognize that choosing the right assets in many sectors—even sleeper ones—can generate above-market returns.

What's crucial is developing a fine-grained understanding of where your firm has a competitive advantage and focusing your efforts there. That involves three kinds of inquiries:

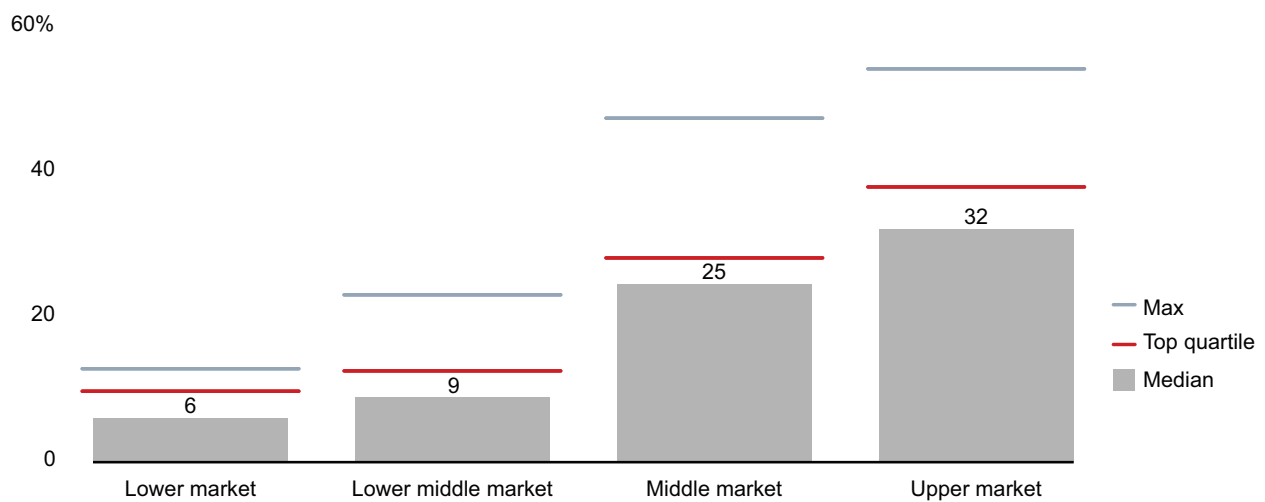
- **Are we in the right sectors?** The first question most firms ask is whether a given sector is a good place to invest. A better question: "Is this the right place *for us* to invest?" A strong sector strategy starts with a clear-eyed assessment of where you have a differentiated "right to win," how effectively you are competing already, and what it really takes to be a world-class investor in the vertical.

- Are we in the flow?** A common refrain across the private equity industry is “we see everything.” But this is rarely true, based on emerging data. In its 2021 analysis of 157 PE firms, SPS reported that most see only 15% to 30% of the deals within their target universe, and even top-quartile performers typically see no more than 40% (see Figure 1). Improving those results starts with gathering data on what you are missing, figuring out why those deals weren’t on your radar, and building the (often industry-specific) relationships and networks that raise your profile among sellers and intermediaries.
- How focused should our strategy be?** One of the biggest challenges for any private equity firm building a sector strategy is knowing when to say no. Making the right decisions about which and how many sectors to focus on again benefits from objectivity. How much potential really remains in your existing sectors? How much investment would it take to crack open a new one, and how does that mesh with the team and resources you have available? At the end of the day, is your strategy disciplined enough to create a virtuous cycle within your chosen sector?

Private equity investors are nothing if not data driven, but firms have historically been forced to rely on a limited set of facts in making these critical “where to play” decisions. Until recently, meaningful data simply didn’t exist to quantify relative sector performance at a granular level and, importantly, to understand where a firm’s performance rates against its rivals.

**Figure 1:** Even top-quartile investors typically see fewer than 40% of the deals taking place within their target universe

**Deal coverage rate by fund strategy**



Notes: Analysis covers the 12-month period ending June 30, 2021; deal coverage rate is the percentage of completed deals reviewed by a PE firm; lower market defined as PE firms only targeting deals below \$50M in enterprise value, regardless of industry focus; lower middle market defined as generalist PE firms typically targeting \$10M–\$250M deal size; middle market defined as generalist PE firms typically targeting \$50M–\$500M deal size; upper market defined as PE firms only targeting deals above \$250M, regardless of industry focus  
 Source: SPS by Bain & Company

This is starting to change. Data can now provide a window into sector performance and enhance a firm’s ability to develop rigorous answers to these essential strategic questions. New tools, in other words, are replacing gut feel with real analysis.

### Are we in the right sectors?

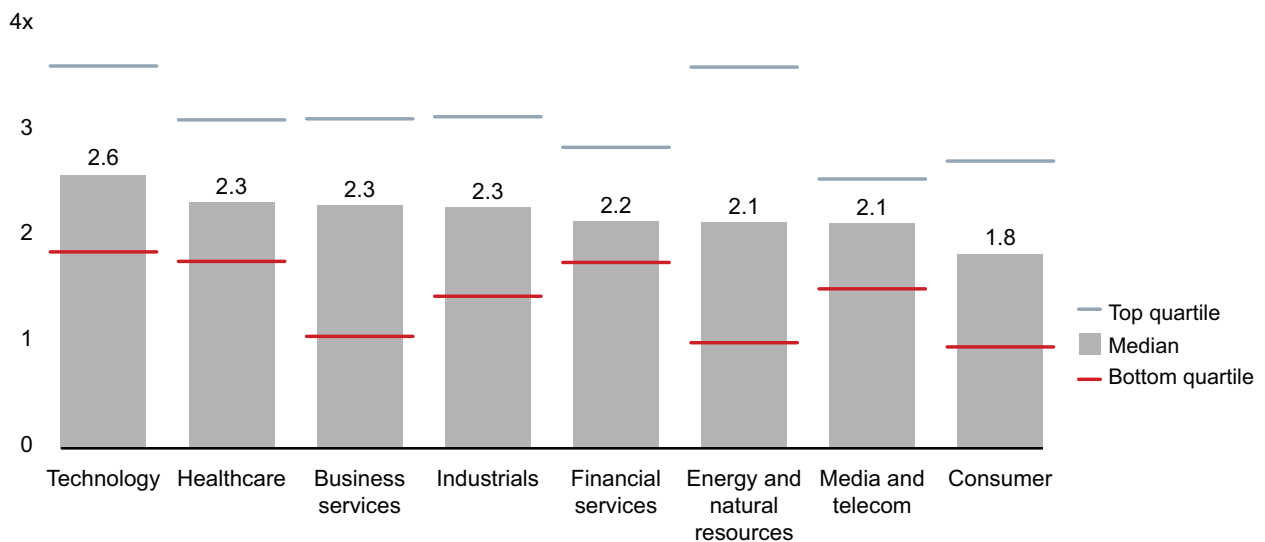
It’s true that, on average and over specific time periods, some sectors produce better returns than others. But these differences are often overstated when it comes to sector selection.

Bain research shows that the distribution of returns *within* a given sector is actually considerably higher than it is *between* sectors. Buyouts in the broad technology sector, for instance, have produced median returns of 2.6x over the past decade, while industrial deals have returned 2.3x. Within the industrial sector itself, however, top-quartile deals produced 3.1x returns and bottom-quartile deals 1.4x. That means a good manufacturing buyout during that period far outpaced an average tech deal (see Figure 2).

