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Private Market PlayBook

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Credits & Contact

PitchBook Data, Inc.

John Gabbert
Founder, CEO

Adley Bowden
Vice President, Market Development & Analysis

George Gaprindashvili
Editorial Director

Garrett James Black, CAIA
Manager, Publishing

Kevin Dowd
Editor

Alexander Davis
Executive Editor, Venture and Technology

Adam Lewis
Senior Financial Writer

Eliza Haverstock
Financial Writer

Priyamvada Mathur
Financial Writer

Nizar Tarhuni
Director, Research & Analysis

James Gelfer
Senior Strategist

Wylie Fernyhough
Senior Analyst, PE

Cameron Stanfill, CFA
Analyst II, VC

Kyle Stanford
Analyst, VC

Stephen-George Davis
Analyst, PE

Dominick Mondesir
EMEA, Private Capital Analyst

Nalin Patel
EMEA, Private Capital Analyst

Bryan Hanson
Lead Data Analyst

Zane Carmean
Senior Data Analyst

Darren Klees
Senior Data Analyst

Andy White
Senior Data Analyst

Masaun Nelson
Data Analyst II

Conor Hamill
Graphic Designer

Mara Potter
Junior Graphic Designer

Caroline Suttie
Junior Graphic Designer

Kelilah King
Production Assistant

Joshua Mayers
Managing Editor

Amber Hendricks
Senior Copy Editor

John Moore
Senior Copy Editor

Isabella Manoguerra
Copy Editor

Sydney Struyk
Advertising Operations Specialist

Cover photo
Courtesy of The Blackstone Group

Content
editorial@pitchbook.com

Advertising
mediasales@pitchbook.com

A letter from the Editor

The name Stephen Schwarzman is familiar to all across the private equity universe. The founder of Blackstone, one of the flagship firms that has defined and evolved PE playbooks for decades, Schwarzman has appeared frequently in recent news, speaking about his memoir as well as issues gripping the PE industry—from a potential recession to anti-PE sentiment surfacing in political discourse. For the feature story in this issue of the Private Market PlayBook, we sat down for an in-depth interview with Schwarzman to discuss the evolution of his firm and career, the building criticism of private equity, the industry's gender-equity problem and more.

Aligning with some of the themes explored by Schwarzman in our feature Q&A, a particularly trenchant and timely Perspective explores how increasing transparency could aid public perceptions of PE. From there, we investigate how venture capitalists and startups are navigating critical issues pertaining to immigration (through a lens of access to and retention of talent) and review how VC giant Andreessen Horowitz has adapted to keep pace with an ever-changing venture landscape.

As always, we also include a visual and detailed summation of key market trends across venture capital, private equity and M&A, plus handpicked research from our analyst team covering venture debt, cash flow management, PE firm valuations and more.

Garrett James Black, CAIA
Editor

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Perspectives

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Market Trends

Perspectives

What's next for Andreessen Horowitz after a wild 2019?

By Kevin Dowd

Marc Andreessen and Ben Horowitz first crossed paths about a quarter-century ago, when Andreessen was the soothsaying co-founder of Netscape and Horowitz was a product expert quickly ascending the ranks at the web-browsing pioneer. At first, they clashed. But before long, the two men developed a certain kind of chemistry.

After AOL acquired Netscape for $10.2 billion in 1999, Andreessen and Horowitz began to poke around for what was next. That same year, they teamed with two other entrepreneurs to create LoudCloud, later known as Opsware, an innovative web-hosting startup that later pivoted to offering Software as a Service. In 2007, Andreessen and Horowitz inked another billion-dollar exit, selling the company to HP for a cool $1.7 billion.

With their bank accounts well stocked, Andreessen and Horowitz turned their focus to investing full time.

For a while, they were among Silicon Valley's most prominent angels, striking deals on their own. Before long, they decided to formally reunite. And in 2009, the new firm of Andreessen Horowitz launched its first fund, a $300.0 million effort focused on the software space.

In the summer of 2011, Andreessen published his now-famous essay on why software was eating the world. In the ensuing years, the ideas in the piece formed the basis for a16z's strategy. With early investments in companies such as Facebook, Lyft, GitHub, Slack and many more, the firm put its money where its co-founder's mouth was, staking a whole generation of companies that were using software to transform the way people interact, get around and do their work.

In the process, Andreessen and Horowitz turned a16z into one of the most respected VCs in Silicon Valley, a sought-after backer whose presence on a term sheet signaled to the rest of the world that a young startup was on the right track.

This year was supposed to be a triumphal one for the firm, with four of its highest-profile portfolio companies planning public debuts as part of an unprecedented group of unicorns taking the IPO plunge: Lyft, Pinterest, Slack and PagerDuty. All four successfully went public. But the result of those listings hasn't gone quite as planned.

The wave of high-growth but still unprofitable unicorns crashed onto Wall Street just as public market investors began to reevaluate how eager they were to invest in such companies at the sky-high valuations previously bestowed by venture capitalists. One might call it

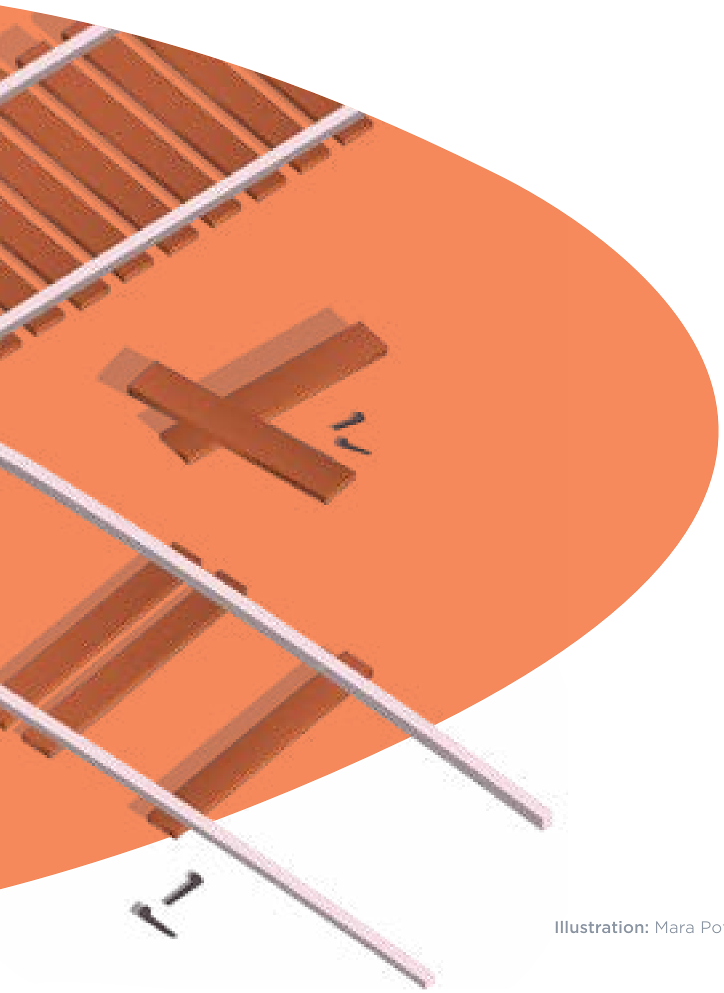

Illustration: Mara Potter

the WeWork effect. Both Lyft and Slack have seen their share prices plunge downward after their public debuts. Pinterest and PagerDuty both showed initial promise, but more recent months brought steady regressions down and to the right.

In the midst of it all, tech watchdog The Information published an in-depth report indicating that a16z's fund returns have also been falling off, with three of its past four flagship vehicles ranking in the bottom half of their respective benchmarks. The sale of shares in companies such as Lyft and Slack was supposed to offer a major boost to those IRR figures. But now, that boost doesn't seem as if it will be as big as it did a few months ago.

All that flux comes during what's been a very busy year for a16z on several fronts. In addition to all those exits, the firm has closed multiple major funds, made dozens of new VC investments and revealed plans to transform its legal structure. It's a cascade of changes that could represent the end of one era at the firm—one marked by its devotion to software startups and its shepherding of a cohort of longtime unicorns toward IPOs—and the beginning of something new.

If that's the case, what will the new era look like? Will software deals continue to be the firm's driving force, or will a16z alight on a new world-eating investment thesis? And after a decade in which it's transitioned from Silicon Valley upstart into a VC powerhouse, can it maintain its place at the forefront of the industry?

The firm declined to comment for this story. So instead, we'll turn to the data to see what a16z has been up to—and what might come next.

Changing tides

In retrospect, 2011 was a clear inflection point for a16z. It was both the year Andreessen published his famous software essay and the year the firm began to greatly accelerate its investment activity—a16z's VC deal count leaped from 24 in 2010 to 58 the following year, per PitchBook data, and that figure has never dipped below 60 deals in any year since.

In the future, we may look back on 2019 as another moment of transformation.

In early April, Forbes published a lengthy feature story on a16z that included two very newsworthy nuggets: One, that the firm was abandoning its traditional venture capital structure to become a registered investment advisor, and two, that it was seeking to raise as much as $2.5 billion for a new late-stage fund. A few weeks later, a16z made the new fund official, announcing a $2.0 billion close for a vehicle called LSV Fund I. At the same time, the firm closed its sixth flagship fund on $750.0 million, which it will use to continue making its usual early-stage investments in the enterprise, consumer and fintech sectors.

Together, the two funds represented the latest steps in a general diversification in fundraising tactics, moving away from its almost exclusive focus on early-stage software deals. In the two years prior, a16z also raised $450.0 million for its second specialized biotech fund and $350.0 million for a first-of-its-kind crypto vehicle, collecting a total of $800.0 million to devote toward two areas the firm has identified as having the potential for explosive growth—much like they set their sights on software at the start of the decade.

As it turns out, that crypto fund may have been one of the first indications that a16z's days as a true VC firm were numbered. Led by general partner Chris Dixon, a16z has emerged as one of Silicon Valley's most prominent cryptocurrency evangelists; in 2018, the firm made 17 VC investments in the space that were together worth more than $750 million, according to PitchBook data. But being registered as a VC made it difficult to delve too deeply into the sector.

In the US, VC firms are required by the SEC to invest a certain amount of their capital in the equity of private companies. RIAs, on the other hand, can devote as much of their money as they want toward cryptocurrencies, public companies, mutual funds or other assets. As operating partner Margit Wennmachers described it in an interview with CNBC, opening up more investment options was the primary motivation for a16z's structural shift.

"As a firm, we have this massive ambition to be the best investor period," Wennmachers said in April. "[We] want the flexibility to invest in what we think is the best investment."

Taken together, a16z's move to the RIA model and its launch of new fund strategies dedicated to crypto and late-stage venture deals represent the firm's desire to remain on the cutting edge. The world of venture capital is changing. Companies are staying private for longer and relying on VC funding much later into their lifespans. For a16z to ignore such developments would be for the firm to do its LPs a disservice.

It's also not the only firm making such changes. In October, reports emerged that Founders Fund was raising $1.5 billion for a new growth strategy that, like a16z's LSV Fund I, is designed to allow the firm to continue investing in its most successful portfolio companies as they mature.

Scott Kupor, a managing partner at a16z, put it succinctly earlier this year in a note announcing the firm's nearly $2.8 billion worth of new funds.

"As the industry evolves," he wrote, "so do we."

IPO hangovers

Against the backdrop of those developments, a16z was in the process of shepherding four of its highest-profile portfolio companies toward IPOs. Lyft led the charge, conducting a debut in late March that raised $2.3 billion and valued the company at about $24 billion, up from the $15.1 billion figure it achieved with its final private funding. After a first-day pop, a16z's 6.3% pre-IPO stake in the ridehailing company was worth more than $1.1 billion.

It was PagerDuty's turn two weeks later, with an IPO that valued the IT software developer at nearly $1.8 billion, in turn valuing a16z's pre-IPO stake at $284.0 million. A week after that, Pinterest took the plunge, going public at a $10.0 billion valuation, a multibillion-dollar dip from its last private fundraising. Still, the listing left a16z with a stake worth some $827 million. Slack completed the hectic stretch in June with a rare direct listing followed by a first-day pop, resulting in a market cap of $19.5 billion.

The workplace messaging company presented the biggest windfall yet for a16z. At Slack's reference price of $26 per share, the firm's holding was worth more than $1.7 billion. After a stellar first day, that figure leaped to nearly $2.6 billion.

All four of these companies were highly valued unicorns with businesses based largely on software. All four were also losing large amounts of money. For its fiscal 2018, Lyft posted a net loss of $911.3 million. PagerDuty's 2018 losses were much more modest, at $40.7 million, while Pinterest lost $63.0 million. Slack, meanwhile, was about $140 million in the red.

The logic behind their lofty valuations was based much more on revenue and growth than on current profits. But as 2019 progressed, it became clear that public investors were more worried about that than the companies' VC investors had been. Then, in late summer, the WeWork horror show began. More and more recent unicorns saw their stocks slump.

As of early November, shares of Lyft and Slack were selling for roughly half of what they were around the time of their respective debuts. Pinterest suffered a major dip in the wake of its 3Q earnings report, and PagerDuty stock was in the midst of a months-long decline.

For a16z, all four investments are still unabashed winners. But the reversals of fortune could raise questions about the wisdom of investing in loss-making unicorns late in their private lifespans, once their valuations are already inching into the billions—the sorts of late-stage deals, in other words, that a16z just raised a $2.0 billion fund to pursue.

The next generation

Those sorts of late-stage mega-deals have been a major part of a16z's activity during 2019, with the firm participating in more than a dozen VC rounds worth $100 million or more. But that's far from the whole

Illustration: Mara Potter

story. It's also stayed active as ever at earlier stages, and it's remained focused on the kinds of startups it knows best, with 66.0% of its investments targeting companies in the software sector, per PitchBook data.

Most notable, perhaps, was a16z taking the lead role in a pair of investments in Big Data specialist Databricks: First, a $250 million Series E in February, followed by a $400.0 million Series F at a $6.2 billion valuation in October. The firm has also been busy reupping with other late-stage portfolio companies. It helped lead a $310.0 million investment in mobility darling Lime and took part in a $300.0 million round for social media site Reddit and a $250 million funding for Stripe that valued the fintech company at more than $35 billion. It's also staking new unicorns, leading a $318.0 million deal at a $1.7 billion valuation this year for Carta, which makes software used to manage cap tables.

The firm also devoted capital in 2019 to several smaller, buzzy startups that have captured Silicon Valley's imagination for one reason or another. In September, it took part in a $126.6 million investment in Anduril Industries, a developer of controversial border-control technologies founded by Palmer Luckey, the VR whiz kid who sold Oculus VR to Facebook for $2.0 billion. In June, the firm led a $33.0 million round for Superhuman, the exclusive email startup that's turned into a sensation in Silicon Valley.

And then there's what might be the firm's most interesting move of all. In August, it took part in a $50.0 million Series B in the Long-Term Stock Exchange, an ambitious effort to create an alternative stock market that's concerned more with a company's long-term health than its ability to create immediate profits. One proposed feature of the LTSE is that shareholders could see their voting power increase the longer they maintain a stake in a company; another would be certain restrictions on the sort of payment incentives a business can offer its executives.

It is, quite literally, the sort of thing that VCs would create if they were building their own exchange from scratch. Considering the rest of a16z's year, one might wonder if the firm wishes the LTSE had been an option for companies such as Lyft and Slack. Perhaps by the time companies such as Anduril and Superhuman are mulling over IPOs of their own, it will be.

Predicting the future is difficult, of course. The ability to do so is largely what's fueled a16z's rise to its current position of Silicon Valley preeminence. Just as Marc Andreessen told us it would, software has long since started eating the world.

Look at what a16z was up to in 2019 and you can see the outlines of where the firm thinks the VC world is going in the next decade. As giant buyout firms have evolved in recent decades to encompass credit, real estate and more, so too will VC firms begin to expand, broadening their scope to invest in different kinds of industries and asset classes. The biggest VCs will raise larger funds and deploy that cash at later stages. They won't abandon early-stage deals. But those sorts of traditional fundings will turn into just one arrow in the venture capitalist's quiver.

Will it come to pass? Will a16z be proved right again? Check back later. Maybe sometime around 2030.

