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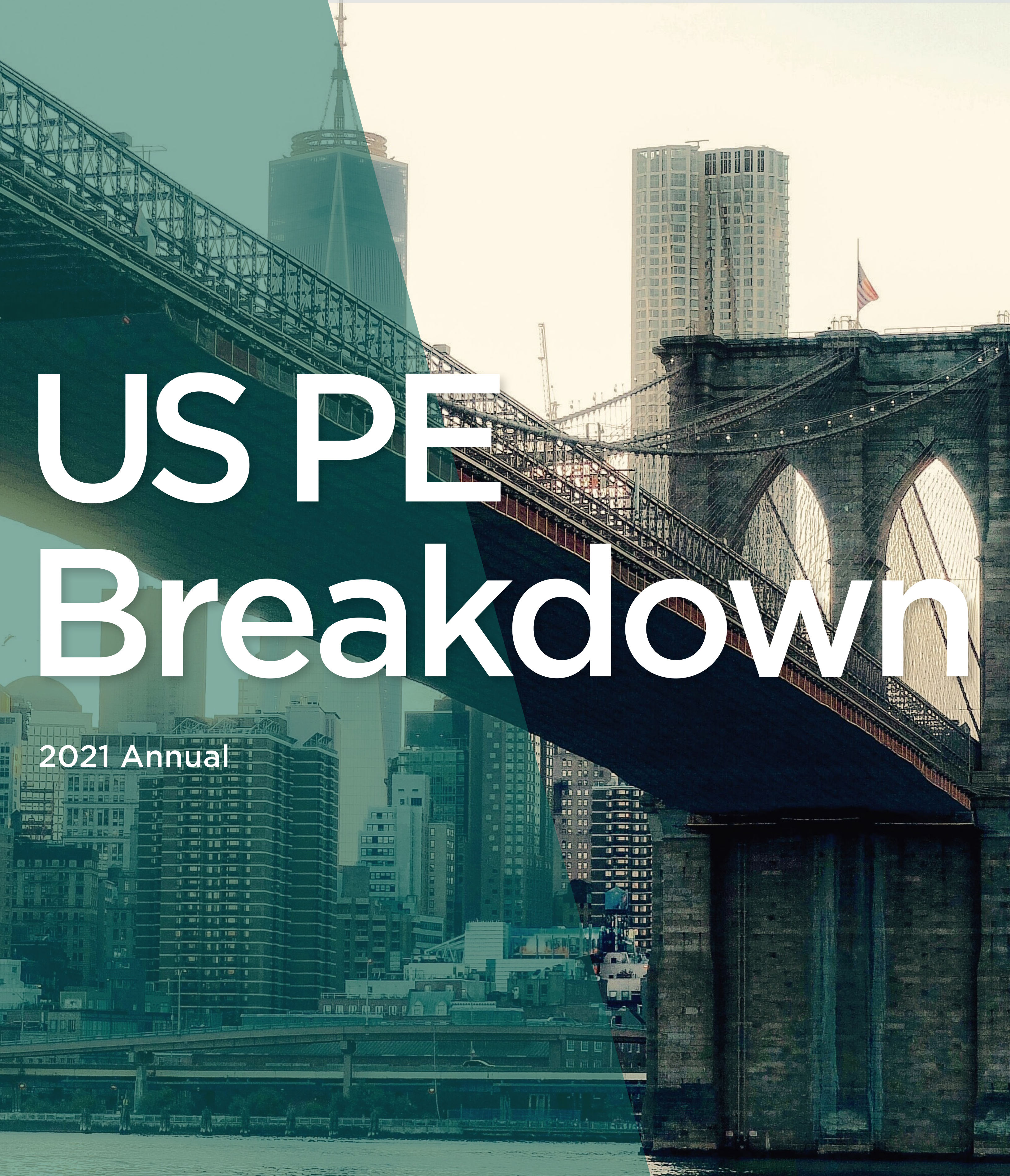
US PE Breakdown

2021 Annual



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Contents

PitchBook Data, Inc.

John Gabbert Founder, CEO
Nizar Tarhuni Senior Director, Institutional Research & Editorial
Dylan Cox, CFA Head of Private Markets Research

Institutional Research Group

Analysis

Wylie Fernyhough Senior Analyst, PE Lead
wylie.fernyhough@pitchbook.com

Rebecca Springer, Ph.D. Senior Analyst, PE
rebecca.springer@pitchbook.com

Jinny Choi Analyst, PE
jinny.choi@pitchbook.com

Anikka Villegas Analyst, Fund Strategies and Performance
anikka.villegas@pitchbook.com

pbinstitutionalresearch@pitchbook.com

Data

TJ Mei Data Analyst

Publishing

Designed by **Megan Woodard**, **Julia Midkiff**, and **Chloe Ladwig**

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Executive summary

US PE dealmaking eclipsed $1 trillion in total deal value and set several new high-water marks. All this activity came despite the numerous headwinds, including COVID-19 variants, inflation, and a higher regulatory burden, among others. Dealmaking figures benefited as deals were pushed back from 2020 because of COVID-19-related uncertainty, while other deals were pulled forward from 2022 for tax-related reasons. These factors caused a boom across all sizes, sectors, and deal types, although technology and healthcare remained dominant. Add-ons accounted for nearly three-fourths of all buyouts as GPs sought to take on less risk by investing in known quantities rather than new platforms. The deluge of add-ons also helped firms blend down sky-high platform multiples and grow revenue rapidly. Growth equity dealmaking also hit a new high as the target market expanded and GPs sought to finance myriad quickly growing companies. GP stakes deals also had a profound year with a flurry of middle-market firms selling stakes and firms innovating around fund liquidity facilities. Finally, environmental, social, and governance (ESG) remained a key theme. Dealmakers of all sizes are incorporating ESG risk factors into diligencing targets, while some are also integrating ESG into their value creation processes.

Exit activity was proportionally more robust than dealmaking. Listing companies at a record rate, sponsors tapped the red-hot public markets through IPOs and reverse mergers with SPACs. With the multiple spread between public and private markets remaining intact, this flood of public listings is expected to endure into 2022. However, public equity indices softened in Q4 2021, as did public listings. Cash-rich corporates and other sponsors also provided key exit opportunities for companies of all sizes. With much of the pandemic-related economic uncertainty in the rear-view mirror, both entities were more comfortable buying portfolio companies. Other monetization routes, including dividend recaps, partial exits, and continuation funds also boomed. GP-led secondaries deals for single- and multi-asset portfolios became more widely accepted and were heavily used by sponsors.

Fundraising also had a banner year but did not break records. Due to the lumpiness of fundraising, much of the capital raised in 2021 will show up in 2022 figures, as will many of the newly launched funds. In general, it was a great year for fundraising. A fervent exit environment led to record-breaking fund distributions and performance figures. Much of this capital is set to be recycled into newly launched buyout and growth funds, while the performance numbers may lead to further lifts in allocations. Mega-funds ($5 billion+) appeared to have more success, while smaller funds found the fundraising market more competitive. Heading into 2022, more mega-funds are expected to close than ever before, which bodes well for the largest managers but may make fundraising even more difficult for most middle-market and smaller GPs. However, firms with top quartile performance or that target niche investments will likely have an easier time.

Wylie Fernyhough
Senior Analyst, PE Lead
GP stakes, public PE firms, PE firm M&A, and sports & media

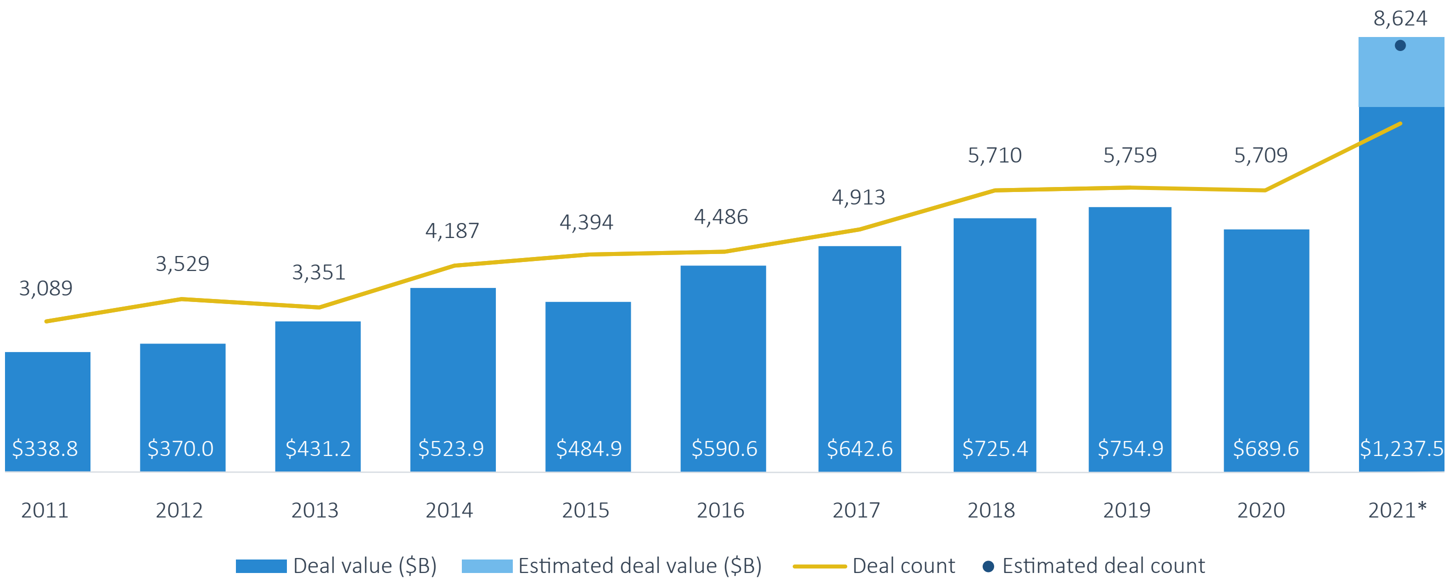
Rebecca Springer, Ph.D.
Senior Analyst, PE
Healthcare and first-time funds

Jinny Choi
Analyst, PE
Software and mega-funds

Anikka Villegas
Analyst, Fund Performance and Strategies
ESG and Impact

Deals

PE deal activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

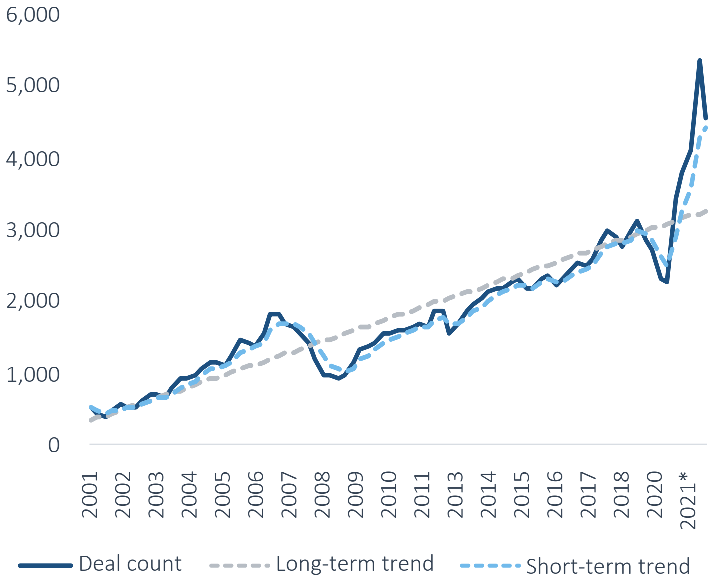
Introduction

In an unprecedented year, US PE dealmaking not only rebounded from the economic shock of COVID-19 but set a historically blistering pace. In 2021, GPs closed 8,624 deals for a combined $1.2 trillion, over 50% above the previous annual record for deal value. In the beginning of last year, some PE firms were still closing deals that had been delayed by the pandemic and were striving to catch up to their planned investment timelines. However, this phase was relatively short-lived: Our data shows that capital deployment dipped only modestly in mid-2020. More importantly, GPs were motivated by the availability of debt, the wave of sellers coming to market to avoid anticipated tax hikes, and the urge to deploy capital quickly in order to return to the fundraising market.

Many industries, if not most, experienced intense competition for deals as a result, and multiples elevated to 2019 levels or higher in 2021. We have heard reports of auction processes with 20 or 30 firms participating, wherein deals closed in a matter of days in an attempt to appease sellers. While earnouts became increasingly common in industries such as healthcare services as a way to de-risk purchases made at high multiples or with "COVID-19 add backs" to pro forma EBITDA (or both), other segments are experiencing such a seller's market that firms have no choice but to pay the full sticker price up front. With multiples elevated across the board, many firms have shifted their dealmaking focus to companies with compelling industry growth trajectories and attractive business models, thereby further increasing competition for the most promising assets. Behavioral health providers, featured in the Spotlight section, are one example of an industry segment that has experienced runaway valuation growth because of attractive margins, secular tailwinds, and a paucity of available targets. We have also heard that investment bankers are highlighting anything that could be considered recurring revenue for the companies they market, as firms seek to replicate the software-as-a-service (SaaS) business model of predictable cash flows and high customer retention. Everything from HVAC maintenance to scheduled client appointments is presented as annual recurring revenue (ARR) and pitched with lofty multiples to match.

The current deal climate has been particularly conducive for buy-and-build strategies, and add-ons as a proportion of the number of total US buyouts reached an all-time high of 72.8%. During the market dislocation in 2020, firms had turned to add-on dealmaking to continue deploying capital with diminished risk, because add-ons are typically smaller deals and the GP has a firm grasp on its platform. In many industries,

Rolling 6-month PE deal count trends



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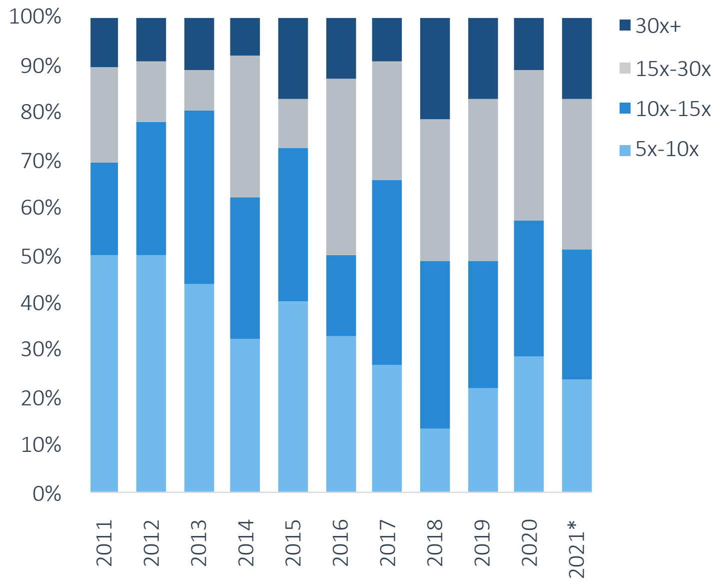
Share of EV/EBITDA PE multiples by size

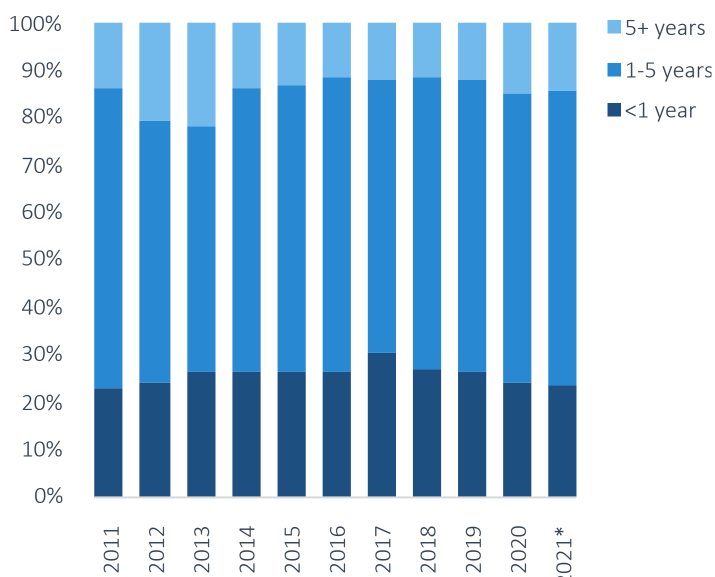


Source: PitchBook | **Geography**: US
*As of December 31, 2021

the desire or need of many small-business owners to sell amid pandemic stresses also opened a window of opportunity, albeit a short-lived one, to do smaller tuck-in deals. More recently, the attractiveness of multiple arbitrage amid rising valuations has driven growth in buy-and-build strategies. With many believing that multiples will contract in the coming years, or at least not rise much higher, firms are pursuing aggressive inorganic growth for their platforms from day one and continuing to add on deep into their holding periods. The number of add-ons five years or later in a portfolio company's holding period remains healthy, thereby propelling the proliferation of net-asset-value (NAV) lending and preferred deals. In the current seller's market, we have heard multiple reports of platforms being valued based on the EBITDA from add-ons still under letter of intent in sponsor-to-sponsor transactions.

At the same time, however, economic resurgence and fundamental changes to US residents' behavior and work patterns have caused unforeseen ripple effects, culminating in the highest rate of inflation since the 1970s. The labor market has tightened to 4.2% unemployment, but a plethora of potential factors—including continuing risks of contracting COVID-19 in the workplace, expanded unemployment benefits, job skills mismatches, and more—has resulted in severe labor shortages in many industries even though the number of employed workers is around 5 million below pre-pandemic levels. Additionally, continuing bullwhip effects from pandemic-related disruptions have wreaked havoc on global supply chains, and the prices of many commodities, including WTI crude, are at their highest levels in years.

Share of add-ons by platform age



Source: PitchBook | **Geography**: US
*As of December 31, 2021

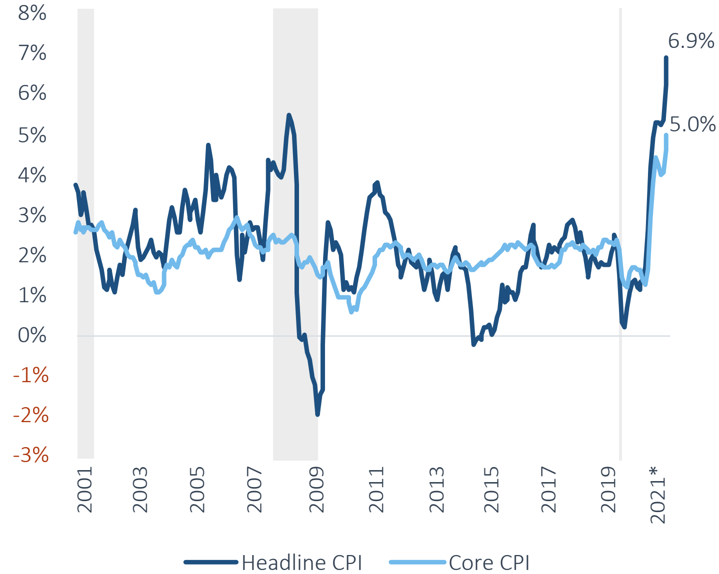
The effects of this inflationary environment on PE dealmaking vary by industry. In due diligence, firms are paying close attention to labor, energy, raw materials, and transportation costs, especially in industries such as manufacturing, hospitality, retail, and healthcare services. A company's ability to pass on elevated input costs to its customers is critical. For instance, contract manufacturers typically have less pricing power than manufacturers with diversified customer bases.[1] Even those companies able to increase their prices are unlikely to do so without a delay, thereby resulting in some near-term margin compression. Also, businesses with strong employee retention track records or those that have increased productivity with technology are commanding a premium. These considerations have created a new layer of difficulty for buyers and sellers in agreeing on pro forma EBITDA adjustments.

While rising input costs are having an immediate impact on some industries, there is considerable debate as to how an inflationary environment will affect dealmaking in the technology sector. Because technology companies tend to be valued on earnings many years out, their valuations are more sensitive to a higher interest rate environment. This effect may be particularly acute for large tech portfolio companies that are marked to market against public comps if stock prices decline in the face of tightening monetary policy. We saw some of this in Q4. Broadly speaking, elevated valuations have also caused firms to employ more leverage in technology deals than in other sectors, and lenders, attracted by the sector's tailwinds, have been eager to cooperate. An inflationary environment may force GPs and lenders to be more disciplined in valuing technology companies.

On the other hand, many argue that technology has become like traditional infrastructure in that it is indispensable in the modern economy, especially software that enhances productivity for businesses facing rising labor costs. According to this theory, technology companies will succeed in passing inflationary costs along to their consumers as the space continues to grow due to digitalization trends. In either event, the amount of capital currently being raised, or soon to be raised, for technology-focused funds will likely continue to drive aggressive dealmaking in this space for at least the next few years.

With unexpectedly persistent inflation auguring a tightening of monetary policy, industry participants are now wondering how long the bull run will last. The Federal Reserve's unprecedented rescue actions in 2020 produced a low-rate environment in which investors are eager to purchase high-yield debt. Corporate high-yield issuance hit a record high in 2020 and easily surpassed that record in 2021, thereby lowering the cost of capital not only for buyouts but also for amend-and-extend deals, debt refinancing, and dividend recapitalizations. Unlike the wave of distressed-induced amend-and-extends deals witnessed in early-to-mid 2020, these deals are focused primarily on planning for future growth, providing liquidity to LPs, and locking in favorable rates before the tide changes. Furthermore, private credit fundraising has been strong. This creates additional tailwinds for PE dealmaking, which has increasingly turned to private lenders, especially in the middle market, in part because of the flexibility they offer in working with borrowers in times of economic dislocation. However, a swelling number of private credit firms have the capacity to write $1 billion+ unitranche loans, meaning they can finance deals beyond the middle market.

Consumer Price Index



Source: Bureau of Labor Services | **Geography**: US
*As of December 31, 2021
Note: Gray shading indicates a recession.

High-yield credit should remain attractive to investors, and capital should therefore remain available to PE firms, even as the Federal Reserve begins to hike interest rates in 2022. Leveraged loans, including collateralized loan obligations (CLOs)—which represent

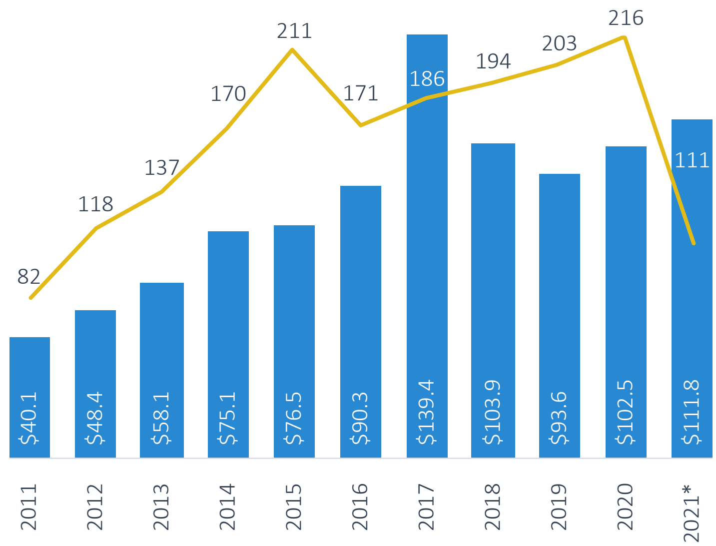
1: "Rajeev Amara, Founder of Arcline, on Supply Chain, Inflation Challenges," PE Hub, Chris Witkowsky, December 13, 2021.

around 70% of the leveraged loan market and typically account for most of a leveraged buyout's (LBO) financing—are usually floating-rate instruments. With aggregate bond duration currently at near-record highs, fixed-yield investors are exposed to high inflation rates, and, therefore, demand for leveraged loans should remain strong.[2] At the same time, of course, PE firms may be forced to rein in their use of leverage and opportunistic dividend recapitalizations in the face of higher borrowing costs.

Another driver of runaway deal activity, especially early in the year, has been the plentiful supply of business owners looking to sell. Many business owners who were nearing retirement age when the pandemic hit were persuaded to sell, or at least take equity off the table, rather than lead their businesses through the financial and psychological effects of lockdowns and economic uncertainty. Additionally, the election of President Biden, who campaigned on wealth redistribution policies including raising the capital gains tax, spurred many who were already contemplating selling businesses to do so as quickly as possible, both at the end of 2020 and then during the first three quarters of 2021. While this trend primarily affected dealmaking in the middle market, where many businesses do not have institutional backing, we also saw several mega deals ($1 billion+) for family-owned businesses, including the mammoth $34.0 billion buyout of Medline Industries by The Blackstone Group (NYSE: BX), The Carlyle Group (NASDAQ: CG), Hellman & Friedman, Government of Singapore Investment Corporation (GIC) and The Abu Dhabi Investment Authority (ADIA).

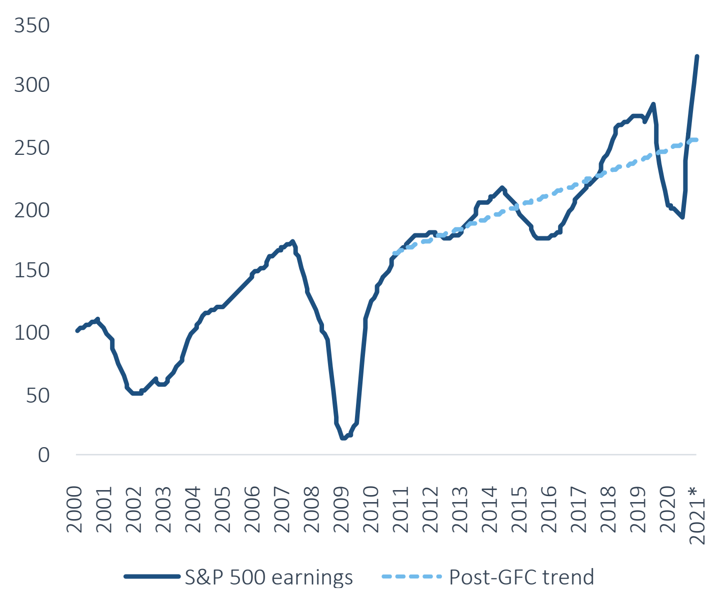
By Q3 2021, we began reporting that many bankers' deal pipelines were full through the end of the year, and in September, the House passed a tax law revision that would have imposed a higher capital gains rate on any deals initiated on a go-forward basis, removing the tax-related impetus for deal processes not yet in progress. In the end, the capital gains rate increase (as well as proposed changes to carried interest treatment) were quietly dropped from the bill, and partisan gridlock is likely to make any further attempts futile for the foreseeable future. As firms and banks work through the deal pipelines they had lined up during the tax-avoidance frenzy earlier this year, we may see the pace of dealmaking slow somewhat in the first half of 2022. However, broader forces including dry powder levels, debt availability, and general macroeconomic sentiment are likely to have a positive effect on dealmaking activity.

Private debt capital raised ($) by type



Source: PitchBook | **Geography**: US
*As of December 31, 2021

S&P 500 earnings (indexed to 100) with post-GFC trend



Source: Robert Shiller | **Geography**: US
*As of December 31, 2021

2: "Private Credit Investing in Rising Rate Environments," Blackstone, Joe Zidle and Dwight Scott, July 1, 2021.

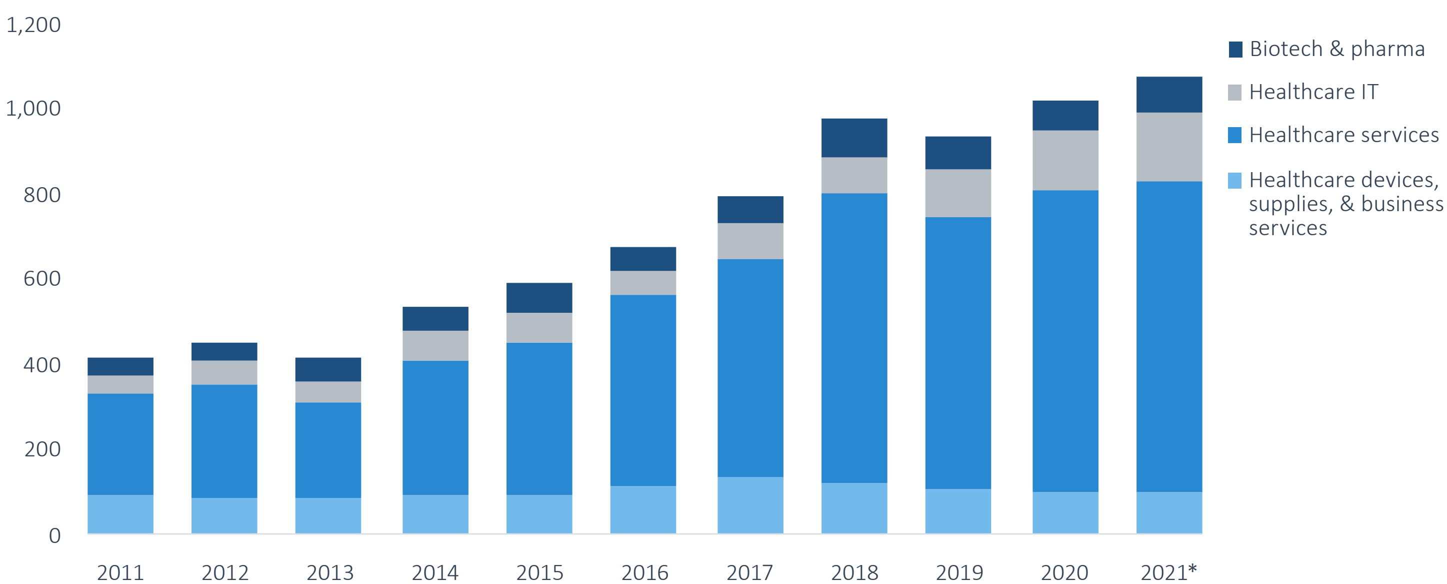
Healthcare

In 2021, PE investment in healthcare continued to both expand and become more sophisticated as firms look to position themselves on the right side of change in an industry that accounted for nearly 20% of US GDP in 2020. Several trends are shaping PE investment in the sector. First, although healthcare is not typically considered cyclical, the pandemic's effects on the industry have been multifaceted and ongoing. While providers are no longer prevented from seeing patients in person, some, especially hospitals and skilled nursing facilities, are still struggling with increased operating costs from COVID-19 safety precautions, lost revenue, and staff churn. 2021 saw several large firms quietly exit investments in struggling hospitals. For instance, Leonard Green & Partners sold back its majority stake to two Rhode Island hospitals amid a public standoff with the state's attorney general, who wanted the firm and the hospitals' holding corporation to commit to further investments to maintain their quality of care, while Apollo (NYSE: APO) reportedly sold LifePoint Health to its own Fund IX for $2.6 billion, substantially less than the $5.6 billion its Fund VIII paid for the rural hospital chain in 2018.[3]

For other areas of the healthcare landscape, demand growth and changing patient habits caused by the pandemic have been a boon. For example, according to Zoe Nielsen, CEO of Kennedy Capital, laboratories that pivoted to perform COVID-19 tests unlocked a significant new revenue stream, and they are now evaluating how to re-invest some of the windfall into business lines that will outlast the pandemic.[4] In July, KKR (NYSE: KKR) created a platform, Sapphiros, to invest in diagnostics companies developing innovative at-home and near-patient testing products, including COVID-19 tests. Behavioral health, home care, and veterinary medicine providers have also seen soaring demand for their services and, in turn, a wave of PE investment.