The most effective sector strategies assume that there are no inherently “bad” sectors. Good and bad deals can be found in most parts of the economy; even within broad industries, subsector returns vary widely (see Figure 3). What matters is whether a firm has the specific expertise and capabilities to produce top-tier performance wherever it chooses to invest. Chasing returns in a seemingly hot

**Figure 2:** Returns vary much more widely within sectors than between sectors, suggesting that good deals can be found in almost any part of the economy

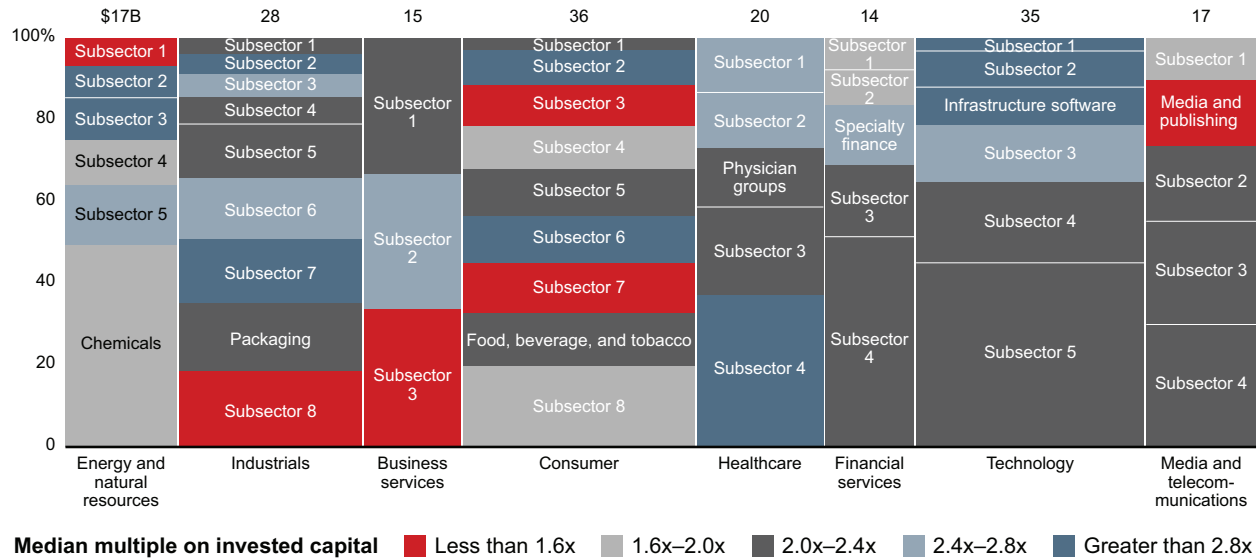
#### Multiple on invested capital for global buyouts, by sector



Notes: Includes fully realized global buyout deals with more than \$50 million in equity capital invested and investment date between 2010 and 2021; excludes real estate and utilities  
Source: DealEdge

**Figure 3:** Within broad sectors, returns can vary widely by subsector

**Global invested equity capital by sector and subsector, 2010–21 deal entry (\$B)**



Note: Based on fully realized global buyout deals with more than \$50 million in invested capital, with original capital allocations between January 1, 2010, and December 31, 2021  
 Source: DealEdge

sector without having a differentiated advantage can be dangerous. At worst, it leads to the classic PE problem of the winner’s curse—paying too much for a portfolio company that others have passed on because they really *do* understand the sector and the challenges inherent in that particular deal.

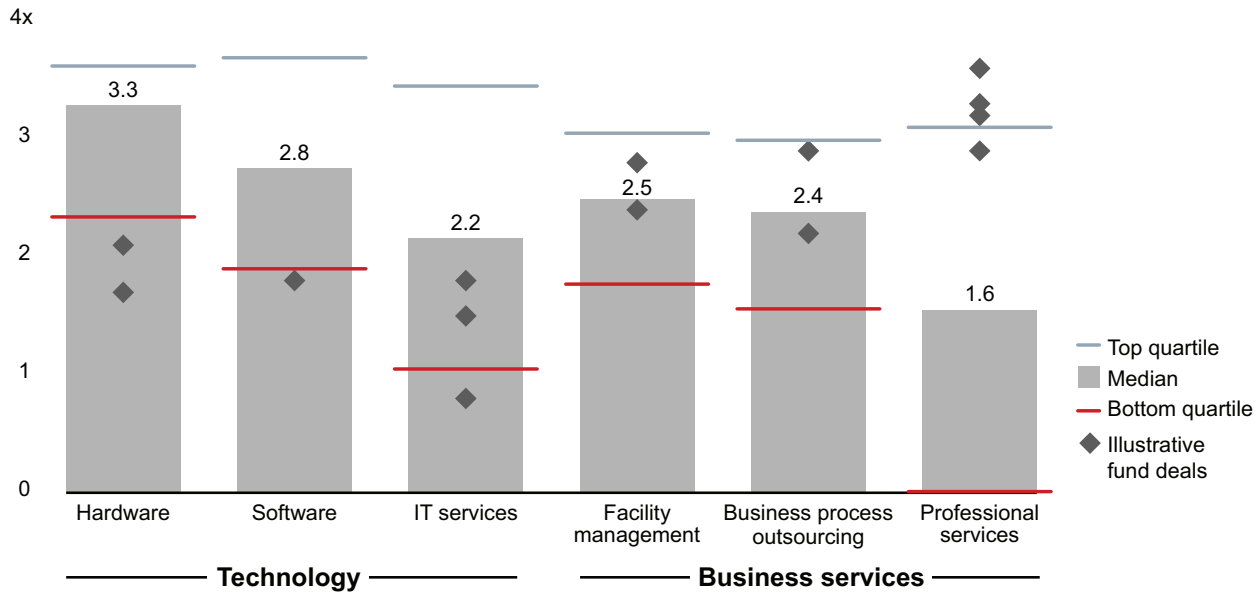
Determining a firm’s edge starts with analyzing the returns for the sectors it invests in and then comparing its track record to returns generated by the competition. This gives firm leadership an unbiased view of a subsector’s potential. It shows whether or not the firm is outperforming others in an industry (equivalent to alpha in public markets) on top of sector-level market returns (beta).

While investors in public markets have long been able to disentangle alpha from beta, a lack of private-market sector data has historically made it almost impossible for PE firms to do so. That is starting to change as data sources emerge to let firms analyze comparative performance with much more confidence. DealEdge, a private equity data and analytics platform, allows general partners to compare returns across subsectors, check sizes, and geographies—rigid plastic packaging vs. paper or glass packaging, for instance, or healthcare equipment deals in Europe vs. those in the US. This provides a rich vein of market data that can form the basis of apples-to-apples benchmarks for a firm’s deals.

Firms that go through this exercise are often surprised by the results. One recently discovered that some of its best deals came from a seemingly lackluster subsector within professional services, where market returns overall had been poor for a decade (see Figure 4). The data showed that the firm had

**Figure 4:** Firms can compare their deal performance to private-market benchmarks within a specific subsector, time period, or deal size

**Multiple on invested capital for global buyouts, by subsector**



Note: Includes fully realized global buyout deals with more than \$50 million in equity capital invested and investment date between 2010 and 2017  
Source: DealEdge

developed a distinctive ability to find and execute strong buyouts in the subsector—a capability others couldn’t match. At the same time, its deals in technology—a hot sector with stronger overall growth—were middling relative to the competition. That raised key strategic questions: Do we invest to get better in tech, or do we exit and focus our resources on what we already do best?