Private equity should become less private to address onslaught of criticism

By Adam Lewis

There have been plenty of stories through the years about the lengths private equity firms have gone to protect their privacy. The best example, perhaps, came more than a decade ago when Stephen Feinberg, the co-founder of Cerberus Capital Management, unleashed a statement that could get a modern-day CEO fired.

"We try to hide religiously," Feinberg reportedly told a group of investors. "If anyone at Cerberus has his picture in the paper and a picture of his apartment, we will do more than fire that person. We will kill him. The jail sentence will be worth it."

But for firms such as Cerberus, the days of protecting secrecy at all costs could soon be over. Private equity has received intense, mounting scrutiny over the past couple of years from all angles. Notable examples include a failed investment in Toys R Us that led to roughly 33,000 job losses, the closing of Philadelphia's Hahnemann University Hospital (which shut off care to many of the city's poorest residents), and the recent dismantling of popular sports blog Deadspin. Elsewhere, the industry has been blamed for job cuts at local newsrooms across the country and healthcare patients getting hit with surprise out-of-network bills.

Distrust of private equity isn't new, and that discourse won't change if presidential candidate Elizabeth Warren wins the Democratic primary and then beats President Donald Trump in the 2020 election. Over the past few months, Warren has attacked PE time and again, comparing firms to vampires that bleed companies dry while enriching themselves and also introducing jarring legislation that would upend the industry. A recent example of her charge came in November when she posted a BuzzFeed op-ed to Twitter that was written by a former Toys R Us worker with the headline "Private equity is the enemy of working people everywhere."

"When private equity firms acquire companies, suck out all the value they can, and walk away rich—leaving workers, their families and their communities suffering with the consequences—it's legalized looting," Warren wrote on Twitter. "I have a plan to end it."

All that said, now would be a good time for private equity firms to be more transparent, especially about their investments that don't pan out. The industry has long tried to distance itself from its reputation as corporate raiders, or "Barbarians at the Gate," a label it gained from KKR's hostile takeover of RJR Nabisco in the 1980s. And it has made strides over the past couple of decades, in part by improving operational efficiency at previously distressed businesses.

But there is still more that could be done. Releasing metrics on returns and fund performance, or showing where money is being invested, would be a good start in changing the narrative. The Deadspin debacle aside, Boston-based growth firm Great Hill Partners lists case studies of successful investments on its website, giving

Illustration: Conor Hamill

the public a view of how it organically drives revenue. Why not follow that lead?

When things go bad, explaining why certain decisions are made—such as cutting costs—just might help slow down the nearly constant stream of negative rhetoric around private equity.

Because even if Warren ultimately loses, the PE industry could face a new reality in the next few years. In July, Warren introduced the "Stop Wall Street Looting Act" along with fellow senators Tammy Baldwin (D-Wisc.), Sherrod Brown (D-Ohio) and House of Representatives members Mark Pocan (D-Wisc.) and Pramila Jayapal (D-Wash).

"For far too long, Washington has looked the other way while private equity firms take over companies, load them with debt, strip them of their wealth, and walk away scot-free—leaving workers, consumers, and whole communities to pick up the pieces," Warren said in the bill.

A former Harvard professor that's based her campaign on a series of detailed policy positions, Warren has described herself as a capitalist. Her bill, however, would fundamentally change the private equity landscape. It includes provisions to roll back the carried interest loophole so that capital gains income would be taxed higher as ordinary income; it requires firms to share in their portfolio companies' debt, legal judgments and pension-related obligations; and it bans dividends within the first two years of owning a company. In addition, PE firms would be required to disclose fees and returns so that LPs can monitor their activities.

Warren's plan has drawn widespread condemnation from the financial sector, though a few anonymous Wall Street executives admitted to Vox Media that some type of reform is needed. The American Investment Council, a lobbying group that represents the private equity industry, took a measured tone when asked for a response to the bill.

"Private equity is an engine for American growth and innovation, especially in Senator Warren's home state of Massachusetts," the AIC said in a statement. "Extreme political plans only hurt workers, investments and our economy."

> **"For far too long, Washington has looked the other way while private equity firms take over companies, load them with debt, strip them of their wealth, and walk away scot-free–leaving workers, consumers, and whole communities to pick up the pieces."**

The lobbying group also pointed to a recent study they commissioned which found that—surprise!—private equity was the highest-performing asset class for public pension funds, with a median 10-year annualized return of 8.6%. Those returns benefit retirement accounts of teachers, first responders and other public servants.

In November, the US Chamber of Commerce released a report that detailed what could happen if the "Stop Wall Street Looting Act" became law. Among the key findings: between 6.9 million and 26.3 million jobs would be lost in the US, governments would lose $475 billion in tax revenue and investors would lose up to $3.4 billion annually. Per the study, the private equity industry itself could eventually cease to exist.

Even amid PE's somewhat uncertain future, the public stock of high-profile firms is becoming more accessible than ever to common retail investors. Giants such as Blackstone, KKR and Apollo Global Management have all recently flipped from publicly traded partnerships to C-Corps, making their shares more open to mutual funds and ETFs found in many retirement accounts. The Carlyle Group will follow suit and make the flip on January 1.

One could argue that greater accessibility to retail investors comes with elevated responsibility to both shareholders and the public at large to be more transparent—and even participating financially in the downside rather than just the upside. KKR and Bain Capital, the latter of which is private, took a step in that direction last year when they committed $20.0 million to a fund for the workers laid off when Toys R Us was liquidated by creditors. But it took a good deal of public shaming first. Why not do it before the pressure reaches a boil?

During Blackstone's most recent earnings call, co-founder and CEO Stephen Schwarzman went out of his way to dispel the negative narrative surrounding private equity. Stepping away from his book tour to tout the firm's investment record, he said only one Blackstone-owned portfolio company from over 700 investments has gone bankrupt over the past 15 years and none of those companies have been liquidated. During that timeframe, he claims Blackstone has created 100,000 net jobs.

"That's a pretty remarkable record," Schwarzman said.

And he's not wrong. It's a big reason why Blackstone now has a whopping $554.0 billion in AUM and expanded into other alternative asset classes such as real estate, hedge funds and credit in a big way.

But the firm has also been involved in a number of controversies recently. For instance, the United Nations alleged earlier this year that Blackstone-backed Invitation Homes was responsible for driving low-income tenants from single-family homes; more specifically, the firm would often acquire low-income rental properties, make renovations, then increase the price whether residents could afford it or not. Blackstone responded to the UN shortly thereafter, citing factual errors and inaccurate conclusions without offering much definitive counterevidence.

If Warren gets elected, the firm will have more than just the UN to answer to—even if she's checked in the near term by a Republican-controlled Senate and a conservative Supreme Court.

But private equity firms don't have to wait until change is mandated or legislated. They could open up and get ahead of the narrative, for once.

Maybe even win back a little goodwill.

How VCs can help the next generation of immigrant founders—and why they should

By Priyamvada Mathur

In a landmark policy decision more than five decades ago, then-US President Lyndon B. Johnson signed the Immigration and Nationality Act of 1965—a federal law that abolished a quota system based on national origin and focused on reuniting immigrant families and attracting skilled professionals.

The law, along with several other factors like a robust academic system, has allured some of the brightest minds from around the world to consider the US as the premier destination to start their businesses.

That might be one reason why attracting and retaining international talent hasn't been a pressing issue for the broader venture capital ecosystem in the US. According to a report last year from the National Foundation for American Policy, more than 50% of private US-based unicorns, as of October 1, 2018, had at least one immigrant founder. That group includes SpaceX, Stripe and Instacart and also featured some of the highest-profile exits of the past year in Uber, Slack and CrowdStrike.

However, convoluted immigration policies and political gridlock under the current administration have sparked conversation around talent retention and how it might impact venture firms in the near future—especially as immigrant founders consider the US as one of many options to fulfill their entrepreneurial pursuits.

One of those founders is Kenya-born Felix Orwa. In 2009, 18-year-old Orwa flew from Nairobi to Oklahoma with a dream of becoming a pilot, and for the next 10 years, he studied aeronautical engineering, juggled multiple jobs and pursued a second degree in aviation management. Orwa has since moved to Silicon Valley and is currently building Sote, a provider of logistics services across Africa. Launched in 2017, the Palo Alto-based company has raised funding from several investors and recently added a pool of US-based engineers to help grow the business.

That journey shows the American dream can still be alive and well, but Orwa says the tortuous experience of getting his passport stamped with numerous visas over the years has made him doubt his future plans several times. From applying for an off-campus employment visa due to severe financial hardship to enrolling in a marketing certificate program that allowed him to extend his stay in the US for another year, it has been a meandering path to this point.

"My intent was never to necessarily live in the US. It was to build something," he said. "If things didn't work out here, I always thought of going to Canada or back to Africa."

An early-stage VC firm that invests in immigrant-founded startups has helped Orwa pursue his goals. Unshackled Ventures sponsored Orwa's non-immigrant business visa, which allows him to actively work alongside his American co-founders and travel

Illustration: Kelilah King

back and forth to Kenya without restriction. The Palo Alto-based firm, co-founded by Manan Mehta and Nitin Pachisia, helps immigrant founders navigate the bureaucratic maze by sponsoring an array of visa types and providing other forms of support.

Mehta said that it took time for the VC ecosystem to recognize how distracting the immigration process can be, and that it's a complication that doesn't allow founders to fully focus on what's most important: "Their business was worth the same amount before we help, right? We know that immigration is just slowing people down from real value creation."

Unshackled, which closed its sophomore fund on $20.0 million in May, usually uses its own balance sheet to sponsor a visa. The firm also provides support in the way of network connections in addition to typical equity investments, with a preference of leading pre-seed rounds under $500,000. The strategy appears to be paying off; VC heavyweights including NEA and Y Combinator have often collaborated with Unshackled and co-invested in its portfolio companies.

"The reason why many VC firms are coming to us now is because once we invest, they no longer have to worry about immigration [issues]," Mehta said.

Unshackled has often teamed with another VC firm focused on investing in immigrant-founded startups: Boston-based One Way Ventures provides seed and early-stage funding to tech companies founded or co-founded by immigrants in the US or Canada.
Partner Lex Zhao, who has led several investments for One Way, noted that a volatile political climate has led to a lot of uncertainty for immigrants going into 2020.

"It's important to retain talent in the US that allows everyone to build companies, create jobs and keep the American economy competitive," he said. "We need to realize that talent can go somewhere else. It's in our country's interest to retain them."

Clearly, venture capitalists cannot be responsible for every aspect of an ecosystem that ensures the US won't lose out on talent—that's vague and unrealistic. However, VCs should strongly consider creating a culture of open dialogue around immigration support, if they haven't already.

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After all, the core aim of investors is to deploy capital and deliver adequate returns, and the loss of foreign-born founders and highly skilled workers is bound to affect that in due time. For reference, the collective value of the 50 immigrant-founded unicorns highlighted in the aforementioned NFAP report was $248.0 billon.

Wharton management professor Zeke Hernandez co-wrote a research paper earlier this year that offers a forward-looking insight into how immigration will play a significant role in the allocation of capital across countries. His work found that the more a VC firm invests in startups that have immigrant founders, the more that firm will later invest in startups located in the country where those immigrant founders are from.

According to Hernandez, a first-generation immigrant typically brings firsthand knowledge and connections to the equation—usually business and personal experiences in their home country before coming to the US. Immigrants often need time to unite their past experiences with their new surroundings before coming up with an entrepreneurial idea, so it makes sense to give them time to identify a problem and attempt to solve it.

“The current system is primarily focused on family reunification, rather than talent or skills, and we need an entrepreneurial visa without very large capital requirements,” Hernandez said.

William Kerr is the co-director of Harvard’s Managing the Future of Work initiative, which focuses on researching forces that are redefining how businesses and policy leaders attract, retain and improve human productivity. He isn’t surprised that two VC firms such as Unshackled and One Way are working with each other, as well as other investors.

“Any time you have a system that has gaps and poor mechanics, such as our current immigrant process, companies and individuals are going to try to figure out the best way to approach that,” Kerr said. “And if there are gains that can come from scaling operations and balancing out some of the vagaries around immigration paperwork that are outside of their control, I can see the motivation and incentive for doing it.”

Kerr, who wrote extensively about how migration shapes businesses, economy and society in his recent book, explained that it doesn’t make sense for entrepreneurs and venture capitalists to approach the problem by offering politically impossible ideas, such as open immigration structures and unlimited work visas. But there is a need to come up with a system that would structure policies in a way that would prioritize entrepreneurial talent.

“I hope venture capitalists continue to come together and make a set of policy proposals that are hard to turn down,” he said. “Approach the issue with pros and cons. ... Here’s what we really need and here’s an approach that we think would be getting us there. It would benefit the country as a whole.”

Venture capitalists in the US should understand the risk of losing out on tomorrow’s talent and stay ahead of competing venture hubs like China and India. There’s a need for VCs to help craft internal policies in a way that invites the next generation of entrepreneurs from around the world.

And help simplify the process enough to make immigration worth their effort.

A decade of dabbling in private markets

Mutual fund managers stepped up their bets on unicorns, exposing gulf between their valuations and those of venture capitalists

By Alexander Davis and Zane Carmean

Investors in the public markets are getting a taste of the hazards of illiquid private markets—thanks to mutual fund managers expanding their bets on some of the most highly valued unicorn companies.

A quiet but remarkable trend of the past decade has witnessed fund managers' increased use of public market capital being deployed into Uber, WeWork, Airbnb and dozens of other private, high-profile startups that were seeded by Silicon Valley venture capitalists.

Some of the bets paid off handsomely in recent years for mutual fund giants such as Fidelity, T. Rowe Price and Hartford. But along the way, the private market dabbling by these public market players has highlighted the wide-ranging asset valuations that fund managers assign to difficult-to-trade shares that receive only formal share prices agreed upon by VC investors during their funding rounds.

In the mutual fund industry, managers are accustomed to the daily price fluctuations of equities in their portfolios, and they settle up their net asset values accordingly to reflect those prices. By contrast, valuation of privately held shares of startups is opaque. And yet, because US fund managers are required to report the value of their holdings on a monthly or quarterly basis, there is often a gulf in pricing benchmarks on private shares across the industry.

Mutual fund managers making such investments are walking a fine line between traditional fund management and more aggressive, riskier forms of alternative investments outside their core competency, said Derek Hageman, a financial analyst with the American Association of Individual Investors, an educational group based in Chicago.

"They're not VCs. They're not PE investors," Hageman said. "They're mutual funds."

Traditionally, managers of big mutual funds seldom expose their stock-laden portfolios to the highly illiquid private markets. But more recently, their heightened involvement in startup fundraising, often in later-stage funding rounds, at times has been criticized for encouraging overly lofty valuations of Silicon Valley companies.

Indeed, some flops by formerly high-flying venture-backed companies that made forays into the IPO market this year have provided a stark reminder of the risks that fund managers have accepted by blending a few lofty private assets with their comparatively staid stocks that are publicly traded.

Now those valuations are confronting some steep downward adjustments.

In one of the more spectacular illustrations of the trend, fund companies have marked down holdings in Juul, the e-cigarette maker facing a regulatory crackdown. In the first half of 2019, Fidelity and American Funds collectively held shares in Juul valued

Illustration: Conor Hamill

at nearly $1.3 billion (the entirety of fund industry holdings of that company). But the fund managers have since revised that down to $693 million as of September 30, according to fund disclosures.

WeWork's disastrous attempt at going public in the fall served up the most dramatic datapoint yet for widely held mutual fund companies such as Fidelity, Vanguard and John Hancock that tagged lofty valuations on their shares in the co-working space provider. The top 10 mutual funds collectively owned WeWork shares worth almost $586 million in the first half, based on the fund managers' valuations, according to a PitchBook analysis of the most recent data available for that period.

To stave off a cash crisis, WeWork is currently on life support after it accepted a rescue package of financing from SoftBank that comes with a new valuation of $8.0 billion, or $19.19 a share.

That's a small fraction of the lofty share price that SoftBank and other investors placed on WeWork in late 2018—long before the company's doomed IPO.