PE firms are also investing heavily in companies at the forefront of a sea change in healthcare reimbursement models. The value-based care (VBC) model, in which providers are financially incentivized to achieve better patient outcomes while reducing costs, has been pioneered among Medicare Advantage providers for several years and is now making its way into other primary care practices and some specialist groups and health systems. There is widespread industry and

Healthcare PE deal activity



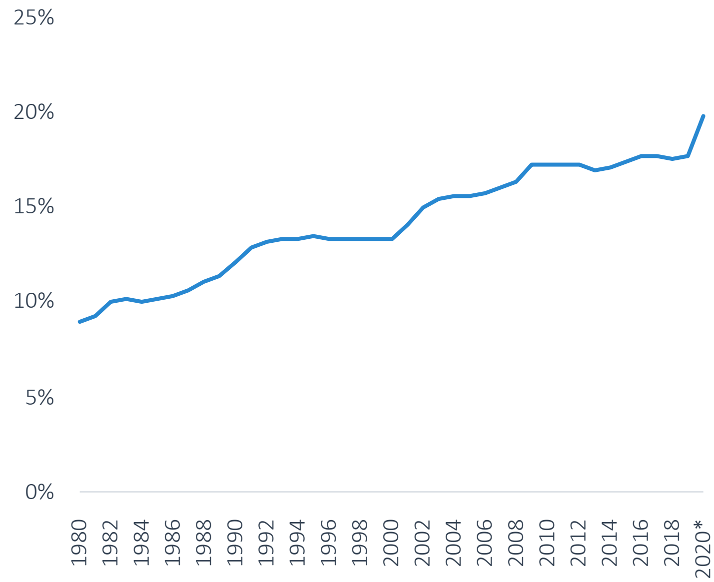
Source: PitchBook | **Geography**: US
*As of December 31, 2021

3: "Private Equity Powerhouse Books $1.6 Billion Profit Selling Hospital Chain-to Itself," Bloomberg, Sabrina Willmer, July 29, 2021
4: Zoe Nielsen, telephone interview with Rebecca Springer, September 28, 2021.

political consensus that VBC is the future of healthcare in the US, even if the change comes slowly to some parts of the payer-provider ecosystem. As a result, the few large-scale VBC platforms that exist are trading at high multiples, with both PE firms and payers (insurance companies) as suitors. Firms with experience in growing VBC businesses, such as Welsh, Carson, Anderson, & Stowe (WCAS), are looking down-market to earlier-stage companies, often partnering with strategics.[5] For instance, WCAS launched a new VBC platform, Valtruis, in March with an initial $300.0 million investment. Valtruis has since invested in the Series B of Cricket Health, a company that uses analytics to improve kidney care, and in the Series D of Wayspring, a substance use disorder treatment platform, alongside strategic investors including Blue Shield of California and Centene (NYSE: CNC). One reason the adoption of VBC is accelerating is that the technology required to make it an effective model is finally beginning to mature. To be successful, VBC requires care coordination among multiple providers, including sharing patient data, as well as predictive analytics to evaluate and manage risk and guide interventions. As VBC structures develop, PE firms see a vast opportunity set in risk management tools tailored to specific medical specialties and patient populations. For instance, Equality Asset Management-backed Mindoula, which provides a population health analytics and engagement platform focused on patients with behavioral health challenges, added on 180 Health Partners, which connects behavioral health patients with care providers and community support, in March.

Other areas of healthcare IT have also drawn significant PE interest this year. Two of the largest areas for healthcare IT are electronic health record (EHR) software and billing/revenue cycle management software. Although a few large players, chiefly Epic and Cerner (NASDAQ: CERN; currently under agreement to be acquired by Oracle, NYSE: ORCL), dominate the hospital EHR market, firms are seeking growth opportunities with EHR vendors that cater to smaller but less saturated segments of the healthcare provider landscape. The most prominent recent example of this is the announced $17.0 billion buyout of Athenahealth by Hellman & Friedman, Bain Capital, and GIC. Although Athenahealth has lost ground in the hospital EHR market, it is an increasingly important provider for ambulatory surgical centers (ASCs). PE has long been interested in ASCs, which are expected to continue hosting a growing proportion of surgeries because they offer lower costs than hospitals and are often more

National healthcare expenditure as a share of GDP



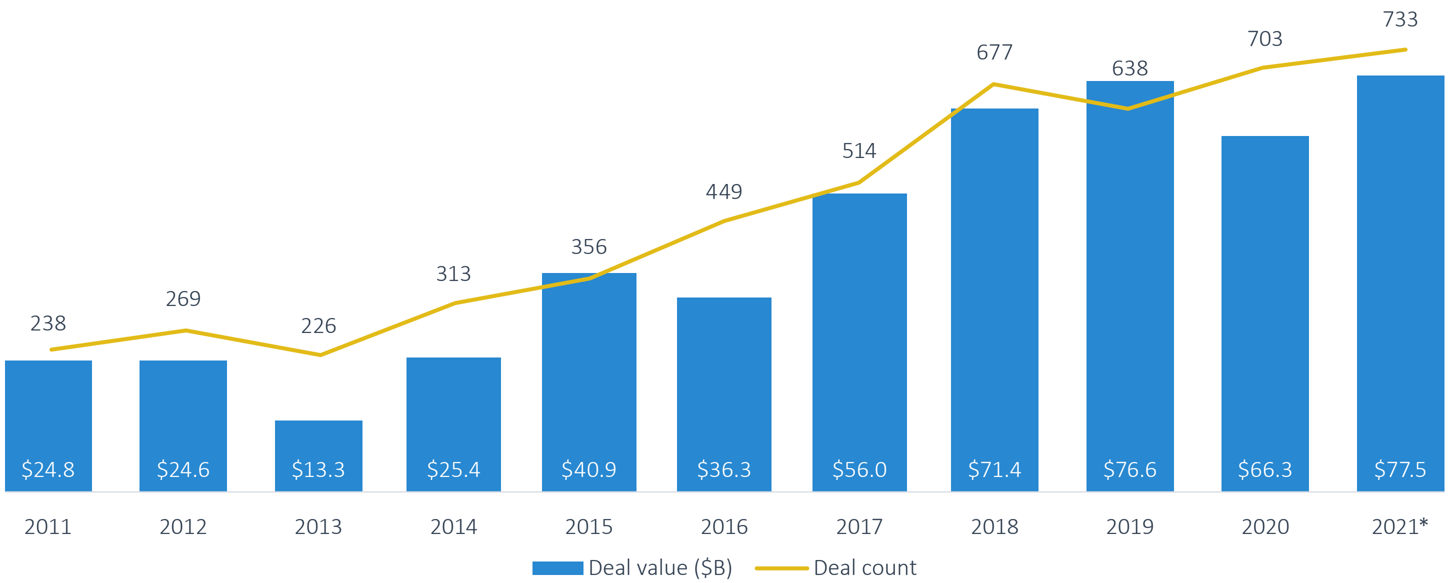
Source: Centers for Medicare and Medicaid Services | **Geography**: US
*As of December 31, 2020

convenient for patients. We have also seen investments in technology platforms that cater to specific provider types. For instance, Serent Capital recently made a growth investment in Raintree Systems, a leading provider of EHR and revenue cycle management software to the physical therapy industry, and KKR purchased Therapy Brands, a practice management and EHR platform for the behavioral health sector, from Lightyear Capital and other investors for $1.2 billion. Unlike hospitals, specialist provider groups are less likely to have invested in high-cost, enterprise-grade systems and are therefore easier to convert as customers.

The Athenahealth deal also underlines another trend: We are seeing several of the largest PE firms increasingly emphasize healthcare IT investments. Bain, for instance, appears to be pivoting away from acquiring traditional provider platforms as of late, instead preferring to invest in healthcare technology and VBC models. By investing in healthcare technology rather than healthcare providers, firms can eschew direct exposure to reimbursement risk. Focusing on technology also allows the largest firms to avoid unwanted political attention, which has been building of late as Sen. Elizabeth Warren and other politicians accuse firms of compromising care quality when

5: "Value-Based Care Emerges as a Must-Have for Investors," PE Hub, Sarah Pringle, November 1, 2021.

Healthcare services PE deal activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

investing in skilled nursing facilities and other provider groups. Finally, as discussed in the exits section of this report, new categories of strategic buyers are emerging for healthcare IT investments, making them attractive targets.

In the life sciences space, 2021 saw the largest-ever buyout of a pharmaceutical company when EQT (STO: EQT) purchased contract research organization (CRO) Parexel International for $8.5 billion with Goldman Sachs Asset Management (GSAM - NYSE: GS) as a minority investor. Deals for mature life sciences companies are traditionally dominated by cash rich pharmaceutical giants: Two $10 billion+ CRO acquisitions by strategic investors closed this year.[6] However, EQT has established itself as the leading large firm in the space and, on the heels of its impressive $9.6 billion exit of Aldevron and acquisition of venture firm Life Sciences Partners—which may spur a new, larger life sciences offering à la Clarus and Blackstone Life Sciences—will likely continue this trajectory.

PE firms also announced or closed a host of smaller life sciences deals, many of them for companies that provide services and technology to aid drug development. For example, Roivant Sciences (NASDAQ: ROIV), at the time backed by several firms including NovaQuest Capital Management, acquired Silicon Therapeutics, which operates a computational drug discovery platform, in February for $450.0 million. Meanwhile, Carlyle acquired Unchained Labs, a provider of systems for analyzing complex molecules, for $435.0 million. Pharmaceutical development tools represent an attractive expansion area for PE firms that are uncomfortable taking on the risk and operational challenges of drug development. Additionally, the expansion of generic and biosimilar drugs and the acceleration of R&D timelines, especially for fast-follower drugs, has put pressure on traditional drug lifecycle models, making technologies that accelerate drug discovery essential. We may see a wave of opportunistic PE biotech acquisitions, driven by slumping stock prices for smaller, publicly traded biotechs and still-private companies being forced to trim valuations in line with public comps.

6: Icon (NASDAQ: ICLR) acquired PRS Health Sciences for $12.0 billion in July, while Thermo Fisher Scientific (NYSE: TMO) acquired Pharmaceutical Product Development in December for $17.4 billion.

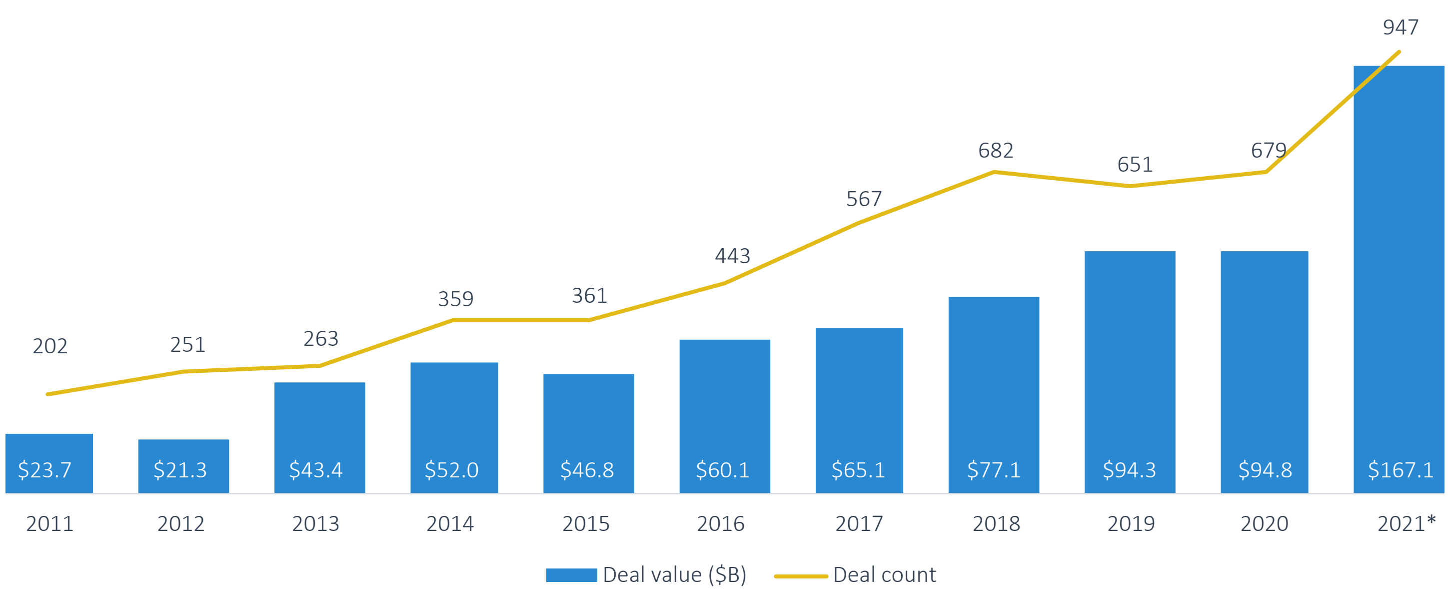
Software

Information technology (IT) had an incredible end to a red-hot year, setting new records in both deal count and value. IT deals surpassed $100 billion for the first time as the need for technological innovation and efficiency continued to be front and center in the global shift to remote work and the digital transformation of many other industries. With more organizations than ever relying on technological solutions, PE firms have been aggressive in finding opportunities as the sector experiences tremendous growth and expansion. This is perhaps best exemplified by Thoma Bravo, which closed on two enterprise software take-privates, Medallia and Cloudera, for $6.4 billion and $5.3 billion, respectively, in Q4. These multibillion-dollar deals were the new norm as software-focused firms enjoyed record levels of dry powder, which when coupled with lofty valuations made for a competitive market with highly marked deals. In 2021, a stunning 32 tech mega-deals were completed for an aggregate total of more than $100 billion.

Software deals, which account for most of the IT deal activity, occurred at a frenetic pace, jumping to 947 deals at an aggregate of $167.1 billion by the end of the year. The sector experienced a massive opportunity for deals thanks to robust earnings and performance by enterprise software providers and to the lofty valuations of public companies that lifted deal prices while assuring attractive exit opportunities post-investment. The highly populated software market also provided PE buyouts with plenty of buying opportunities to expand into emerging areas such as workplace management software. In December, Berkshire Capital provided development capital to Tango Analytics, a provider of cloud-based store lifecycle management and workplace management software. Active management of real estate and facilities became a heightened need post-COVID-19, with new software solutions becoming pivotal in helping companies manage spaces, maintenance, transactions, and more on a dynamic cloud architecture. Condeco Software, a leader in workplace scheduling technology, also received strategic growth investment from Thoma Bravo and JMI Equity in August to accelerate growth to match the growing demand for innovative and flexible workspaces. This combination of attractive market environments and emerging trends buoyed by the pandemic resulted in robust deal activity in software through the end of the year.

Supply chain technology was another area of attention this year as the pandemic caused major disruptions in the global supply chain and revealed an acute need for transformation and innovation to strengthen operations and build long-term resilience. With increasing pressure for transparency and long-term overhaul of the infrastructure underpinning global supply chains, investors were ready to spend more for

Software PE deal activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

the data and analytics capabilities that would improve end-to-end assessment, optimization, and monitoring. In November, Thoma Bravo completed a $2.0 billion take-private acquisition of QAD, a California-based provider of cloud-enabled manufacturing and supply chain software, and in December, KKR made a minority stake investment in warehouse-management software maker Koerber AG. Supply chain vulnerabilities remain a huge topic of concern and, in turn, provide PE firms with augmented growth opportunities that lean on technological capabilities to ensure a seamless and automated supply chain.

Despite the boom in tech deals, looming regulatory scrutiny and potential government intervention pose significant threats to the sector. The Department of Justice (DOJ) and the Federal Trade Commission (FTC) have been more aggressive in their antitrust enforcement in various industries, including tech, after consolidation plays and gigantic M&A deals prompted both government agencies and the public to call for increased scrutiny on potential monopolies. Early this year, Visa's (NYSE: V) $5.3 billion acquisition of fintech startup Plaid was called off after a DOJ challenge. In December, the FTC sued to block Nvidia's (NASDAQ: NVDA) $40.0 billion merger with Arm that would have allowed the combined chip company to control the computing technology and designs competitors need to develop their own semiconductor chips. In October, the FTC announced that buyers attempting a potentially anticompetitive acquisition are required to obtain approval before undertaking a future transaction in a similar market. The policy can significantly delay or derail deals for tech buyers attempting to acquire multiple targets in a similar market.

Heightened regulatory scrutiny was echoed in Europe to rein in Big Tech and protect consumers from privacy and content concerns. The European Union is seeking to pass a sweeping overhaul of regulations for digital companies with two key bills. The Digital Services Act (DSA) curbs harmful algorithms and pushes for content and targeted ad reviews, and the Digital Markets Act (DMA) lays out a list of rules for tech giants to follow to prevent their domination of digital markets and levies corresponding fines for violations. The DMA has been a source of contention for US companies that would fall under the scope of these newly imposed restrictions and investigations. With further negotiations to come in 2022, the uncertainty over impending regulations could dampen deal activity going forward.

In addition, China's sweeping tech crackdown throws a wrench into the tech boom, with the sector at the mercy of sudden regulatory changes. The tightened regulation of Chinese tech giants wiped off more than $1 trillion of revenue for the country's giants such as Tencent (HK: 0700) and Alibaba (HK: 9988), leaving foreign investors stunned and worried about the prospects of further investment in China. Entire business models were destroyed, such as education technology (edtech), which had been one of the hottest markets in China in recent years, coming under fire this summer when the government banned education or tutoring companies from making a profit, raising capital, or going public. This sudden change left many US PE firms invested in Chinese edtech companies to rush their exits and disclose underperformance. Political tensions between China and the US also worsened the volatility felt in the tech market. For example, the US blacklisted AI giant SenseTime (HK: 00020), accusing its technology's role in enabling human rights abuses against Muslim minorities in Xinjiang, which caused the company to delay its public offering on the Hong Kong exchange in December. Ongoing tension between the two countries as well as the Chinese government's tech crackdowns, which are expected to continue well into 2022, are disrupting the entire industry and forcing private investors to tread carefully. The crackdowns, regulatory scrutiny, and changes are cooling valuations in tech and narrowing return prospects and investment opportunities in the sector. Larger PE deals are more likely to be impacted as investors rethink their strategies to place sizable bets on other industries they believe to be less vulnerable to regulatory risks. Political pressures from every major continent, combined with higher rates, may cause some firms to reduce their deployment pace in the tech space.

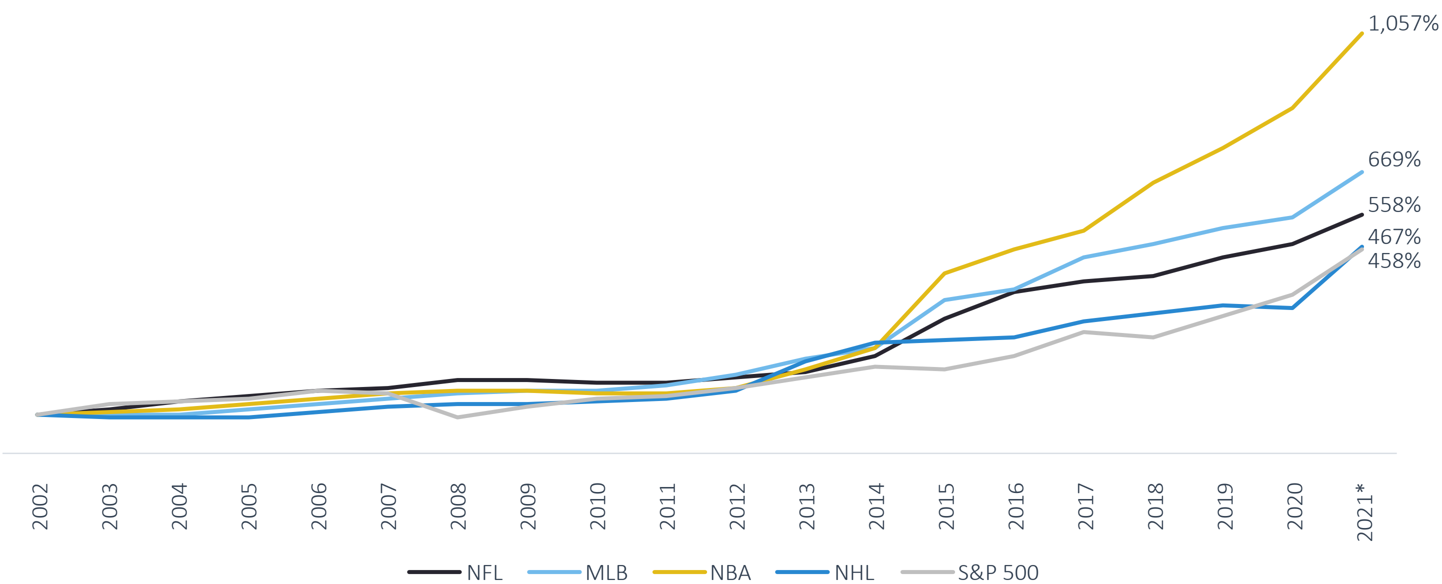
Sports, media, and entertainment

Deal activity in sports, media, and entertainment assets was zealous in 2021. On the sports side, several new funds targeting equity stakes in sports teams, leagues, and/or businesses in the sports ecosystem are bringing liquidity and institutional capital to an underserved asset class. These firms seek to provide growth capital, liquidity to existing investors (minority or control), or acquisition financing. Arctos Sports Partners, which announced it had closed the largest ever first-time PE fund in October 2021, and Dyal, better known for its GP stakes buying, are two of the most notable names in the space. Each has funds seeking to purchase minority interests in sports teams—Arctos in any professional team while Dyal's fund targets NBA teams only. Both firms completed deals in NBA teams this year, though. Arctos took a stake in the Golden State Warriors, Dyal purchased a stake in the Phoenix Suns, and both investors bought stakes in the Sacramento Kings. Arctos has jumped out to an early lead in the space, raising and deploying more capital than any of its competitors. Beyond the NBA, Arctos has deployed significant capital across at least 12 other investments, including the purchase of a stake in the NHL's Tampa Bay Lightning.

Redbird Capital and MSP Sports Capital are two other sports investors, although they both often seek more control in their investments, as MSP's late 2020 investment in McLaren Racing illustrates. RedBird's Q1 investment in Fenway Sports Group (FSG) was particularly notable. The $750.0 million deal for approximately 11% of the entity that owns Liverpool F.C. and the Boston Red Sox afforded the company expansionary capital. Arctos' minority investment in FSG gave it additional capital. Then, in late 2021, FSG agreed to acquire a majority stake in the NHL's Pittsburgh Penguins. FSG is reportedly seeking to acquire an NBA franchise next.

Sports investing is a global trend, though, and Silver Lake, Sixth Street, and CVC Capital have also expressed interest. Much of Silver Lake's interest runs through Endeavor (NYSE: EDR), which owns the Ultimate Fighting Championship (UFC), several minor league baseball teams, On Location Experiences, and more, while Sixth Street—and Michael Dell—directly bought a stake in the San Antonio Spurs in June 2021. CVC has been active around the globe, from purchasing an expansion cricket franchise for $736.0 million in the Indian Premier League to injecting €2.7 billion ($3.2 billion) into Spain's La Liga soccer league. As

Price return for select sports leagues and the S&P 500



Source: Sportico, Forbes, and PitchBook | **Geography:** US
*As of December 31, 2021

more content is streamed and the audience for sports continues to swell around the world, so too has the value of media rights surrounding sports leagues and franchises. The entire sports world is institutionalizing, much of it mirroring best practices from US leagues such as the NFL or NBA. For example, the cost caps introduced in Formula 1 could create more enduring brands and a more competitive field where top teams such as Mercedes, Red Bull, and Ferrari can no longer spend several times more than the bottom teams.

Ares (NYSE: ARES), more known for its credit prowess, has also been raising capital to deploy in the space. The firm's Sports, Media & Entertainment Finance Fund is dedicated to content assets beyond just sports and can invest across the capital structure. Ares reportedly invested around $1 billion in sports and related media assets in 2021, although how much has been out of this dedicated fund is unclear. The credit-heavy manager has unsurprisingly been active in providing credit and preferred equity financing to sports teams, contributing roughly $100 million of the San Diego Padres' $350 million senior debt facility, which closed in March, and around $150 million in preferred equity to help finance the acquisition of Inter Miami CF in September.

The value of sports, because of their ability to generate content, continues to strengthen. Whether it is a massive step-up in media rights for sports leagues or athletes capitalizing on their image in movies, shows, and on social media, value in this ecosystem is expanding rapidly, and dealmakers are interested. Illustrating this trend, LeBron James's SpringHill, an entertainment company co-founded by the NBA player, sold a stake valuing the company at around $725 million. A consortium including RedBird, Fenway Sports Group, and more purchased the stake in October. The company plans to use the funding to launch new shows and create content for Epic Games. With athletes becoming increasingly business savvy, more will attempt to build similar businesses, providing additional deal opportunities in the future.

Dealmaking on the music and media content side has also been fervent, with two of the largest buyout firms actively deploying billions into the space. Both KKR and Blackstone scooped up music rights in in 2021. BMG Rights Management and KKR announced that they had teamed up on a joint venture that sought to buy song catalogs from musicians in early 2021. Soon after, the group purchased a majority stake in the catalog of Ryan Tedder and OneRepublic. In October 2021, KKR stepped up its buying with a $1.1 billion acquisition of the music rights portfolio in Kobalt Capital's second fund. In January 2022, news broke that KKR and BMG also bought John Legend's song catalog. While financial terms have not yet been disclosed, this is a significant purchase of a living artist's catalog while he is in his prime, just 43 years old. Perhaps with PE firms valuing these assets so richly, other practicing artists may follow suit.

Also appreciating the value in these assets, Blackstone announced a partnership with advisory firm Hipgnosis in October to invest at least $1 billion acquiring music rights. Under the arrangement, Blackstone and Hipgnosis will create a new fund, and Blackstone will take an equity stake in the advisory firm. Blackstone also bought eOne Music, which owned Death Row's legacy catalog, in 2021 from Hasbro for $385 million in June. Oaktree, typically known for its credit investing prowess, also deployed capital into the space in 2021. The firm paid $375 million for a minority stake in Primary Wave Music—a royalties fund manager with songs from Whitney Houston, Bob Marley, and more—illustrating the fixed-income-like return profile of these investments.

Music rights have been in high demand recently because the monetization strategy for the industry has completely shifted following the boom in streaming services. In the old days, 90% of a song's income was generated in the first 24 months after release.[7] Now, with Spotify (NYSE: SPOT), Apple Music (NASDAQ: AAPL), Roblox (NYSE: RBLX), and more streaming music, not only are we consuming more music—the average American consumed 25 hours of music five years ago and that number has grown to 32 hours per week[8]—but older song catalogs have seen a revival. The drop off in value is no longer present, and underwriting many of the top-performing catalogs now closely resembles a long duration fixed-income product. The large corporates in the music industry have also taken note. Billions of dollars are likely to trade hands for top music rights as musicians and their families seek to monetize assets that were worth far less just a decade ago. In the last 18-months, Universal Music Group (AMS: UMG) paid nearly $400 million for Bob

7: "Business Breakdowns: Universal Music Group: The Gatekeepers of Music," Podcast, Arman Gokgol-Kline, October 27, 2021.
8: Ibid.