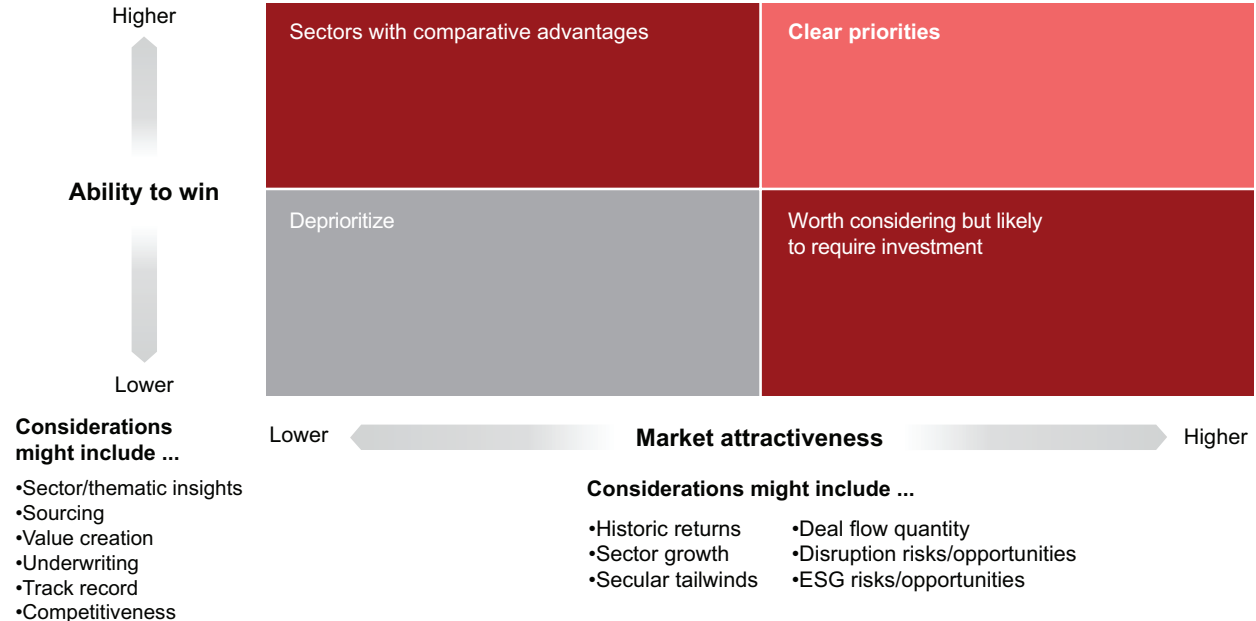
This kind of analysis helps prioritize strategic choices by delivering essential insights into where a fund’s distinctive capabilities intersect with market attractiveness (see Figure 5). Finding your sector sweet spot involves a range of considerations: Have you demonstrated an ability to capitalize on growth in a hot sector by spotting key trends early? Could your ability to develop commercial excellence at your portfolio companies generate revenue growth in a flat industry? Are there enough opportunities to run your best investment themes? All of these factors—weighed against market attractiveness—can help a firm produce its best strategic roadmap.

**Are we in the flow?**

At a time when most GPs are under heavy pressure to put investor capital to work, deal flow is critical. Improving it has two components: First, do the sectors you invest in (or want to invest in) offer enough deals of the right size to absorb the capital you need to deploy? Second, are you well enough positioned to see the deals you want to see?

**Figure 5:** The right choice of subsectors strikes a balance between market attractiveness and ability to win

**Considerations used to identify the right sectors will vary by investor**



Source: Bain & Company

Here, too, data is changing the game. Understanding deal activity in a sector—particularly at a granular subsector level—requires clear sight lines into deals transacted, deal size, and who was involved. Traditional M&A databases capture deal size to the extent it is publicly disclosed, which typically means a limited subset of deals biased toward the larger transactions that show up in the media.

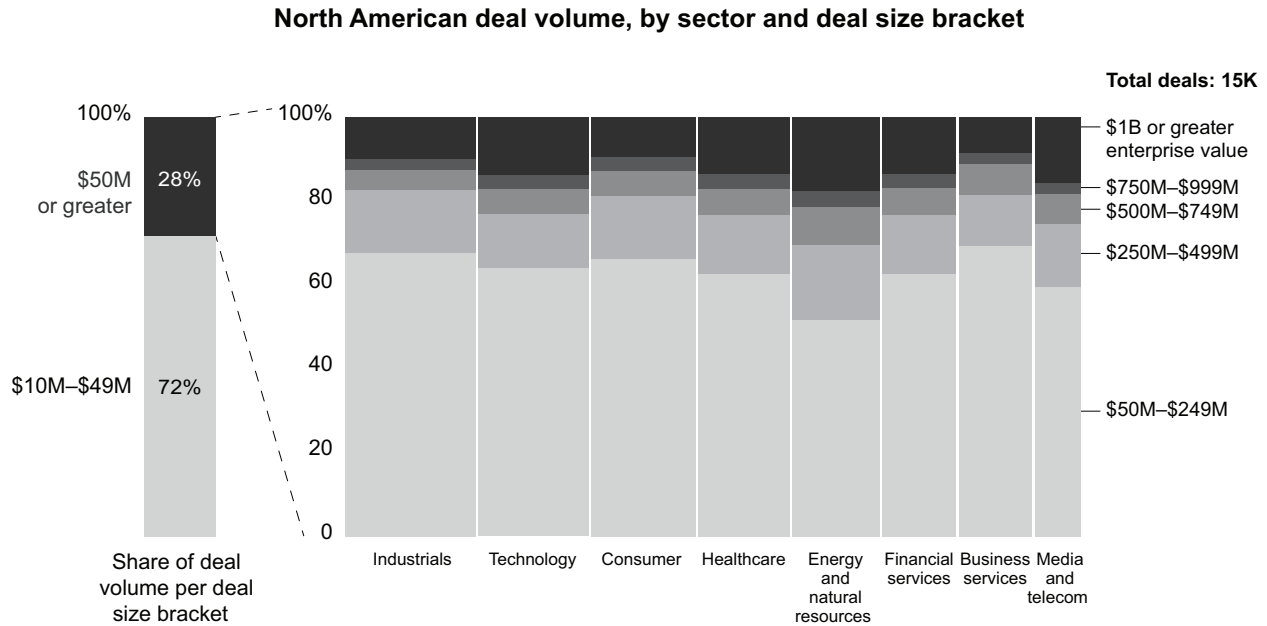
Increasingly, however, richer data sets are emerging that allow private equity firms to see which deals have taken place in a given subsector, the size of each deal, how competitive the process was, and which intermediaries were involved in the transaction. SPS, for instance, tracks all intermediated M&A activity across more than 500 subsectors and assigns a deal-size range to every transaction (see Figure 6).

Whether you are actually seeing the deals happening in your sectors of interest is another matter. As noted above, most firms think they’re tracking many more of the opportunities than they actually are. In the spirit of “you can’t manage what you can’t measure,” a precise understanding of sector coverage provides invaluable intelligence into where a firm is truly in the flow and where it is missing important opportunities.

The objective is not only to see more deals, but to earn a place on the short list of sellers looking to engage serious buyers in limited deal processes. Deal flow in private equity is still fundamentally a relationship game. Top-quartile firms have long known that it matters if you are networked into the



**Figure 6:** Richer data sets allow firms to more precisely track deal size and activity within specific sectors



Notes: Includes deals closed between 2016 and 2021 within the US and Canada with both private equity and corporate acquirers; excludes real estate  
 Source: SPS by Bain & Company

universe of bankers, owners, management teams, and other advisers in a given space. Knowing which deals they’ve missed and which individual bankers brought those deals to market helps firms network in a highly targeted way to build the relationships required to succeed.

When one sector-focused fund set out recently to determine how many deals it was seeing in its core focus areas, the results were sobering. Comparing its deal pipeline to the total number of deals that actually came to market, the firm discovered that its deal coverage ranged from as high as 60% for one investment bank to as low as 30% for another. In the subsectors the firm found most promising, it was missing a large number of attractive deals.

These insights became the foundation for a broader effort to market the firm and its capabilities more effectively. It isolated a small number of core subsectors and went to work building a new sourcing strategy for each one. Firm leaders gave deal teams new responsibilities for sourcing and business development. Those teams are now hitting the road to make sure the key bankers and intermediaries (those with the best deal flow in target subsectors) know precisely what the firm’s focus is and which value-creation capabilities it brings to bear. Teams are also stepping up efforts to build ties and credibility with sellers and management teams in these sectors. SPS benchmarks show that focused efforts like these can improve deal coverage rates in chosen sectors by 15 to 20 percentage points or more, often doubling a firm’s deal flow in targeted areas.