Fund managers, however, have attached a wide range of valuations to WeWork. Hartford, John Hancock and Principal gave the company an implied value of $42.0 billion, or $110 a share, in November 2018. Meanwhile, T. Rowe Price and Fidelity, the largest US fund manager, had implied valuations of $25.0 billion and $28.0 billion, respectively.

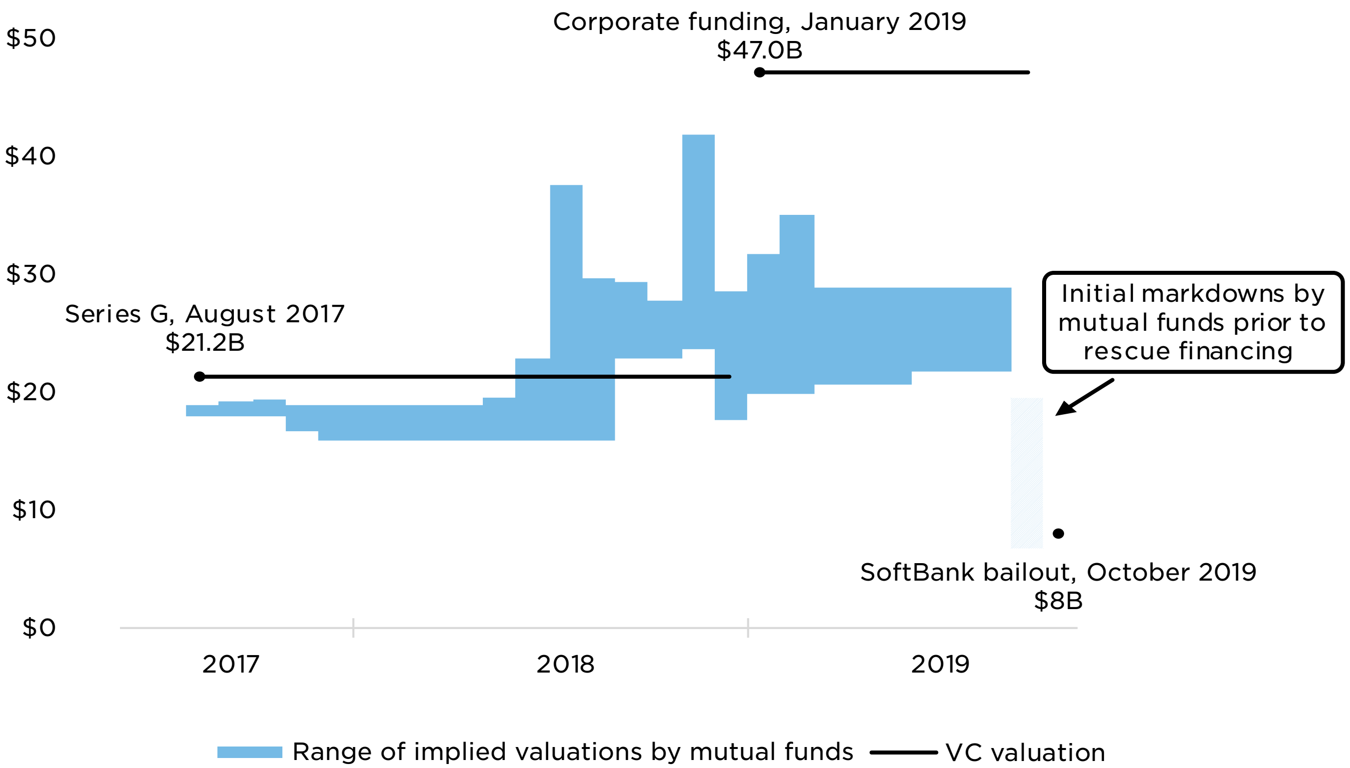
It's unclear whether mutual funds sold any of their WeWork shares as part of SoftBank's new financing.

Fund companies' WeWork holdings

Firm name	Latest valuation* ($M)	Disclosed WeWork share price*	Peak share price in 2018/2019	Markdown from peak price
Fidelity	$228.0	$35.33	$102.48	-66%
Hartford Investments	$88.4	$37.80	$110.00`	-66%
John Hancock	$32.9	$63.37	$110.00`	-42%
Vanguard	$23.0	$45.90	$68.00	-33%
Jackson National	$7.3	$16.13	$63.74	-75%
MassMutual	$3.6	$17.03	$65.74	-74%

Source: The companies, Morningstar and PitchBook
*As of September 30 except John Hancock, which is June 30

Wide-ranging WeWork valuations ($B)



Source: Fund filings, Morningstar and PitchBook
Note: Each bar represents a month. Fund manager valuation uses shares outstanding as of most recent VC round at the time.

Most funds tend to shy away from private assets in part because of their need to maintain enough liquidity to accommodate a potential wave of investors seeking redemptions.

Only 5.8% of funds held some form of private assets as of December 2017, according to a study by fund tracker Morningstar, PitchBook's parent company. US regulations cap private shares at 15% of fund portfolios, and most funds keep private assets well under 5%.

Fidelity, T. Rowe Price and Hartford funds in recent years have made the industry's biggest commitments to private market shares, as managers sought higher returns in an era with fewer new stocks coming onto the public markets. Since 2015, that has led fund managers to buy into many of Silicon Valley's hottest, high-growth startups like Uber, Airbnb, Dropbox, Pinterest and Slack.

Representatives of Fidelity, John Hancock, T. Rowe Price and other big mutual funds holding WeWork shares declined to comment about individual stocks in their portfolios. But they said that investment committees using proprietary methods establish the fund company's price benchmarks and review them on a quarterly basis. SoftBank didn't respond to a request for comment.

T. Rowe issued a statement saying the private markets are a "natural extension of our core investment process" and the company subjects all its potential investments to the same due diligence process. It also acknowledged that private market deals are inherently riskier than publicly traded stocks.

"Our long-term focus and patience is one reason we believe we are a good 'owner' for private companies," T. Rowe said.

The idea of being a good owner of startups sharply gained momentum with US fund companies in this decade as investors showered capital on Silicon Valley-backed startups. Fund managers have joined forces with VC firms in at least 278 funding rounds that collectively gathered $52.0 billion since 2014, according to PitchBook data. By comparison, fund companies took part in only 73 such deals raising $6.4 billion in the first half of the decade.

To be sure, although fund managers are facing mighty markdowns on stakes in WeWork and Juul, those

shares make up a relatively small allocation in heavily diversified portfolios, so their overall negative impact is limited.

Take Fidelity's Contrafund, a large growth fund with assets of almost $115 billion. The sprawling fund, managed by Will Danoff for three decades, initially invested about $214 million in WeWork in 2015 with a purchase of 6.5 million shares at $32.89 apiece, the fund disclosed in filings.

More than a year later, Contrafund added 2.2 million shares priced at $50.19 and then took some profits with two separate rounds of share sales, resulting in a realized gain of about 58%. Factoring in SoftBank's rescue package and a share price of $19.19, Contrafund's WeWork shares are facing a 43.0% discount to their original purchase price. Even with realized gains from earlier partial sales, Contrafund still faces a loss of 29.0% on its overall position since its entry into WeWork.

All the while, Contrafund has delivered a 22.0% return YTD, according to Morningstar. Other notable private companies in Contrafund's portfolio as of August 30 included vacation rentals platform Airbnb, genetic-testing specialist 23andMe and direct-to-consumer shoe company Allbirds.

The results look a bit rosier at Vanguard's US Growth Fund, which first bought 517,000 shares of WeWork at a more appealing entry point of $16.65. Vanguard already has sold 33,000 shares at $51.81, but its last available valuation put its WeWork shares at $45.90, which would represent an unrealized loss of 58.0%, assuming a newly reset valuation of $19.19 per share.

On some occasions, fund managers' markups of shares anticipated fundraising rounds in which VC and late-stage investors assign sharply higher valuations. Hartford, Principal and Vanguard, for example, all priced their stakes in Airbnb at $130.39 a share in 2016. Several months later, the home-rental company closed a Series F round at $105 a share for a valuation of $30.0 billion. Hartford, Principal and Vanguard then marked their shares down to that $105 level.

After this year's crop of troubled IPOs by several formerly high-flying startups, fund managers seem likely to face fresh scrutiny about whether they applied adequate screening of private assets in line with industry practices.

"Even if a fund manager invests a relatively modest amount of capital in private placements, the kinds of companies that manager invests in says something about his or her process," said Alec Lucas, a senior analyst with Morningstar.

He also said enough concerns had emerged about WeWork's business model that "one has reason to question the level of due diligence" and judgment the funds have applied.

"Even the best active managers make mistakes," Lucas said, "but some mistakes are more telling than others. Investing in WeWork is a telling mistake."

It's ok, Adam...We all float out here.

DEALMAKERS SERIES

PE sponsors turn toward bifurcated debt structure

Most PE professionals were predicting a market downturn 12-24 months ago, yet the PE market keeps chugging along. A key driver behind lofty valuations across all markets is the supply-demand imbalance between the number of transactions versus the amount of PE capital chasing these investment opportunities.

According to PitchBook, while North American M&A activity has stagnated from its 2015 peak, PE activity in the US reached a record $735 billion in 2018 across 5,334 deals. PE transactions reached its highest percentage of full-year M&A deal flow in 2018 at 36.3%, up from 27.5% in 2010. Through 3Q 2019, US PE firms have completed 3,883 deals totaling $501.2 billion, putting deal value at approximately the same level we saw through 3Q 2018.

The increase in PE activity is largely driven by the amount of dry powder currently outstanding in the private markets. PitchBook estimates nearly $1 trillion in unfunded PE presently chasing both publicly and privately held businesses, putting pressure on GPs to deploy capital.

While PE M&A activity remains strong and all signs point to continued deal volume, concerns about rates, tariffs and a looming recession will cause PE firms to revisit the importance of flexibility in the capital structure. Some PE sponsors have begun signaling their preference toward the bifurcated (senior/mezzanine) debt structure and a willingness to trade pricing for flexibility through a senior/mezzanine debt execution.

At Abacus Finance, we continue to see our sponsors utilize the bifurcated debt solution as they seek out additional flexibility in the capital stack. Five of our last 10 transactions utilized a senior/mezzanine debt execution—a proven, more flexible solution during turbulent times.

To discuss Abacus Finance's Total Partnership Approach™ to cash flow-based, senior secured lending in PE-backed transactions, contact Seth.

Seth Friedman
Managing Director
Abacus Finance
T: (212) 850-4629
M: (347) 534-6968

Seth Friedman joined Abacus in 2019 as a Managing Director. He is responsible for originating, structuring, underwriting and executing new investments. Seth has over 20 years of investment experience in leveraged finance and investment banking in the lower middle market.

Seth was previously a Managing Director at GB Capital, LLC, where he led the firm's lower-middle-market business development efforts. Prior to GB Capital, he spent over five years as a Managing Director at RLJ Credit Management, LLC, leading the firm's originations efforts. Prior to RLJ Credit, Seth co-founded Perseus Finance, LLC and served as a Managing Director. He holds a BS from the University of Wisconsin at Madison.

Analyst Insights

VC returns by series: Part I

Profitable niches could emerge from intensifying competition

By Cameron Stanfill, CFA

Key takeaways

- Our data illustrates a lower percentage of successful exits than the oft-quoted “1/3, 1/3, 1/3” heuristic, with around 25% of all deals returning more than 1x and only one in every eight reaching 5x return.

- For companies that reach an exit, we see significantly superior returns from earlier stage deals, with Series A financings posting an impressive 27.7% annualized return and Series B coming in next at 18.2%. Returns continue to decrease as investors move later in the VC lifecycle, culminating with the Series F category posting around a 7.5% annualized return.

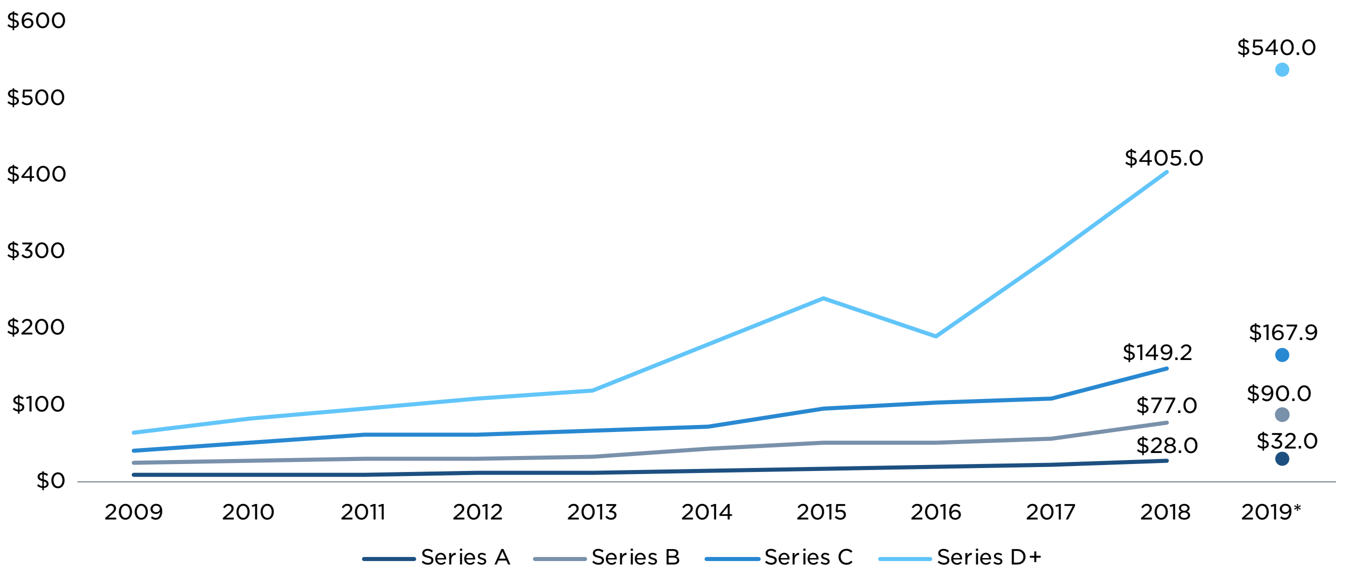
- The relative outperformance of returns from the early stage reverses completely when adjusting for failure rates. The Series A-C group inflects negative and Series F returns post the most favorable value. With a -4.3% adjusted annualized return, Series A goes from first to worst.

Introduction

Over the last decade, the “new normal” of slower global growth and lower return expectations across asset classes has compelled capital allocators to edge further out on the risk spectrum, catalyzing a massive influx of capital into the venture ecosystem. High-profile success stories such as Facebook and Uber have bolstered VC’s popularity, inspiring a new generation of investors to open the capital floodgates. 2018 set a new annual record for US VC investment at $136.7 billion, and 2019 is on pace to surpass $100 billion again. An unprecedented amount of available funds for startups has enabled this investment level, which has led to increasing divergence between the early and late stages. The late stage has become more skewed toward massive sums that previously would have been categorized as growth deals. As a result, late-stage VC companies now mirror the size and maturity of public companies and therefore command fundamentally different risk and return expectations.

Aggregate VC fund returns have waxed and waned over the last decade, with positive momentum building over the past year. This has come on the heels of a couple years of strong exits and distributions back to LPs, which we expect to continue given the exit totals we’ve seen so far in 2019. However, fund-level data often skews toward larger funds and exits in addition to relying heavily on paper gains. Further, the rising prominence of nontraditional VCs such as sovereign wealth funds, hedge funds, mutual funds and CVCs means that VC fund data provides a largely incomplete picture. Therefore, on a deal level, we aimed to explore whether the entry point of the investor affects eventual returns and by how much. Using our round-level data, we examine the risk-return profiles broken out by series and explore some of the nuances of investing at different stages in a company’s lifecycle. That analysis will enable investors to construct hypothetical portfolios to estimate returns. This is the first edition in what we expect to be a continuing exploration of this dataset.