Dylan's song catalog; Sony Music Group (NYSE: SONY), with some financing from Eldridge Industries, bought Bruce Springsteen's masters for $500 million in the largest deal to date; and Shamrock Capital paid $300 million for the master recordings of Taylor Swift's first six albums. However, Shamrock's deal was completed against Swift's wishes, and her actions following it have been unprecedented. Swift is rerecording all her older albums by covering her own songs, which she can do as she owns the publishing rights. This means she is bypassing the original masters' owners and will collect more income per stream and have a higher degree of control over how the songs are used. Swift is the first major musician to follow through with an option while still in her prime that many other musicians have toyed with. Artists including Prince have made similar threats but have not followed through, while Def Leppard did rerecord some songs. Depending on which versions are more heavily streamed, this move could seriously diminish the value of the original masters and could set a precedent for rights deals surrounding still-practicing musicians.

Blackstone has also made several high-profile acquisitions in the media space in 2021. In August, Next Generation Media Company—Blackstone's newly formed media company backed by Kevin Meyer and Tom Staggs—announced a $900 million buyout of Reese Witherspoon-founded Hello Sunshine. The media content company, which has produced several hits, including The Morning Show and Big Little Lies, was founded just five years ago. Just a few months after the Hello Sunshine deal, Blackstone announced a nearly $4 billion deal to buy Moonbug Entertainment, a children's entertainment company. The company is just 3 years old but has a massive presence across multiple streaming platforms. Moonbug's content is particularly attractive for its "stickiness" (children watch the same programs repeatedly) as well as ancillary opportunities in music streaming, merchandising, and even live entertainment. This rapid expansion underpins Blackstone's growth thesis in content as the demand for top-quality content continues to balloon, with streaming services vying for the next big hit and fewer consumers watching traditional cable. The rising demand for content is one of Blackstone's company-wide investment themes, and the firm's massive investments in content studios throughout Hollywood echo this approach in the firm's real estate funds. Institutional capital is poised to continue flowing into the traditional music and entertainment space in 2022 and beyond.

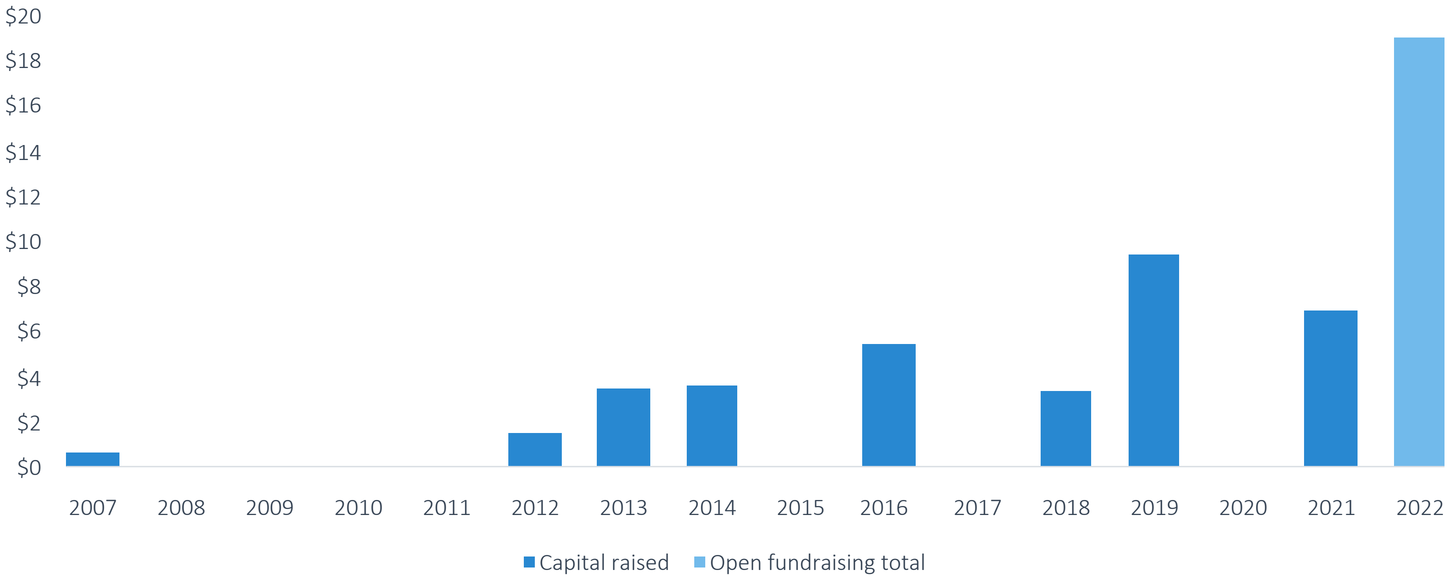
GP stakes

GP stakes deals, whereby investors purchase passive minority stakes in private capital managers, continued to flourish throughout 2021. Perhaps the most defining trend has been the fact that so many mid-sized firms have decided to sell stakes. For years, the industry was dominated by Dyal, Petershill, and Blackstone, and these firms seemed to solely partner with $10 billion+ AUM managers such as Silver Lake, Francisco Partners, or BC Partners. Now, though, the next generation of great managers is often choosing to sell stakes earlier in their firm's life cycle as they seek to launch new products, expand the GP's fund commitment, grow their geographic footprint, and more.

This is not to say that large deals are not happening. Dyal's deal to acquire an approximately $1.5 billion stake for roughly 10% in CVC Capital Partners in mid-2021 is perhaps the best example. CVC went on to purchase secondaries firm Glendower after the deal and is now reportedly ramping up to go public. Blackstone also closed at least one deal in a $10 billion+ AUM manager when its Strategic Capital Holdings unit purchased a minority stake in GTCR in July. This deal also seems to have spurred GTCR to expand, with the firm launching its first growth equity offering not long after the transaction. Outside this deal, Blackstone's investments in Great Hill Partners, Nautic Partners, and Sentinel Capital Partners, capped off by a $5.6 billion closing of its second GP stakes fund in November, exemplify how busy the firm was in 2021.

Despite this, it was Petershill that had the most transformational year. The GSAM subsidiary's fourth fund, seeking $4.0 billion and expected to close in early 2022, deployed at a healthy pace throughout the year. Petershill acquired stakes in Incline Equity Partners, Parthenon Capital Partners, Symphony Technology Group (STG), and several others during the year. However, the IPO of Petershill Partners PLC (LON: PHLL) was even bigger news. The listing, which combined Petershill's second and third funds, promises to provide liquidity for older LPs and a public market option for investors interested in the space. The public vehicle also promises to co-invest alongside Petershill IV and all future funds, giving these future funds more firepower and an eventual path to liquidity. While many questions remain around where this listing will trade longer-term, this exciting offering remains a differentiator. Time will tell if competitors attempt a similar strategy.

GP stakes capital raised ($B)



Source: PitchBook | **Geography**: US
*As of December 31, 2021

Outside the big three names, several firms in the middle market continued to make a name for themselves in 2021. Investcorp was an active acquirer. The firm purchased a stake in five firms during the year, although not all names have been publicly disclosed, as they work toward closing their first fund. Their deals range from real estate firm Artemis Real Estate Partners to credit investor Marblegate Asset Management. Bonaccord Capital Partners also made headlines on the year. The firm, alongside Hark Capital, was acquired by P10 (NYSE: PX) in late 2021. Bonaccord joins an organization with a set of unique offerings in-house, including NAV lending, a fund of funds, a credit shop, and more. The firm's first fund, Bonaccord Capital Partners I, closed in August, amassing approximately $740 million in the commingled vehicle with an additional roughly $500 million in co-investment commitments. Additionally, the firm announced multiple deals on the year, although several have yet to be publicly disclosed. Bonaccord took stakes in a pair of massive credit shops: Chicago-based Monroe Capital and London-based Park Square Capital, each of which are market-leading credit managers with $10 billion+ in AUM and offer a wide range of strategies.

Others in the middle market were also active. Hunter Point Capital, a relative newcomer to the space, made waves as its fundraising target of $2.5 billion is well above other relatively new middle-market competitors and the firm closed on its first two deals, investing in MidOcean Partners and Iron Park Capital Partners. Kudu and RidgeLake are two additional firms that were active on the year. Kudu bought a stake in Toronto-based lender Third Eye Capital, although the firm has been more active in the RIA and traditional asset management spaces in recent years, while RidgeLake co-invested in the Sentinel deal and bought a stake in Gauge Partners.

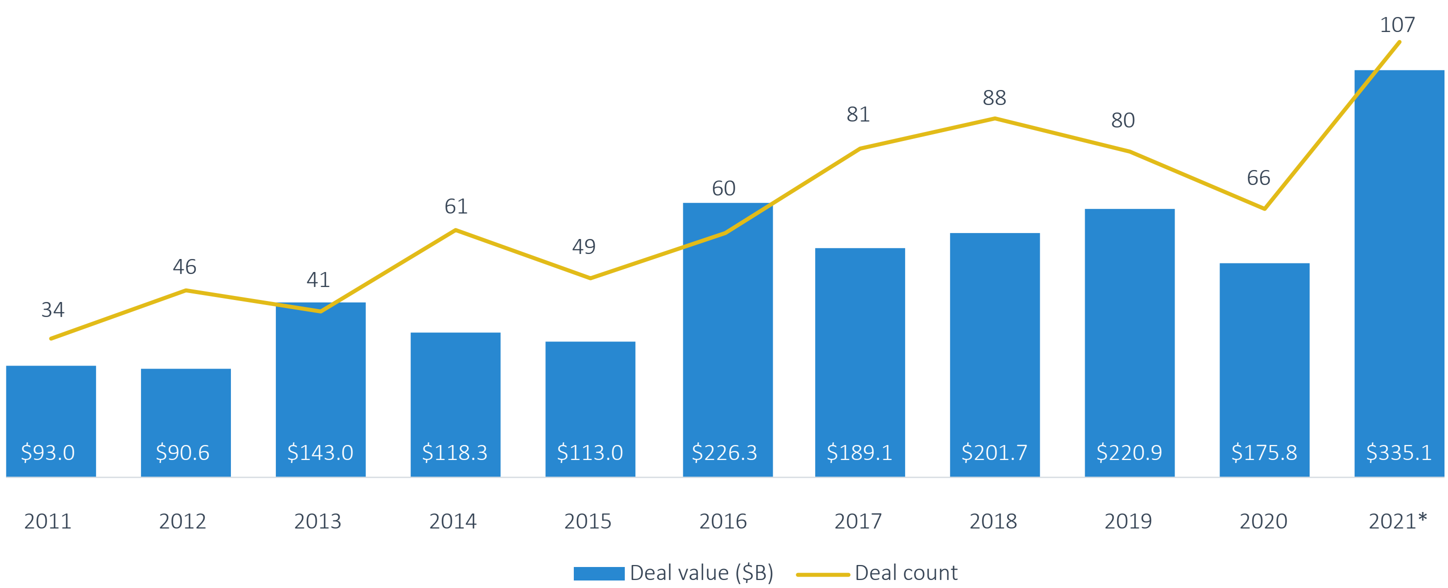
Overall, we remain bullish on the prospects for GP stakes deals going forward. This is one of our PE predictions going into 2022. There are well over 200 high-quality GPs that could sell a stake and $10 billion+ in capital vying for a stake in them. Partnership and value-add are now more important than ever. Each GP stakes firm continues to differentiate and build out its proprietary offerings. Because of the partnership aspect, many LPs have changed their tune and view these deals in a more positive light, or at least not negatively, as many had in the past. The math continues to be attractive for sellers as well. The expansionary capital allows enterprising GPs to expedite their expansion plans and take advantage of this terrific fundraising environment. The adage of owning a slightly smaller piece of a larger pie often holds true here. Additionally, Petershill's IPO proves out another path to liquidity for LPs, helping many feel more comfortable allocating to GP stakes funds.

Mega-deals and take-privates

Mega-deal activity marched steadily in 2021, ending the year with a record number of $1 billion+ deals and the greatest aggregate value of mega-deals since 2016. Low interest rates, high asset prices, a multitude of mega-funds, and record levels of dry power created a near perfect storm causing PE firms to pursue massive deals, with mega-deals accounting for 32% of all US PE deal value in 2021. While there have been no new deals matching the sheer magnitude of Medline's $34 billion acquisition by Blackstone, Carlyle, and Hellman & Friedman announced earlier this year, the quarter saw plenty of massive deals close as PE firms were emboldened to take advantage of the bullish market environment. Healthcare and IT made up a significant portion of mega-deal activity, but PE firms found opportunities across various industries. In November, Blackstone acquired the Chamberlain Group, a provider of smart access solutions for residential and commercial properties for $5 billion. The firm stated that the investment will allow the company to capitalize on connectivity megatrends and expand its software-based business deeper into commercial, industrial, and automotive markets. Similarly, Clearlake acquired Lydall in a $1.3 billion take-private deal in October as an add-on for its portfolio company Unifrax, a provider of specialty materials focused in high-temperature industrial, automotive, and fire protection applications. Lydall, which designs and produces specialty filtration materials, is well positioned through the platform to scale and capitalize on growth in clean air filtration and electric vehicle battery systems.

PE firms searched the public market for opportunities as well, with several large take-private deals closing in Q4 and more announced to be completed in 2022. Cheap debt and ample dry powder stoked fierce competition for deals, with strong demand and high valuations leading PE firms to pay up for take-private deals. IT and healthcare were prevalent sectors for take-privates, with a consortium led by Nordic Capital and Insight Partners acquiring health data company Inovalon for $7.3 billion serving as an example. Notably, Thoma Bravo closed on its take-privates of Medallia and QAD in the fourth quarter, spending $8.4 billion for the pair. Additional gigantic take-privates are on the horizon, with a group led by Advent International and Permira announcing it will take McAfee (NASDAQ: MCFE) private in a deal that pegs the cybersecurity company's EV at $14.0 billion. The announcement comes just one year after the company's IPO and will

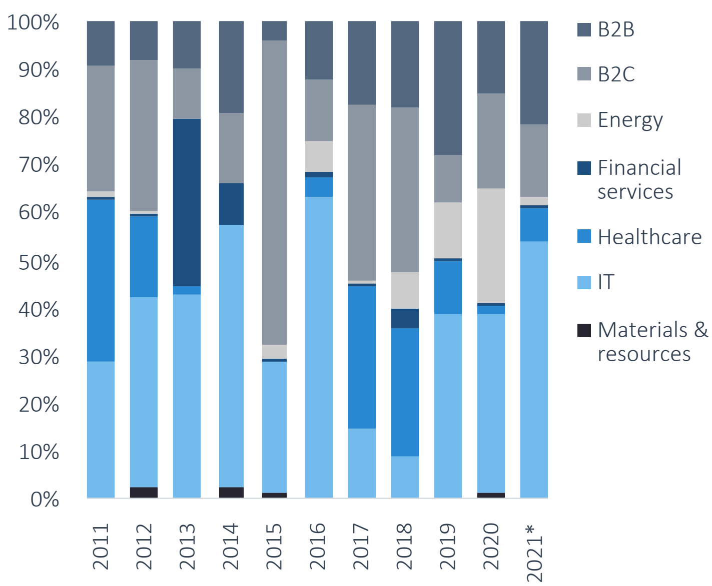
PE mega-deal activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

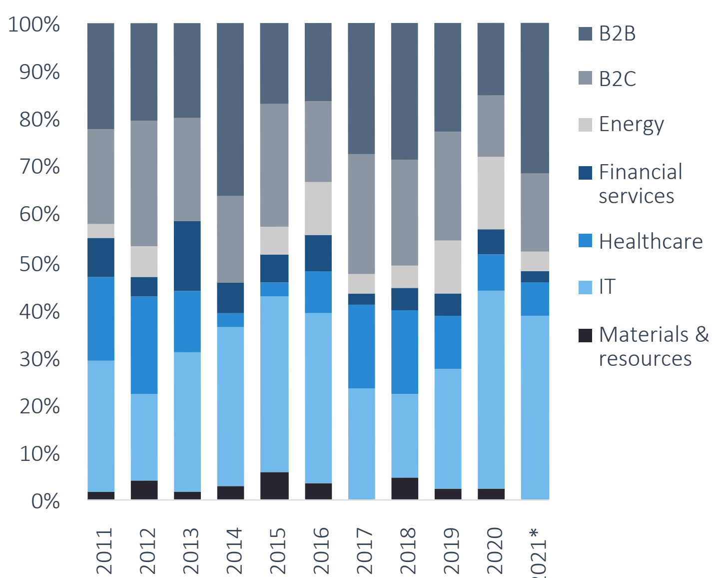
be one of the largest cybersecurity acquisitions ever as the company leads in capturing the rapidly growing demand for digital protection services and seeks to expand its consumer offerings. With a record-breaking number of mega-funds currently in market or expected to launch in early 2022, mega-deal and take-private activity is only slated to rise in the coming years.

Share of take-private deal value by sector



Source: PitchBook | **Geography:** US
*As of December 31, 2021

Share of take-private deal count by sector



Source: PitchBook | **Geography:** US
*As of December 31, 2021

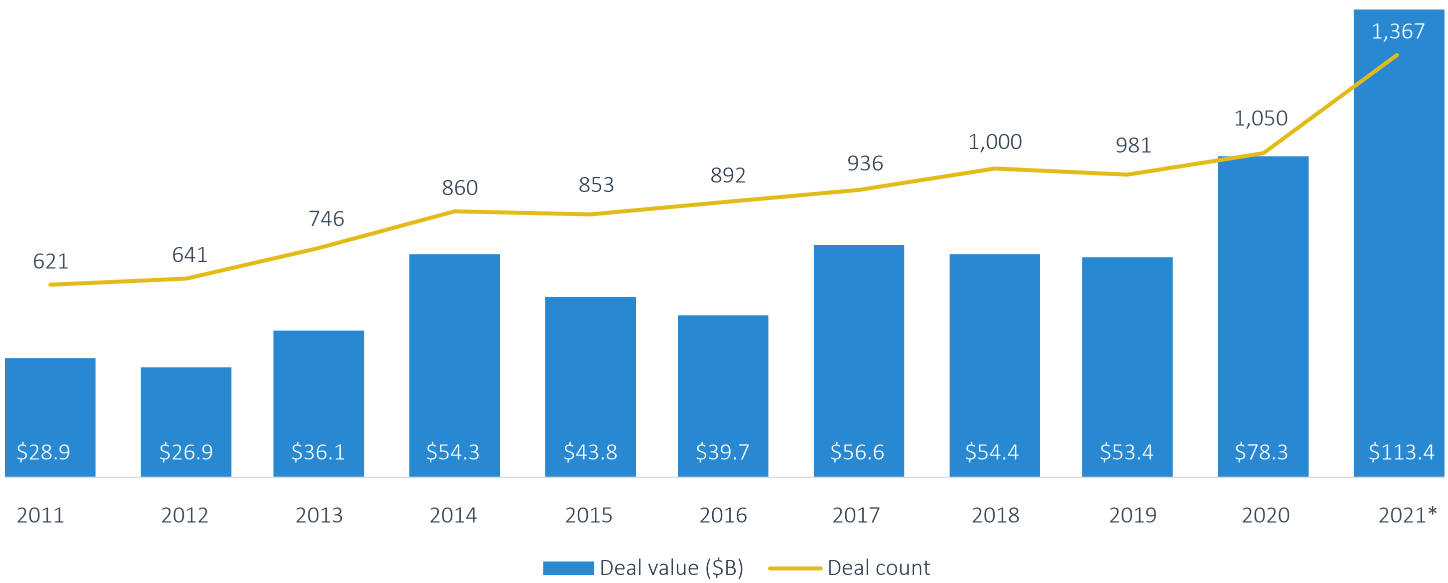
Growth equity

The growth equity dealmaking landscape continued to evolve in 2021 as the number of deals dramatically expanded. As in other areas of the market, several factors converged during the year, and the old records were crushed. Companies are remaining private longer and the hundreds of unicorns—privately held companies valued at $1 billion+—represent an entirely new investable asset class that was nascent just a decade ago. Venture mega-rounds ($100 million+) have similarly seen a parabolic rise. Occasionally, mega-rounds are funded solely by one growth equity firm. This was the case with TA Associates' $130.0 million growth investment in e-commerce tracking platform Slackline in July. More PE firms are moving into this space as the holding time and risk/reward tradeoff of the deals more closely align with traditional private equity underwriting than venture. For this reason, more growth investors will continue participating in mega venture rounds.

PE firms are also participating in smaller rounds as well, including massive growth investor Warburg Pincus. The firm led a $20.0 million round investing in insurance-focused cloud software company BriteCore in 2021. These types of investments require Warburg and other growth investors to act like venture investors to some extent, such as participating in follow-on rounds. The firm led a $47.5 million round into BriteCore back in 2019 as well. Growth capital, however, is flexible. Warburg also completes buyouts out of the same global growth funds and always approaches investments from a growth mindset. The rise of growth equity promises to elevate more firms capable of participating in late-stage venture rounds as well as taking down high growth companies in buyouts.

Another driving factor behind the rise of growth investing is the PE industry's tilt toward investing in more high-growth sectors of the economy, including technology and healthcare. Thoma Bravo, the largest software specialist, had often participated in venture rounds and is now raising a specific growth equity fund. Other factors, including fueling the growth of new consumer brands or ESG-related companies, promise to offer even more opportunities. An example here is fast-growing plant-based product retailer Buff City Soap, which needed additional growth capital after Guideboat Capital and Crux Capital's control transaction in 2019. The investors brought in General Atlantic to accelerate store openings, e-commerce growth, and product expansion.

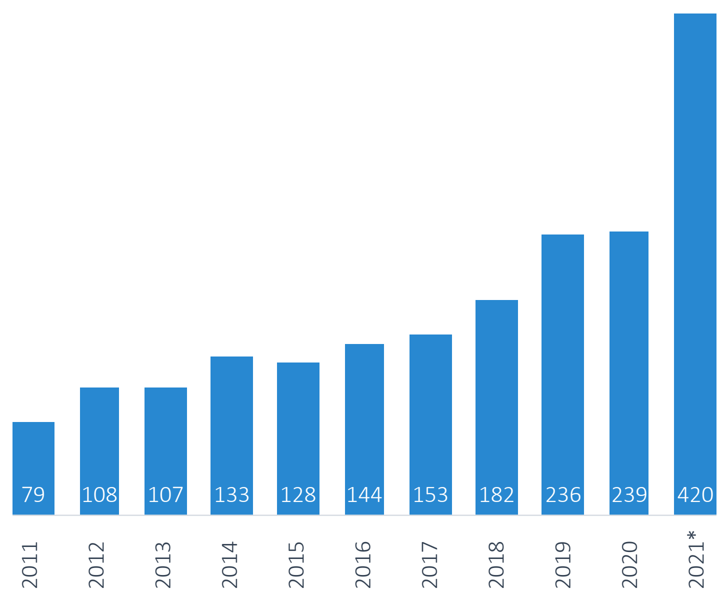
Growth equity deal activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

Growth rounds have also changed in other ways. Some companies bring in growth investors to raise venture-like minority capital while also bringing in PE discipline and value-creation techniques. This often leads to an increase in add-ons if inorganic growth is a better use of funds. An example is payments processor and analytics company Financial Information Technologies, which took growth capital from TA Associates and Luminate Capital Partners in 2018. In the press release, Financial Information Technologies president Tad Phelps discussed bringing in the investors because of their ability to help "accelerate organic growth and complete strategic acquisitions."[9] The company has built out its data management and analytics abilities in subsequent acquisitions, completing four add-on deals since the growth round, including two in 2021. Growth equity activity will continue to ascend as the addressable market and number of use cases for the capital expands concurrently. Additionally, the largest firms in the space are awash with capital after the explosion of growth equity fundraising in 2021 and heading into 2022.

Select investors' combined deal count



Source: PitchBook | **Geography**: US
*As of December 31, 2021
Note: Investors include Warburg Pincus, TA Associates, Insight Partners, Summit Partners, and General Atlantic.

9: "Financial Information Technologies Announces Strategic Investment from TA Associates," TA Associates, August 20, 2018.

ESG and impact

After a slew of high-profile asset managers, including BlackRock[10] (NYSE: BLK) and KKR, made more aggressive commitments to investing sustainably in 2020 and 2021, ESG principles and impact investing have become even more relevant in the investment world this year.[11] Accompanying the surge of media coverage dedicated to how asset managers are making good on their ESG and impact promises, several key trends have arisen: the conflation of ESG and impact, demand for and scarcity of expertise, greenwashing claims, and the need for an agreed-upon ESG reporting standard. In service of discussing the first, here is a brief refresher on the differences between ESG and impact: ESG refers to the environmental, social, and governance factors that influence operational risk and value for a company and are focused on internal or inward-facing effects. Impact investing focuses on the external effects of a company's operations, products, or services. Every company experiences some degree of ESG risk exposure and value-creation opportunity; not every company can be characterized as having sufficient positive impact to qualify as a potential impact investment.[12]

The conflation of ESG and impact has been occurring since the inception of the terms and plagues even the most well-regarded institutions.[13] Although it may appear pedantic, distinguishing between the two is important to ensure asset managers and those seeking funding are on the same page about company operations and product or service impacts. Similarly, the conflation of the two has created confusion for those seeking to attract ESG-oriented investors and for companies looking to qualify as impact funds. This has grown more problematic as the numbers of both the former and the latter have increased, with 675 funds representing $200.0 billion in commitments targeting impact actively investing in private market strategies coming into 2021. Similarly, PitchBook's 2021 Sustainable Investment Survey found that 57% of LP respondents assess the ESG risk factor framework of GPs during due diligence, with an additional 24% planning to do so in the future.

Heightened interest in ESG and impact has led to elevated demand for expertise that is in short supply. Asset managers and companies are searching for answers on how to "do ESG," establish the legitimacy of

Which sustainability-related groups or programs do you belong to, endorse, or participate in?

GP

- 35% UN Sustainable Development Goals (SDGs)
- 34% Principles for Responsible Investment (PRI)
- 31% None

LP

- 38% None
- 21% UN Sustainable Development Goals (SDGs)
- 17% Principles for Responsible Investment (PRI)

Both

- 37% UN Sustainable Development Goals (SDGs)
- 35% Principles for Responsible Investment (PRI)
- 27% Global Impact Investing Network (GIIN)

Other

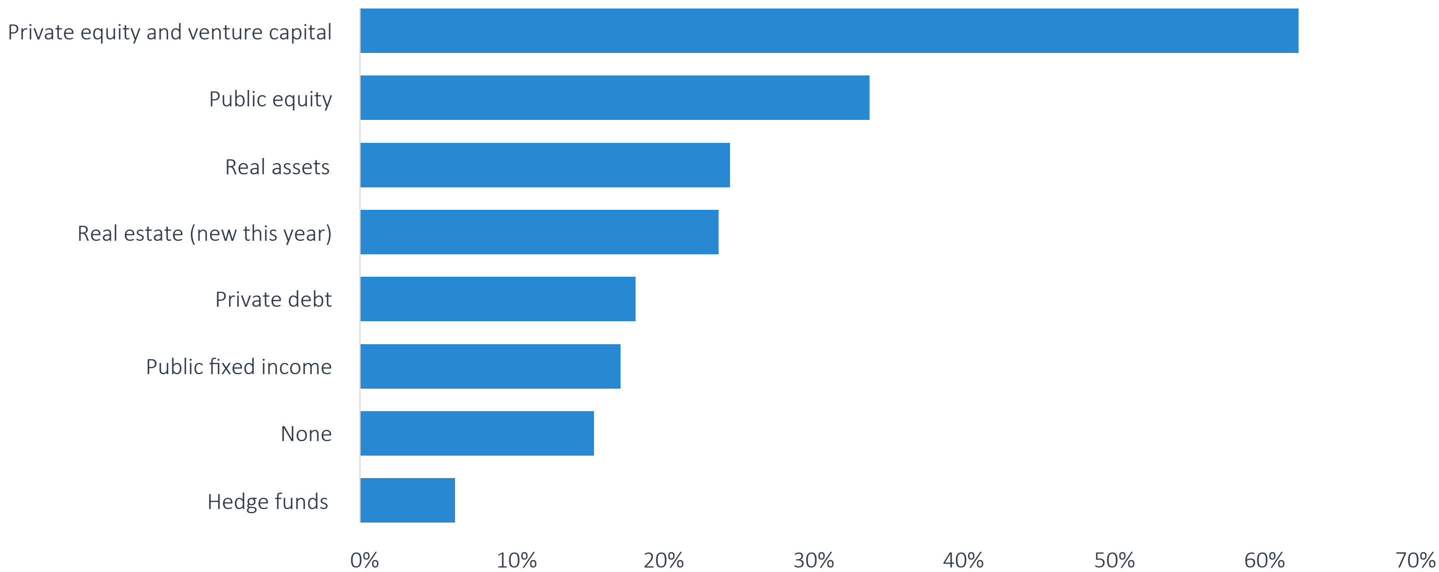
- 36% UN Sustainable Development Goals (SDGs)
- 32% None
- 22% Global Impact Investing Network (GIIN)

Source: PitchBook 2021 Sustainable Investment Report | **Geography:** Global | **Respondents:** All

Note: Respondents could self-identify as LPs, GPs, Both, and Other. "Both" represents LPs who also have LPs (in other words, funds of funds). "Other" represents respondents from areas not covered by the GP or LP umbrella, such as registered investment advisors (RIAs), industry associations, advisors, consultants, family offices, and startups.

10: "Sustainability as BlackRock's New Standard for Investing," Blackrock's 2020 Letter to Clients, 2020.
11: "Net Zero Asset Managers Initiative," Net Zero Asset Managers, December 2020.
12: For more on the differences between ESG and impact, refer to our analyst note, ESG and the Private Markets.
13: "BlackRock Renames 'Impact' Funds to 'ESG' Following Criticism," Responsible Investor, Vibeka Mair, April 17, 2020.