## How focused should our strategy be?

Private equity firms are typically keen to do more, not less; “no” may be the most underused word in the industry. But in today’s market, some of the best investors are being just as disciplined about what they *won’t* do as what they will.

Rather than setting a target number of sectors, firms that succeed in deepening their sector expertise often flip the problem on its head. They draw a realistic picture of what good sector coverage looks like and then work backward from there to figure out where they can have the most impact. The bar should be high: Firms that aspire to see more deals and participate in limited processes (vs. auctions with a dozen or more firms) realistically need to establish themselves as one of the top three or so firms that sellers and intermediaries turn to when looking for the likeliest buyer for a specific deal profile.

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Firms that succeed in deepening their sector expertise draw a realistic picture of what good sector coverage looks like and then work backward from there to figure out where they can have the most impact.

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Understanding what it takes to build this kind of presence in a new sector clarifies strategic options and priorities. Venturing into new markets can certainly be an important way to expand a firm’s scope or refresh its positioning with limited partners. Growing firms inevitably must expand their focus.

Yet moving into a new sector is challenging, expensive, and time consuming, which is why the most effective sector strategists tend to ride their strongest areas of emphasis for as long as they can. Doubling down on core investment themes while working in a disciplined way to improve sourcing and coverage takes full advantage of existing momentum and the years spent building critical mass in a sector. Firms that establish credibility in a particular space are often first in line to see attractive opportunities. Deals can beget deals, and success begets success.

Thoma Bravo’s \$12.3 billion acquisition of cybersecurity giant Proofpoint, for instance, hardly came out of the blue. As we note in this year’s update on software investing, it was the culmination of a highly successful cybersecurity investing theme that began more than a decade ago and has involved 25 different deals. Likewise, L Catterton has turned its 2004 acquisition of Wellness Pet Food into a clear leadership position within the pet-care consumer subsector. Following a reported 7x return on the Wellness deal, the firm accelerated its investment in US pet-care companies with buyouts of Ainsworth Pet Nutrition, Nature’s Variety, and PetVet Care Centers. With a successful playbook in

hand, it then expanded internationally, investing in companies like Inspired Pet Nutrition (IPN) and Lily's Kitchen in the UK, as well as Petlove in Brazil and Pure & Natural in China.

Over the course of several years, L Catterton's deepening insights, experience, and network building created a flywheel effect that has helped the firm make over a dozen pet-care investments. Its ability to spot trends early, partner with management teams, and help portfolio companies accelerate performance has become well known and valued within the sector. Under L Catterton's ownership, for instance, IPN's Harringtons brand jumped from sixth to first in the UK dry dog food market. Revenues for Ainsworth's leading Nutrish brand grew more than sixfold, while operational improvements boosted margins. Any owner or intermediary interested in buying or selling a pet-related asset knows that L Catterton has to be part of the conversation. That helps win processes and leads to proprietary opportunities both as a majority and minority investor.

Sector investing can be a powerful way to differentiate a firm and spur new growth. But top performers know it is essential to match your strategy to your firm's unique blend of expertise, capabilities, investing style, and size. While these are challenging and consequential choices, new analytical tools are providing firms with a data-driven way to set strategic priorities and make investments with confidence.



# Is Your Tech Due Diligence Good Enough?

The buyout world is dominated by technology deals, but due diligence is still catching up at many firms.

**By Hank Chen, Jonny Holliday, and Robert Pierce**

It seemed like a slam dunk.

That was the initial impression when a large private equity firm began its commercial due diligence of a fintech market leader recently. The target controlled almost half of its addressable market, was growing at 15% annually, and had net margins in the 17% range. The deal team was so impressed with the company, in fact, that it was setting up to bid a premium.

Then the tech diligence report arrived. It turned out that the target's leaky security protocols had led to a recent ransomware attack and a breach of most of the company's customer contracts. The target was also leasing services on outdated tech infrastructure that was being discontinued within a year, raising critical questions about its ability to continue delivering results. What seemed like a sure winner suddenly appeared toxic. The buyers walked away, feeling fortunate they had dodged a bullet.

The potential for technology to make or break a deal in private equity has never been greater than it is today. As digital disruption transforms industries across the global economy, it's fair to say that almost any company is a tech company in one way or another.

Yet too many private equity investors still view technology due diligence as a check-the-box exercise or fail to integrate it into a holistic effort to assess risk and underwrite value. While Bain & Company research shows that buyout firms almost always perform comprehensive tech due diligence for deals involving pure-play software companies, those deals represent less than 15% of the overall market. For buyouts generally, the rate is closer to 9%, despite the fact that 31% of all buyouts last

year involved technology companies and a much larger percentage targeted nontech companies for which technology is a central part of the value proposition (see *Figures 1 and 2*). Indeed, Pitch-Book data shows that deals for these tech-enabled companies have tripled over the past five years.

The sponsors getting tech due diligence right recognize that, when it comes to underwriting technology’s impact on risk and opportunity, what sufficed even a few years ago is no longer adequate. Just as the tech function itself has moved out of the back room to become a strategic centerpiece for many companies, the most effective way to evaluate a target’s technology capability has had to evolve as well.

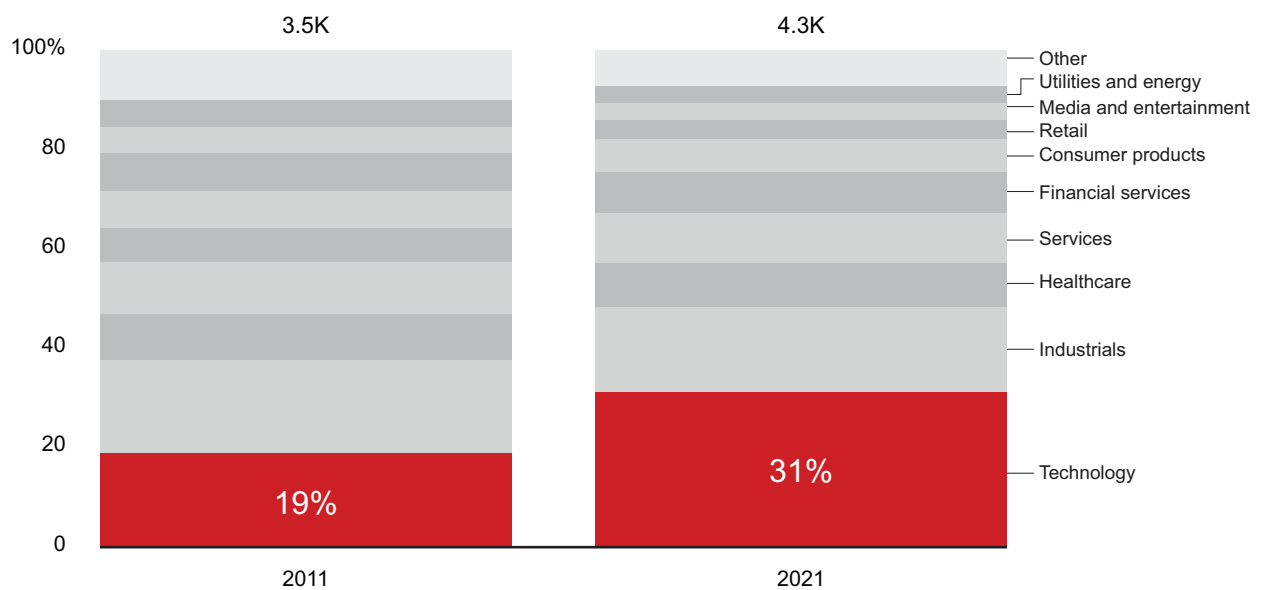
It used to be that tech due diligence meant bringing a trusted CTO along on a standard diligence assignment to kick the tires in the server room and verify that the enterprise resource planning and accounting systems weren’t a liability. Today it requires understanding how technology is being used throughout the company to improve performance and mitigate risk.