Median VC post-money valuation ($M) by series



Source: PitchBook | Geography: Global
*As of August 8, 2019

Batting averages

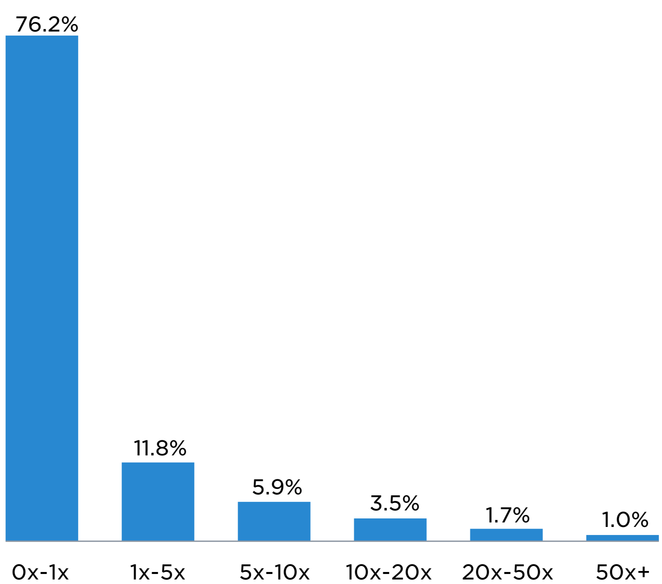
There is no doubt that VC investing is a tough business, with both heuristics and statistics telling a similar story. The early-stage rule of thumb regarding batting average expectations is "1/3, 1/3, 1/3" (i.e. one-third of investments is completely written off, one-third returns principal or a slight gain and one-third achieves a successful exit). However, that oversimplifies the market.

Our data illustrates a lower percentage of successful exits than this rule of thumb would dictate, with only one in eight surpassing 5x returns, translating to a higher failure rate, with more than 70% of deals being written down. This distribution provides another piece of evidence to the hypothesis that returns on VC investments closely follow a power law distribution—wherein around 20% of the investments drive at least 80% of the dollars out.

In the late stage of the VC lifecycle, companies become more mature and expectations are higher surrounding the percentage of investments with positive returns. With a reduction in perceived risk, the late stage also provides incoming investors slightly less upside given the higher entrance valuations. As the VC ecosystem continues to mature, we've seen more specialization from investors, carving out niches within VC where they feel they have an advantage. For example, mutual funds and asset managers have moved into investing in pre-IPO rounds because they have expertise in businesses of that maturity and want to secure the expected return from a potential IPO pop. In a similar vein, SoftBank has established a prominent place within the market because it is able to cut massive check sizes. Others are moving into pre-seed investing to fill the gap opened by ongoing VC shifts such as lowered startup costs and increasing valuations.

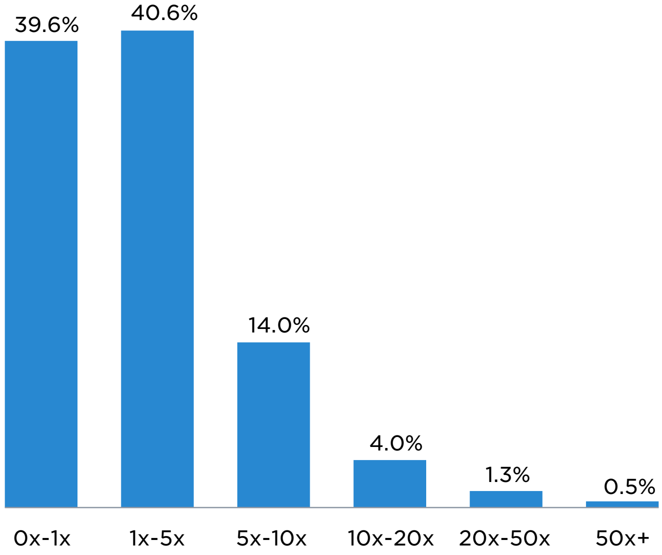
The market has begun to recognize these new distinct segments and raise funds to capitalize on offering more niche options. This enables more targeted searches for LPs by GPs and increased choice and control for LPs over their alternative strategies.

VC MOIC distribution*



Source: PitchBook | Geography: Global
*As of August 8, 2019

VC MOIC distribution for companies that raised Series D+*



Source: PitchBook | Geography: Global
*As of August 8, 2019

The data

The return calculations are derived by allocating the proceeds of all recorded exits on a deal-by-deal basis based on the ownership by each series of stock. These proceeds are aggregated to make this analysis as comprehensive as possible and then compared to the aggregate capital investment by series in all exited companies. We initially noticed some significant outperformance from the earlier stages, with Series A posting an impressive 27.7% annualized return and Series B coming in next with 18.2%. Returns decrease as investors move later in the VC lifecycle, culminating with the Series F category posting a 7.5% annualized return. Interestingly, 7% is commonly quoted as the long-term annualized return expectation for public equites, supporting the idea of convergence between public and private markets. Since this view includes only successfully exited investments, it highlights the returns of only the winners, which means outperformance by earlier stages is a logical result given the difference in entrance valuation.

However, this analysis is incomplete because not every company achieves a successful exit. To combat this, we've added an out-of-business (OOB) adjustment to the raw capital investment numbers by a compound failure risk to account for capital investment that went into companies that never reached an exit. This incorporates the success rates at each stage and how much capital investors must put to work to achieve a successful exit. Essentially, to continue the baseball metaphor, this methodology accounts for the number of at-bats per homerun at each series.

After adjusting for the higher failure rates in the earlier stages, there is a stark reversal in the relative performance by series. The previous outperformance displayed by Series A and B over the other stages disappears completely as the Series A-C group inflects negative. With a -4.3% adjusted annualized return, Series A goes from first to worst, highlighting the reality of investing in such young businesses. While the hits and homeruns produce impressive returns when they occur, from our base-case analysis, it seems the reward may not validate the risk. Also notable are the negative annualized returns for Series B and C under our base-case assumptions. To complete the analysis, we've included sensitivity analysis around the failure rates for each series given the implicit imperfect nature of our assumptions. Even when utilizing this sensitivity analysis, a relative success rate increase of 20% for Series B and Series C does not move the annualized returns back into positive territory. This sensitivity analysis is critical to the broader applicability of our overall argument, allowing for customization depending on each investor's market outlook.

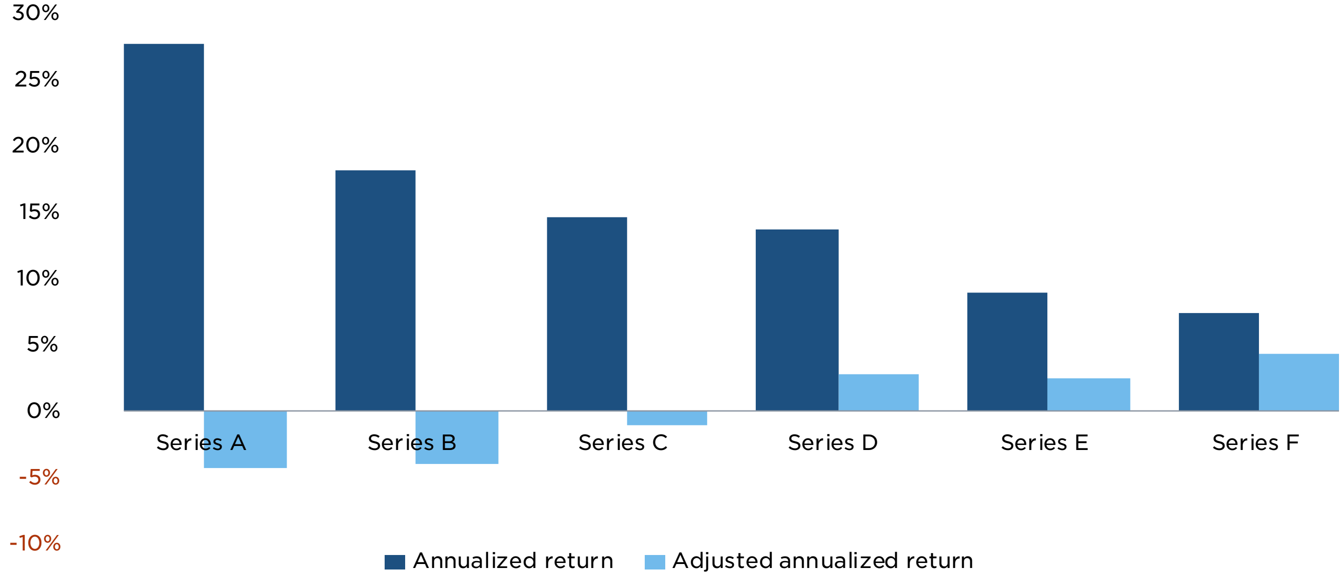
Again, this data is presented in the aggregate, which is important to note in the face of some weaker adjusted returns. The power law distribution of VC returns is well established and worth mentioning again here, as success

VC returns by series*

	Total return	Adjusted return	Annualized return	Adjusted annualized return	OOB adjustment
Series A	273.1%	-21.1%	27.7%	-4.3%	21.1%
Series B	138.3%	-18.7%	18.2%	-3.9%	34.1%
Series C	94.3%	-5.0%	14.6%	-1.1%	48.9%
Series D	73.4%	12.4%	13.7%	2.8%	64.8%
Series E	39.0%	9.7%	9.0%	2.5%	79.0%
Series F	28.8%	16.4%	7.5%	4.4%	90.4%

Source: PitchBook | Geography: Global
*As of August 8, 2019

VC annualized returns by series*



Source: PitchBook | Geography: Global
*As of August 8, 2019

Adjustment methodology: We started with the output from a VC funnel analysis to get a baseline number for success rates at every round, or more specifically the number of companies that either raise a subsequent round or exit. We then compounded the success rates at each round and all those subsequent to find the total risk that a company does not exit, in what we are referring to as the OOB adjustment (e.g. for a Series C investment, the total risk is the Series C success rate multiplied by the Series D success rate, multiplied by the Series E success rate, and so on). Using that OOB adjustment, we calculated the adjusted aggregate capital invested to compensate for companies where the capital investment is excluded—for instance, if we were missing the capital investment for the about 78.9% of Series A deals that did not exit.

in VC is predicated on achieving an abnormal distribution of outcomes—that is, finding outperforming managers that can hit an above-average percentage of home runs per fund. This is similar to how we see fairly mediocre median VC fund returns; the top quartile or decile results are among the most compelling returns of any strategy.

The improvement of the relative performance of late-stage investments after the adjustment matches our early hypothesis. Logically, the outright bankruptcy or failure rate drops extremely low after a company has raised five or six equity rounds, putting the expected batting average for the late stage much closer to 100% than the early stages. However, the rather modest results imply that returns on these more mature businesses reflect a more secure investment. We attribute a significant amount of this struggle to the growing investor base and therefore rapidly rising valuation environment at the late stage over the last decade. With median valuations at Series D+ up over 750% since 2009, the high prices investors must pay for access to these rounds are pressuring the returns on the eventual exit. The step-up figures emphasize this point. Multiples for late-stage companies are held lower given the higher base, implying that growing the equity

VC adjusted annualized return with OOB sensitivity analysis by series*

	OOB adjustment -20%	OOB adjustment -10%	Adjusted annualized return	OOB adjustment +10%	OOB adjustment +20%
Series A	-8.2%	-6.2%	-4.3%	-2.6%	-1.0%
Series B	-7.9%	-5.8%	-3.9%	-2.1%	-0.5%
Series C	-5.5%	-3.2%	-1.1%	0.9%	2.7%
Series D	-2.5%	0.3%	2.8%	5.1%	7.2%
Series E	-3.3%	-0.3%	2.5%	5.0%	7.5%
Series F	-2.0%	1.3%	4.4%	7.3%	7.5%

Source: PitchBook | Geography: Global
*As of August 8, 2019
Note: OOB adjustment is capped at 100%.

VC OOB adjustment matrix by series*

	-20%	-10%	OOB adjustment	+10%	+20%
Series A	16.9%	19.0%	21.1%	23.3%	25.4%
Series B	27.3%	30.7%	34.1%	37.5%	41.0%
Series C	39.1%	44.0%	48.9%	53.8%	58.7%
Series D	51.8%	58.3%	64.8%	71.3%	77.8%
Series E	63.2%	71.1%	79.0%	86.9%	94.7%
Series F	72.3%	81.3%	90.4%	99.4%	100.0%

Source: PitchBook | Geography: Global
*As of August 8, 2019
Note: OOB adjustment is capped at 100%.

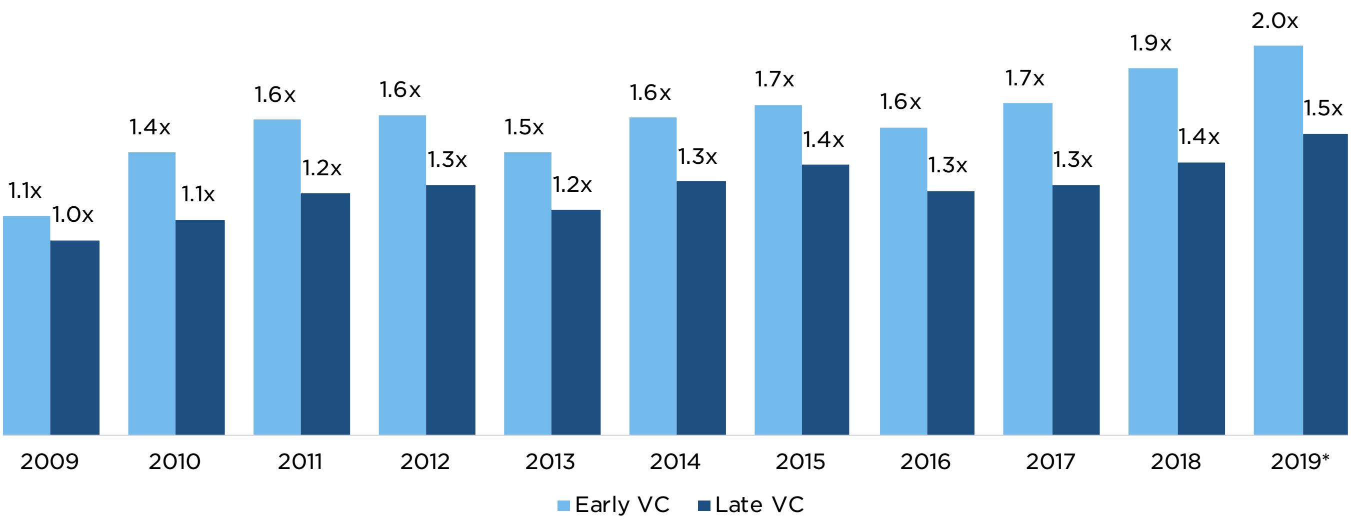
value of a business gets progressively harder as the company scales.

We have yet to see a surge in down exits, signaling that the market is still supporting large VC-backed exits at this point in the cycle. There have been some key exceptions to that at the very top of the market—notably, Uber and Lyft. Both of those ridesharing giants are outliers in size and in pricing. After both high-profile VC exits saw tempered demand in their public offerings, the stock prices fell below the respective offering prices, which we have yet to see either reclaim. Whether this becomes the norm for 10-figure VC-backed exits or not will be the true test of whether this ultra-late-stage investing strategy has any long-term staying power.

Conclusion

As our data has corroborated, VC investing is no walk in the park. While payouts on early-stage investments into eventual unicorns are massive, there are far more losers than winners across stages in aggregate. The deluge of VC-backed exits over the last few years has contributed to record distributions back to LPs, but not all investors are created equal. The later series have relatively outperformed the earlier series after adjusting for the success rate of investments at every round. Series A and B returns saw the most drastic shift due to this adjustment, dropping from the highest returning segments to a negative adjusted annual return, which highlights the low batting average for investments at that stage. Individual firms and funds buck these trends all the time, but the data indicates that the odds are stacked against them and accentuates the importance of backing top managers. The competition from both inside and outside of VC seems to only be expanding under the current market conditions, which should further pressure returns and make finding profitable niches even more critical. As we continue to dive deeper into this dataset, we hope to provide even more granularity and customization to this analysis.

VC valuation step-ups by stage



Source: PitchBook | Geography: Global
*As of August 8, 2019

Venture debt overview

Venture debt usage is growing across industry

By Kyle Stanford

Methodology

Definitions of venture debt vary widely. Some include convertible notes and others use methodology that may simply look at term loans or lease financing provided to VC-backed companies.