In what parts of your total portfolio do you focus your sustainable investment efforts?



Source: PitchBook 2021 Sustainable Investment Report | **Geography:** Global | **Respondents:** LPs
Note: Respondents could self-identify as LPs, GPs, Both, and Other. "Both" represents LPs who also have LPs (in other words, funds of funds). "Other" represents respondents from areas not covered by the GP or LP umbrella, such as registered investment advisors (RIAs),

their ESG implementation, and qualify as impact funds. Companies and asset managers are finding expertise in the use of ESG and impact consultants, frameworks such as the Sustainability Accounting Standards Board (SASB) and the Global Reporting Initiative (GRI), and by signing on to the United Nations Principles for Responsible Investment and committing to the United Nations Sustainable Development Goals. GP and LP respondents to the 2021 Sustainable Investment Survey not participating in any sustainability-related groups or programs were in the minority, with 31% of GPs and 38% of LPs falling into this category. Bloomberg recently noted that US PE firms are paying up to seven-figure salaries for ESG specialists.[14] With many companies looking to manage ESG and Impact programs internally and insufficient talent to meet demand for in-house hires, investors are increasingly turning to self-education and online programs and certifications such as the CFA Institute Certificate in ESG Investing.

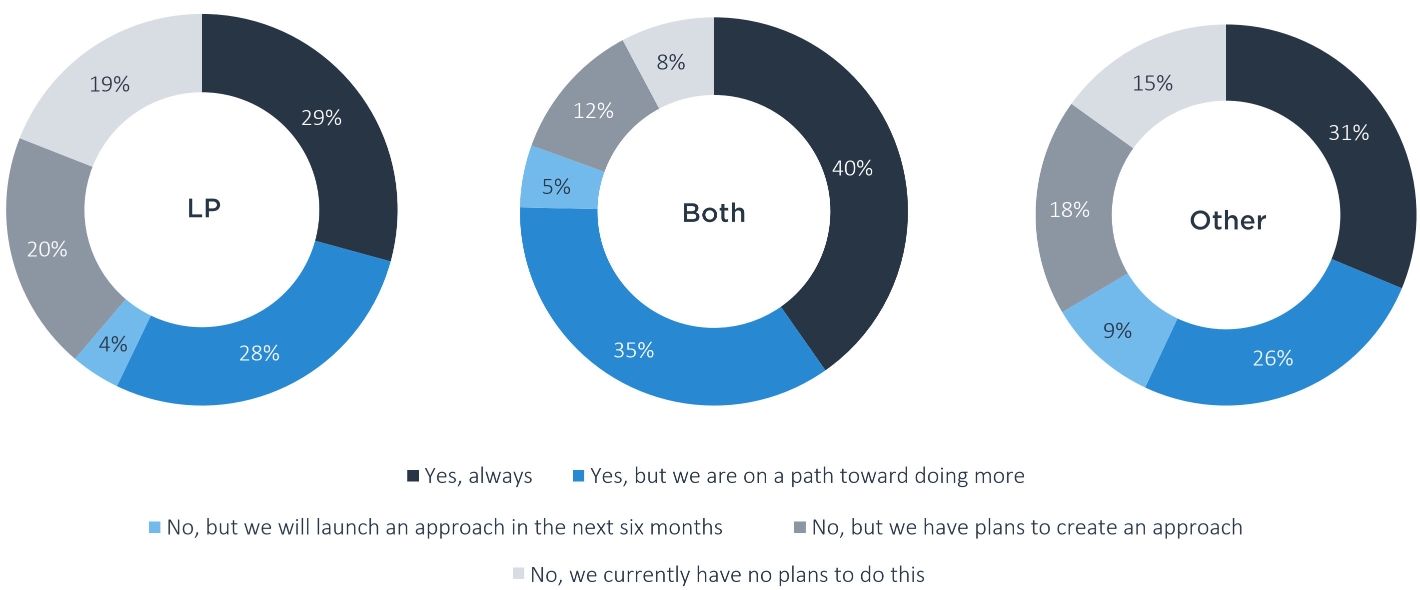
Even those entities with the greatest access to ESG and impact expertise have been forced to confront claims of greenwashing. For example, Blackstone, KKR, and Carlyle experienced negative publicity this year due to sizable investments in oil, gas, and coal, which were perceived as contradictory to the values purported by their sustainable investment policies.[15] However, these investments are typically made in energy-focused funds that tend to invest heavily in these spaces. In some ways, US firms experience a greater likelihood of being accused of greenwashing than their EU counterparts, as do PE firms with their VC counterparts. The first is partially due to less regulation of sustainability claims for US firms, a gap that the SEC has signaled it aims to address in 2022.[16] The second can be attributed to higher ESG policy, procedure, and performance expectations for later-stage PE-backed companies compared to nascent VC-backed entities, which may lack the need or resources for the same caliber of program. Furthermore, greenwashing accusations are sometimes more the result of misaligned intentions and expectations than a calculated effort to mislead investors. Philosophies on how ESG and impact can and should be implemented differ greatly. Some investors believe that being ESG-friendly means only investing in companies that have already established strong ESG performance. Others believe that investing in companies with poor records and working with the company to improve them, or even investing in companies in ethically questionable industries (such as oil, gas, and coal) but improving aspects of ESG performance, still create sufficient positive outcomes to justify branding as ESG-oriented.

14: "Private Equity Propels Top ESG Hires Into 7-Digit Pay League," Bloomberg News, William Patrick Geor Louch and Alastair Marsh, November 24, 2021.
15: "Private Equity Funds, Sensing Profit in Tumult, Are Propping Up Oil," The New York Times, Hiroko Tabuchi, October 13, 2021.
16: "SEC Announces Enforcement Task Force Focused on Climate and ESG Issues," SEC, March 4, 2021.

This discrepancy in expectations also brings up the need for an agreed-upon reporting standard. As it currently stands, several LPs may request varying sets of metrics from a GP on their portfolio companies, which can create an arduous data collection and reporting process for the GP. Conversely, without explicit guidance, GPs may not report relevant figures or comparable metrics to a single LP, who must make sense of the provided data. For example, if one portfolio company provides only total recordable incident rate (TRIR) and another provides only lost-time incident rate (LTIR), portfolio-level comparisons of employee health and safety performance may be incoherent. In the end, both parties may feel frustration due to inefficiency and information gaps, so many investors are in search of solutions. One example is the ESG Data Convergence Project, which aims to standardize a set of ESG metrics and mechanisms for comparative reporting. The goal is better tracking and benchmarking of portfolio companies through six metrics: greenhouse gas emissions, renewable energy percentage, board diversity, work-related injuries, new hires, and employee engagement.[17] Furthermore, the ESG Data Convergence Project understands that these six metrics cannot comprehensively capture all relevant ESG performance and plans to expand the metric set over time. Somewhat relatedly, several institutions, including the Ford Foundation, Hamilton Lane (NASDAQ: HLNE), S&P Global (NYSE: SPGI), and more, are attempting to form a centralized ESG reporting platform for investors to share, store, and analyze ESG data. Although it is too early to know how these efforts will play out, the industry badly needs centralized standards and platforms to hold companies and investors accountable and capture progress resulting from increased investment in ESG efforts.

Globally, European PE firms and LPs maintain an edge in their ESG adoption over their US-based counterparts. EU-based firms often have been implementing ESG into their due diligence practices for longer, with action items from those assessments typically factoring into their value-creation plans as well. CVC, an adopter of the ESG Data Convergence Project, is a leader in factoring ESG factors into both due diligence and value-creation plans. CVC looks to improve on ESG factors to boost market share and deal multiples. The firm's investment in Polish convenience store operator Żabka provides a case study in this process. Żabka worked to source healthier and more sustainable ingredients, use fewer non-recycled plastics, replace old refrigerants, and launch a program to reach net zero by 2050. These changes led to increased satisfaction among customers, employees, and franchisees. Revenues grew by 20%

When evaluating GPs, do you assess their ESG risk factor framework during due diligence?



Source: PitchBook 2021 Sustainable Investment Report | **Geography:** Global | **Respondents:** LPs, Both, Other

Note: Respondents could self-identify as LPs, GPs, Both, and Other. "Both" represents LPs who also have LPs (in other words, funds of funds). "Other" represents respondents from areas not covered by the GP or LP umbrella, such as registered investment advisors (RIAs), industry associations, advisors, consultants, family offices, and startups.

17: "How Private Equity Can Converge on ESG Data," BCG, Lorenna Buck et al., October 21, 2021.

annually from 2017 to 2020, and gross margins rose 3.9 percentage points, all in a slow-moving industry.[18] Studies show that customers across the globe are demanding more leadership around ESG factors from the companies from which they purchase, and employees are substantially more engaged and satisfied when they have a sense of mission. All of this leads to bottom-line improvements, whether they are derived from cost savings, growing market share, or increased productivity. The confluence of societal pressures and positive business outcomes ensures some combination of ESG factors will be a part of all PE value creation playbooks in the coming years.

The groundswell pushing ESG and impact deeper in the private investment landscape is expected to continue. Even if firms do not buy into the value-creation effects, regulators and LPs around the world are moving forward. At the Glasgow Climate Summit in November,[19] more than 140 countries announced pledges to reach net zero by 2050. Pension and endowments are also targeting more green investments to satisfy stakeholders. The California State Teachers' Retirement System (CalSTRS) announced it will deploy $1 billion to $2 billion annually in sustainably focused investments in private markets, and many others are following suit.[20] As the space matures, we expect to see a greater number of voices differentiating between ESG and impact. It is also likely that the European Union's three regulations on sustainability disclosure—the EU Taxonomy, the Sustainable Finance Disclosure Regulation, and the Non-Financial Reporting Directive—will influence US sustainable finance terminology and disclosure, due in part to US asset managers accepting commitments from EU LPs and making investments into EU-based companies, necessitating compliance. Despite further guidance from the EU and attention from US-based regulators, the third trend is likely to persist. Even if the US market reaches consensus on a particular framework for evaluating ESG performance or impact, definitive resolution of philosophical differences surrounding ESG and impact implementation is unlikely, which may be for the best. A distribution of investors on the ESG intensity spectrum is more likely to permit continued ESG advancement in less ESG-friendly areas that will remain for years to come, such as improvements to labor conditions in oil, coal, and gas, while simultaneously pushing for optimal and holistic ESG performance in industries more capable of being considered environmentally and socially responsible. By refraining from excluding certain industries from all sustainable investment, PE can move toward an investing landscape where all possible ESG improvements are being made at existing companies.

18: "The Expanding Case for ESG in Private Equity," Bain & Company, Axel Seemann et al., March 1, 2021.
19: "This Was the Year Investors and Businesses Put Big Bets on Climate," Wall Street Journal, Amy Myers Jaffe, December 13, 2021.
20: "CalSTRS Aims for New $2 Billion Sustainable Portfolio," Chief Investment Officer, Randy Diamond, February 24, 2021.

PitchBook

Sponsored by bakertilly

Q&A: Baker Tilly

Looking back at 2021, what are the main lessons learned from this last year across the PE landscape?

Certainly 2021 was another interesting and challenging year in the PE space. Numerous dynamics changed over the course of the year. In some respects, the PE landscape that we saw in January, February, and March looks nothing like the current landscape.

Nine months ago, speed was a differentiator on the buyer side. Now, dealmaking cannot necessarily move that fast since everybody is backed up with the high volume of deal flow. That's not just on the accounting and finance side. We also see this trend with attorneys, environmental engineers, and all the professionals involved, as well as the Department of Justice (DOJ) in cases where you have to file a Hart-Scott-Rodino.

We're also seeing companies utilize backup plans more than they did in the past. Companies are trying to predict the next unforeseeable event. More than ever, companies are trying to be ready for anything.

Additionally, investors are being more thorough and broader in what they are looking for from their diligence teams. We're seeing more investors expressing that they want to see everything now. In addition to a company's quality of earnings report and the tax due diligence, they want to see IT, HR, commercial, and operational due diligence.

Finally, while analytics have always been a big part of due diligence, we're seeing operational risk becoming more and more important. A company claiming that they have a customer concentration simply isn't sufficient anymore. That's just too thin. It's not a thorough analysis of the risk profile of the business. Buyers don't just want to see the earnings. They also are interested in the free cash flow and the risk profile, because that will indicate how sustainable those earnings will be. That's the kind of ask that we are receiving more frequently now.

What are your thoughts on innovative tech or information that you believe helps PE firms and/or service providers gain an edge in the marketplace—for example, the growing search for the most valuable alternative data that could help inform new insights?

Bill Chapman, CPA, CFA

Partner, Transaction Advisory Services Practice Leader

william.chapman@bakertilly.com

Bill and his team offer full-service quality of earnings studies as well as tax, information technology, human resources, commercial, and operational due diligence for middle-market businesses, private equity firms, and debt funds. As a seasoned professional with extensive experience, Bill has led numerous due-diligence engagements in a wide variety of industries (both domestically and internationally).

Brian Francese, CPA

Partner, Private Equity Practice Leader

brian.francese@bakertilly.com

Brian takes pride in helping drive fund and portfolio company growth, leveraging his experiences along with the advisory, tax, and assurance services Baker Tilly has to offer. Brian's clients have come to rely on his guidance and recommendations as they assess business and accounting issues experienced throughout the PE transaction lifecycle.

We've seen companies' free cash flow becoming an increasingly important measure during the deals process. In a lot of cases, simply looking at EBITDA as a pricing metric just doesn't cut it anymore.

A story can always be told to make numbers sing and dance, but you really can't fool cash. We've seen EBITDA metrics skyrocket and free cash flows plunge 45 degrees into the dirt within the same company. But in a situation like that, you've got to find out what's really going on. PE funds are looking a little more closely into economic earnings, and they're walking away from deals that aren't generating the level of free cash flow that they initially expected.

Time is the biggest enemy of a deal closing. So, when PE investors speak with management about their cash flow forecast, how quickly management can answer those questions with supporting data that they're comfortable with—assumptions that can be validated by the quality of earnings or independent third-party data—is becoming more important. This is especially true as PE firms' diligence procedures are looking more closely than ever at data and expecting management to explain the reasons for ebbs and flows in the historical cash flows and the financial model. It's more critical than ever.

Given that high multiples imply substantial growth needs, how are PE firms going about post-close implementation of new strategies for value creation?

To begin, it is important to note that in this case, we're talking about high growth of economic earnings, not high growth of revenues.

With this in mind (and this of course is nothing new), PE funds are taking advantage of their operational partners to build on any existing synergies. If a company's workflow is in a tangle, so to speak, their PE firm can offer the assistance of industrial engineers from their staff to help untangle the business. Perhaps they have existing professionals who can help with inventory management, or purchasing, or bookkeeping. In some cases, building on those synergies is enough to squeeze another half-percent out of their free cash flow.

Due diligence—specifically operational due diligence—can help identify those synergies ahead of time. As we tell our clients, the due-diligence process (or, in our case, the quality of earnings) not only helps validate an investment thesis, but it helps provide critical data to prepare a post-transaction plan.

That's a value strategy that PE investors are using to get that edge. Specifically, they are starting to use statistics and analytics to look for synergies and more efficient ways to spend their money. We expect these trends to continue in a major way in 2022.

What are the most surprising developments when it comes to the exit environment that occurred in 2021, and how do you foresee them evolving in 2022?

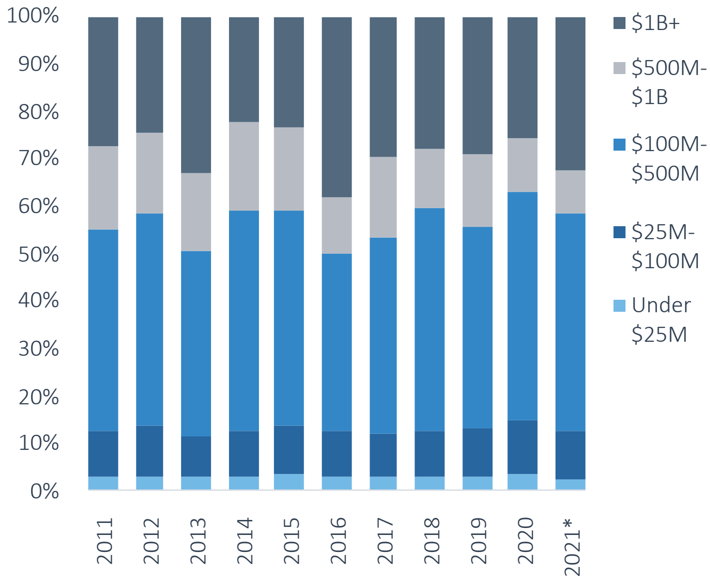
The sheer volume of deals that came to market accelerated in 2021. If you expected it to slow down after the election, like many of us did, you couldn't have been more wrong. We are seeing continued activity now, not so much for fear of higher taxes as we go into 2022, but because in addition to a lot of money still chasing deals, business owners are concerned about the potential of another unforeseen major event.

Bankers are still asking us to do sell-sides right now. Not because they want to try taking a company to market before year-end 2021, but because they're going to take it out in the first quarter of 2022.

Additionally, exits in the public space just "hockey sticked" this year. Considering the requirements to go public and do an audit process, that was an eye-opening experience for a lot of finance teams within the companies themselves.

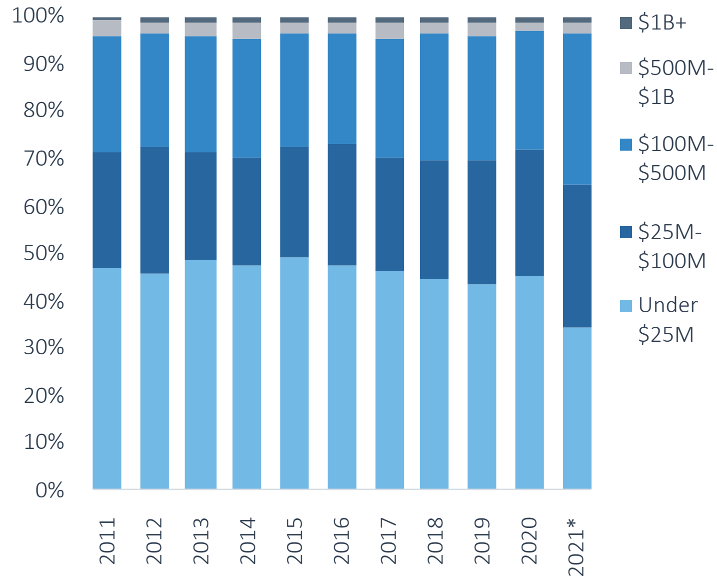
Deals by size and sector

Share of PE deal value by size



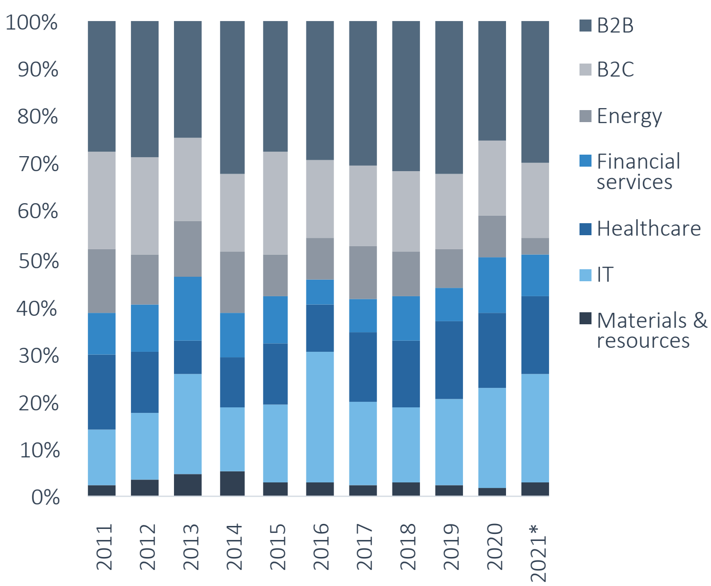
Source: PitchBook | **Geography:** US
*As of December 31, 2021

Share of PE deal count by size



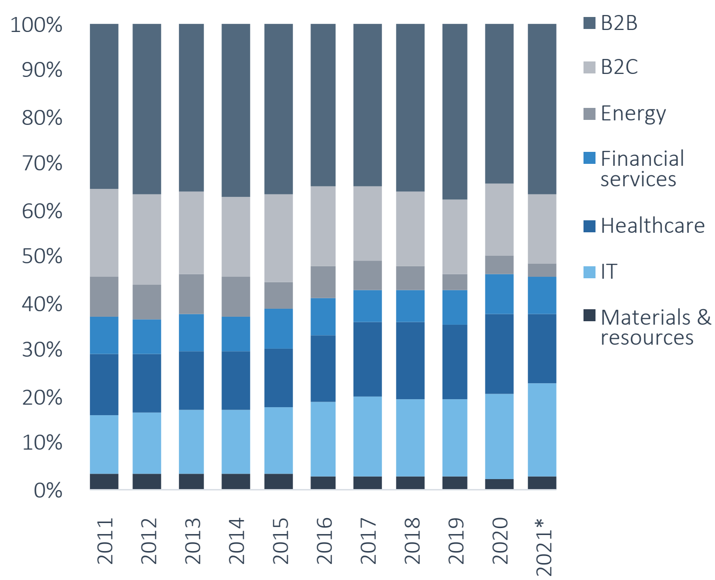
Source: PitchBook | **Geography:** US
*As of December 31, 2021

Share of PE deal value by sector



Source: PitchBook | **Geography:** US
*As of December 31, 2021

Share of PE deal count by sector



Source: PitchBook | **Geography:** US
*As of December 31, 2021

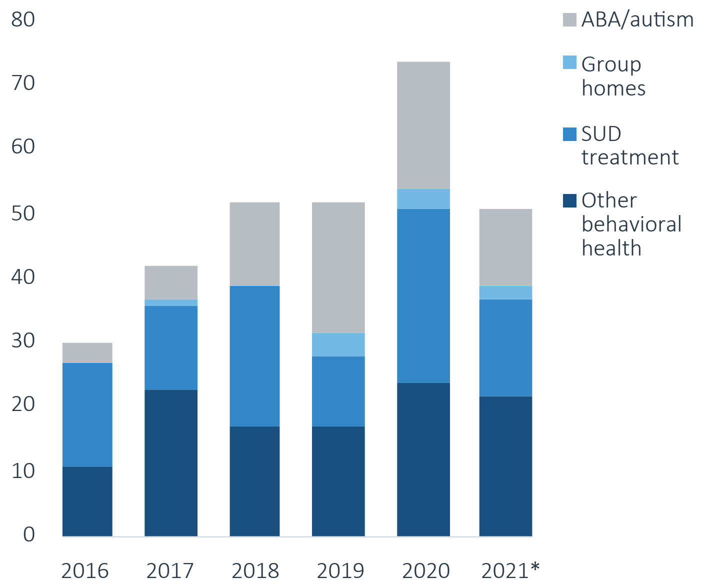
Spotlight: Behavioral health

Note: This spotlight is excerpted from our Analyst Note: Established Private Equity Healthcare Provider Plays. Please see the full note for additional analysis of PE investment in behavioral health as well as dentistry, dermatology, and vision.

PE interest in behavioral health providers has been driven by compelling patient behavior and reimbursement tailwinds that present a long runway for future development in the space. In recent years, Americans' awareness of and interest in treating behavioral health issues has risen dramatically. Additionally, the medical field has moved toward a more holistic approach to patient care, including treatment of behavioral comorbidities alongside physical ailments. As a result, demand for behavioral healthcare providers has outstripped supply, especially in rural areas and underserved communities. The COVID-19 pandemic only increased this unmet demand as many struggled to cope with lockdowns, social isolation, and economic instability. In 2020, rates of alcoholism, substance use relapses, and anxiety and depression grew faster than historical trends.

In addition to these favorable supply-demand dynamics, the behavioral health industry has seen a steady and at times dramatic increase in reimbursement coverage and rates, driven both by legislative mandates at the federal and state level and by payers' growing realization that effective behavioral healthcare can improve the overall health of their patient populations. The pandemic also initiated regulatory and payer movements toward reimbursement parity for telehealth, which can be an effective care delivery mechanism for many behavioral health patients. The combination of unmet, growing demand and increasingly favorable economic models makes behavioral health unique among the specialties profiled in this report. No other major healthcare provider space has seen such explosive growth in the past five or so years. Whereas the healthcare services space typically sees multiples of 6x to 8x for a business between $1 million and $10 million in EBITDA and of 10x and 14x (depending on the specialty) for $10 million to $50 million, anecdotal reports suggest that even very small behavioral health providers are trading at no less than 10x EBITDA, with multiples for larger platforms reaching well into the twenties.[21]

Behavioral health PE buyout count by subsegment



Source: PitchBook | **Geography**: US
*As of October 31, 2021

De novo growth in provider shortage subsegments

In several behavioral health subsegments, a severe shortage of providers in relation to both patient demand and PE buyer interest has driven multiples sky-high and made purely inorganic growth strategies infeasible. Eating disorder treatment is one example of a vertical that lends itself to de novo growth plays. An estimated 30 million people in the US will suffer from an eating disorder in their lifetime, but residential treatment options are limited, with many facilities running wait lists for admission. Several states, such as Iowa and Nebraska, do not have a single residential eating disorder treatment provider. For this reason, Levine Leichtman Capital Partners' Monte Nido & Affiliates put in place a real estate and development team that allows the platform to open around four to five de novo residential treatment centers per year. The platform has at times entered a new state through M&A, then pursued de novo openings in the same state to build market density, ultimately securing more favorable provider contracts. Additionally, unlike most

21: "Behavioral Health M&A Trends," Expert Webcast, Jeremy Levy, Dana Jacoby, Dexter Braff, and Alex Kasdan, October 28, 2021.

Key regulatory developments in behavioral health reimbursement

1996	Mental Health Parity Act (MHPA)	Required large group health plans to reimburse behavioral health services at parity with other medical services, if they offer them
2008	Mental Health Parity and Addiction Equity Act (MHPAEA)	Extended MHPA to include treatment of SUDs for large group health plans, if they offer them
2010	Affordable Care Act (ACA)	Extended MHPAEA to small group, individual, and Medicaid expansion plans and required these plans to cover mental health and SUD treatment as an essential health benefit
2020	Coronavirus Aid, Relief, and Economic Stability Act (CARES Act)	Required CMS to reimburse telehealth services at the same level as equivalent in-person services
2021	Consolidated Appropriations Act of 2021	Ratcheted up enforcement of MHPAEA by requiring plans to conduct comparative analysis proving compliance

Source: Centers for Medicare & Medicaid Services, US Department of Health and Human Services, US Department of the Treasury, US Congress | **Geography:** US

PE-backed healthcare providers, Monte Nido prefers to own, rather than lease, its real estate, which provides greater flexibility to expand existing facilities.

Some applied behavioral analysis (ABA) platforms, which provide treatment for autism spectrum disorders, have also seen significant de novo growth. Unlike residential eating disorder treatment, the number of ABA providers (not just PE-backed) is growing due to favorable reimbursement rates and margins, and the relatively low barriers to entry for becoming an ABA provider compared with becoming a physician. However, demand for ABA treatment still outpaces the supply of providers, and the sudden rush of PE firms looking to enter the space has driven up purchase multiples for both platforms and add-ons, reducing multiple arbitrage opportunities. As a result, firms are pursuing de novo growth strategies wherever possible. For instance, Acorn Health, an ABA platform which Ontario Teachers' Pension Plan bought from MBF Healthcare Partners in August, announced the opening of six new de novo clinics for H2 2021 in states where it already has a presence and is currently seeking additional therapists and technicians for further expansion. This is compared with just one small acquisition in the same period. Although opening a new clinic does not provide the near-instantaneous EBITDA growth of an acquisition—simply bringing a new location onto an existing payer contract can take one to two years—it often provides a superior return on investment over a multiyear period and facilitates consistency in branding and back-office operations.

Current outlook

Although ABA platform buyouts have slowed somewhat, this is more a function of the scarcity of platform-scale groups in the market than of a slowdown in PE interest in the space. Given the extreme seller's market, many of the ABA platforms created in 2016 through 2018 will likely look to exit in the next one to two years, but anecdotal reports about the number of buyers in the space suggest this is unlikely to ease the upward pressure on multiples by much, if at all.

In mental health, an explosion of platform activity since 2020 foretells accelerated consolidation in the years to come. Additionally, given compelling demand trends and the potential to leverage telehealth technologies, some outpatient mental health platforms may be well suited to exits to strategic buyers and public listings. LifeStance Health (NASDAQ: LSFT), which Summit Partners and Silversmith Capital Partners took public in June 2021, is an informative precedent. It is not unlikely that we will see additional mental health platforms undertake terminal exits after only one turn in PE ownership. By contrast, substance use disorder treatment, the oldest behavioral health segment, should see another wave of PE investment start as platforms that last transacted in 2015 through 2018 return to the market, and may begin to enter the early stages of platform consolidation in the coming years.