### Raising the bar

Technology very often determines the competitiveness of a company’s business model. It can be central to product offerings and how they are brought to market—from supply chain to sales strategy. Most companies would be sitting ducks today if they didn’t know how to use data and analytics to

**Figure 1:** After a decade of steady growth, deals for pure-play technology companies now comprise 31% of all buyouts

#### Global buyout deal count, by sector



Source: Dealogic

**Figure 2:** Buyouts of tech-enabled businesses have tripled over the past five years

**Global private equity/venture capital investments in selected technology verticals (\$B)**

	2016	2021
Fintech	47	151
Mobility tech	39	103
E-commerce	30	96
Supply chain tech	21	87
Clean tech	22	78
Health tech	19	75
Food tech	13	49
Real estate tech	7	44
Climate tech	6	35
Martech	12	35
Edtech	4	29
Cloud tech and DevOps	13	26
HR tech	3	18
Insurtech	23	16

**~3x average investment growth across sectors**

Notes: Includes technology verticals with capital investments greater than \$15 billion in 2021; industry verticals are not mutually exclusive (a company may belong to multiple verticals) or hierarchical (a company that belongs to an industry vertical does not automatically qualify under a broader vertical definition)  
Source: PitchBook







improve interactions with customers or understand more about their behavior. They would be vulnerable to cyberattack if they weren't marshaling the right tools to protect themselves and their customers.

Strong tech due diligence encompasses six broad areas of a business: product evaluation and road-map, technology and architecture, cybersecurity, data and analytics, organization and processes, and technology benchmarking (see Figure 3).

Any or all of these may come into play depending on the deal and industry, and the right priority areas ultimately will depend on what the investor intends to do with the asset. But the kind of tech due diligence that leads to the most informed investment decisions has several key characteristics.

**It is closely tied to the deal thesis.** While the average tech diligence today is less perfunctory than it used to be, that doesn't guarantee it is focused on the right set of questions. Investors often complain that the tech report they get back from the diligence team is a list of observations, not a set of contextual insights. It is often brimming with tech jargon that may or may not be relevant to the deal thesis or investment decision. Strong tech diligence has to be tied to the deal thesis from the outset; it is no different from commercial diligence in this respect.

**Figure 3:** Strong tech due diligence underwrites opportunity and risk across six key areas of the business

 <p><b>Product evaluation and roadmap</b></p> <ul style="list-style-type: none"> <li>▶ Product strategy and differentiation</li> <li>▶ Features and functionalities</li> <li>▶ UI/UX</li> <li>▶ Roadmap and governance</li> </ul>	 <p><b>Technology and architecture</b></p> <ul style="list-style-type: none"> <li>▶ Architecture and infrastructure</li> <li>▶ Technical debt</li> <li>▶ Code review and scan</li> <li>▶ Data center and cloud hosting</li> </ul>	 <p><b>Cybersecurity</b></p> <ul style="list-style-type: none"> <li>▶ Security policies and posture</li> <li>▶ Industry certifications and audits</li> <li>▶ Breaches and vulnerabilities</li> <li>▶ Security tools</li> </ul>
 <p><b>Data and analytics</b></p> <ul style="list-style-type: none"> <li>▶ Data strategy and roadmap</li> <li>▶ Data architecture</li> <li>▶ Data analytics</li> <li>▶ Artificial intelligence/machine learning capabilities</li> </ul>	 <p><b>Organization and processes</b></p> <ul style="list-style-type: none"> <li>▶ Operating model and leadership</li> <li>▶ Team experience and gaps</li> <li>▶ Software development processes and tools</li> </ul>	 <p><b>Technology benchmarking</b></p> <ul style="list-style-type: none"> <li>▶ R&amp;D benchmarking</li> <li>▶ R&amp;D spending</li> <li>▶ Hosting spending</li> <li>▶ Developer and quality assurance metrics</li> </ul>

Source: Bain & Company

The first question, then, is: How do we expect to create value at this target company? The next: Is the right technology in place to enable our thesis, and, if not, will the cost of building new capabilities or expertise deliver on the required investment?

Consider a deal to combine two healthcare information companies that provide credentialing services to hospitals and pharmacies. The pair served similar types of customers but across different geographies, and the deal team was betting that merging them would create a larger, more efficient competitor with stronger overall technology and services.

The biggest technological challenge for both companies was collecting, translating, and cleaning up data from multiple sources. Yet they appeared to have complementary strengths. Company A had developed the best process for ingesting data, while Company B seemed to have the better overall technology for delivering services. The investment thesis was to migrate the data ingestion process from A to B and to otherwise standardize B’s technology platforms.

A thesis-driven approach to the tech due diligence effort, however, provided some surprising insights. Company B did, in fact, have the best customer-facing services. But they were built on top of an aging, duplicative set of platforms. The overall architecture lacked a single source of truth, and the code was bloated, with tens of thousands of stored procedures and more than 10 million lines of code across

seven platforms. Company A, on the other hand, had already migrated much of its back-end technology to the cloud and had built a modern, secure architecture supported by strong software development processes.

The findings turned the deal thesis on its head—and in a good way. Instead of migrating data ingestion from A to B, the deal team saw significantly more value in moving Company B’s superior front-end services to A and decommissioning B’s platforms.

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While the average tech diligence today is less perfunctory than it used to be, that doesn’t guarantee it is focused on the right set of questions.

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**It is integrated with commercial due diligence.** For top-tier firms, tech due diligence never stands on its own. Not only is it linked explicitly to the deal thesis, but it is also integrated with the broader due diligence effort. This improves communication and gives deal teams the clearest possible view of the critical interdependencies between strategy, finance, operations, and enabling technology. Rather than simply asking how much it will cost, the inquiry becomes “What specific doors will this SaaS strategy open for us commercially, and is that realistic given our time frame and objectives?”

Questions like these were critical when a private equity firm recently assessed a business process outsourcing company that provided human resource management services. Already a strong competitor, the target had built a platform between large companies and their benefit providers to help employees directly manage their health plans, 401(k)s, and other benefits via an 800 number, online, or through their mobile devices. The platform was strong enough, but management believed the future lay in cutting back on human interaction—and improving service—by strategically deploying artificial intelligence (AI) and machine learning. The plan was to optimize a virtual assistant system that was smart enough to reliably help employees navigate their benefit plans without sending them down too many dead ends.

Evaluating the AI system’s potential was at the heart of the tech diligence effort. That involved bringing in an expert with a proprietary framework for analyzing the impact and maturity of the AI capability, to determine if it could deliver what the company said it could. The team evaluated the company’s technology stack, its intellectual property, its data scientists, and other aspects of the system. The conclusion: The company was well on its way to building a differentiated capability.

An insight like that is important on its own in terms of mitigating risk. But by integrating the accumulated knowledge of the tech due diligence into the broader evaluation of the company’s prospects,



it becomes much more. It allows the deal team to assess more precisely what the technology makes possible in the marketplace. Is the AI good enough to represent an imposing barrier to entry to other competitors? Would it allow the company to price more aggressively and grow faster than the rest of the market?

Answers to these questions feed into the financing model, giving the team much greater confidence in its cash flow projections and coverage assumptions. By creating a single, unified set of insights, rather than a collection of distinct reports, integrated due diligence generates the quickest and most ironclad answer to the ultimate question: Do we want to buy this company or don't we?

**It flows into the value-creation plan.** Integrated due diligence should also provide foundational insights as PE investors shift into value-creation mode. But it doesn't always happen that way. General partners often find that the learning accumulated during the diligence process gets lost or diluted as the firm takes ownership.