PitchBook defines venture debt as all non-dilutive or low-dilution debt products structured and provided for VC-backed companies at the time of the loan. This includes convertible notes, term loans, lease financings and revenue-based investments. Debt financings made to unbacked companies will not be included in our dataset, though we acknowledge that forms such as revenue-based financings may target unbacked companies in some situations. Our methodology encompasses many different credit offerings and will be flexible regarding new debt products that focus on startups and companies under the VC umbrella.

Key takeaways

- This note sets a precedent and definition for how PitchBook will track and analyze venture debt.
- The avenues for startups to borrow capital are growing, not only through traditional forms such as banks or private debt funds, but new structures such as revenue-based financings and startup business models targeting early-stage lending.

Introduction

Founders with ambitious aspirations need capital to scale, and the basis of VC investing has traditionally been equity financings. These investments offer startups relatively patient capital that is untied to immediate repayments, often with access to investor networks, operations support and advice. In return, VC investors enjoy limitless upside potential from their equity stake, actively seeking out high-growth companies that can eventually become dominant in an industry or create a completely new vertical. The trade-off for startups receiving VC financing is that an investor syndicate can take 20% or more of the total equity in the company each round, which dilutes equity for founders, employees and existing investors. That implicit cost can be expensive. High discount rates are needed to incentivize investors to take on uncertainty, but those discounted stakes could end up being worth hundreds of millions in the end.

Debt usage is not new to VC-backed companies. Equipment leasing and working capital financing have always favored debt usage over raising more equity. Today's venture debt goes beyond traditional use cases. Rising valuations are attached to loftier benchmarks that companies need to reach before the next round, and competition for growth has moved the need for huge amounts of cash up in the venture timeline. The evolution of the VC industry has enabled alternative forms of funding with space for growth. As a result, venture debt has seen increased adoption from startups at all stages of development in recent years.

Venture debt market

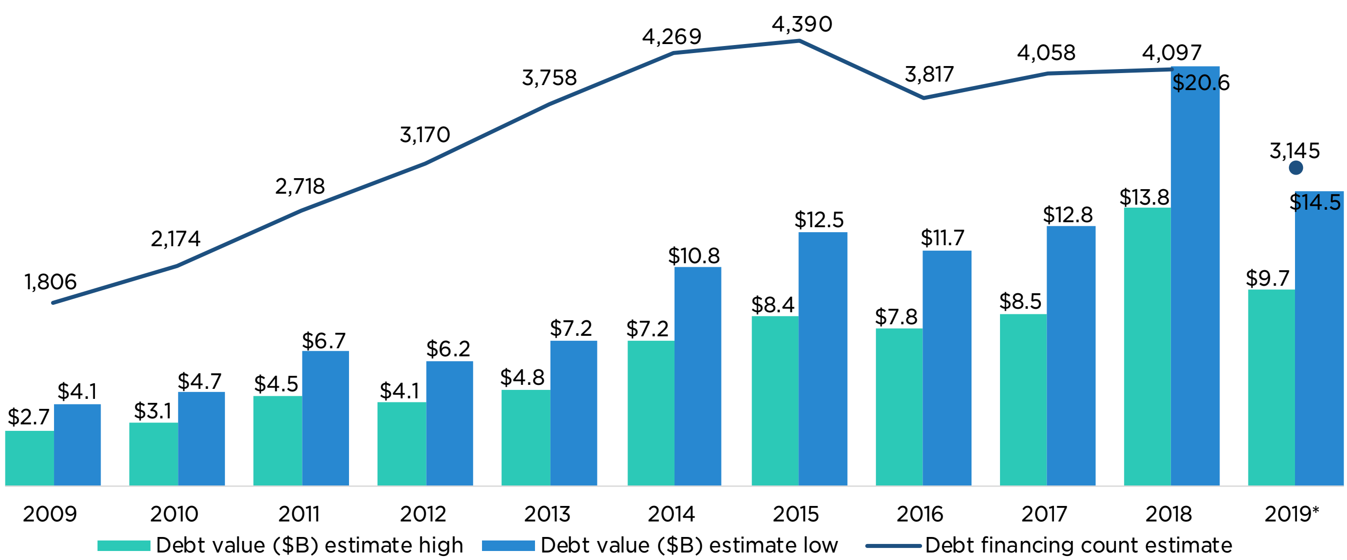
Some estimates of the total size of the venture debt market run around 10% to 15% of the total VC invested during a given year. That would put US venture lending at around $8 billion to $12 billion per year since 2014. That value jumps even higher when we include 2018, which saw VC deal value explode to an astronomical $138.0 billion, though that is something of an outlier when compared with even the heightened totals of VC from the past decade. Other estimates have noted that debt components may be present in up to 40% of all VC deals—an average of more than 4,000 deals per year over the past six years.[1]

Loans targeted at VC-backed companies take on different terms than traditional Small Business Administration (SBA) loans due in part to how these debt products work in tandem with equity financing rounds to achieve growth. Lenders view venture lending differently not only because of the type of company receiving the loan, but also because of how risk is mitigated through methods unique to venture, such as using future equity rounds and a company's current VC investors as a backstop for losses. For the seemingly exceptional risk taken by lenders, it is estimated that the venture lending industry realizes just a 2.0% loss of capital.[2] As a comparison, roughly 17.4% of SBA loans awarded from 2006 to 2015 went into default, according to a study of SBA loan data.[3]

Debt can be used by startups to mitigate dilution, extend runway and balance working capital, but it is often an afterthought for much of the VC industry. Debt is overlooked because it is frequently used in conjunction with an equity financing. The headlines simply tout "a VC round of $XXX million" no matter the balance of debt and equity used in the deal. Debt also includes an element of signaling risk and could make future investors reluctant to participate, as they may wonder why the company needed extra cash to hit their benchmark. This most likely accounts for the lower occurrence of debt financing announcements. However, stigmas toward debt may be shifting as debt becomes a more common method of financing with products developed specifically to supplement growth for VC-backed companies.

For most lenders, startups constitute too risky of an investment. Most startups operate with high cash burn rates, mounting losses and uneven revenues that are difficult to forecast—if there are any at all. Many young companies don't possess much collateral to secure the loans, either, outside of their intellectual property. Similarly, and for many of the same reasons, debt is a risky form of capital for startups. Missing payments can snowball and create financial burden that could spell the end of the road for less robust businesses. Adding a monthly payment can put further strain on companies acquiring the cash needed to attain the high growth required to succeed, stunting a

Estimated VC debt activity



Source: PitchBook and market estimates | Geography: US
*As of September 30, 2019
Note: Debt estimates low (10% of VC deal value) and high (15% of VC deal value) derive from a combination of PitchBook data and non-PitchBook market estimates.[4]

1: "The Leveraging of Silicon Valley: Venture Debt in the Innovation Economy," Jesse Davis, Adair Morse & Xinxin Wang, November 2018
2: "New Evidence on Venture Loans," Juanita González-Uribe & William Mann, November 21, 2017
3: "1 in 6 Small Business Administration Loans Fail, Study Finds," NerdWallet, Kevin Voigt & Caren Weiner Campbell, October 3, 2017
4: "New Evidence on Venture Loans," Juanita González-Uribe & William Mann, November 21, 2017

company's trajectory and causing the same problems that a loan sought to alleviate.

A handful of VC firms have been actively lending to startups for decades, but their growth has accelerated in recent years. Silicon Valley Bank, one of the major lenders to startups, currently has around $10 billion in commercial loans outstanding to software, hardware and life sciences companies,[5] compared to less than $4 billion in total commercial loans outstanding in 2009.[6] Hercules Capital, one of the largest business development companies focused on venture lending, holds a total of $2.1 billion in debt investments,[7] when approximately 10 years ago the firm's debt investments totaled just around $540 million.[8]

New forms of debt capital are coming to market as VC-backed startups look to squeeze more growth out of current equity funding reserves. While billion-dollar debt facilities for companies such as The We Company (the parent company of WeWork) and debt tranches of mega-rounds drive recent loan value growth, this is not unlike how outsized equity deals have propelled VC financing figures to recent extremes. Stripe Capital is offering fixed fees, revenue-based payments and eligibility based solely on a company's history with Stripe, and BREX provides corporate credit cards to startups with fluctuating limits based on cash raised and spending patterns. Both lenders offer startups a financing avenue for growth at a cheaper cost than raising equity.

Venture debt types

Venture debt providers have become increasingly flexible in the structure and terms of loans, with diverse constructions used for different industries and investment stages and warrants helping mitigate the risk involved while allowing lenders to participate in the upside of a borrower's growth. This includes but is not limited to: convertible debt notes, term loans, monthly recurring revenue (MRR) lines of credit and/or revenue-based investment products acting unlike equity-based financings due to repayment terms or claims on future equity. These financings can be issued by angel investors, banks, tech banks or closed-end fund type lenders, and because the VC industry is continually evolving, we believe that debt structures will continue to develop accordingly. The following debt structures are commonly used. Some, such as revenue-based investing, have grown to develop novel niches within the overall ecosystem.

Convertible notes

Convertible notes act as a loan with little to no periodic interest payments but with the principal amount (and often the interest accrued) converting to equity at the time of a future equity financing. The conversion is generally made at a discount between 10% and 25% to the price of the following equity round, the size of which may hinge on the length of time between the note issuance and the conversion event. These notes generally contain a maturity period, which can trigger a loan repayment (including interest) if no equity financing has been raised by the maturity date. Valuation caps can be put in place for the conversion so that holders of these notes can be sure they receive a large enough stake to make their high-risk investment worth it.[9] In a democratization move for the industry, several convertible note types have been developed and made useful for all investors.

- **Simple Agreement for Future Equity (SAFE):** SAFE is a type of convertible security developed by Y Combinator in 2013 and is now used industry wide. This agreement was designed to introduce a less complicated version of investment documents into the earliest stages of VC, allowing parties to subvert complex terms negotiations. There are several different SAFEs to use, including those that involve valuation caps, discounts and pro rata terms for the investor and the conversion of the note at a later date.

- **Keep it Simple Security (KISS):** Introduced by 500 Startups, KISS agreements are designed to save time. There is a debt type and an equity type of KISS agreement. The debt version includes an interest rate and a maturity date, while the equity type contains neither. Both types convert to equity under certain terms.

The main advantage of convertible notes is that they allow for quick and easy fundraising for the earliest-stage startups. Many VC-backed companies likely wouldn't be able to raise traditional debt instruments because of lack of revenue and/or a complete business model. Convertible notes are also designed to give investors protection for making a risky investment by providing a discounted stake on the next round and an option to recover the investment through a debt structure should the company not raise a further equity round. These notes may not carry voting or control rights that may be associated with the next equity

5: Silicon Valley Bank 10-Q Filing, August 9, 2019
6: Silicon Valley Bank 10-K Filing, December 2009
7: Hercules Capital 10-Q Filing, August 1, 2019
8: Hercules Capital 10-K Filing, December 2008
9: A conversion cap may work as to convert the note into whichever leads to a higher stake for the lender: the amount of the loan at a discount of 15% of the share price of the round or a specified valuation cap.

rounds or liquidation preferences for shares after the note has converted.

In recent news, Toptal, which raised a convertible note from Andreessen Horowitz and other investors, hasn't raised equity since receiving the note, creating a situation where no equity conversion can take place despite the company making around $200 million in revenue.

Venture term loans

Venture term loans are used by VC-backed companies for several reasons, including runway extension, acquisition financing, project financing, growth capital or equipment financing. They are often raised alongside an equity round or used as a bridge to reaching the next milestone and raising further equity. While terms of venture debt contracts are fluid depending on the agreement, typical construction includes a maturity period of three to five years. The shorter maturity period of venture loans is due to both the common growth trajectories of VC-backed companies (a company with exponentially growing revenues doesn't need a 10-year paydown term), as well as the standard equity raise path in which most companies are raising new equity financings every 18 months or so. These factors lessen the amount of necessary debt for a company's operations.

Lenders also require a premium when issuing venture debt due to the inherent riskiness of lending to such young companies. Venture debt typically carries an interest rate based on the prime rate plus a percentage between 0.5% and 9.0% depending on the lender type, as well as possible fees for origination and contract completion. Total warrant coverage typically constitutes less than 20% of the overall loan amount.

Term loans encompass a wide range of use cases, but non-dilution is featured in all of them. New equity is generally the most expensive form of raising capital for most startups and may take 20% or more of the company. If the company completes a successful exit down the line, that 20% stake will be worth many multiples more than what the company received in return. Dilution for founders and early investors can severely hurt returns in the long run, which has become especially true in today's market where companies tend to stay private longer and raise frequent larger rounds. A severe down round due to missed growth targets set out at the previous round may end up wiping out much of a founder's equity altogether. Taking on term loan debt may dilute the company equity less than 1% in total, making debt financing attractive to founders that want to keep control of their company.

Revenue-based investment products

Revenue-based investment products are a form of debt gaining traction in part due to the proliferation of recurring revenue business models. The model of these loans is just as the name suggests—repayments are tied to monthly revenues of the borrowers, rather than being made on typical amortized payment schedule. The loan terms may also include a cap on the total amount paid by the borrower, generally between 1.3x and 2.5x the principal amount of the loan.[10] This leads to two basic scenarios: The cap is hit before the maturity date, effectively terminating the contract, or the loan matures below the cap and triggers a balloon payment to make up the difference. The revenue-based structure reduces payment risk from a company, and the ultimate price cap on the loan allows the lender to model out returns for their fund. Because revenues are the main determinant of creditworthiness, this structure lowers risk for the lender by making financial metrics available to inform a credit decision.

Convertible debt with associated debt terms

Size	Maturity period	Interest rate	Collateralization	Fees	Covenants	Lender equity coverage	Typical VC stage	Typical lender types
Flexible depending on company stage	18-24 months Convertible securities without a debt piece may not have defined maturity period, simply conversion event triggers	Low, can be around 1%-2%	None	None	None	Conversion discount on next round picture	Angel & seed stage	Angels and VC funds

Source: PitchBook | Geography: US

10: A $1 million loan with a 2x cap will pay out $2 million to the lender by the end of the contract, no matter if it is repaid at or before the maturity date.

Term loan with associated debt terms

Size	Maturity period	Interest rate	Collateralization	Fees	Covenants	Lender equity coverage	Typical VC stage	Typical lender types
30%-50% of previous equity round for early-stage startups	3-5 years	From banks: Prime rate + 0%-4% From funds: Prime rate + 5%-9%	Assets and/or intellectual property	1%-2% origination, 0%-3% exit	Generally none	Warrant coverage, 5%-20% of loan size	Early stage to late stage	Banks and venture debt funds

Source: PitchBook | Geography: US

The seed stage has gone through one of the more drastic changes throughout the VC lifecycle and opened a place for revenue-based debt investments to take hold. Cloud infrastructure and the commoditization of tech services has decreased the cost to start and scale a business, helping some companies to achieve revenues prior to raising outside funding and creating new opportunities for young companies to raise capital beyond venture. VC comes with the inherent need to grow and reach milestones to raise more capital and fuel more growth. The structure of debt allows young companies that have realized revenues to determine their path to growth or simply kick off VC fundraising further down the road.

Revenue-based investments made before an initial VC round have grown while angel and seed financings have slowed across the US. The direct correlation of these may be difficult to determine, but it is likely that many companies that receive revenue-based debt financings are also those that would have, until recently, raised seed equity financing.[11] The bifurcation of early-stage VC will continue to open a window for these revenue-based investment products to take hold. Though these loans favor companies with strong and predictable revenue streams, they also allow startups with choppy revenue models to access non-dilutive financing.

Venture debt lenders

The unique requirements of venture debt obligate investors to have higher risk tolerance than similar commercial lenders. Banks, traditional VC investors, large business development corporations and angel- and seed-stage investors all participate in venture lending, but each serves a different role within the industry.