Our Numbers Speak for Themselves

$115+ Billion
Deals closed

90%
Of transactions as Lead Arranger

$2+ Billion
Underwriting capacity

$700 Million
Maximum hold size

$2+ Billion
Unitranche facilities

to

<$10 Million
Buy-and-Holds

Win-Win partnerships of every size

GOLUB CAPITAL

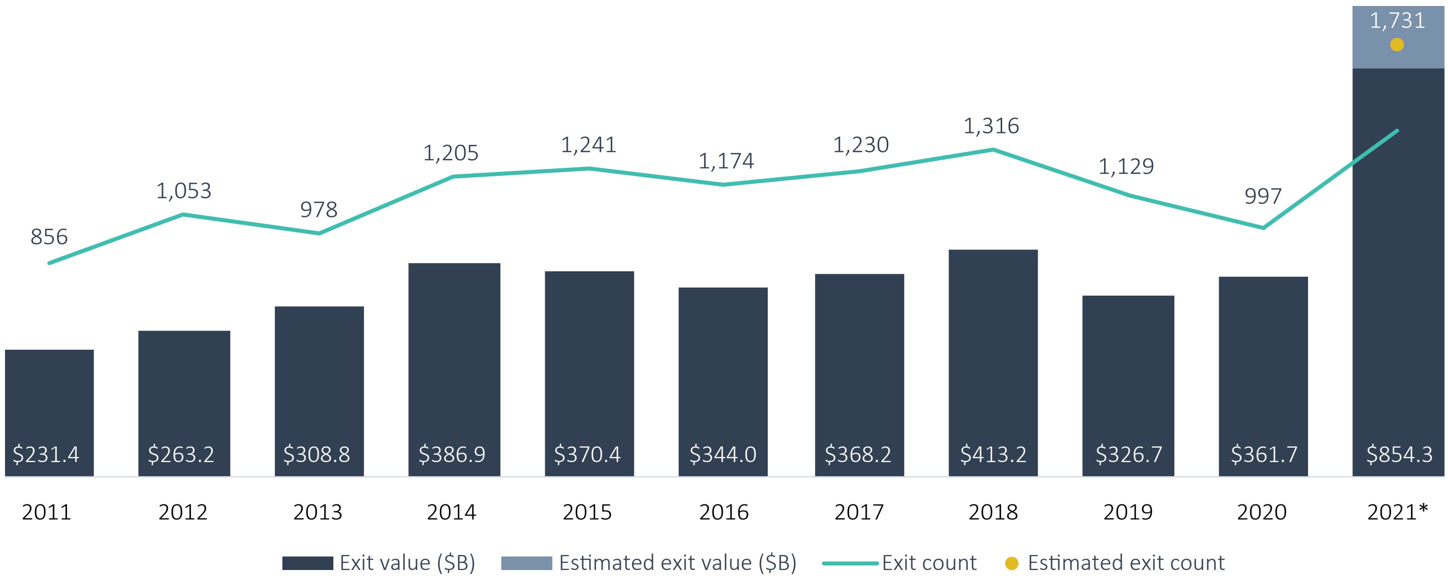
Source: Golub Capital.
As of October 1, 2021.

PitchBook

Co-sponsored by BridgeBank, GOLUB CAPITAL, bakertilly

Exits

PE exit activity



Source: PitchBook | **Geography:** US
*As of December 31, 2021

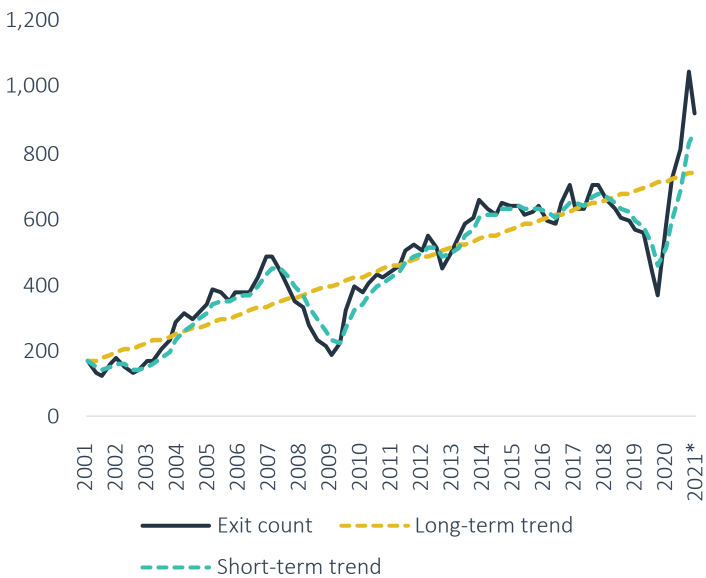
Introduction

US PE exit activity shattered the previous annual records for both number of exits closed and their total value. In 2021, PE firms exited 1,731 US companies with an aggregate enterprise value of $854.3 billion. Exit activity benefited from the elevated transaction multiples witnessed across sectors and sizes. In many cases, exits meant for 2020 were put off until 2021 when more clarity and lower COVID-19-related discounts were expected. Similarly, substantial rises in multiples meant numerous sponsors hit financial targets early, often by a year or more, pushing many to sell before they anticipated.

Almost everything went positively for sponsors in the year as all exit options—public listings, sponsor-to-sponsor sales, and corporate acquisitions—were wide open. Public listings, both IPOs and reverse mergers with SPACs, boomed as PE- and venture-backed companies tapped the IPO market in a way not seen in two decades. Sponsor-to-sponsor exits also bounced back as firms sought to spend down dry powder and as a stabilizing economy led to a reduction in the valuation delta between buyers and sellers. Additionally, sponsors have made efforts to close transactions sooner and are more willing to give credit to portfolio companies with add-ons under LOI, making them more attractive exit options than in years past. Lastly, exit activity to corporates also set records. Corporate balance sheets have trillions of dollars in cash, and many CEOs are looking to be more acquisitive after passing on M&A activity through the first year of the pandemic. Moreover, the flurry of public listing activity will likely buoy corporate acquisitions going forward. Public companies are much more likely to use M&A to spark growth.

Other monetization activity was similarly robust. Continuation funds, dividend recaps, and partial exits continued to barge ahead. Continuation funds especially had a pivotal year as secondaries activity continues to trend toward GP-led transactions. These funds are akin to an option for LPs, providing them the right, but not the obligation, to monetize certain assets or a portfolio of assets or roll their stakes into a special-purpose vehicle. Partial exits are sometimes used to set pricing in these deals. Additionally, with easy money flowing through the debt markets, and many fearing higher rates will make these transactions meaningfully more expensive, sponsors issued debt meant to fuel dividends at a breakneck pace. Dividend recapitalization activity was the highest ever, surging past $80 billion in the year.[22] Overall, distributions back to LPs through 2021 and into early 2022 are poised to eclipse any previous period. Not only do these exits lock in healthy performance figures, but they will also likely be recycled into the current wave of fundraising.

Rolling 6-month exit count trends

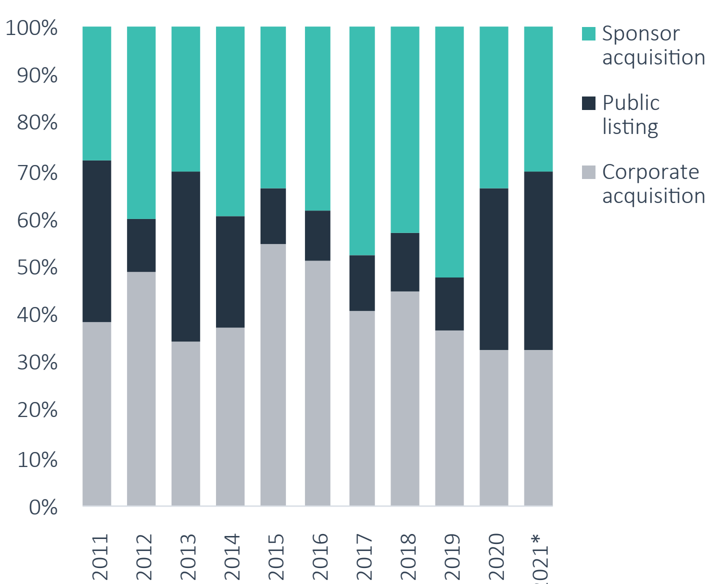


Source: PitchBook | **Geography**: US
*As of December 31, 2021

Rolling 6-month exit value ($B) trends

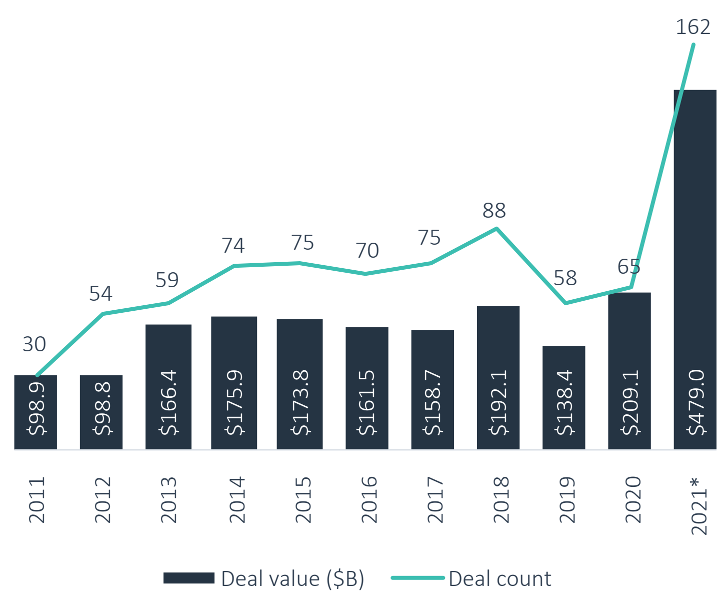
Source: PitchBook | **Geography**: US
*As of December 31, 2021

Share of PE exit value by exit type



Source: PitchBook | **Geography**: US
*As of December 31, 2021

$1B+ PE exit activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

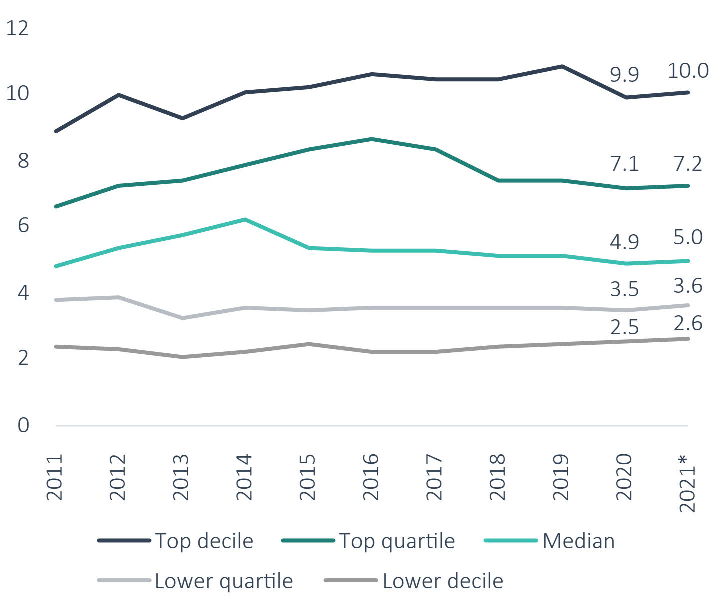
22: "2021 Wrap: Issuance Records Fall in Leveraged Finance as Q4 Caps Stunning Year," S&P Global Market Intelligence, December 16, 2021.

The largest transactions continue to account for a rising proportion of overall exit value. The last two years have set new records, but 2021 is truly in a league of its own. Exit activity involving $1 billion+ transactions more than doubled year over year (YoY) as many of the largest firms were motivated to publicly list companies amid a massive bull market. The exit figures in venture capital are even more extreme. Although public listings accounted for the bulk of the activity, exit activity to other cash-flush sponsors and corporates also hit new highs.

M&A was in vogue throughout 2021 as corporate CEOs felt more confident about the future and had plenty of capital to spend. Acquirers in North America and Europe were particularly keen to purchase US-based PE-backed companies. Many of the deals were more in the vein of strategic tuck-ins than transformational acquisitions, though. One major example was Nestlé's (SWX: NESN) $5.75 billion acquisition of The Bountiful Company, a vitamins and supplements company, from KKR. The deal allows Nestlé to tap into a quickly growing segment while also providing additional global distribution channels. Similarly, Deutsche Boerse's (FRA: DB1) acquisition of Institutional Shareholder Services (ISS) allowed the German exchange to tap into a hot and growing segment. Genstar Capital sold an 80% stake in ISS to Deutsche Boerse for around $1.8 billion—more than tripling the value since its $720 million buyout in 2017—and elected to retain the remaining 20%. The exchange expects to be a global leader in the ESG data reporting and analytics space following the ISS acquisition. More broadly, exchanges have been expanding into data and analytics segments, trying to expand their offerings beyond their trading platforms. London Stock Exchange Group's (LON: LSEG) gargantuan purchase of Refinitiv in 2020 is another example of this trend.

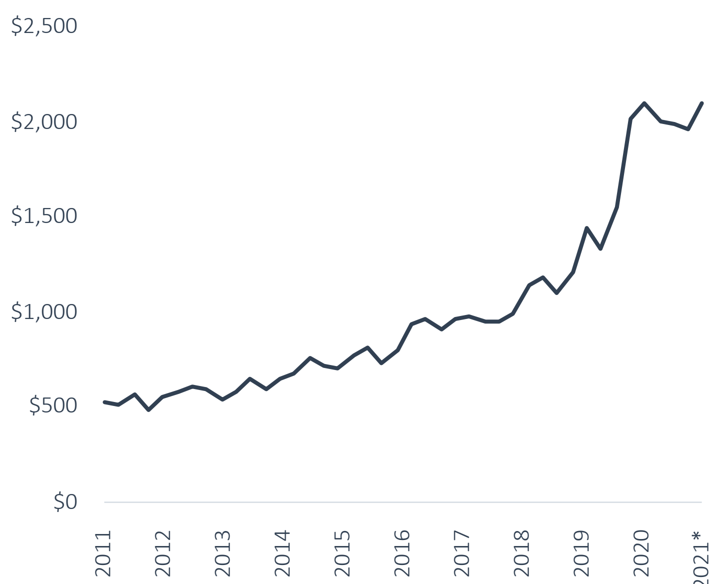
PE firms were also active acquirers of other sponsor-backed portfolio companies in 2021. One particularly thematic exit was the sale of Anchor Loans to Pretium Partners for $1.5 billion. Wafra Capital Partners—which held a majority stake in Anchor Loans—is wholly owned by and invests on behalf of Kuwait's sovereign wealth fund. Pretium is one of the largest rental housing owners in the US, and Anchor Loans is a national leader in lending to house flippers. The deal illustrates how many financial institutions are betting the current housing shortage will continue, thereby putting a floor on pricing. Blackstone, a particularly thematic investor, supported this thesis when the company announced its intent to purchase Home Partners of America, owner of over 17,000 rental homes, for $6 billion in mid-2021.

PE buyout holding periods (years)



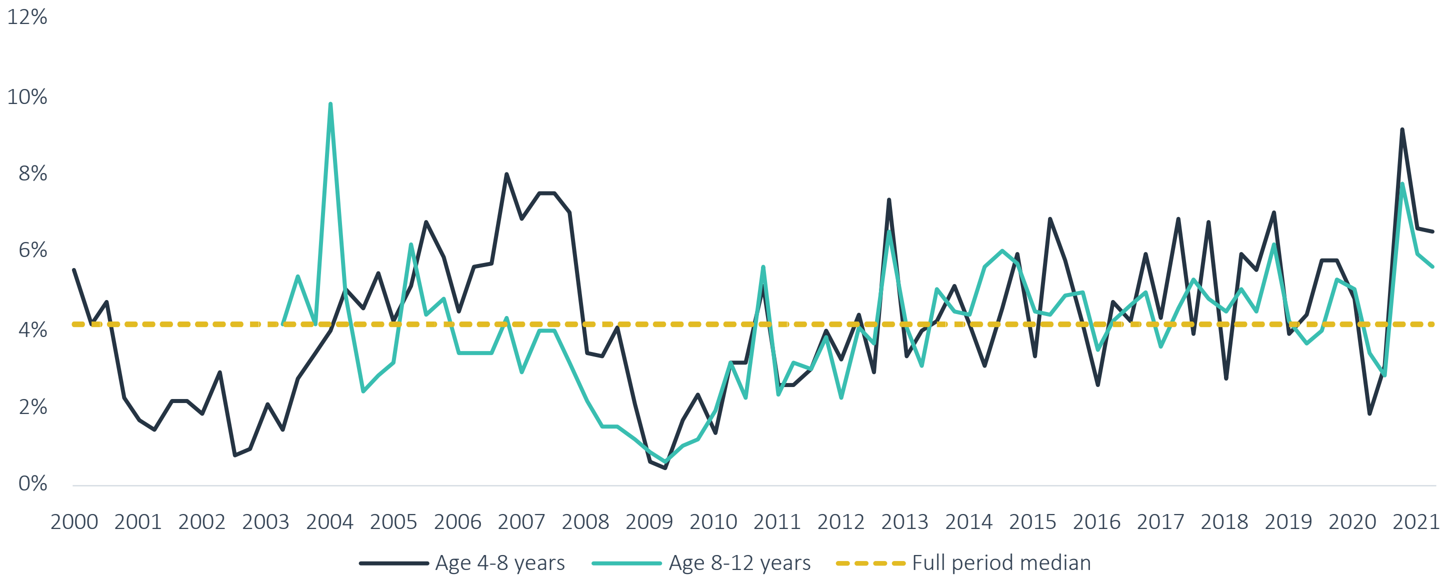
Source: PitchBook | **Geography:** US
*As of December 31, 2021

US nonfinancial corporate balance sheet cash ($B)



Source: PitchBook | **Geography:** US
*As of December 31, 2021

Median and average quarterly distributions to LPs from buyout funds



Source: PitchBook | **Geography**: US
*As of June 30, 2021

Sponsor-to-sponsor activity was lively across nearly all sectors, and industrial companies saw a healthy rebound in exit activity as the economy stabilized. There were multiple $1 billion+ exits, including the sale of Big Ass Fans, Atlantic Aviation, and Culligan International. Advent International sold the latter company, a water treatment manufacturer, for over 6.5x its 2016 buyout price to a BDT Capital-led consortium that included Mubadala, Abu Dhabi's sovereign wealth fund. We are now regularly seeing a select group of strategic LPs become more sophisticated and participate in a growing number of direct deals. The Canadian pension plans have long led the way, but sovereign wealth funds from the Middle East and Asia, alongside US family offices, are increasingly investing alongside buyout shops and competing with them for deals. While these same entities still allocate to buyout funds, many are seeking more co-investment opportunities, and some are even completing direct deals. Family offices are now regular recruiters of talent from traditional PE jobs, offering competitive compensation and shorter hours.[23] The number and overall sophistication of family offices will only continue rising. Similarly, the largest sovereign wealth funds will likely complete more direct deals, sourcing investments from PE portfolios and competing with them for deal flow. Turning back to sponsor-to-sponsor exits, mega-funds are likely to step up their acquisitions of massive PE-backed companies with record-setting fundraising expected in the $5 billion+ fund space over the coming one to two years. With the pressure to deploy capital, and the continuing rise in the count and quality of PE-backed portfolio companies, the largest buyout firms will likely rachet up their acquisitions of other sponsors' portfolio companies.

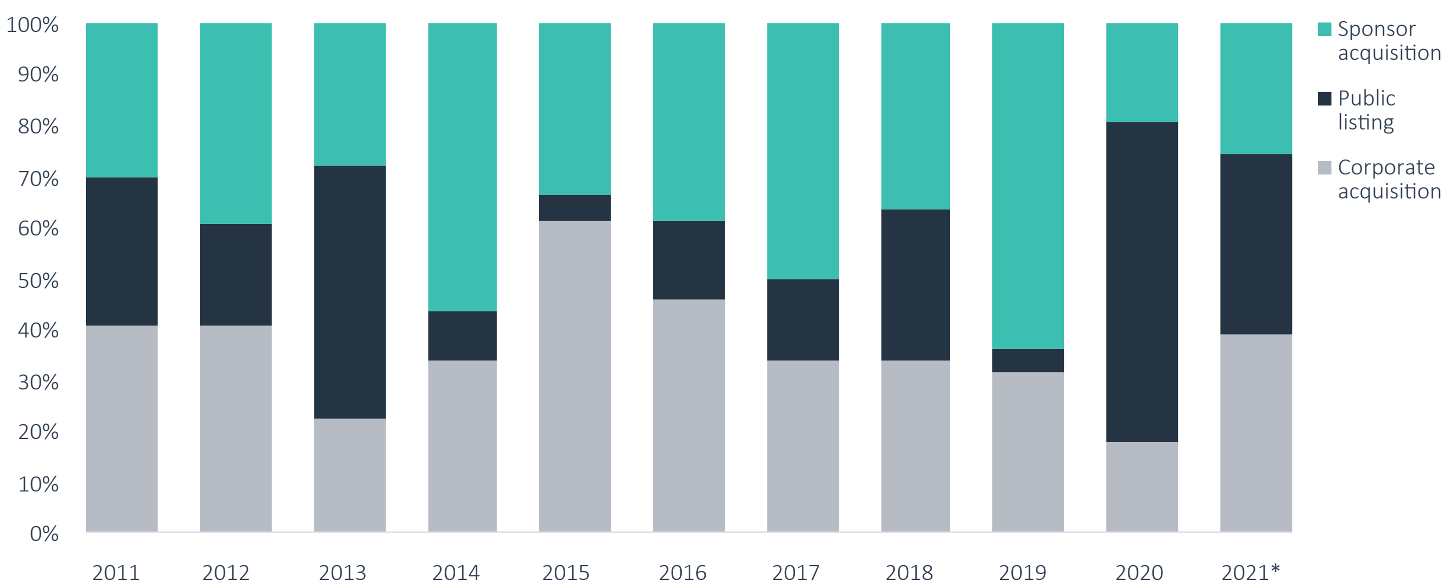
23: "Family Offices Turn to Private-Equity Firms in the Hunt for Talent," Wall Street Journal, Preeti Singh, April 1, 2021.

Healthcare

In 2021, PE firms looking to exit healthcare companies benefited from an expanding menu of exit opportunities and buyers eager to use M&A to keep abreast of industry transformation. Healthcare portfolio companies have accounted for a significant portion of PE's broader move toward more public exits over the past year and a half, and public investors have been particularly receptive to healthcare companies that exhibit one or more of the following characteristics: business lines that benefit from favorable consumer demand trends, the use of technology to improve care, the incorporation of VBC payment models, or innovation around site-of-care (such as telehealth, urgent care, and home care models). In terms of consumer demand, two completed or announced public listings in aesthetic dermatology—Vessey Street Capital Partners-backed Elite Body Sculpture (NASDAQ: AIRS) and Leonard Green & Partners' Milan Laser—may presage similar offerings in the space, which relies on purely out-of-pocket payment and benefits from high customer loyalty. Pet-related companies also fared well in public markets in 2021, and some veterinary medicine practices may look to complete public exits down the road. PE firms also realized public exits of VBC provider groups which use software and data analytics to coordinate patient care and manage risk among their providers, such as Clayton, Dubilier & Rice's Agilon Health (NYSE: AGL), Goldman Sachs' Privia Health (NASDAQ: PRVA), and InTandem Capital Partners' Cano Health (NYSE: CANO), as well as of VBC software providers, including HarbourVest Partners' Signify Health (NYSE: SGFY). Finally, the listings of virtual and in-person mental health provider LifeStance Health (NASDAQ: LFST), backed by Silversmith Capital Partners and Summit Partners, and Bain Capital's home care group Aveanna Healthcare (NASDAQ: AVAH), exemplify public investors' interest in site-of-care transformation, through which the healthcare industry is pursuing cost reduction, better patient engagement, and more convenient care.

One of the most important trends currently shaping US healthcare, vertical integration between payers and providers, has also created a new class of strategic buyers for healthcare services businesses and related technology providers alongside hospitals and health systems. By acquiring physician practices that focus either on preventative medicine (such as primary care, obstetrics and gynecology, or general dentistry) or on the most expensive medical conditions (such as oncology or renal care), payers can convert their own investments toward improving patient care into cost savings through the reduction of insurance payouts. This provides an important exit opportunity for larger PE-backed healthcare providers: For instance, in October, Centerbridge Partners announced the sale of DentaQuest Ventures, which owns a dental provider group, to SunLife Financial (TSE: SLF) for $2.5 billion.

Share of healthcare PE exit value by exit type



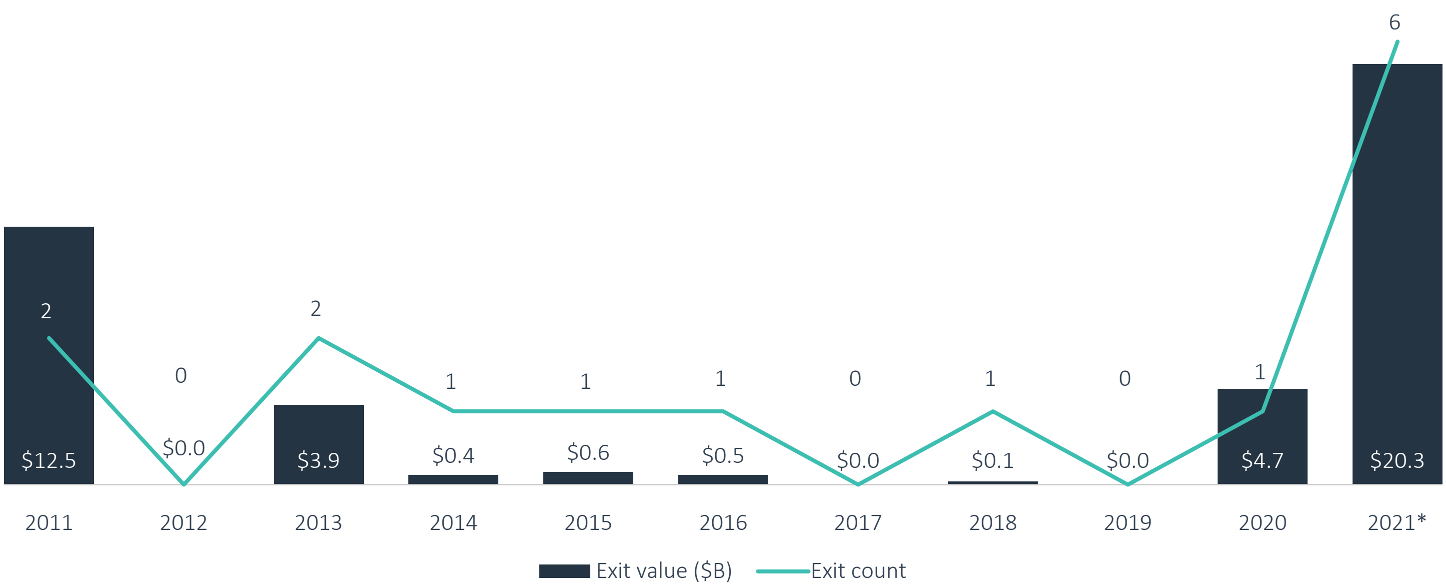
Source: PitchBook | **Geography**: US
*As of December 31, 2021

Looking ahead, the largest technology and retail companies may evolve into an additional class of strategic buyers as they continue to push into the healthcare space through M&A. Walmart (NYSE: WMT), Amazon (NASDAQ: AMZN), and Target (NYSE: TGT) have all established primary care toeholds, while other national brands continue to double down on their healthcare bets. In October, Walgreens Boots Alliance (NASDAQ: WBA) took majority stakes in VillageMD and post-acute care coordinator CareCentrix, while Best Buy (NYSE: BBY) acquired home care platform Current Health. Microsoft's (NASDAQ: MSFT) $19.7 billion acquisition of Nuance (NASDAQ: NUAN) and Oracle's $28.3 billion acquisition of Cerner augur exit opportunities for PE-backed healthcare technology companies.

In healthcare services, the default exit route has traditionally been sponsor-to-sponsor transactions, with platforms being passed to successively larger funds as they grow. 2021 saw numerous impressive exits in some of the most in-demand provider segments, including RiverGlade Capital and Thurston Group's sale of U.S. Oral Surgery Management to Oak Hill Capital for $725.0 million, Centerbridge Partners' $825.0 million sale of American Renal Associates to another platform, Nautic Partners' Innovative Renal Care, and Cerberus Capital Management's $400 million+ purchase of Lighthouse Autism Center from ABRY Partners. With many platforms having been acquired in the late 2010s, we will likely see more healthcare provider groups find new PE sponsors in the coming year. However, with more firms now exploring opportunities to sell their healthcare assets to sponsors or list them publicly, we also expect to see more terminal exits of traditional provider roll-ups in 2022.

Finally, PE exit activity in biotechnology & pharmaceuticals is benefiting from the cash-heavy balance sheets of the largest pharmaceutical companies, many of which are looking to diversify their drug portfolios in the coming years as current offerings age out of exclusivity. Notably, Hellman & Friedman, Carlyle, GIC, and ADIA sold Pharmaceutical Product Development, a CRO, to Thermo Fisher Scientific in December for $17.4 billion, while EQT and TA Associates exited Aldevron to Danaher (NYSE: DHR) for $9.6 billion. However, many publicly traded biotech companies experienced declining stock prices over the past year, so some firms may wait to realize investments until the industry sees broader pricing recovery.