This is a vestige of the old check-the-box system, where tech due diligence, if it happened at all, was largely defensive. Once the transaction closed, the deal team would throw the diligence reports over the wall to a team run by the operating partner. They typically would be filed away under "good hygiene" rather than directly informing the emerging value-creation plan. As tech due diligence becomes a central element of formulating investment strategy, however, top-tier investors view it as the first round in a continuous cycle of learning that extends throughout the ownership period and helps develop the most compelling exit story.

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By creating a single, unified set of insights, integrated due diligence generates the most ironclad answer to the ultimate question: Do we want to buy this company or don't we?

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When one private equity firm invested more than \$2 billion to carve out a developer of operating system software from a much larger company, a key challenge was evaluating how the target could revamp its R&D process. The new owners had very ambitious goals for revenue and earnings growth, and they suspected they would have to both sharpen and accelerate product development to get there.

After performing the initial due diligence for the deal, an external team of technical experts embarked on a set of diagnostic interviews in the field that led to specific recommendations for improving R&D efficiency as part of the value-creation plan. But it also led to something else: a frank conversation with management and the board, explaining that the existing product roadmap—no matter how quickly it was implemented—would never allow the company to reach its targets organically. The

tech team saw a clear path to success, but it involved acquiring new products and capabilities that would allow the company to compete at a higher level—something the deal team hadn't counted on.

This transformed the value-creation plan into an M&A strategy. Over the next several years, the tech team shifted back into diligence mode and helped the sponsor vet several add-on deals that would extend the company into next-gen IT services. The result: It now offers a complete stack of solutions that compete effectively against industry stalwarts like IBM and VMware. That led to a strong IPO exit, giving the private equity owner the return it had hoped for.

## The emerging imperative

Even for a native tech company, questions of what's possible technologically and within what time frame aren't easy to answer. But they are part of business as usual. This is hardly the case for companies in traditional industries or for the industry-focused deal teams seeking to understand their prospects. As value creation becomes increasingly wrapped up in how a company deploys digital technology to improve operations, sharpen product development, or deepen relationships with customers, an integrated, thesis-driven approach to due diligence is especially critical. More often than not, this inquiry focuses on data and cybersecurity.

It's hard to imagine a more prosaic, analog industry than self-storage. Most storage outlets are mom-and-pop businesses where the technology infrastructure consists of a desktop PC with Excel installed. Yet, like any number of traditional sectors, storage is rapidly digitalizing. And that teed up a private equity process for a company that was pursuing a radical shift in how storage outlets manage their businesses.

The company was using acquisitions to build an online platform that provided two kinds of capability: a marketplace for storage vacancies that outlets could plug into, and a self-service portal for storage customers to manage their rental units. From a market perspective, this was a powerful idea with lots of momentum. But it also presented a question that private equity investors encounter all the time: Is this push into a transformative new technology scalable and secure?

The challenge in this case was that the company had acquired a number of smaller vendors that had to be set up on a single platform. Data, including sensitive customer information, had to be cleaned up and migrated from local systems to a cloud-based architecture. The target was very entrepreneurial and had quickly developed a solution that worked for a company of a given size. But the diligence had to establish whether the new cloud architecture could smoothly scale and whether cybersecurity systems were in place to protect a much larger system—the kind hackers love.

The transformation of regular businesses into tech-enabled businesses has become commonplace across the global economy. This is creating vibrant opportunities for buyout firms, but it is also presenting new and unfamiliar risks. For any deal in which technology and software may be key to driving value (more and more will qualify), general partners need to ask several questions:

- How much does the asset's underlying technology platform play into value creation, both now and in the future?
- Are we investing in technology due diligence that is proportionate to the perceived value?
- Do we have the experience—or know where to get it—to truly understand the technological nuances in this particular space and to develop unique insights?
- Is our tech diligence integrated with the broader commercial and financial due diligence effort, so the insights and recommended actions are consistent with where the value lies?
- Are these insights flowing directly into the value-creation plan to jump-start delivery on the investment thesis post-acquisition?

Top-tier firms are finding that these issues are critical to evaluating companies in an economy defined by digital disruption. They are at the heart of a rigorous approach to tech due diligence that is thesis driven, tightly integrated with the broader diligence effort, and a critical source of insight during ownership.



# Private Equity's Inflation Challenge

Buyout returns have benefited mightily from rate-driven multiple expansion. Is that about to change?

**By Hugh MacArthur, Mike McKay, and Karen Harris**

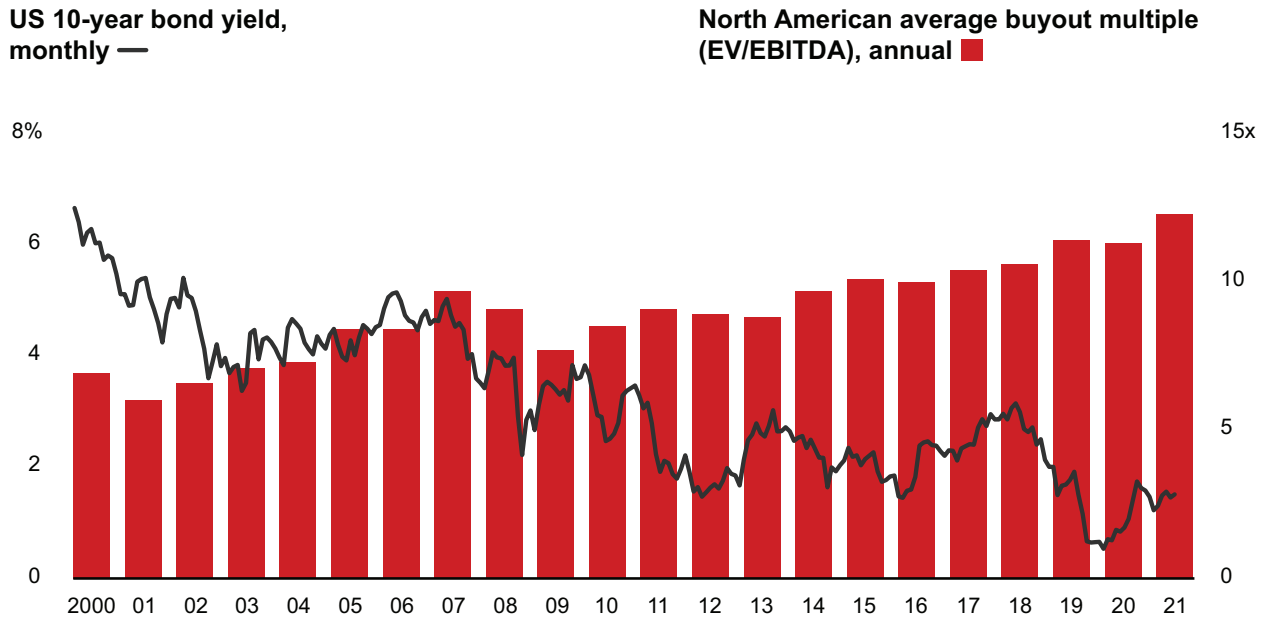
If the investment world has had one constant over the past two decades, it has been the downward trend in interest rates. For years, the global risk of deflation in developed markets has generally outweighed the risk of rising prices, persuading central bankers around the world to keep the monetary spigots open, driving real interest rates to historic lows.

Most investors can barely remember the inflation-driven days and double-digit rates of the 1970s and '80s. Their professional careers have been defined by the superabundance of capital that has energized markets globally since the run-up to the dot-com boom in the late 1990s. Although the line is jagged in both cases, the persistent downward slope of interest rates has been mirrored by a steady uptick in asset prices, creating massive wealth around the world.

Consider the last 20 years of interest rate movements. While the 10-year Treasury yield has dropped from 6.0% in 2000 to around 1.5% today, the average leveraged buyout multiple has jumped to 12.3 times earnings before interest, taxes, depreciation, and amortization (EBITDA), from 6.8x in 2000—a 1.8-fold increase (see *Figure 1*).