Banks' ability to lend up and down the lifecycle provides the capacity to reduce risk in their loan portfolio by bringing on the borrowers as banking clients and shifting the growing company's future banking revenues directly into their balance sheets. This not only provides additional revenue streams for the future, but it allows the bank to monitor its investment by tracking deposit accounts of the borrowing company and determine if any financial covenants have been breached. It also allows the banks to lend at a lower interest rate than venture debt funds, a benefit passed on to borrowers. Specialty banks such as Silicon Valley Bank and Bridge Bank work with borrowers throughout the VC lifecycle, while large banks such as Wells Fargo and Bank of America typically enter the venture lending scene later in a company's maturity.

Private debt funds have found their own ways to succeed in venture debt. The 10-year horizon IRR for venture debt funds was 8.2% as of 2018, and over $1 billion was raised by venture debt-focused vehicles globally through 3Q 2019, already the second-highest total in the past decade. That sum may seem paltry compared to overall VC fundraising, but venture debt funds are just a fraction of the total lending market. Banking regulations have helped open a window for these types of lenders, as increased requirements for company liquidity and limits on equity exposure for banks have allowed private funds to access opportunities that banks monopolized in the past. Western Technology Investment (WTI), which has closed over $1 billion for venture debt funds since 2010, has become one of the most active venture debt investors with a portfolio that includes Jet, Allbirds and Stitch Fix. As a business development company, WTI can also invest in equity securities, though certain funds allow only up to 10% of the total capital in the vehicle's investments to be used in equity financings.[12] These equity deals, along with warrants acquired in loan deals, serve to bolster the fund's risk-return profile, as well as participate in the upside potential for their investment past any warrant coverage they receive.

11: Revenue-based investments made to companies that are not yet VC-backed will not show up in PitchBook venture debt datasets.
12: "Form 10. General Form for Registration of Securities," Securities and Exchange Commission, n.d.

Revenue-based financing with associated debt terms

Size	Maturity period	Interest rate	Collateralization	Fees	Covenants	Lender equity coverage	Typical VC stage	Typical lender types
Based on monthly revenue requirements or a fixed amount	3 years-5 years	1.3x-2.5x repayment cap	Assets and/or intellectual property	None	None	None	Pre-VC	Specialized debt funds

Source: PitchBook | Geography: US

Angel and seed investors and traditional VC fund investors use debt services to close deals quickly. Often these investors participate in convertible note offerings and could be current investors in the borrowing company, especially on late-stage deals. Rather than raising debt from a lender with interest repayments, a convertible note keeps interest aligned within the company and extends the runway to the next equity round so each party can benefit from a higher valuation. In addition, a convertible note adds extra protections for the investors in the event the company is still not able to reach the required benchmarks for a future equity round.

Conclusion

Debt has grown within VC for several reasons. The overall size of the venture industry has exploded over the past decade. VC fundraising has surpassed $30 billion each of the past five years, with more than $20 billion raised so far in 2019. VCs have completed an average of more than 10,200 deals each year since 2014—more than double the average from 2006 to 2010—and venture debt's use cases alongside equity financings have allowed it to rise with the larger VC industry. Cheaper debt becomes an intriguing opportunity as an increase in round sizes puts continued strain on founders' and early investors' stakes, which has aided in the growing use of debt within the broader venture ecosystem.

Equity is ensconced as the most common venture financing option, but debt can further disrupt the traditional venture model. Especially at the earliest stages of VC, debt products have become a viable option of financing to further push out the first rounds of VC. We have seen the median age of companies at the time of their first financing grow from a decade-low of 1.3 years in 2012 to a decade high of 2.0 through 3Q 2019. Cloud services and SaaS businesses are largely seen as the major contributors of this trend, but accessibility to debt financing solutions for young companies is a likely contributor.

The further evolution of VC will continue to allow alternative investment products to play roles in the financing of startups and early-stage companies. We believe that debt provided to VC-backed companies will continue to increase as a mechanism for growth up and down the venture lifecycle. However, comparing future debt growth to a time in which the overall industry is at its largest is difficult. A downshift in activity by VC firms may also cause lenders to lessen their exposure to a slowing venture market. Although the bull market trudges on, a recession of some variety is expectedly around the corner.

The amount of venture loans declined dramatically after the dotcom bust. Only in recent years—after the global financial crisis—has venture lending found more stable footing. Revenue-based investments will likely be pressured by contracting revenues from borrowing companies should a recession materialize, and they will face increased repayment risk. Direct lenders will also likely tighten lending standards and recede from more risky investments. Strong revenues and other key performance metrics will become an even more material piece of determining credit worthiness for startups, but the implied agreement between lenders and VCs will keep losses low relative to traditional commercial loans.

No matter the overall state of the market, the non-dilutive properties of debt will make it a sought-after financing strategy of growth for entrepreneurs despite the risks associated.

Unpacking PE firm valuations: Part I

A review of various challenges investors have valuing public PE firms

By Wylie Fernyhough

Key takeaways

- The five largest publicly traded PE firms have switched their corporate structures from partnerships to C-Corps, which has led to shareholders substantially boosting the value of their shares. This turn of events has altered the arithmetic for large GPs seeking capital, some of which may now choose an IPO rather than a GP stakes investment.
- Valuations for smaller GPs, however, still vary between public and private markets. Smaller GPs trade at a premium and would need to see a further rise in public valuations before forgoing GP stakes capital for an IPO.
- PE firms are still poorly understood by public investors due to differences in AUM, revenue and return strategy, which make comparisons difficult. Fund-level economics and profitability metrics for these companies are also difficult to understand. We believe some public PE firms are doing a good job of improving visibility, but there is room to go.

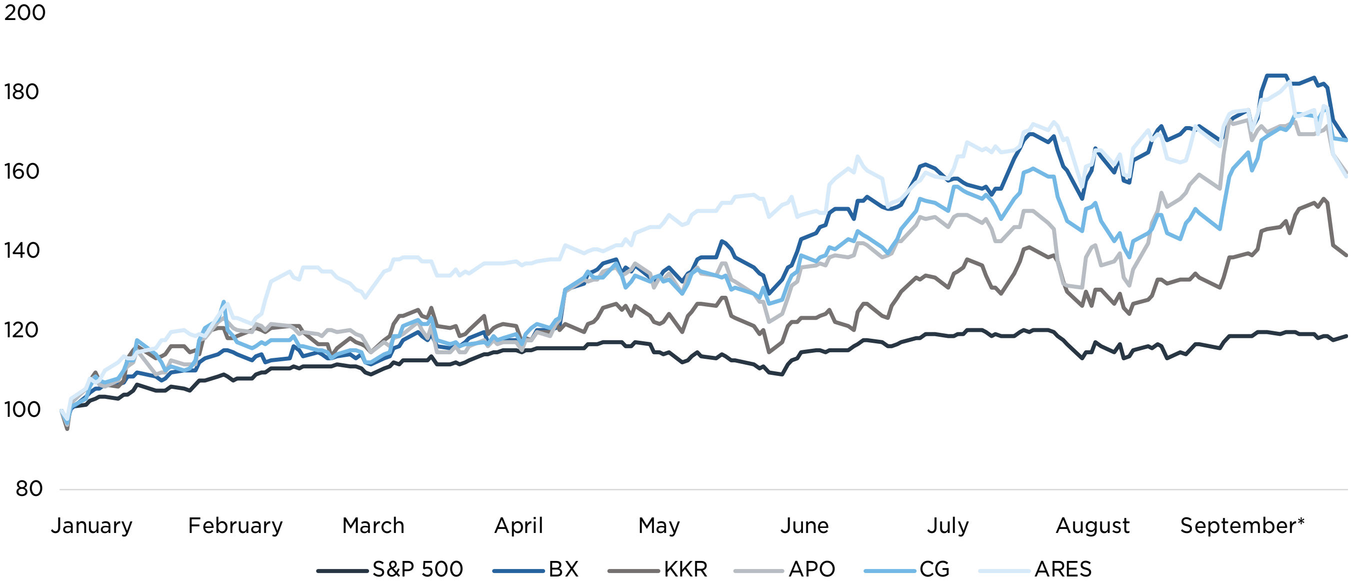
Introduction

Public PE firms—namely the big five: Blackstone (NYSE: BX), KKR (NYSE: KKR), Apollo (NYSE: APO), The Carlyle Group (NASDAQ: CG) and Ares (NYSE: ARES)—have long been some of the most poorly understood companies trading on the US public exchanges. Many of them have meaningfully expanded outside of their core offerings, with operations spanning several strategies and geographies. The complexity of their offerings, which has led to a more diverse and robust revenue stream, is difficult for investors to value. Additionally, most public market practitioners undervalue carried interest ("carry") because they doubt the long-term resilience of PE returns and struggle to accurately account for carry's variable timing.

In order to earn higher valuations, executives at public PE firms have switched their corporate structures from publicly traded partnerships to C-Corps, and some have even expanded voting rights to shareholders. Public investors have reacted favorably and have since bid public PE firms' shares up. Apollo's co-founder Joshua Harris recently noted the progress in how public investors have been valuing public PE firms' shares.[1] Through 3Q 2019, valuations for four of the five public GPs selected for this analysis have risen 60% or more compared to the S&P 500's 20% rise; the laggard, KKR, is still up nearly 40% through 3Q 2019. However, we believe valuation gaps will continue until the dual-class share structures are abandoned, allowing these firms to be added to S&P and Russell indices, and until the firms lift the portion of revenue coming from management fees.

1: "Apollo's Josh Harris Talks Private Markets at Delivering Alpha," Institutional Investors, Christine Idzelis, September 19, 2019

YTD stock performance of select GPs and S&P 500 rebased to 100 in January 2019



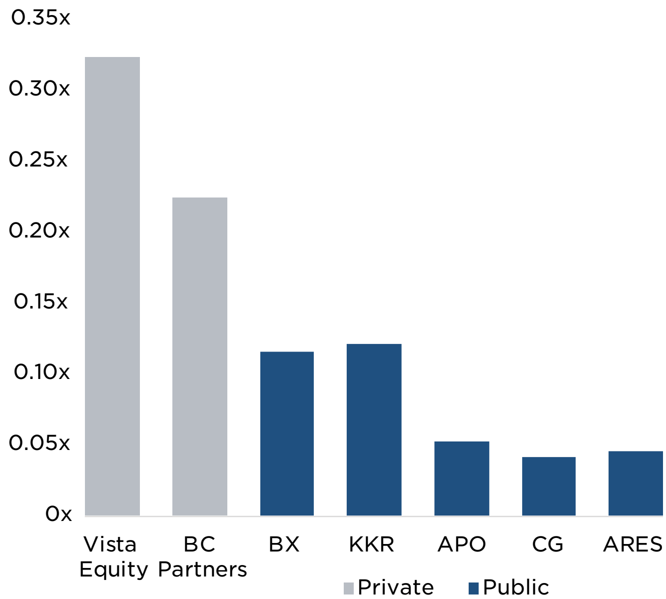
Source: PitchBook | Geography: Global
*As of September 30, 2019

Other PE firms are taking note of their public counterparts' rising valuations. EQT, one of the largest European PE firms, recently completed its IPO. This was the first major PE firm to raise capital from public equity markets in over six years. Months earlier, it appeared EQT would go the GP stakes route to seek capital. After the successful jumps in stock price that the five large public GPs experienced following their C-Corp conversions, however, EQT instead decided to list publicly. Not only have the jumps in valuation changed the calculus for major PE firms seeking liquidity or expansion capital, it could challenge the GP stakes market at a time when a select few managers are raising record sums of capital for the strategy. The valuation gap between public and private GPs has closed substantially as public firms have rallied through 2019, and we may see more large firms follow EQT's lead, but this valuation gap persists. In this note, we will lay out some of the reasons we believe this to be true as well as offer some frameworks on how to think about factors driving the underlying businesses.

Public versus private

In an August 2019 deal, a GP stakes investment valued BC Partners, which has approximately $25 billion in AUM, up to $5.6 billion. Blackstone, the priciest of the public GPs, is valued around $60 billion, or just over one-tenth of its approximately $550 billion in AUM.[2] Although BC Partners likely offers more growth opportunity than Blackstone and has a higher proportion of its AUM in higher-fee, commingled vehicles, it achieved approximately twice the valuation multiple. The firm's valuation is not an anomaly, though. Vista Equity Partners, which received a minority investment from Dyal, achieved a $4.3 billion valuation in July 2015 despite having raised just $13.3 billion at that point. We cannot

Ratio of market cap to AUM for select GPs*



Source: Public filings & PitchBook | Geography: Global
*As of September 30, 2019

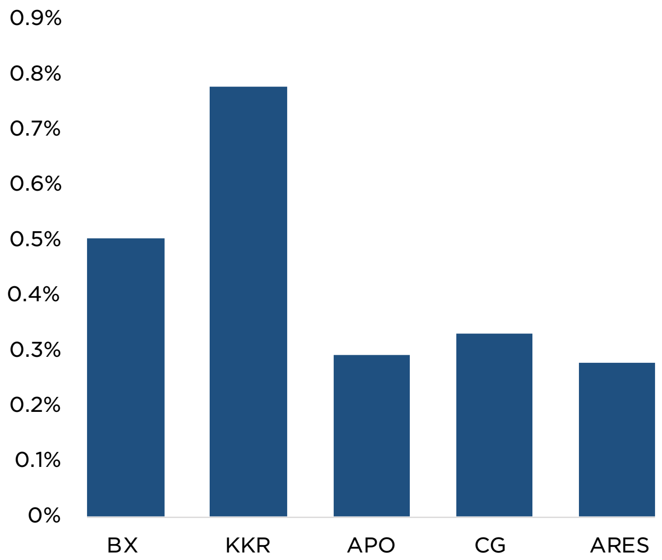
2: Blackstone notes that AUM includes certain co-investments managed by them as well as separately managed accounts. These accounts will have lower fees and be priced lower than traditional PE AUM. These assets account for an appreciable portion of AUM, though the comparison still stands that private GPs are valued higher than public ones.

back into the revenues or profits of the private GPs; however, the ratio of market cap or valuation to total AUM shows how substantially valuations can vary. BC Partners saw approximately 22 cents in value per dollar of AUM compared to Blackstone at 12 cents, though both paled in comparison to Vista, which saw over 32 cents.

It is not as simple as comparing AUM to valuations, however, because real estate and PE tend to earn higher fees per dollar of AUM than credit and separately managed accounts. Using the proportion of distributable earnings to AUM as a proxy for AUM profitability, we see that Blackstone and KKR are the most profitable per dollar of AUM at well over twice the rates seen at Apollo, Carlyle and Ares.[3]

Valuations still showcase the difference in public and private markets, though. We believe PE firms will continue to eschew publicly listing until they can not only achieve the valuations seen in private markets but trade at a premium to compensate for the stresses posed by reporting and additional transparency into a GP's finances. However, as EQT has illustrated, there are other benefits that may entice some of the largest PE firms to pursue IPOs rather than GP stakes investments.