PE-backed healthcare provider public listing activity

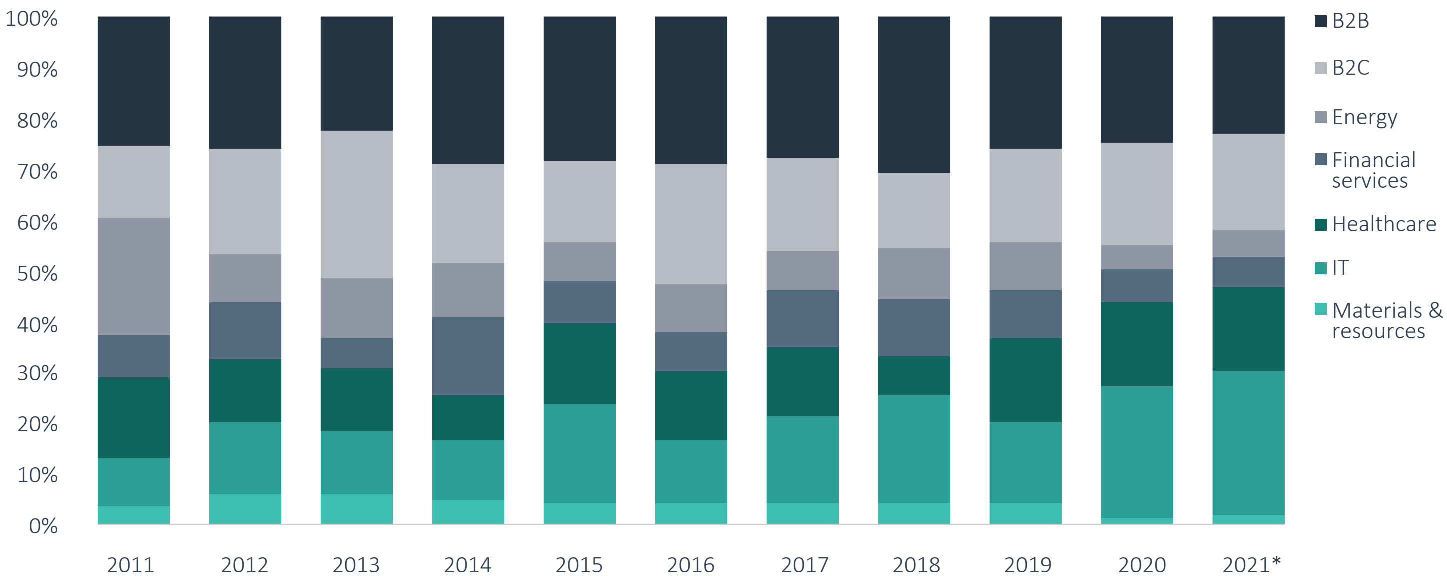


Source: PitchBook | **Geography**: US
*As of December 31, 2021

Software

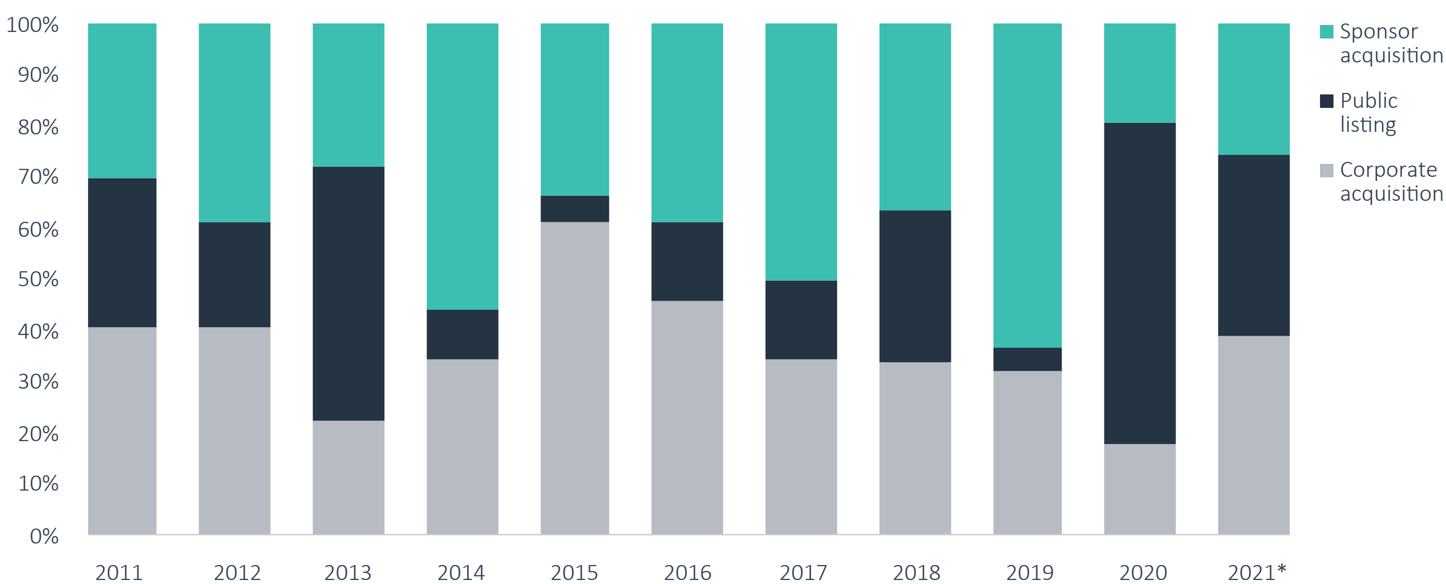
Exit activity soared in 2021 for tech, more than doubling 2020's aggregate exit value thanks to the high prices offered by red-hot public markets and the jump in M&A from corporations with an abundance of capital. IPOs and corporate acquisitions continued to dominate tech exits in Q4, although some investors are cautious these exit opportunities will be hindered by increased government scrutiny over consolidation and a cooling in public tech valuations. However, increasing tech acquisitions by non-tech buyers is a trend in software exits to watch. The pandemic accelerated tech adoption and necessary transformations, which will spur more exit opportunities for PE firms to non-tech buyers. For example, edtech surged in the last two years as students

Share of PE exit value by sector



Source: PitchBook | **Geography**: US
*As of December 31, 2021

Share of IT PE exit value by exit type



Source: PitchBook | **Geography**: US
*As of December 31, 2021

around the world were pushed into remote learning and schools struggled to find the right digital tools to tackle the sudden demand. With edtech's growth and relevance pushing beyond the peak of the pandemic, PE firms will likely find more institutions and education companies as buyers in the space. As several industries aggressively pursue modernization, a reassessment of digital capability, especially from traditionally non-tech industries, will be a driver of continued robust exit activity.

E-commerce experienced strong exit activity in Q4 2021. Global supply chain disruptions continued to drive the need for innovation, and the ongoing shift to online shopping further necessitated capabilities around data analytics and customer services. In October, the Norwegian robotic and software tech company AutoStore (OSL: AUTO), backed by EQT Partners, Thomas H. Lee Partners, and SoftBank (TOKYO: 9984), went public on the Oslo stock exchange at a $12.4 billion valuation. The company, which provides automated warehouse storage and retrieval systems through robot technology, marked Norway's biggest IPO in two decades as the pandemic-induced surge in online shopping led to a massive jump in orders for the company's products. In October, KKR sold CARWAVE, an online car dealership network and auction platform to KAR Global (NYSE: KAR) for $450.0 million. The sale strengthens KAR's digital marketplace for used vehicles while improving profitability across its offerings. PE firms that recognized opportunities in e-commerce are securing favorable realizations as the industry continues to mature and both the pandemic and supply chain complexities accelerate the need for improved efficiency and stronger networks.

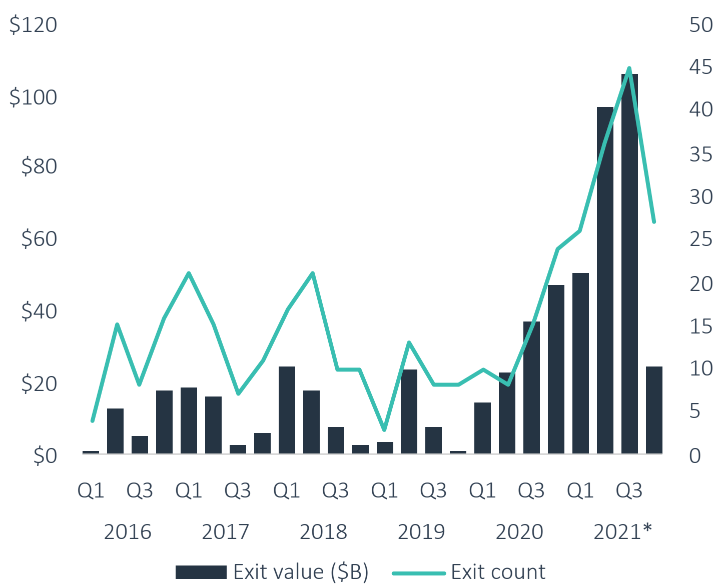
Cybersecurity, which has begun to see a flurry of deal activity in the last couple of years, is already seeing exits as the increased use of digital systems, coupled with rising cybercrimes, heightens awareness of current digital vulnerabilities and the acute need for greater online protection. In November, Audax Group sold digital identity platform Acuant to GB Group (LON: GBG) for $736.0 million, which brings a leader in the North American market to a newly merged global platform. Also in November, BC Partners and Medina Capital took zero-trust secure-access company, Appgate (PINX: APGT) public through a reverse merger with Newtown Lane Marketing, resulting in a combined public entity valued at $1.0 billion. The company plans to list on the NYSE or NASDAQ once it satisfies the listing requirements. This public listing came less than two years since the buyout, signaling elevated public market demand for cybersecurity assets.

Public listings

Public listings of PE-backed portfolio companies dominated overall PE exit activity in a way never seen, though activity diminished in the fourth quarter. Public multiples rose across virtually all sectors, and the wide delta between public and private market multiples remains intact, enticing sponsors to list companies of all types and sizes. In total, sponsors listed 134 companies worth a combined $241.4 billion in 2021. Moreso than in sponsor-to-sponsor deals and exits to corporates, large deals dominated—as they tend to do—the public listing totals. More than 75 PE-backed companies listed at valuations north of $1 billion. This led to several of the largest GPs maintaining substantial exposure to public markets. On the Q2 conference call, Blackstone's CFO Michael Chae remarked that 33% of the company's corporate PE portfolio was in public markets.[24] Several PE executives have privately said they see the window remaining open for public listings enduring for another 12 to 24 months, meaning another busy year of public listings is likely in 2022—though perhaps to a lesser degree if the weakness in public markets continues.

SPACs provided another viable way for PE-backed companies to tap public markets in 2021. After a frenzy of SPAC IPOs, there were hundreds of blank-check companies seeking sellers. The time-constrained

PE public listing activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

24: "Blackstone Second Quarter 2021 Investor Call," Blackstone, July 22, 2021.

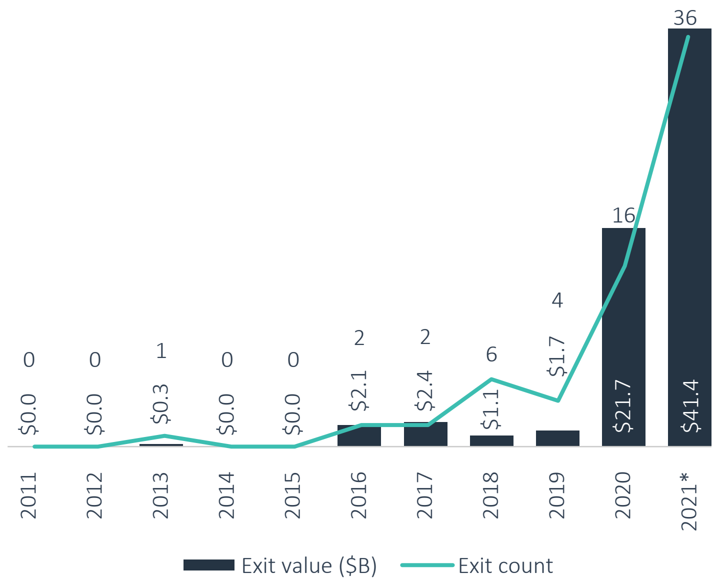
nature of these companies meant that SPAC executives were incentivized to quickly make progress toward a deal. A sizable GP we spoke with earlier in 2021 stated they were getting two to four unsolicited inbound offers from SPACs every week on various portfolio companies. With such interest and lucrative pricing, GPs of all stripes took portfolio companies public via a reverse merger with a SPAC. Blackstone-backed Alight Solutions (NYSE: ALIT) was perhaps the most high-profile of these; the company combined with Foley Trasimene Acquisition Corp in a $7.3 billion deal.

On the IPO front, the same market dynamics continue to drive activity: Healthcare and software companies account for an outsized proportion of deal value, as does the top end of the market. In general, the IPO market's boom reflected a hot public stock market. Easy money put a floor on valuations, and a ravenous investor base pumped up anything with a growth tilt. Nowhere was this more obvious than the electric vehicle stocks that went public and hit $50 billion+ valuations with effectively no revenue.

The PE-backed IPO boom also took off because it allowed GPs to retain stakes in attractive companies, providing upside if events panned out the way the GP hoped. This is akin to retaining a minority stake after exit, which has grown in popularity. In the case of Hayward Industries (NYSE: HAYW), which was taken public by an Alberta Investment Management-led consortium in March 2021, the sellers ultimately realized that additional upside because the stock traded up approximately 50% from its $17 per share IPO price by year end. With more people working from home, buying of home swimming pools and pool equipment skyrocketed, translating Hayward's business into a compelling growth story for stock market investors and a lofty multiple for the investors to monetize.

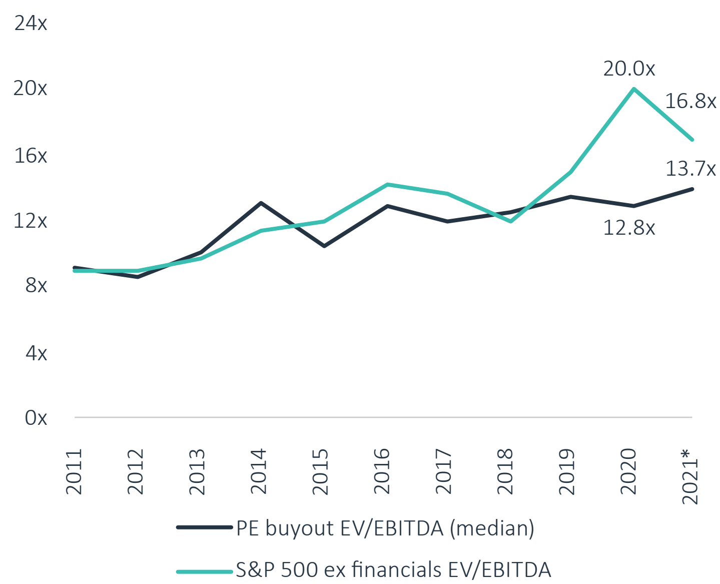
GPs know not all public listings will go so smoothly, though. Even in cases where the stock trades sideways after listing, the GP will likely see this as a win if they can exit without tanking the price because the final exit multiple will be several turns higher than the seller could have achieved in a sale to another sponsor or strategic. However, public listings do not always go according to plan. Many PE-backed companies remain saddled with debt after listing, diminishing a company's ability to invest in growth initiatives. Moreover, some growth stories do not translate to public markets well, and the short-term nature of quarterly earnings may pressure executives and business owners to make poor decisions, leading to a negative outcomes.

SPAC IPO activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

Median PE buyout multiples versus S&P 500 multiples



Source: PitchBook | **Geography**: US
*As of December 31, 2021

After offering shares at $18 in March 2021, Alignment Healthcare (NASDAQ: ALHC) traded up above $25 per share in the following months before cratering below $14 by late December. Despite the downside risks, PE-backed IPOs will likely remain strong so long as the gap between public and private market multiples stays wide.

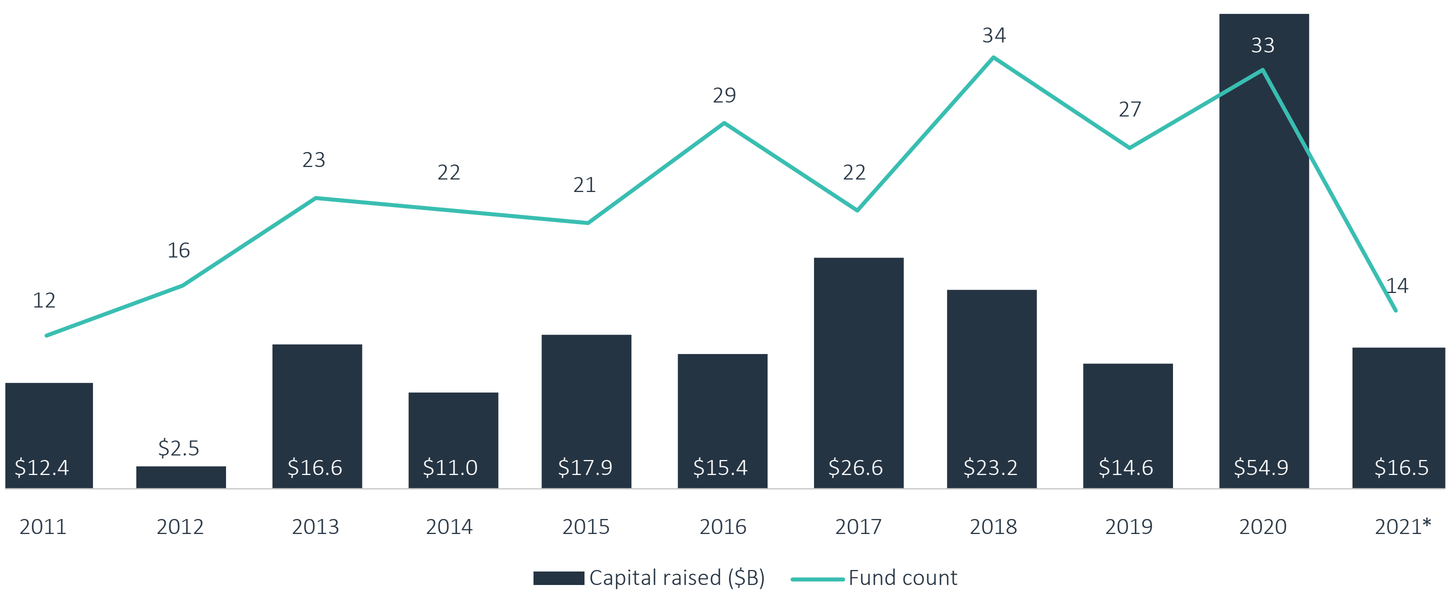
Continuation vehicles and partial exits

Continuation vehicles continue to proliferate and are quickly becoming a go-to tool for GPs in select situations. These funds, which can encompass one or more portfolio companies, now offer a compelling option beyond a public listing or a sale to a strategic or a competitor. Unlike in the past, though, the vast majority of these GP-led transactions are about continuing to profit off and/or providing additional funding to high-performing companies rather than resetting economics on holdings in older, bottom-quartile funds. It is also no surprise that we are seeing continuation vehicles multiply concurrently with the rise in NAV-based lending. Both offer GPs with high-performing assets expansionary capital that does not necessarily rely on additional capital calls or monetizing the asset. When Riverside Partners raised a $532 million continuation fund in May 2021 for seven portfolio companies in its fifth fund, funding additional add-ons was explicitly detailed as a major reason behind the deal.[25]

These funds are not perfect, however, and they offer several contentious points for LPs. First, the option to invest more, roll over the existing stake, or fully or partially cash out is a major choice for LPs. This decision requires them to do additional work diligencing and valuing one or more companies—typically the GP's job. Decisions are often expected quickly despite many major LPs already being understaffed. The best practice here is for GPs to give as much time as possible and to be transparent in the time before the transaction is initiated. GPs can also roll over their carry into the new vehicle to ensure that the GP is aligned with the fund LPs. A study by secondaries advisor and investor Hamilton Lane points to around two-thirds of all deals following this practice.[26]

Another potential conflict of GP-led secondaries deals is that the GP is on both sides of the transaction. To mitigate pricing concerns, secondaries funds often buy into these vehicles, helping to validate pricing. For example, when Audax secured a $1.7 billion continuation fund in January for its 2012 Fund IV, the transaction was led by AlpInvest Partners, Lexington Partners, and Hamilton Lane—all major secondaries players. Similarly, in May 2021, BlackRock's secondaries unit and the New Mexico Educational Retirement Board co-led an approximately $700 million continuation fund for assets in AE Industrial Partners' 2016 fund. Although continuation vehicles were typically used with newer funds in 2021, some older funds also pursued these options. In August 2021, a Hamilton Lane-led consortium raised $1.3 billion to purchase assets out of The Jordan Company's 2007 Resolute Fund II.

Secondaries fundraising activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

25: "Riverside Partners Closes $532 Million Continuation Fund, Led by Neuberger Berman," Cision PR Newswire, March 25, 2021.
26: "GP-Led Transactions: What LPs Need to Know," Hamilton Lane, Dennis Scharf, September 23, 2021.

Some firms prefer to bring in another sponsor to provide capital, expertise, and price discovery. Clearlake did this when it brought TA Associates in as a minority partner in Invanti. TA's investment set the valuation north of $2 billion before the continuation fund was completed. The continuation fund raised $1.25 billion, with a several hundred million set aside for future add-on activity. Soon after, Clearlake brought in Charlesbank Capital Partners to help augment Invanti's growth. Since the continuation fund closed, Invanti has made several acquisitions, including Pulse Secure, MobileIron, and Cherwell Software. Seeing the success of this transaction, Clearlake went on to raise several other single-asset funds aimed at providing additional time and capital to Precisely and Wheel Pros. Although Clearlake has gone down the path of using single-asset funds, there does not appear to be a right or wrong approach to these deals. We will be closely watching future continuation fund deals to see whether any patterns emerge.

Continuation funds are being used by more than just buyout funds. General Atlantic, a prolific growth equity investor, announced the closure of its first continuation fund in July 2021. The fund raised $3 billion, including up to $1 billion to support follow-on investments, to support General Atlantic's position in four portfolio companies.[27] Elsewhere, Sequoia, a legendary venture investor, announced a complete overhaul of its fund structure. The change means LPs invest in the sole "Sequoia Fund" that then allocates into a subset of closed-end funds, which in turn flow back into the Sequoia Fund in a feedback loop. This extends the duration of Sequoia's capital and allows the investor to dramatically draw out the holding period for its portfolio companies long after they have gone public. Although such radical change may not be coming for buyout funds tomorrow, it is likely we will see added flexibility around holding times, capital recycling, and more.

The rise of continuation vehicles is expected to endure in the coming years. According to Jefferies (NYSE: JEF), GP-led secondaries activity has shot up in recent years, climbing from just under a quarter of all volume in 2016 to nearly two-thirds of total volume as of July 2021. Part of this shift can be traced to diminished LP sales of fund stakes as prices fell during the pandemic, though the growth of GP-led deals is still notable, swelling over 5x in five years. Blackstone is even raising its first secondaries vehicle specifically focused on GP solutions. The fund held a first close on $800 million in Q2 2021, and reports suggest it could target $2 billion or more for a final close. Overall, secondaries fundraising activity is expanding commensurate with deal activity, and there is ample dry powder available to fund the burgeoning continuation vehicle trend.

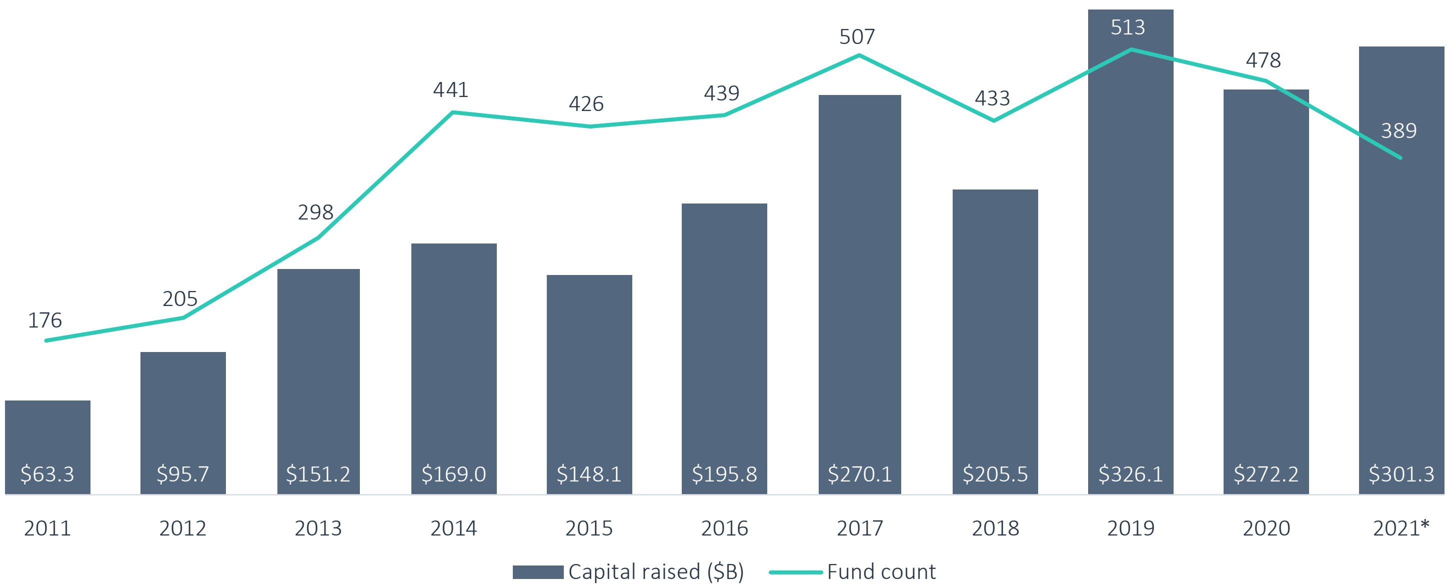
Another way that PE firms are giving LPs liquidity while retaining some upside is through retaining a minority stake post sale. This is often done with successful companies, akin to the rationale for continuation vehicles. PE firms frequently voice frustration with selling successful portfolio companies to competitors only to see them achieve another 3x return in five years. Retaining a minority stake allows the sponsor to typically return LPs' original investments—and hopefully more—while retaining that upside. This method creates less upside potential than a continuation vehicle if things go right, but it is much less work for GPs, it takes away many of the conflicts around GP-led secondaries, it does not cause LPs to work harder, and it has the added benefit of reducing the purchase price for the buyer(s). When Permira agreed to sell HVAC parts maker DiversiTech for $2.2 billion in November to Partners Group, Permira opted to retain a minority stake. Similarly, in the gargantuan Athenahealth sale, owners Veritas Capital and Elliott Management both retained minority stakes.

In the cases where retaining a minority stake is not possible, perhaps due to fund age, TA Associates provides an alternative. TA is currently raising its second fund dedicated to buying minority stakes in companies the flagship fund is selling. Theoretically, the risk profile is lower here as TA is familiar with the company and its prospects, but the return profile is expected to be on par with other buyout funds. TA frequently retains minority stakes when exiting companies. For example, the firm retained a minority stake in Confluence when it sold most of the company to Clearlake in June. TA Associates also retained a minority stake when Partners Group bought India-based broadband provider Atria Convergence Technologies from Argan and TA for nearly $1.2 billion in August 2021. Other firms are likely to iterate on the foundation TA has built as the prospects of holding successful portfolio companies for longer continue to brighten.

27: "General Atlantic Announces Successful Closing of More Than $3 Billion Continuation Fund to Support Continued Growth of Four Portfolio Companies," General Atlantic, July 1, 2021.

Fundraising and performance

PE fundraising activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

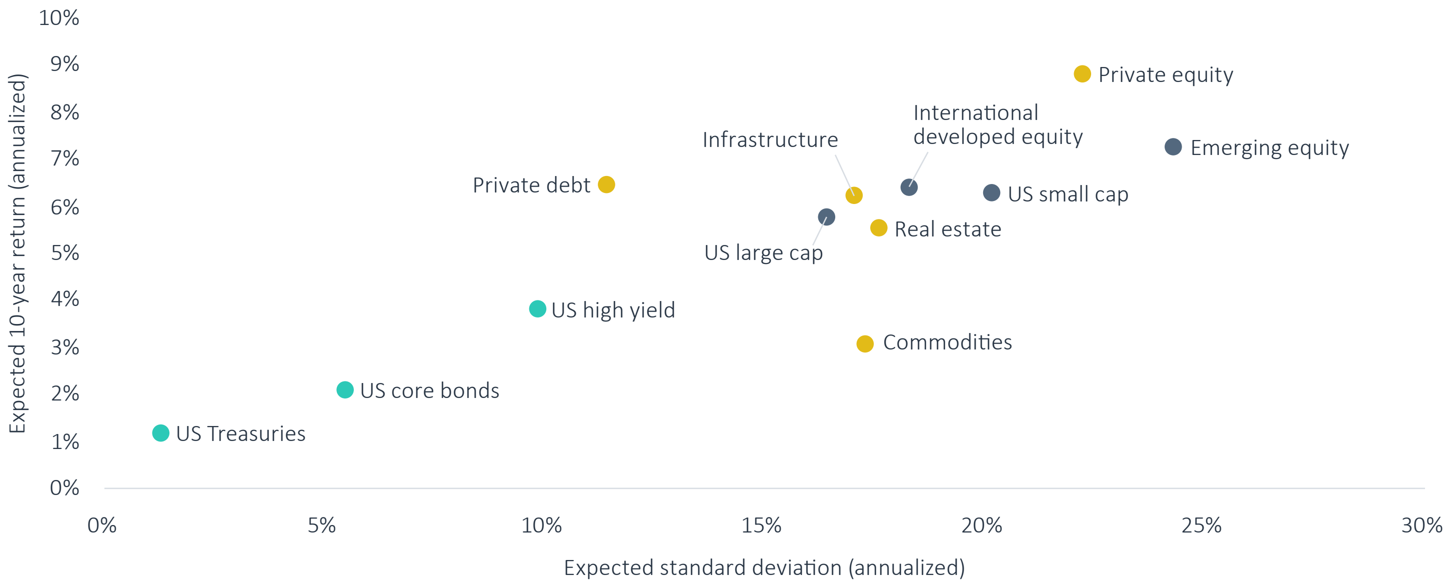
Introduction

2021 was perhaps the best time ever to raise a private fund—and 2022 may be even better. Seemingly everything is going well for buyout or growth equity funds coming to market. Many institutional LPs continue to lift their allocations to private markets, PE in particular. Elevated multiples in public markets mean many models are predicting significantly lower returns from public equities going forward, further reinforcing LPs' shift to alternatives. The mass affluent have traditionally been too inconvenient for standard private closed-end funds to access but are now seen as an engine for growth. Blackstone, for example, is reportedly raising over $4 billion per month from retail capital. Additionally, interest rates remain low, forcing LPs out on the risk-reward spectrum to achieve their targeted performance figures.