But the inflation outlook has shifted dramatically in the wake of the Covid-19 pandemic and the war in Ukraine. Spikes in both producer and consumer prices suggest the era of easy money may be drawing to a close. It is certainly debatable whether price increases are a temporary result of the broken global supply chain and other Covid-related disruptions, but it is clear that companies across the economy are scrambling to push through long-deferred price increases that they will be reluctant to reverse. And while the macro impacts of the war are impossible to gauge, it is likely the disruption will

**Figure 1:** The drop in Treasury yields over the past two decades has helped push deal multiples to record levels



Sources: S&P Capital IQ; S&P LCD

maintain upward pressure on prices, while creating a massive humanitarian crisis that is shaking Europe and world.

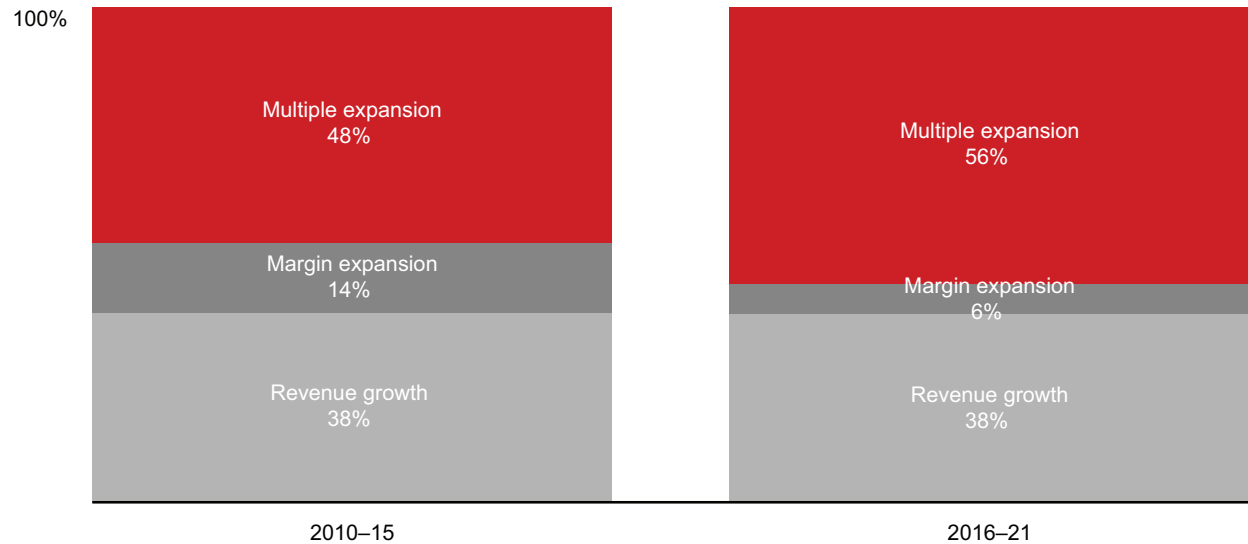
This explains why stock traders over the past several months have been reflexively hitting the sell button every time the consumer price index or the latest crude report supports the notion that inflationary pressures are here to stay.

The concern, of course, is elementary finance—when discount rates fall, asset prices rise, and vice versa. All things being equal, the amount investors are willing to pay for an asset increases along with the present value of its earnings, which means that rising rates undercut the value of assets today. This shifts the tide: Rather than floating along in a market buoyed by rising multiples, investors may have to swim against the monetary current as they seek to increase value. Generating returns in such an environment can be significantly harder.

How hard? For private equity investors, that question should be front and center. Whether or not you believe inflation is an enduring concern, there’s no arguing that private equity faces a dual threat from rising rates and costs. On the one hand, dealmakers who have benefited mightily from the run-up in multiples over the past two decades risk the opposite if valuations flatten out. On the other, inflationary cost pressures and the resulting margin pressure pose a real threat to just about any portfolio company.

**Figure 2:** Multiple expansion has been the largest driver of buyout returns over the past decade, and its contribution is only growing

### Median value creation, by year of exit



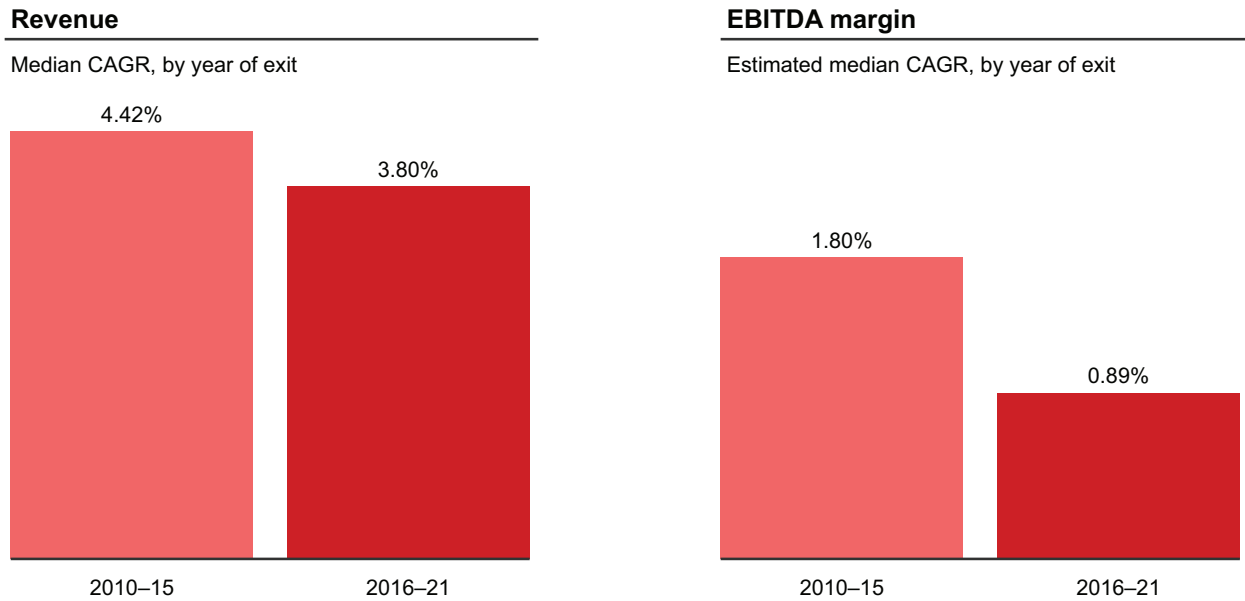
Notes: Includes fully realized global buyout deals with more than \$50 million in invested capital; excludes deals with missing data; excludes real estate and infrastructure deals; 2021 data as of December 14, 2021  
Source: CEPRES Market Intelligence

The industry's exposure is evident in data showing the composition of returns. According to CEPRES Market Intelligence, multiple expansion has been by far the largest contributor to private equity buyout returns over the past decade, dwarfing revenue growth and margin improvement as sources of value creation. Over the past five years, the trend has become even more pronounced. While multiple expansion accounted for 48% of value creation in the average deal from 2010 to 2015, that number jumped to 56% from 2016 to 2021 (see *Figure 2*).

The imbalance owes much to the steady tailwind provided by rising asset multiples, which can allow general partners (GPs) to buy a portfolio company and see an increase in value even if little has changed in its operational performance. Something else is going on as well: Buyout investors on average have actually become less adept at improving the performance of their portfolio companies. Comparing those same five-year periods, CEPRES data shows that revenue and margin growth among buyout companies have fallen 14% and 51%, respectively (see *Figure 3*). For the past decade, then, private equity funds have not only developed an outside reliance on multiple expansion to generate returns, but they have also lost ground when it comes to adding organic value.