Distributable earnings as proportion of AUM for select GPs*

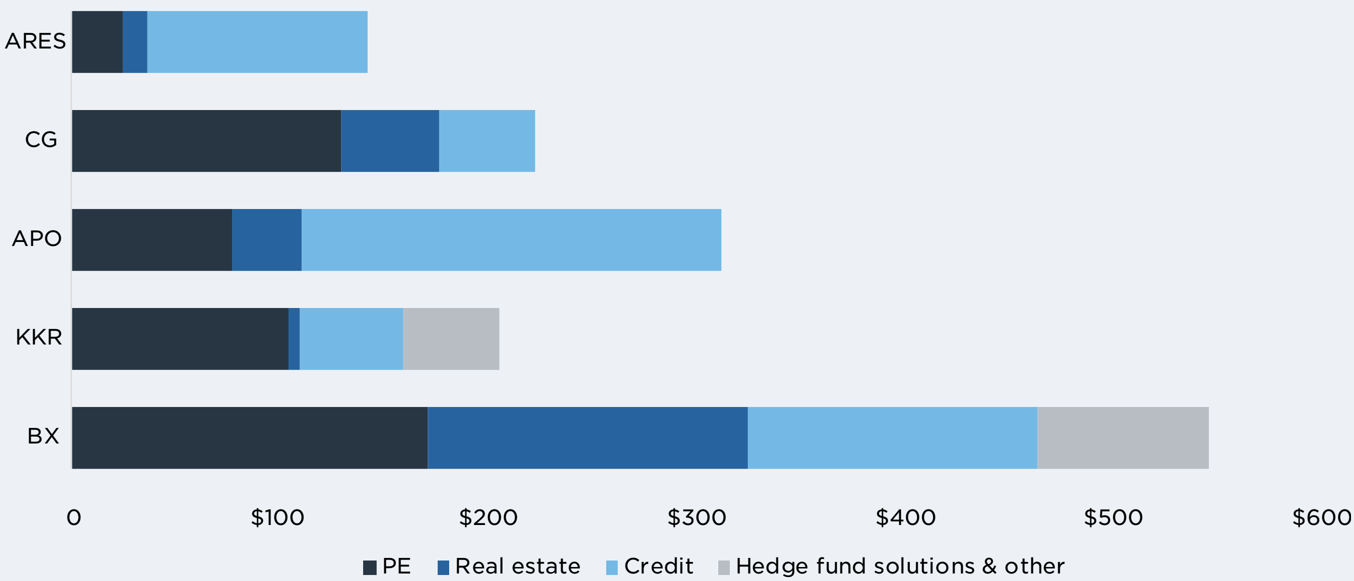


Source: Public filings | Geography: Global
*As of September 30, 2019

AUM and revenue breakdowns

As mentioned, public GPs can be so difficult to value because of their varied business models. Having a firm grasp of Apollo's business does not necessarily mean

AUM ($B) by strategy for select GPs*



3: We believe Blackstone's DE was well below normal rates over the past 12 months and has a similar rate of DE/AUM as KKR.

an investor knows how to value KKR. Each GP has unique drivers of revenue and profit growth, stemming from their individual asset bases. Credit earns a higher proportion of its capital from management fees while PE tends to be more carry heavy, and real estate sits somewhere in between the two.

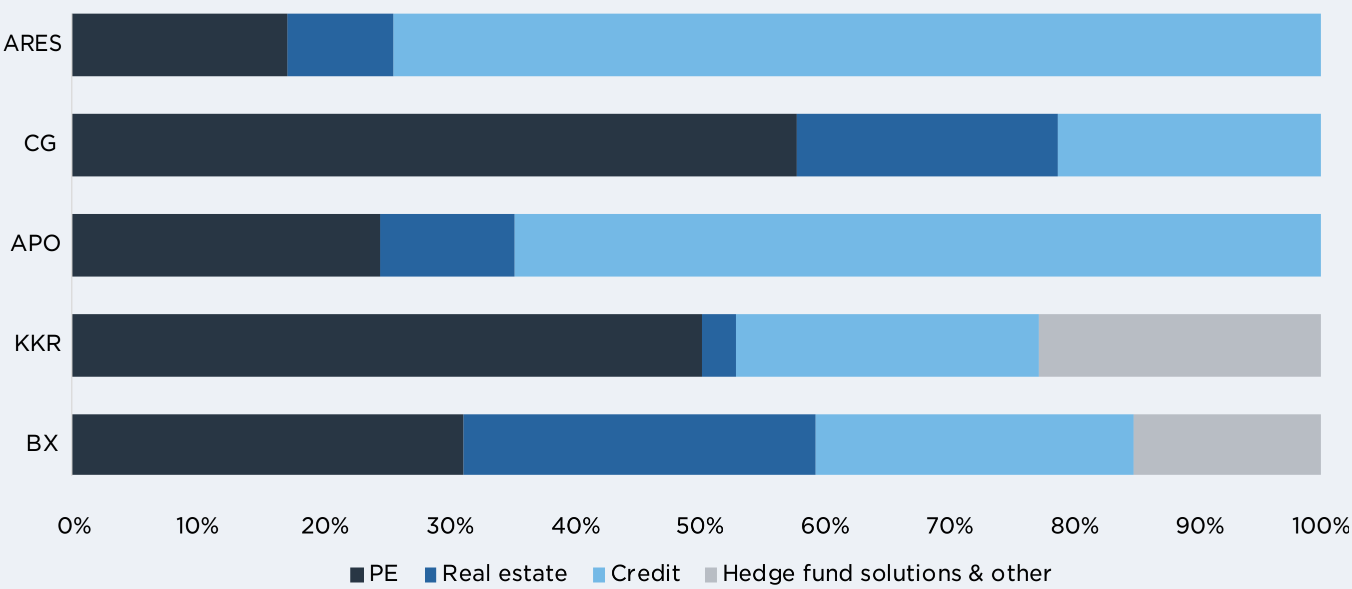
Looking at the individual GPs, Blackstone is the most diverse in terms of revenue generation and is the only GP without a single strategy accounting for the bulk of its AUM. The firm also has several separate accounts as well as a hedge fund-of-funds business. Meanwhile, Apollo and Ares are credit-focused managers and should record higher proportions of management fees, which tend to be more stable than carry. On the other end of the spectrum, Carlyle and KKR have most assets in PE, which will produce swaths of carry, but the returns will be volatile. Valuing each public GP means understanding some of the underlying economics of PE, credit and real estate funds and investments.

We see this play out in results over the past 10 quarters.[4] From 1Q 2017 through 2Q 2019, the makeup of fee and investment income differ dramatically between the five public GPs. Apollo and Ares receive their highest proportion of revenue from management fees, while Blackstone, KKR and Carlyle receive theirs from carry. Since carry is so volatile year to year, these specific GPs could be undervalued compared to peers. To counter this, we expect to see most managers attempt to tilt the balance in favor of fees to make earnings more predictable and achieve higher valuations over time.

For KKR, its capital markets business is included with its fees but is growing quickly and deserves some special attention. Through 2018, it generated just over one-third of KKR's fee revenue. The in-house investment bank now serves companies beyond just KKR's portfolio companies. In a testament to how much clout the business has built up on Wall Street, the firm was selected to help underwrite its first IPO for a company it did not own. KKR was slated to help take Silver Lake-backed Endeavor Group Holdings public alongside Goldman Sachs before the listing was shelved. Similarly, Blackstone has an advisory business. These businesses have significantly different models than private market funds, adding more complexity to any valuation efforts.

Idiosyncratic offerings

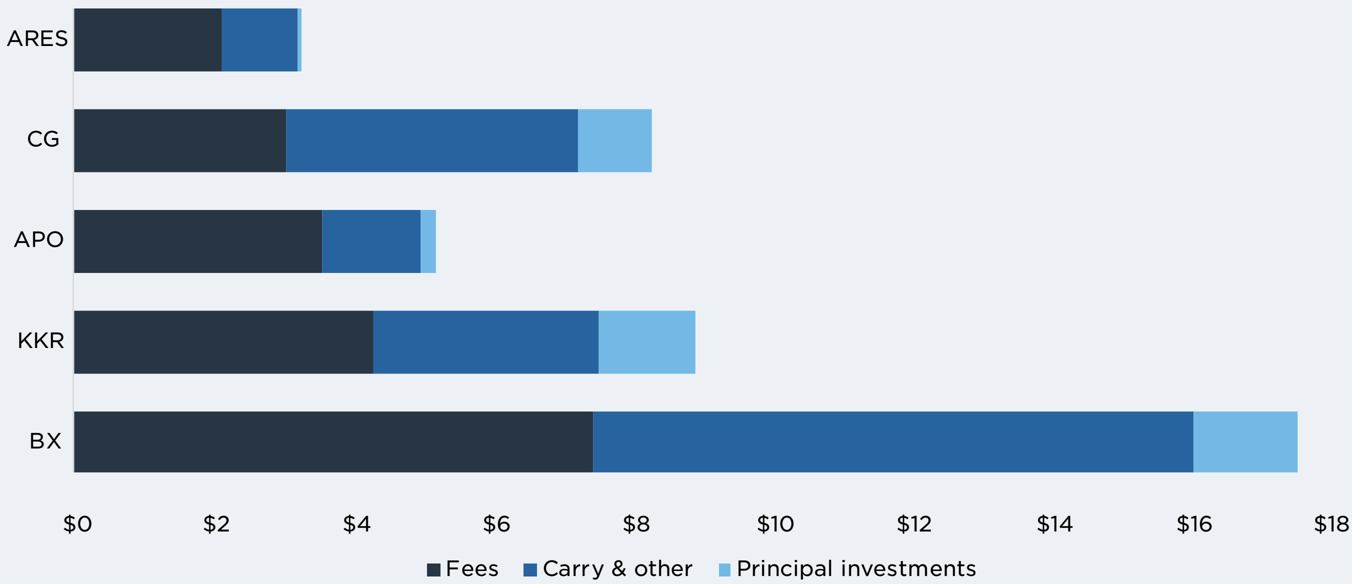
Beyond the differences in AUM composition and revenue streams, the five large GPs have undertaken unique strategies to produce returns for shareholders. The most idiosyncratic of these offerings belongs to KKR. The firm not only has a substantial capital



Source: Public filings | Geography: Global
*As of September 30, 2019

4: Because carry is so volatile, we decided to include the past 10 quarters to give a better glimpse at the average revenue breakdown.

Cumulative revenue ($B) by source for select GPs (1Q 2017-2Q 2019)*

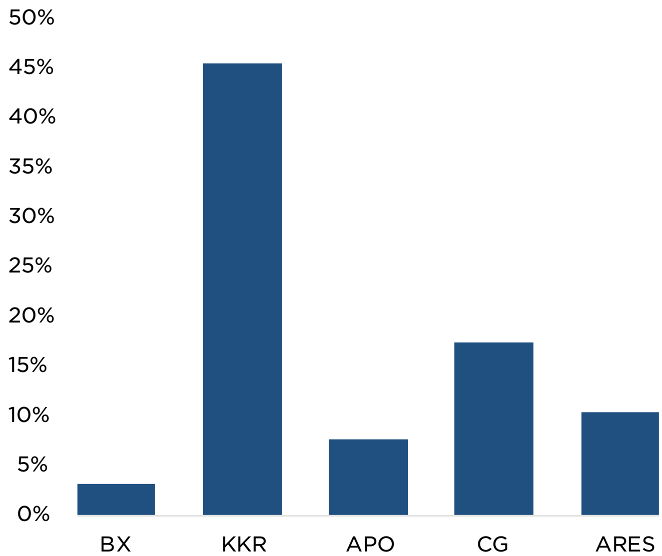


markets business, but it also invests heavily off its own balance sheet. Investments include seeding new strategies and large commitments to in-house funds. Over 45% of the current share price is accounted for in balance sheet investments. The strategy bears some semblance to Paris-based Eurazeo (PAR: RF) and its hefty balance sheet investing. As a result of its strategy, KKR has a lower dividend yield than its peers, but a unique return profile more closely tied to the underlying private capital funds.

The firm's strategy is completely unique among US-based firms and could be a model for PE firms trying to raise their proportion of revenue that comes from management fees while keeping LP and GP interests aligned. LPs want to see carry generate a significant share of the GP's income, which means both parties profit if the fund performs well. GPs, however, want to derive more revenue from management fees, which are steadier and valued higher by investors. KKR's strategy of investing outsized amounts of its own capital in seeding new initiatives as well as investing alongside LPs in its funds could allow the firm to charge high management fees and keep interests aligned through high fund ownership holdings. The strategy also allows KKR to profit even more from well-performing funds beyond collecting carry, though it represents more risk.

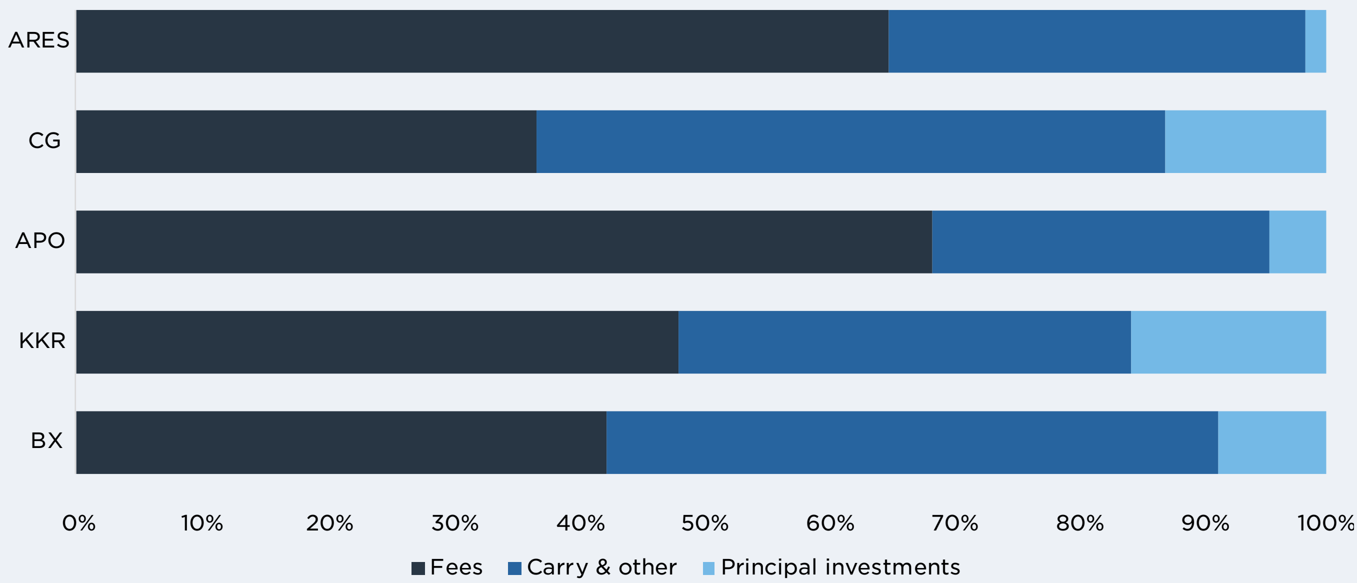
The other firms, however, have chosen to go a more traditional route and return capital, focusing on

Balance sheet investments as proportion of market cap for select GPs*



Source: Public filings | Geography: Global
*As of September 30, 2019

dividends and share repurchases. In addition to simply converting to C-Corps, many GPs are trying to pay dividends more regularly. After Ares announced its plan to convert to a C-Corp, COO and CFO Michael McFerran said, "In concurrence with this change, Ares will begin paying a steady, quarterly dividend for each calendar year based on the growth in our after-tax core fee-related earnings. This dividend



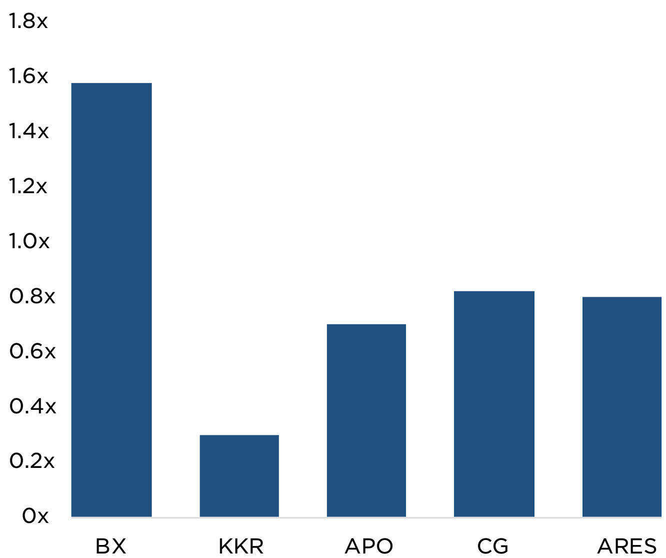
Source: Public filings | Geography: Global
*As of September 30, 2019

policy should reduce the historical volatility of our distributions and allow us to retain a greater portion of our earnings for growth and potential share repurchases."[5] We can see this in action as all the managers except for KKR pay out 70%-85% of distributable earnings on a regular basis. These GPs are clearly paying out capital more regularly to shareholders while KKR is reinvesting those earnings, in effect betting on itself.

Looking forward

Not only do AUM and revenue drivers vary widely between the big five public PE firms, but return strategies do as well. Public investors also heavily discount carry, due to its sporadic timing, and most believe AUM figures and revenues will fall with fund performance at some point. In follow-on notes, we will examine the economics of private capital funds to better understand how profitable they are depending on factors such as gross return, discount rate and management fees. Additionally, we will seek to value the firms based on AUM by strategy. Finally, we will compare our AUM valuation framework to a DCF valuation, as well as their current public stock prices. With this, we are seeking to determine how the market views each GP and hopefully help practitioners to better understand these firms.