This dynamic has led to many LPs further boosting their private market allocations. In some cases, this is because they are well under allocated and need to boost exposure; in other cases, it is because private fund performance has been so stellar over the past 18 months that it is pushing some LPs to the top end of their private market allocation bands, according to Blackstone COO Jon Gray. Some allocators are taking a more aggressive approach to committing capital, while others are pacing it out over time. During an investment committee meeting in November, CalPERS's board approved raising the US private market allocation target from 8% to 13%. CalPERS tends to act as a bellwether in the industry, meaning others are likely to follow. Many pensions in California already have, including two of the largest in Los Angeles County. LACERA and LACERS, each of which manage north of $20 billion, approved a lift in their PE allocations, to 17% and 16%, respectively. However, others have an opposite problem. After a year of record-setting exit activity, some LPs have received more cash than they were able to deploy. Arkansas Teachers Retirement System received nearly $600 million in distributions in 2021 against just $180 million in capital calls.[28]

28: "Arkansas Teachers Plans to Look for More PE Commitments as It Ramps Up Space" Buyouts, Aaron Weitzman, December 7, 2021.

10-year capital market assumptions for various asset classes

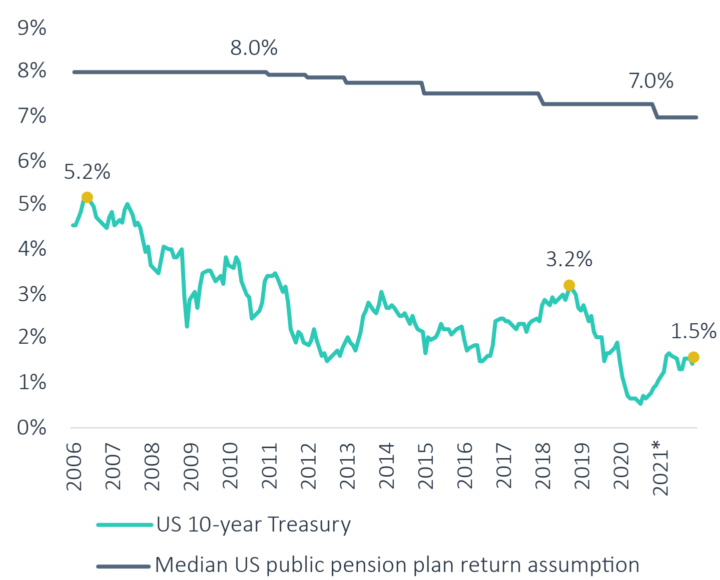


Source: Horizon Actuarial 2021 CMA Survey | **Geography**: US
*As of December 31, 2021

The entire PE ecosystem appears to be firing on all cylinders. Most funds are being raised in less than 18 months and are being quickly deployed. The five-year investment cycle has turned into a two-to-three-year cycle for many, and even less time for some of the technology specialists. With rising valuations across the board, portfolio company target prices are being hit sooner, and GPs are monetizing their assets. This also means fund performance is stellar, and LPs are receiving significant cash before the GP returns to request additional capital for its subsequent fund. Thoma Bravo is illustrative of many of these trends. The firm's cash multiples for previous funds have consistently been in the top quartile, if not decile, while the firm has spent down dry powder at breakneck speed. After closing on $22.8 billion in October 2020 across three funds, the firm is once again fundraising for its next set of funds and is seeking to secure $35 billion+ across a number of funds.[29]

The good times are not limited to the US, though. Mega-managers in Europe and Asia have also been raising more and larger funds. CVC Capital Partners, for example, raised the largest buyout fund outside of the US in 2021, amassing €21.3 billion ($24.1 billion). The US-based giants are also stepping up their fundraising

US pension plan return assumptions versus 10-year Treasury



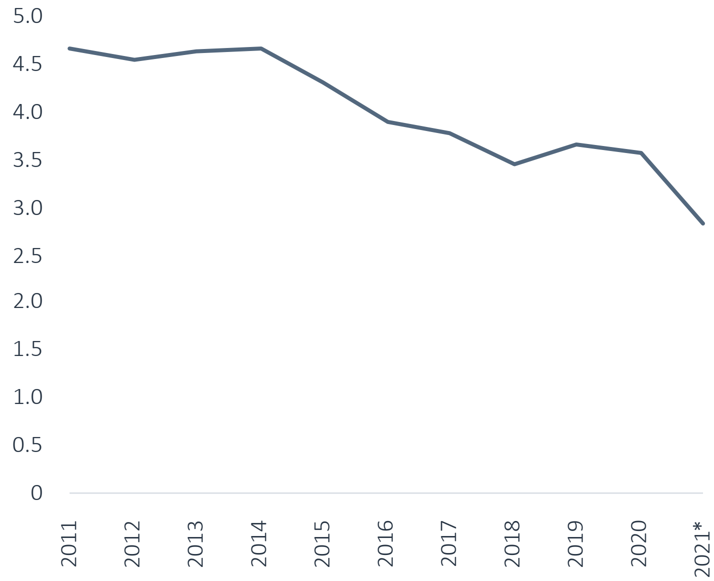
Source: FRED, NASRA | **Geography**: US
*As of December 31, 2021

29: "Buyout Firm Thoma Bravo Goes from Niche to Big League," Financial Times, Antonie Gara, December 6, 2021.

efforts outside their home country borders. KKR raised $15.0 billion for its latest Asia-focused flagship in April. Blackstone is ramping its efforts in Asia as well, already securing over $6 billion for its BCP Asia II fund. These major private capital managers view Asia as a less competitive market and are seeking to build regional franchises there, though they also remain focused on Europe.

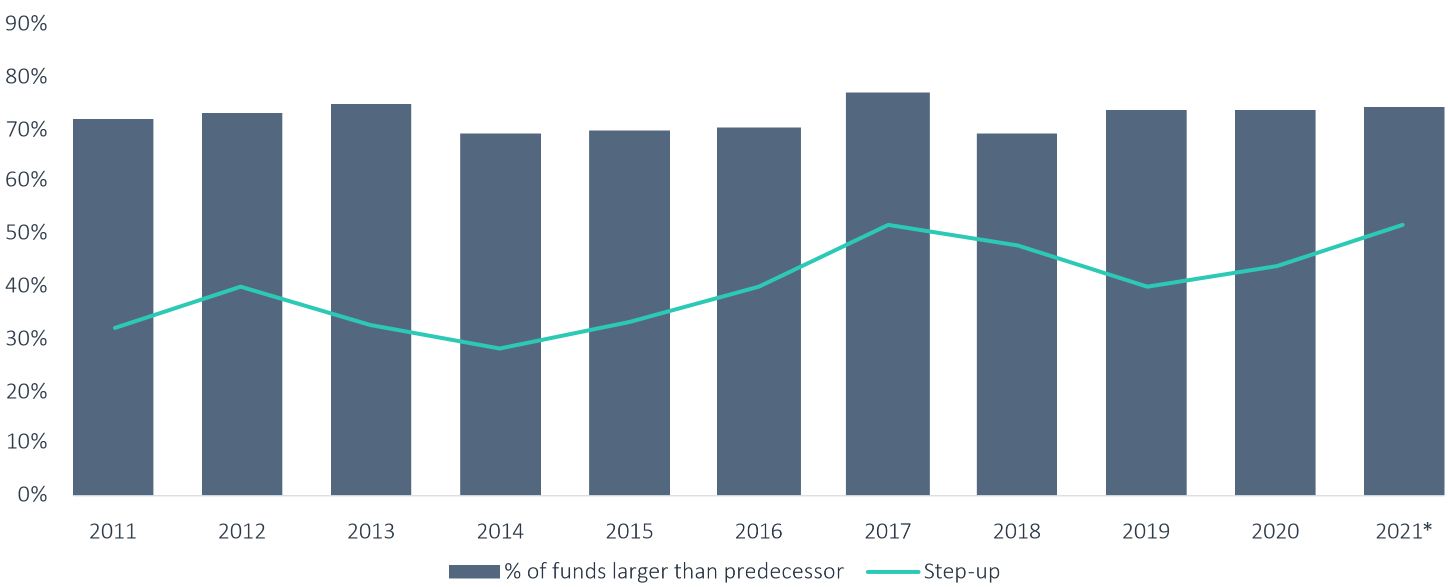
Co-investment capital has played a significant role in the current fundraising environment. We should note, our fundraising totals do not include co-investment capital and are therefore shy of the total figures GPs raise. Sophisticated LPs love co-investment rights because these rights allow them to effectively lower their blended fee rate and give them more power over their portfolio exposures. GPs also like co-investing because it allows them to take on deals that often require the firepower of a larger fund, and it can help deepen relationships with key LPs.

Average years between PE funds in fund family



Source: PitchBook | **Geography**: US
*As of December 31, 2021

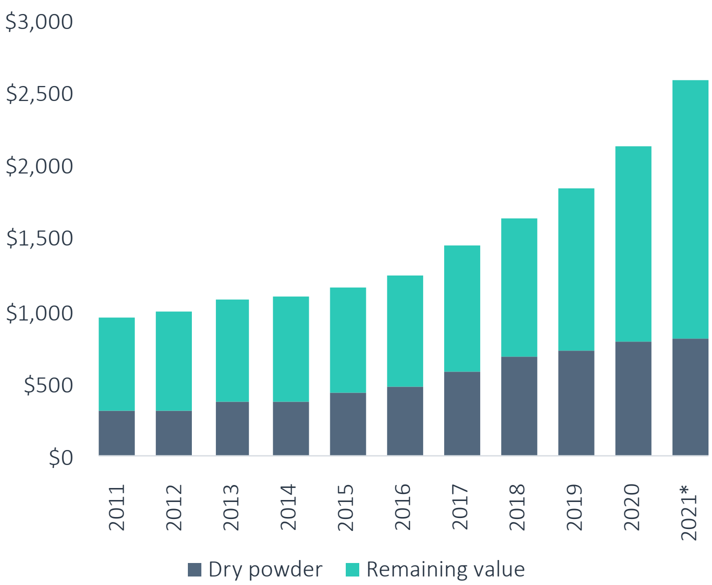
Median step-up from previous PE fund in fund family



Source: PitchBook | **Geography**: US
*As of December 31, 2021

Co-investment is particularly critical for the success of new managers. Arctos Sports Partners raised its first fund during the year, closing on just over $3 billion including co-investment capital but only $2.1 billion for its commingled fund. Co-investment is not a panacea, though. Many LPs overestimate their sophistication and believe they can respond to proposals and turn around term sheets more quickly than they can. This can lead to frustration on both ends and fray the critical LP-GP relationship. One way around this issue is to offer LPs co-investment funds. These funds can place the investment decision in the GP's hands, allowing the GP to move more quickly and saving the LP from additional work. However, rather than the traditional no-fee, no-carry model, co-investment funds may charge 0% management fees and 10% on carry. This is still much cheaper than the traditional 2 and 20 and still allows the LP to pay lower blended fees overall, but the LP does not need to make quick investment decisions. However it is addressed, the trend toward more co-investment demand and a swelling number of increasingly sophisticated LPs is clear.

PE AUM ($B)



Source: PitchBook | **Geography:** US
*As of June 30, 2021

M&A

M&A in the alternatives space set records in 2021 as firms sought to expand their strategy offerings inorganically. While this development was largely propelled by a flurry of deals whereby multistrategy platforms acquired independent secondary firms, it may signal the beginning phase of a more acquisitive environment as major players seek to consolidate and decide to buy rather than build. Whether or not that happens, the activity in 2021 alone promises to have a major impact on the fundraising environment. The secondaries space was the clear leader of M&A activity, with every major independent firm selling to a larger platform except for Coller Capital. The massive player fits a gaping hole in KKR's current offerings, and after KKR was pegged as the early favorite to land the Lexington deal, this tie-up makes sense.

The year also saw nontraditional names come into the fray with T. Rowe Price (NASDAQ: TROW) and Franklin Resources (NYSE: BEN) making major acquisitions in 2021. Their massive distribution networks to retail clients are highly sought after as private capital firms attempt to expand their fundraising efforts beyond the traditional institutional allocators. While many firms including Blackstone, Blue Owl (NYSE: OWL), and more are attempting to build out retail distribution channels, firms with major retail distribution are buying into the private capital business. Franklin's $1.75 billion purchase of Lexington Partners, a major secondaries firm, strengthens a growing alternatives platform. The firm has private real estate capabilities through its ownership of Clarion, Benefit Street provides access to private credit, and K2 Advisors is its in-house hedge fund. Buyout and growth equity are clear holes in Franklin's current product set, and the company may seek to use M&A to remedy that.

In the vein of attempting to diversify funding bases, M&A and partnerships with insurance companies were abundant in 2021. KKR and Apollo had the largest changes to their business because of their insurance M&A deals. Thanks in part to closing on Global Atlantic, an insurance and reinsurance company, KKR nearly doubled its total AUM YoY. The firm now manages nearly half a trillion dollars and is actively acquiring additional blocks to further boost AUM. Meanwhile, Apollo merged with Athene in an all-stock transaction during 2021. Although Athene's assets were already being managed by Apollo, this approach seeks to better align the two companies. As Apollo attempts to grow its AUM to north of $1 trillion by 2026, fundraising from its insurance entities will be a critical component. Blackstone, taking a more balance-sheet-light approach, invested $2.2 billion into AIG's Life & Retirement business and will see the insurance giant allocate up to $92 billion to its products in the coming years. Dozens of large insurance companies are likely open to these win-win partnerships, and more are likely to be announced in the coming years. The activity may really heat up as more private capital platforms publicly list and feel the pressure to constantly grow AUM.

P10, a Dallas-based alternative platform, was another unique name that made headlines with its M&A efforts in 2021. The firm bought middle-market GP stakes firm Bonaccord Capital Partners and NAV lending firm Hark Capital from abrdn (LON: ABDN) in late 2021. The deal came as abrdn's new CEO appeared more focused on the traditional side of the business and preceded P10's IPO on the NYSE. We will be watching P10 to see if it capitalizes on any other unique M&A opportunities and how it will build out its suite of products. Real estate and buyout firms are highly fee generative and could make strategic sense.

M&A is likely to play a significant role in the decision to build or buy for the largest players. In fact, the NAV lending/preferred financing space may see an additional deal in 2022 as 17Capital, another player in the space, is reportedly in talks to be acquired. Additionally, as more firms, including TPG and CVC, elect to go public, M&A activity is only likely to rise. Public alternatives managers will do almost anything to be seen as a growth stock rather than a value play, meaning they must constantly launch new strategies and bring in new people. Being public also affords them a new currency with which to finance M&A and retain talent: public stock. Although numerous firms will still attempt to build out new strategies over the coming one to three years, M&A is likely to play a more defining role in the decision as the market continues to mature and more firms go public.

Select alternative asset manager M&A* in 2021

Buyer	Acquiree
Ares	Landmark Partners
Ares	Black Creek Group
Franklin Resources	Lexington Partners
T Rowe Price	Oak Hill Advisors
CVC Capital Partners	Glendower Capital
Blue Owl	Oak Street Real Estate
Prudential	Montana Capital Partners
StepStone	Greenspring Associates
P10	Bonaccord Capital Partners
P10	Hark Capital
EQT	Life Sciences Partners
Ares	AMP Infrastructure Debt
Ares	Spring Bridge Partners

Source: PitchBook | **Geography**: US
*As of December 31, 2021

Select insurance or distribution M&A deals in 2021*

Buyer	Acquiree
KKR	Global Atlantic
Macquarie Asset Mgmt	Waddell & Reed Financial
Apollo	Athene
Hamilton Lane	361 Capital
Ares	Global Bankers Insurance

Source: PitchBook | **Geography**: US
*As of December 31, 2021

Strategy expansion

Many of the largest managers continue to build out their offerings, attempting to create a one-stop shop for the largest LPs. The top 10 or so firms now offer myriad strategies. There are seemingly benefits to both the managers and allocators. The managers get to maintain growth, providing attractive returns to shareholders and offering upward mobility to retain top talent. The LPs, meanwhile, can consolidate significant proportions of capital with a handful of relationships. Many of the largest pension plans, foundations, and other entities report being understaffed for their size. This makes diligencing and managing hundreds of relationships near impossible, despite smaller managers providing more opportunity for significant outperformance. And while this trend is not new, a cohort of middle-market firms is now following a similar playbook.

While the big public firms are obvious examples—through organic and inorganic means—the expansion efforts of the next largest group, and even some middle-market firms, are emblematic of how ubiquitous the trend has become. Several buyout firms decided to expand into growth equity funds during the year. GTCR and Thoma Bravo officially launched growth funds in 2021. GTCR's fund is seeking $1.5 billion, and the launch came soon after Blackstone purchased a minority stake in the firm. Thoma Bravo's fund is targeting at least $3.0 billion and can invest in public and private companies. Thoma Bravo has been busy building out its offerings, launching several smaller buyout funds and a credit arm in previous years. Middle-market firm STG closed its smaller Allegro fund, amassing $860 million, which appeared to come after Petershill's capital injection. GP stakes deals prefigure strategy expansions in many cases.

Some firms debuted more distinctive offerings in 2021 as well. After debuting its structured solutions fund in 2020, AE Industrial completed a deal to manage Boeing's (NYSE: BA) corporate venture capital arm. The original investments and the new venture fund will be managed by the aerospace specialist. Frazier Healthcare Partners, which already operates a venture arm alongside its buyout strategy, raised nearly $830 million for a long-only biotech public equities fund. These investors likely have an edge in the space, and the expansion allows for additional methods by which to monetize it. While there is a high likelihood other firms will continue debuting new strategies, particularly smaller buyout and growth funds, other strategies may be easier sells to LPs and face less competition for capital.

LPs are often very skeptical of strategy expansion, though. In most cases, an allocation from an LP to a GP's flagship fund does not guarantee the LP will entertain a newly launched strategy. Many LPs we have spoken with believe a strategy expansion must enhance a GP's current offerings, not simply be a net neutral. For example, an industrial buyout shop could add a real estate strategy that allows the firm to better underwrite a target company's land and perform sale leasebacks, or a buyout firm that typically plays in more distressed parts of the market could add a distressed credit offering. A real-world example is AE and its venture arm, which may help the investors of the flagship funds know what is happening on the bleeding edge of aerospace tech. Similarly, Frazier's public equities fund may provide additional experience and pricing insights that give an edge to its venture and buyout strategies.

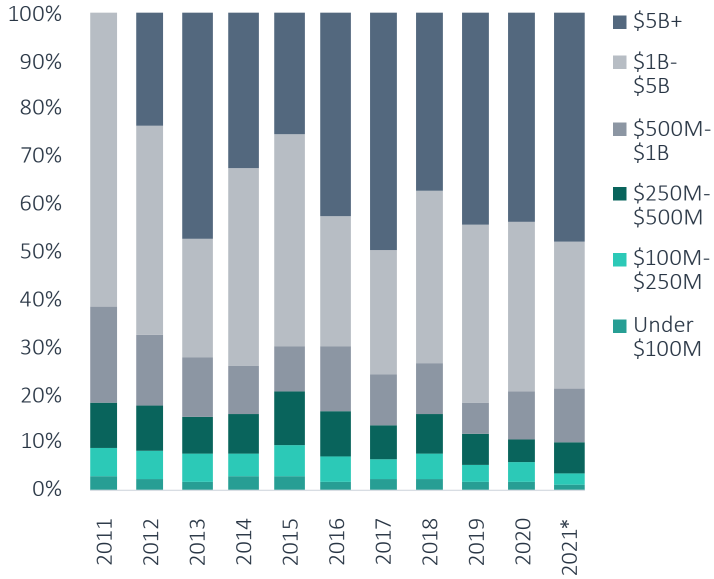
Despite most strategy expansions occurring when a PE firm extends itself into an ancillary area, sometimes it goes the other way. In fact, 2021 saw several instances of non-PE firms raising, or announcing intentions to raise, a first-time PE fund. Bessemer Venture Partners announced it will be launching a growth buyout platform in December 2021. The new fund will allow the firm to be more flexible and invest in a wider array of companies. Similarly, Point72 Asset Management, better known for its hedge fund offering, closed on $600 million for its first buyout vehicle in 2021. Dubbed Point72 Hyperscale, the fund will attempt to use AI to modernize and improve the companies it acquires. The offering is reminiscent of Two Sigma's Sightway Capital offering that closed in 2020 and illustrates how some hedge funds may be trying to diversify away from their core offerings.

Mega-funds

Mega-funds have continued to shine lately, with nearly half of all PE capital pouring into vehicles with $5 billion or more in the last few years. In 2021, mega-funds raised $143.4 billion across 13 vehicles as the pandemic-induced downturn and the following market recovery created conditions that bolstered larger funds in particular. During the initial months of the pandemic, many LPs took a defensive stance in their portfolios and looked to re-up with existing relationships rather than diligence new investment managers. With many LPs understaffed, they were further incentivized to invest with established firms. The largest managers were further advantaged in the following economic recovery when the unprecedented deal activity allowed managers to deploy capital and return to market faster, often with larger funds. For example, Silver Lake amassed $20 billion for its latest flagship fund in January 2021, and the firm is already fundraising for its successor. Fundraising for mega-funds ran smoothly and quickly this year, thanks to the fast distributions that were recycled into new fund commitments. With robust performance and more capital than they anticipated, many LPs boosted allocations to those same large PE firms, thus reinforcing the cycle.

Additionally, LPs are currently eager to consolidate manager relationships while also increasing allocations to alternatives. Although some LPs are turning to emerging managers and specialist funds to diversify, many are seeking to simplify their manager roster and diligence processes as their investment portfolios grow. PE giants that can house additional capital easily and offer multiple investment strategies to LPs benefit the most from this trend. Large firms are becoming more aggressive in their strategy expansion to meet this trend head-on, with giants such as KKR raising mega-funds in additional geographies such as Europe and Asia, and core PE strategies alongside its flagship North American offering. KRR announced it has 27 products coming to market in the next 12 to 18 months. Blackstone offers another example of platform building, as the firm has set out to raise as much as $10 billion for its second fund after closing on $4.5 billion for its inaugural growth fund. The firm also closed on its second GP stakes fund, which raked in $5.6 billion, in late 2021.

Share of PE capital raised by fund size



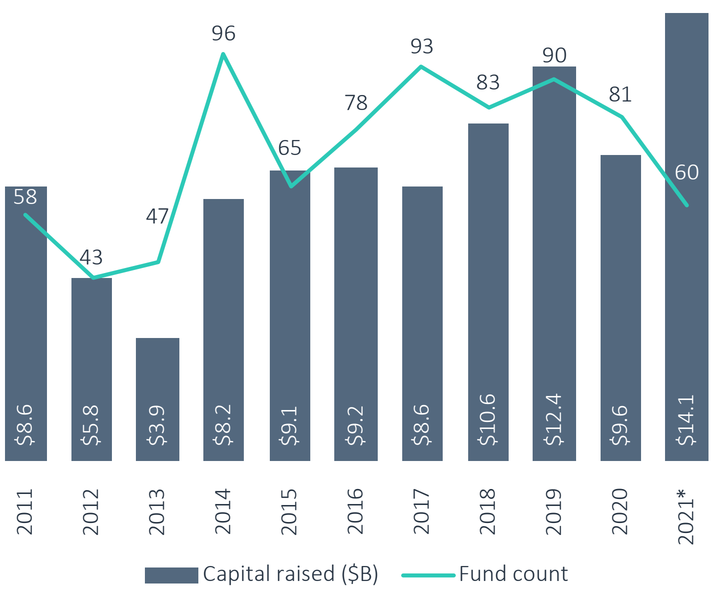
Source: PitchBook | **Geography**: US
*As of December 31, 2021

Mega-funds are poised for further growth as more PE firms gear up to take advantage of a relatively easy fundraising period. In 2021, Hellman & Friedman led the pack with a $24.4 billion buyout fund, followed by Silver Lake's $20.0 billion fund. In 2022, Blackstone is expected to raise more than $30 billion for its next flagship PE fund, which would set a record for the largest buyout fund ever. It would surpass Carlyle's $27.0 billion target for its 13th flagship fund, which was previously thought to set a highwater mark in fundraising. Along with those two, Apollo Global Management is likely to raise more than $25 billion for its next flagship buyout fund, which would mean three firms alone are anticipated to raise more than $80 billion in 2022. Other players such as Advent International and Vista Equity Partners are setting similarly stunning targets for their next funds, and a new generation of mega-fund managers is also emerging as fast-growing firms such as Summit Partners and Clearlake Capital Group surpass the $5 billion mark for their flagship funds. Overall, the club of mega-fund managers has grown and will boost mega-funds to an incredible fundraising year.

First-time funds and diverse managers

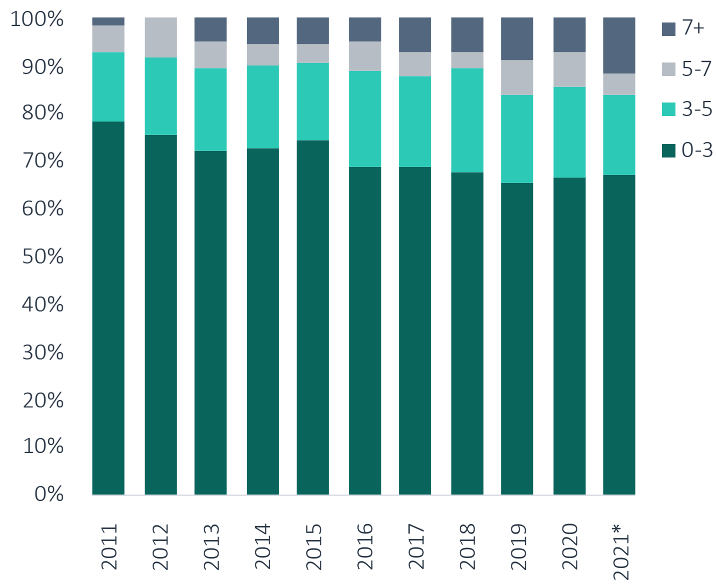
After a difficult 2020, first-time PE funds posted their highest cumulative fundraising total on record in 2021: $14.1 billion. The earlier part of the year saw a number of first-time funds close that had either delayed coming to market or elongated their fundraising processes due to the pandemic's disruption to travel and impact on allocators' risk appetites. However, the number of first-time funds closed in 2021 fell sharply even from 2020; the impressive capital raised total is primarily due to outsized fund closes by a few high-profile entrants. This suggests that beneath the surface, first-time managers are seeing divergent fortunes. On the one hand, as the PE industry continues to mature, we are seeing more spin-outs of very senior deal professionals from the largest firms, many of which are raising multibillion-dollar first funds. Crosspoint Capital Partners, a cybersecurity-focused firm whose leadership includes ex-Bain Managing Director Ian Loring, closed on $1.3 billion in April 2021, while Patient Square, a healthcare firm led by KKR's former head of healthcare Jim Momtazee, is reportedly in the market with its sights on a roughly $3 billion close. LPs are often eager to commit to these early funds not only due to the track records of their founders, but because they anticipate that the managers will scale quickly, and these LPs want to establish relationships early to secure commitment rights, co-investments, and other perks for even larger funds down the road.

First-time fund activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

Share of PE fund count by fund family number



Source: PitchBook | **Geography**: US
*As of December 31, 2021

The experience is very different for would-be first-time fund managers who have come from smaller firms, have less traditional backgrounds, or are pursuing novel strategies. Although these managers benefit from a positive fundraising environment overall, they can struggle to gain traction in a market increasingly dominated by new strategy launches from established firms. Roughly a third of first-time fund managers fail to raise a second fund, and many allocators are unwilling to underwrite that risk. However, more sophisticated LPs are turning to first-time funds in search of outperformance, differentiated strategies, and, in some cases, fee reductions or additional economic upside, providing a broader array of options for managers trying to get over the first-close hurdle. A small but growing cohort of seeding firms and larger LPs willing to make seed or anchor commitments is helping to get new managers off the ground, while the stigma of "giving away economics" to secure first-close capital is receding. For instance, Arctos Sports Partners, which secured one of the largest first-time fundraises ever at north of $3 billion, took a seed from Petershill, while MiddleGround Capital, a middle-market industrials firm seeded by Archean Capital Partners, raised more than $1 billion in 2021, including its second fund. Family offices and high-net-worth individuals also remain an important source of capital for smaller first-time funds, although an early commitment from a consultant, pension, or prominent endowment remains the gold standard for establishing credibility with future LPs.