Turning this trend around in the years to come isn't going to get easier. Well before Russian troops marched into Ukraine, firms were already seeing significant cost pressure across their portfolios from the rising price of inputs. In the wake of the invasion, food and energy prices spiked even more, and

**Figure 3:** Buyout company revenue and margin growth have fallen off over the past five years



Notes: Includes fully realized global buyout deals with more than \$50 million in invested capital; excludes real estate and infrastructure deals; 2021 data as of December 14, 2021  
Sources: CEPRES Market Intelligence; Bain analysis

while they may ease off again in the months ahead, they are unlikely to fall back below pre-war levels anytime soon.

Meanwhile, demographic trends also promise to make capital more expensive. The world’s baby boomers are moving from their peak savings years (ages 45–59) into retirement, when their spending could add to inflationary pressures. Germany, especially, is feeling the early impact of this shift.

Inflation aside, many other global factors also pose challenges for companies trying to improve profitability. The Covid effect and geopolitical tensions have forced companies to think hard about whether they will have to reverse years of cost optimization to shore up their global supply chains. Expensive regulation has accelerated globally as governments react to environmental and security concerns. Sustainability and ESG initiatives can add costs across the organization even as they confer other important benefits. Labor shortages, though partially offset by automation, are putting upward pressure on wages.

At the same time, political tensions, demographic trends, and a retreat from globalization have already begun to restrict the flow of cheap capital, even as labor shortages and the push for automation simultaneously increase demand. There are plenty of early signs that geopolitics and national security concerns may become impediments to global capital flows. A few examples include China’s crackdown on ride-hailing company Didi Chuxing, Germany blocking China’s acquisition of satellite and radar technology

firm IMST, and new disclosure requirements for Chinese companies from the US Securities & Exchange Commission. Now come new sanctions on Russia's central bank. Those will have long-term implications for the perceived safety of reserves held by some governments in foreign countries.

Together, these factors could make it significantly more challenging in the years ahead for GPs to deliver the kinds of returns their limited partners have come to expect. After three decades of negligible inflation, PE firms and portfolio companies will have to learn how to manage effectively amid rising prices and rates. Many firms will also have to become much more adept at generating alpha by helping portfolio companies make the operational and strategic improvements that generate sustained EBITDA growth. Amid the market's clear warning signs, firms should be asking themselves several key questions.

### **How, specifically, could inflation affect our portfolio companies, and how should we address those risks?**

Given both the threat and opportunity inflation poses for private equity investors, this is clearly question No. 1. And it will pay to move quickly. Companies that wait for their suppliers to send them price increases will find it is already too late to get ahead of the problem.

At the moment, markets and customers see the logic and inevitability of price moves, providing an unprecedented opportunity to capture increases. To take full advantage, however, most firms will likely have to learn how to manage effectively in a period of persistently rising prices. Having essentially ignored inflation for three decades, they will have to adopt a new mindset and acquire new skills.

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Companies that wait for their suppliers to send them price increases will find it is already too late to get ahead of the problem.

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The immediate challenge for private equity firms is to diagnose exposure to inflation across the portfolio and then devise strategies to react quickly. That starts with setting up a “control tower” at the fund level to quickly gather essential information: Which companies are seeing supply cost increases? Which are already working on pricing initiatives? What are they hearing in the market?

At the portfolio company level, the imperative is to diagnose cost pressures and pricing opportunities product by product, customer by customer. Blanket pricing moves don't work. Companies need to be surgical based not just on input costs, but also on factors like the value of a customer or segment, historical performance, and the company's position in the relevant market.

For one private equity–owned durable goods company with operations across the US and Europe, this process started after managers began seeing supplier price increases in isolated pockets of its business.



Before the problem spread more broadly, the firm launched a three-part intervention. For each product and customer, it first determined a price floor based on rising inputs and the inflation forecast. It then set an ambitious price ceiling to cover future inflation based on the competitive environment.

Finally, it came up with concrete, realistic pricing moves for each customer and segment, in close consultation with the front line. This last part is essential. It leads to the best decisions and secures buy-in from salespeople who would naturally avoid pricing conversations if they could help it. The company was firm in holding the sales team to task. But it also made their jobs easier by creating incentives and equipping them with clear data, sales scripts, account-specific targets, and coaching.

This focused program generated quick results. But it also established a repeatable model to add future value through pricing discipline and flexibility—a model that could be applied to one company or across a firm’s entire portfolio. This is the kind of commercial excellence initiative that can be a powerful antidote to reliance on multiple expansion. For many companies, pricing discipline is a foreign concept, and leakage through off-contract discounts and other bad habits can be a significant drain on profitability. Proactive GPs can use the inflation challenge to help companies instill more discipline.

## **Where do our returns really come from, and does that leave us vulnerable?**

Breaking this question down starts with a deal-by-deal analysis to understand what factors are most responsible for returns. It’s a valuable exercise at any time, but especially amid the threat of rising rates. Firms need clear visibility into two things: How much has the general buoyancy of asset prices contributed to returns, and how much has come from boosting revenue growth or improving margins? In other words, if rising rates flatten multiples, where would that leave you in terms of generating differentiated returns?

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If rising rates flatten multiples, where would that leave you in terms of generating differentiated returns?

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Understanding the composition of its returns was a game changer for one fund looking to boost its performance. The firm that sponsored it had always excelled at buying undervalued or distressed companies and boosting their margins through cost initiatives that stick. An analysis of historical returns, however, revealed an opportunity to improve when it came to generating value through revenue growth. That insight led to a series of strategic changes. First, the firm shifted its sweet spot, targeting companies with both cost and growth characteristics. It then invested in adding new talent and developing industry-specific playbooks that would ensure its teams could identify and capture the revenue opportunities that those “growthier” deals relied on.

A good example was the acquisition of a fast-growing retail healthcare chain. The company benefited both from the firm's prowess in finding efficiencies and from its newfound emphasis on growth. Instead of relying on cost measures alone to improve EBITDA, the new owners invested in revenue growth through rapid geographic expansion and by vastly improving the company's scattershot approach to acquiring new customers. These were motions the firm wasn't used to at first, but they have since become business as usual.

The key to embedding a powerful new strategy for value creation is a holistic approach. It's not enough to sharpen the firm's focus; you also have to ensure that every link in the value-creation chain lines up. This firm's shift not only changed the kinds of deals it would target, but it also made certain the right pool of internal and external expertise was in place to execute those deals effectively. The results have been impressive. A strong exit of the retail health company and other significant realizations helped the fund in question generate an internal rate of return topping 30%—well within the top quartile of its vintage.

### **Are we prepared to hold onto assets longer?**

The average amount of time private equity firms hold assets has slipped steadily, from 5.8 years in 2014 to 4.4 years in 2021. Dependable multiple expansion has enabled firms to buy a company, lever it up, and get out sooner, moving on to the next deal. The exception is the “best of both worlds” approach: divesting a large portion of equity as soon as possible but holding onto a slice of the company to capture even more multiple expansion.

The question now is, what happens to this formula in a more volatile environment, when cycles are more jagged and selling early is no longer so advantageous? Can the firm rely on producing at least a 2x return without finding new sources of revenue or improving EBITDA margins?

Trying to predict the course of inflation in a macro environment like today's is largely a waste of time. But what's clear already is that companies across the global economy are feeling cost pressures, and inflation expectations are affecting pricing behavior. This creates short-term imperatives—both offensive and defensive—to understand and manage through this dynamic, turbulent pricing environment at every company in your portfolio.

It should also signal that firms may not be able to afford the luxury of surfing on multiple expansion to keep limited partners happy. In an era of inflation, top-tier returns will inevitably depend on nuts-and-bolts value creation, helping improve a portfolio company's ability to generate more revenue and cash flow. The good news: Investments in these capabilities will benefit a firm's performance in any environment.

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