Another dynamic that shaped PE fundraising in 2021 was the industry's growing conviction around supporting women- and minority-owned firms. Many allocators, especially public pensions and university endowments, are experiencing intense internal and external pressure to commit capital to diverse managers. Additionally, research from the National Association of Investment Companies shows that an index of minority-owned PE firms has consistently outperformed industry benchmarks over the past two decades.[30] LPs are taking various approaches to advancing diversity, equity, and inclusion (DE&I). Some, such as the New York State's Common Retirement Fund, have dedicated capital pools that invest only with funds managed by women and minorities (both emerging and established managers), while others, including CalPERS and the Teacher Retirement System of Texas, do not have a specific diversity mandate but report on the demographics of managers they commit to via their dedicated emerging manager vehicles. By contrast, some LPs, most notably the Yale Endowment, have taken a top-of-funnel approach, measuring their GPs' progress toward increasing staff diversity, including at the junior staff level.

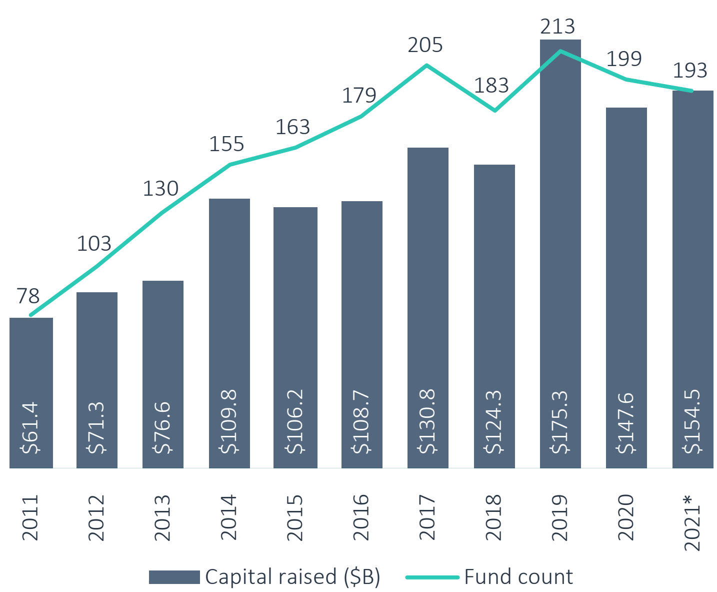
Industry participants interested in advancing DE&I believe the current crop of emerging managers exhibits greater gender and ethnic diversity than does the senior leadership of established firms. For example, Clearhaven Partners, a lower-middle-market software firm led by ex-Riverside GP Michelle Noon, closed its $312.0 million debut fund in September. Additionally, minority-owned lower-middle-market firm Ceiba Capital Partners, which is focused on a buy-and-build strategy implementing technology solutions in targeted sectors, anticipates launching its debut fund soon. As a result, we are also seeing the emergence of seeding funds dedicated to backing diverse managers, including TPG's NEXT initiative and a strategic partnership between Xponance Alts Solutions and Investcorp Strategic Capital Group. 2021 also saw the launch of the first, to our knowledge, non-seeding PE fund of funds that will invest exclusively in women- and minority-owned firms. GCM Grosvenor's (NASDAQ: GCMG) Advance Fund, targeting $1 billion, builds on the firm's track record in helping LPs invest with diverse and emerging managers through managed accounts.

Middle-market funds

Similar to the PE landscape as a whole, middle-market fundraising in 2021 was characterized by strong, though not record-breaking, numbers. Despite the number of vehicles raised increasing compared to 2020, middle-market funds still accounted for around half of all capital raised. The average middle-market fund size rose again, mirroring trends in the overall market. Emerging managers and first-time funds, which typically bring down the average size, have pursued more sizable funds in recent years. Across the board, step-ups were elevated, pulling up the average fund size and speaking to how aggressive many middle-market managers were on fund sizing. For example, SkyKnight Capital Fund III closed on $600.0 million in April 2021, more than double the $250.0 million raised by its predecessor just two years prior. On the first-time-fund side, tech-focused Crosspoint Capital Partners brought in $1.3 billion in its debut fund. We also continue to see managers at the top of the middle market sizing out of the space entirely, as occurred with Madison Dearborn's Capital Partners VIII.

Discourse among practitioners of PE has indicated that many investors believe specialization leads to a better likelihood of outsized returns, though our research indicates that many generalist strategies also achieve

PE middle-market fundraising activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

30: "Examining the Returns: 2021," NAIC, 2021.

this outcome. The middle market typically sees a significant number of sector-focused funds close, as some niche strategies either cannot scale above the $5 billion threshold or take longer to do so. Industrials-focused funds are often a staple of middle-market fundraising, and questions remain around how large they can scale. In 2021, funds focused on industrials, including One Rock Capital Partners III, Middle Ground Partners II, and CORE Industrial Partners Fund II, all held final closes. Industrials- and manufacturing-focused funds are a mainstay of the middle market, as are funds that focus on healthcare. Technology-focused funds are so far the sole specialty that has proven its ability to have multiple managers grow far beyond the $5 billion mark. Going forward, we will be closely watching to see if specialists targeting other sectors can find similar success. Looking at middle-market fundraising through the lens of our PE fund strategy categorization, we find around one-third of the group fell into each of the three buckets: generalist, targeted, and specialist. Moreover, this metric understates the true number of specialist funds, since sector focus is classified at the firm, not fund, level, and many large generalist managers are now pursuing smaller specialist funds.

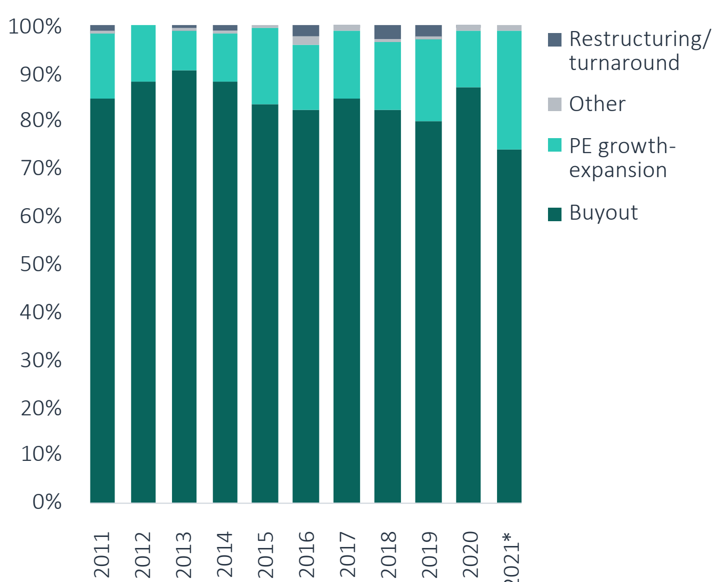
Despite the successful fundraising year for middle-market funds, capital continues to flow to the largest managers. The recurring theme of the largest managers raising non-flagship vehicles in the middle market was again evident. Funds from Neuberger Berman's NB Private Equity Impact Fund to Advent's Global Technology II illustrate the trend. As we have stated on several occasions, many of the largest LPs are shrinking the number of GP relationships; in some instances, these LPs deploy proportionally more capital into new strategy launches or middle-market offerings. One example is the Washington State Investment Board (WSIB), which made its first commitments to Thoma Bravo funds that closed in early 2021. WSIB committed $200 million to Thoma Bravo's $17.8 billion Fund XIV (1.1% of the fund's size) and $100.0 million to the firm's $3.9 billion Discover Fund III (2.6% of the fund's size). Similarly, WSIB committed $535.0 million to GTCR Fund VIII (7.1% of the fund's total) and up to $200 million to GTCR's newly launched growth equity fund (13.3% of the fund's initial target). Sophisticated LPs such as WSIB are leading examples of how to minimize GP relationships while focusing on smaller fund sizes. In addition to the potential for outperformance depending on fund selection, focusing on the middle market can allow LPs to make meaningful fund commitments that can come with coveted co-investment allocations and/or fee discounts, providing another performance tailwind.

Growth equity

Growth equity fundraising had a banner year in 2021 as several of the largest names in growth equity closed growth funds. In total, 104 growth equity funds closed on a combined $74.2 billion during the year. As LP appetite for more growth-oriented PE investments expands, GPs continue offering up a healthy mix of products capable of sating the demand. Growth equity deals continue to blur the line between late-stage venture and more traditional buyouts. In turn, these funds need to offer flexible capital, meaning deals are not always minority stake, as Blackstone, PSG, and others indicate. Some deals may see growth equity funds competing against traditional LBO firms, while many other deals may see the fund invest alongside Tiger Global and/or SoftBank.

The incredible fundraising environment is being driven by the unprecedented pace of capital deployment into growth deals and the phenomenal performance figures being posted. Performance for many growth funds is above 50% net over the past year as high-flying investments hit public markets and continue to swell in value or the investments are marked higher by another, more richly priced growth round. The pace of deal activity comes despite some concerns around high-profile growth investments that have failed to deliver, including Greensill. While company prospects at the growth stage are far more predictable than early-stage

Share of PE capital raised by fund type



Source: PitchBook | **Geography**: US
*As of December 31, 2021

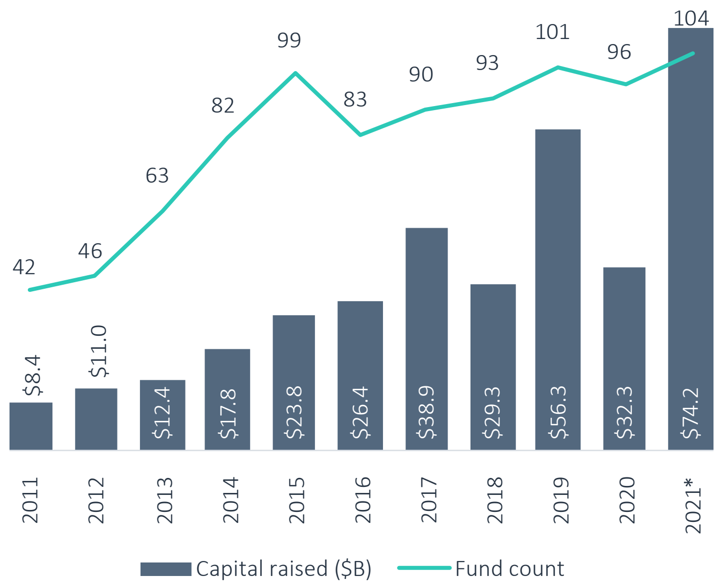
VC investing, the potential for losses is not insignificant, especially as companies can pay for low-quality growth that becomes more apparent in hindsight, such as WeWork (NYSE: WE).

The flurry of deal activity means dry powder reserves are dwindling more quickly than anticipated, causing firms to return to market in a hurry. Blackstone, which closed on $4.5 billion for its first-ever growth equity fund in March 2021, is said to already be eyeing a Fund II launch. The second fund is reportedly seeking at least $10 billion, which would make it one of the largest growth equity funds ever. TPG Growth, which in August closed on $3.56 billion for its fifth fund, had already deployed nearly half the fund's capital by September.[31] As dealmaking in the growth equity space blew past records, we expect many of the firms that closed growth funds in 2020 and 2021 to return to market in 2022.

Established players in the space dominated the fundraising totals. TA Associates, Summit Partners, and General Atlantic all closed on their largest-ever funds during 2021—amassing nearly $30 billion between the three flagship funds alone. LP appetite was ravenous, allowing the funds to close swiftly. Summit's fund launched in August and closed in October, while TA's launched in January and held a final close in June. Elsewhere, Warburg Pincus, perhaps the most sizable growth equity investor, launched fundraising efforts for its 14th flagship fund. The global growth fund is reportedly seeking at least $16 billion, which would make it the largest-ever growth equity fund. Providence Strategic Growth (PSG), the former growth equity arm of Providence Equity Partners, also closed its latest flagship offering in 2021; the firm secured $4.5 billion for its fifth fund. PSG also closed on its first European growth fund during the year, closing on €1.25 billion ($1.52 billion) as it expands to the underserved continent.

Other well-known private capital firms are also making their presence felt in the growth equity space by launching new offerings. Growth equity is a natural strategy expansion opportunity for many buyout firms. The capital is often more flexible than control-only buyout funds, and the funds allow for healthy AUM growth while the GPs can stick to their established strategies. GTCR, which had long been a single strategy buyout GP, launched its initial growth equity fund after selling a minority equity stake to Blackstone's GP stakes unit. GTCR's initial growth equity fund is seeking $1.5 billion, and the WSIB already voted to make a $200.0

Growth equity fundraising activity



Source: PitchBook | **Geography**: US
*As of December 31, 2021

million commitment. Thoma Bravo also debuted its first growth equity fund, targeting $3.0 billion. The fund makes strategic sense for the tech-heavy investor by allowing it to offer additional types of capital to software companies and expand its investable universe. The firm was already participating in some growth equity and late-stage venture rounds before the launch, but the new fund allows Thoma to present a unique offering to LPs within the firm's broader ecosystem while honing the investment team's knowledge of new technologies.

Several middle-market growth equity funds also closed in 2021. These offerings often target more niche areas than the $5 billion+ funds in the space. RedBird Capital Partners, for example, focuses its investments on sports teams and related businesses. The firm closed its third-ever fund during the year, collecting $2.6 billion. The firm, like many other growth equity investors, has rapidly deployed capital, including a $735.0 million investment into Fenway Sports Group. Baltimore-based JMI Equity is similarly concentrated, focusing solely on growth equity investments in software companies. The firm raised $1.7 billion in 2021 and made almost 30 investments on the year across a variety of software verticals. We expect growth equity to account for a rising proportion of PE fundraising as the opportunity set continues to expand and GPs capitalize on the trend.

31: "TPG Growth Is Rapidly Deploying Its Latest Fund," WSJ Pro, Preeti Singh, September 10, 2021.

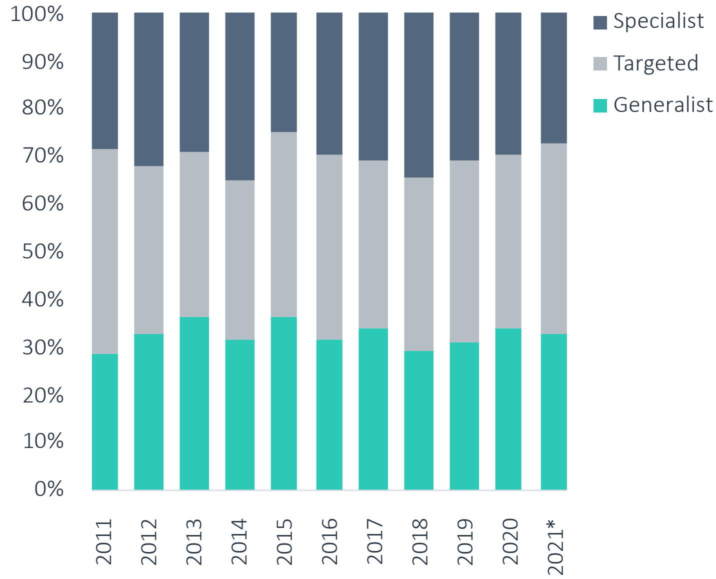
Sector-focused funds

Specialist managers and sector-focused funds are on the rise. Many LPs enjoy the added flexibility this affords to balancing sector exposure in their private portfolio that was previously impossible with only generalist managers and funds. Additionally, there is a widespread belief that these specialists will outperform, though our research indicates that it is less clear, as mentioned previously. Moreover, the discussion around specialists seems to miss some of the reality that there are typically sector-focused deal principals/teams at generalist funds, providing a similar level of expertise.

Technology-focused funds have scaled far more quickly and to much larger sizes than other sector specialists. The rise of Thoma Bravo, Silver Lake, Vista, and Francisco Partners illustrates this point. All the firms are currently raising for flagship offerings or plan to launch them in Q1 2022. For the first three names, each flagship buyout fund is expected to surpass $20 billion. If they hit these targets, all three funds would rank among the 10 largest-ever buyout funds. Each of these technology specialists has grown beyond a single flagship vehicle to become multistrategy behemoths. Thoma Bravo and Vista each simultaneously manage three buyout funds of varying sizes and software-focused credit funds. Thoma Bravo has also launched a growth equity fund, while Vista has its long-hold strategy. This platform approach is being imitated by some, including Francisco Partners, and could serve as a blueprint for healthcare-, financial services-, or industrials-focused firms hoping to scale beyond monoline offerings.

Technology-focused funds have also been a common strategy for generalist managers to expand into. In 2021 alone, we saw Advent International close its second global tech fund at its $4.0 billion hard cap, Bain Capital launch its second technology opportunities fund, which is seeking $1.5 billion, and middle-market generalist investor H.I.G. debut its first technology-focused fund. These appear to be fully independent strategies, which is different from TPG's recent healthcare-focused fund or Warburg Pincus' financial services fund—both of which invest alongside the flagship offering. Although it is too early to determine whether LPs would prefer independent sector-focused funds or ones that invest alongside the flagship, we expect this trend to continue. These expansions can be a great way to not only expand a firm's product line, and concurrently its AUM, but also to retain top talent. In many cases, top-performing dealmakers wish to spin out and start their own shop, rather than being one of many sector heads within a generalist strategy.

PE fund count by GP category



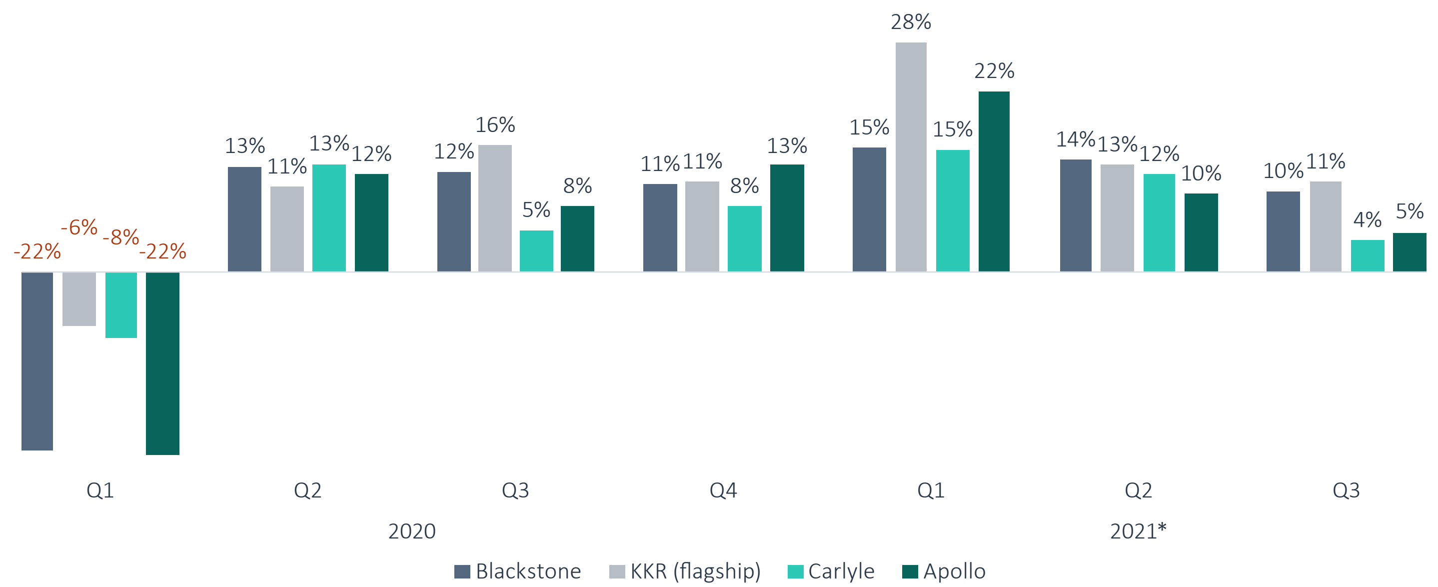
Source: PitchBook | **Geography**: US
*As of December 31, 2021

The explosive growth in technology fund size translates to growth equity funds as well since most of their investments are in technology companies. Firms including TA Associates, Summit Partners, and General Atlantic, among others, have ballooned in size and now raise some of the largest funds in any given year. Elsewhere, other sector specialists are also finding fundraising success. Funds targeting healthcare, industrials, and financial services are almost always middle-market players—with Stone Point Capital as one exception—but that may not be true going forward. Blackstone's $4.5 billion healthcare fund proves that the demand is there from the LP side, and others may be able to follow and achieve a comparable scale. With the areas of biotech, healthtech, and healthcare services rapidly changing, the addressable market continues to boom and the prospects of healthcare-focused GPs rivaling the largest tech-focused players appear promising. Although they may have somewhat smaller addressable markets, financial services and industrials firms of scale are likely on the horizon. The burgeoning aerospace, electric mobility, and autonomy spaces are presenting major opportunities for leading industrials investors, and the wave of investment in wealth management, fintech, and insurance companies is presenting similarly massive opportunities for financial services investors. While specialists in other sectors may never achieve the same success as the largest tech buyout firms, nor quite as quickly, players of scale are likely to emerge in the years ahead.

Performance

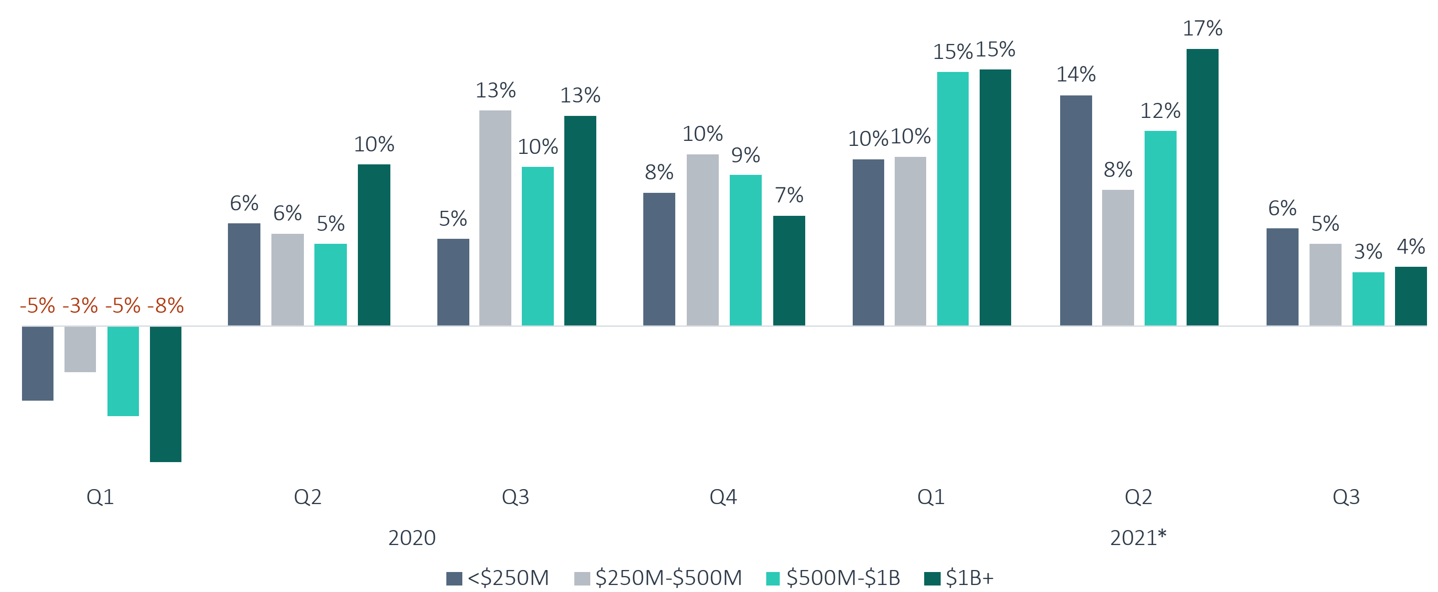
PE fund performance continues to register healthy return figures, though the quarterly returns have normalized during the past couple quarters. After hitting a quarterly high in Q1 2021, returns now look more in line with historical averages. The returns data from four of the largest public PE managers and from our benchmarks across the size spectrum illustrates this point. The broad-based returns prove how the rising economic tide has lifted boats of all sizes.

Gross returns for public firm PE portfolios



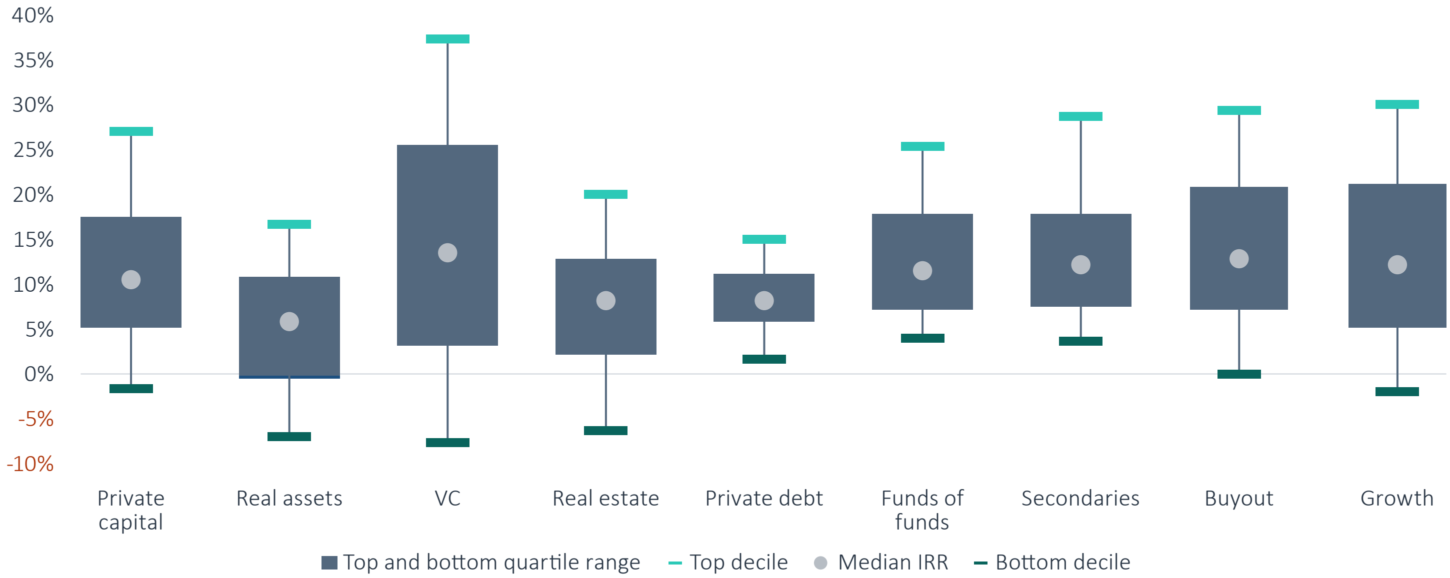
Source: Public filings | **Geography**: US
*As of September 30, 2021
Note: Q4 2020 figures for KKR were imputed.

Quarterly PE IRR by size bucket



Source: Public filings | **Geography**: US
*As of September 30, 2021

Private closed-end fund net IRRs by strategy (vintages 2004 to 2016)

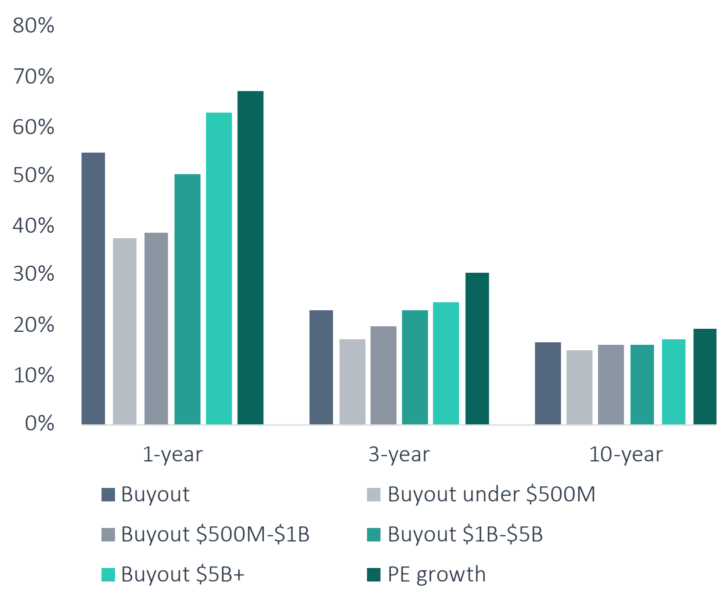


Source: PitchBook | **Geography**: US
*As of June 30, 2021

Realized and unrealized return figures have been dragging the overall performance numbers up. After a record-breaking year in which PE firms exited US companies with a total enterprise value in excess of $800 billion, performance numbers have received a boost. In cases where holding value was lower than the realized amount, funds experienced a step-up in performance. As multiples in public markets and the appetite for M&A targeting small to medium-sized companies remained elevated, markups have been common across all fund sizes. However, it is tough to imagine figures of this magnitude enduring. Higher interest rates and inflation may complicate the returns generated by portfolio companies and how cheaply those companies can be bought and refinanced. Additionally, with higher purchase price multiples in recent years, it becomes harder for PE firms to realize the same performance figures.

PE performance may face other pressures as well. The current economic environment means that labor, rather than capital, has become a limiting growth factor for many companies. This could hamper performance for some PE funds as they navigate the current labor market. Supply chain issues are similarly pressuring many companies. Moreover, public markets have softened in recent weeks, especially among large tech names. This could trip up some of the larger software-focused GPs and their performance figures if the funds are unable to aggressively mark up portfolio companies or tap public markets for richly-priced exits. Although we are not predicting negative return figures, the coming quarters will likely experience more normalization.

1, 3, and 10-year horizon IRRs for buyouts by fund size and PE growth



Source: PitchBook | **Geography**: US
*As of June 30, 2021