Ratio of capital returned (dividends and buybacks) to distributable earnings (TTM) for select GPs*



Source: Public filings | Geography: Global
*As of September 30, 2019
Note: Blackstone had an anomaly year in which distributable earnings dropped from 2018. We expect their payout to be in line with Apollo, Carlyle and Ares going forward.

5: "Ares Management, L.P. Reports Fourth Quarter and Full Year 2017 Results," Ares, n.d.

Basics of cash flow management: Distributions

A time to reap

By James Gelfer

Key takeaways

- The average PE fund distribution tends to be relatively modest at about 5% of the fund size; however, the average largest distribution during a fund's life is 32% of the fund size—roughly double the 90th percentile in many periods—and 10% of funds will distribute more than half the fund's size in a single quarter.
- Distributions are most common during a fund's sixth and seventh year, with distributions occurring during roughly 60% of quarters in that period, but this can vary greatly for individual funds.
- We find that TVPI at the five-year mark serves as a helpful data point in predicting the ultimate level of distributions for a fund, with an R-squared value of 0.42 when regressed against DPI at Year 12. Conducting the same analysis with IRR instead of TVPI yields an R-squared value of just 0.20, underscoring the limited value of IRR early in the fund's life.
- PE fund distributions exhibit a high level of counter-cyclicality, with funds raised in the depths of economic downturns returning capital the most quickly. This is particularly interesting given our finding in the first installment of this series that capital calls are highly cyclical.

Overview

In the first installment of our series on cash flow management, we examined historical PE fund cash flow data to assess typical drawdown patterns and how they have changed over time and in different market environments. Admittedly, when it comes to timing capital calls, LPs benefit from the fact that capital must be deployed within a predefined investment period. Contributions can never be perfectly timed, but there is a general pattern and methodology to how GPs deploy capital due to the relative rigidity of the investment period. Distributions, however, pose a greater challenge.

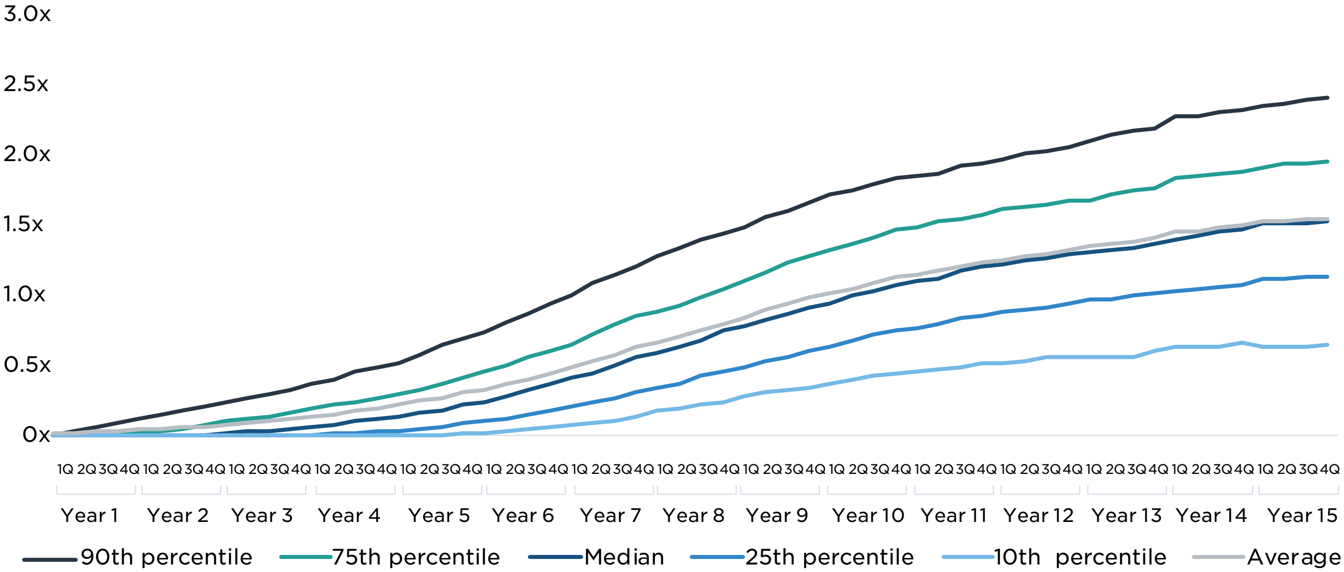
Timing is everything

The cadence of PE fund cash flows is akin to a farmer sowing seeds and harvesting crops: The planting of seeds is dictated by the calendar with potential for only slight deviations, while the timing and abundance of the harvest is more capricious depending on multiple variables such as weather, fertilizer use and market prices. Similarly, a GP's decision on when to make investments—and the concomitant capital calls—is largely dictated by the investment period defined in the limited partnership agreement (LPA), but the nature of these contracts affords the GP significantly more flexibility in determining when investments are harvested (i.e. timing of exits and distributions). As Leon Black once said, "It's almost biblical. There is a time to reap and there's a time to sow."[1]

1: "A Time to Sell ... and Borrow," Barrons, Randall W. Forsyth, May 4, 2013

Distributions appear deceptively smooth in aggregate

Range of DPI values for PE funds since inception*



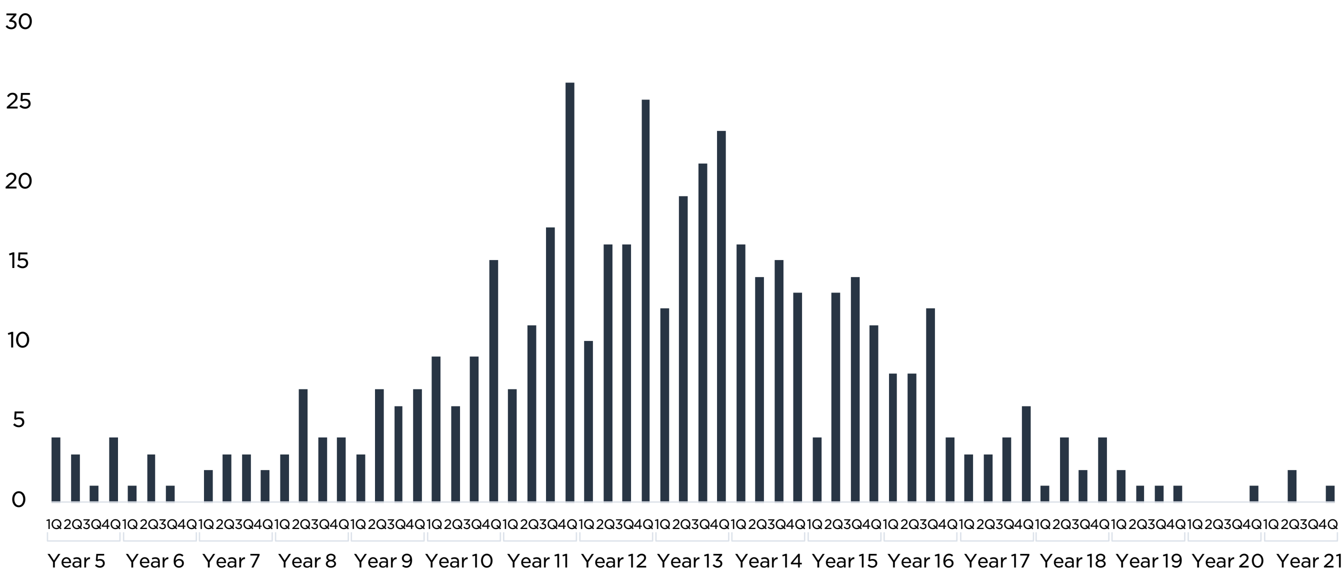
Source: PitchBook | Geography: Global
*As of December 31, 2018

While the full lifespan of a private market fund is also outlined in the LPA, which theoretically places a limit on the holding times of investments, the truth is that additional flexibility is given to GPs when the realities of the market come to bear. A buyer may present an offer that compels a GP to sell just two years into an expected four-year holding period. Turbulence in public equity markets could delay an IPO. A GP may see more potential in rolling a fast-growing company over into a new investment vehicle, rather than selling and having to source fresh investments.

Textbooks claim that funds typically last 10 years, but that is now the exception and not the rule, with many funds lasting 15 years or more. This includes not only so-called zombie funds; many top-performing GPs have also extended holding times to 15+ years in some instances. The burgeoning secondary market is a

Most funds take 12 years or more to fully liquidate

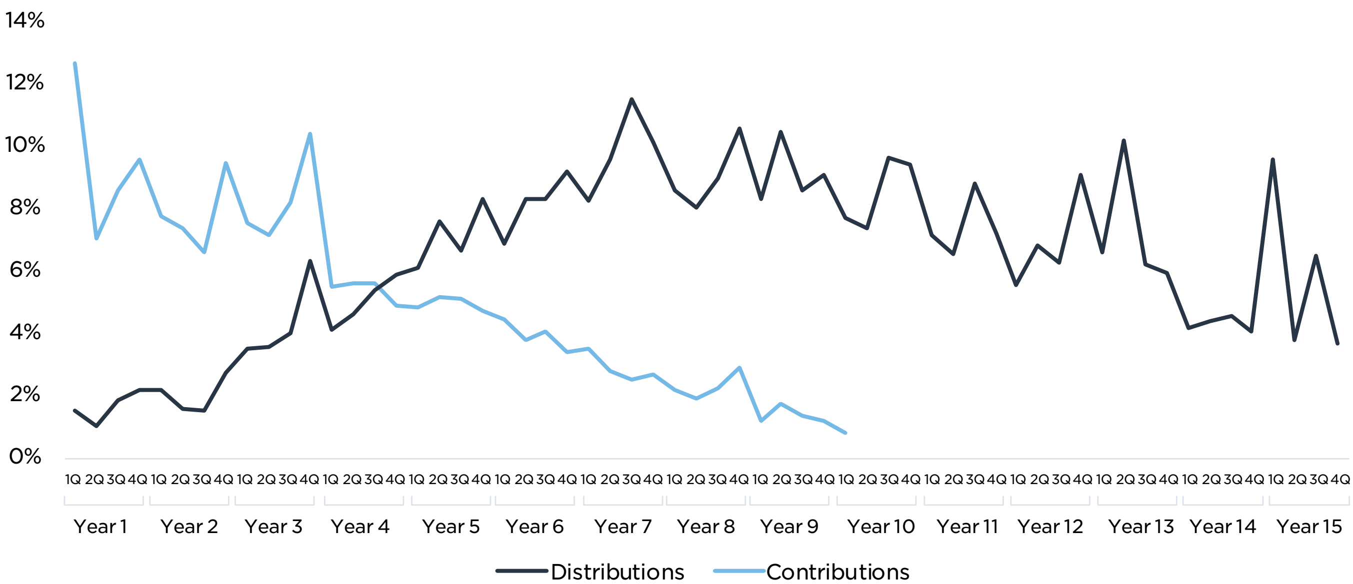
Number of PE funds to fully liquidate by quarter since inception*



Source: PitchBook | Geography: Global
*As of December 31, 2018

Distributions are highly volatile throughout fund's life

Standard deviations of relative contribution and distribution sizes for PE funds since inception*



Source: PitchBook | Geography: Global
*As of December 31, 2018

growing tool that LPs can use to help manage portfolios in extreme circumstances, but these lengthening timelines still introduce unprecedented uncertainty into the timing of distributions. The result is that modeling distributions is a significantly more difficult task than predicting capital calls, even though simply viewing the data at the aggregate level can give a false sense of predictability.

The standard deviation of relative distribution sizes (i.e. the quarterly distribution size compared to total fund size) in a given quarter consistently hovers around 8% of the initial commitment size, which is similar to variance observed in capital calls during the heart of the investment period. The difference with distributions, however, is that LPs in a fund often must endure this high level of uncertainty for nearly a decade, whereas the unpredictability of capital calls is frontloaded in the first three years of a fund's life.

Indeed, the sporadic nature of distributions is evident in the accompanying chart, which shows the range of distribution sizes for quarters in which funds had a distribution. As can be seen, the average tends to be relatively modest at about 5% of the fund size; however, similar to contributions, simply assessing the average can be quite misleading. The top 90th percentile is often an order of magnitude larger than even the 75th percentile, but even that chasm doesn't adequately depict the extent to which outliers drive total distributions. To that end, the average largest distribution during a fund's life is 32% of the fund size—roughly double the 90th percentile in many periods—and 10% of funds will distribute more than half the fund's size in a single quarter. Conversely, the 25th and 10th percentiles barely register on the chart in most periods.

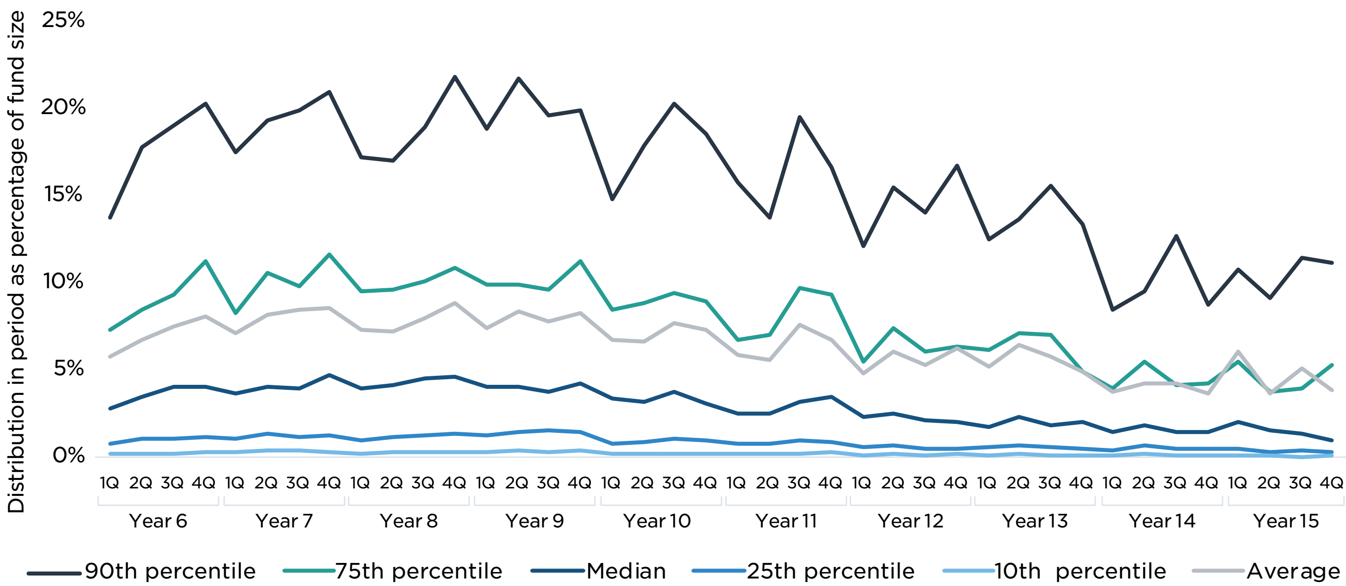
While this level of variance may seem extreme, the volatility of distributions becomes even more pronounced when broadening the scope to all periods during a fund's life, including those in which funds didn't distribute capital. Not only are the 10th and 25th percentiles nonexistent (because more than 25% of funds will not distribute capital in a given quarter), but the median never even reaches 1.0%. At the same time, the mean and 75th percentiles mirror each other throughout the average fund life, further emphasizing how outlier events drive distribution activity.

The GPs' crystal ball

Given the extreme level of variance in distribution patterns between funds, the best place to go for insight into the probable path of distributions for any particular fund is at the source—the GP. Assessing a GP's track record can provide insight into likely holding times and exit routes, but discussions with the GP can also provide deeper insight into specific situations within the portfolio. As holding times extend, it is more important than ever that LPs understand how the GP plans to generate value for each investment and return capital to investors. About half of all funds, for example, will make their

Most funds will see at least one distribution larger than the 90th percentile

Range of distribution sizes for PE funds since inception (excludes periods with no distributions)*



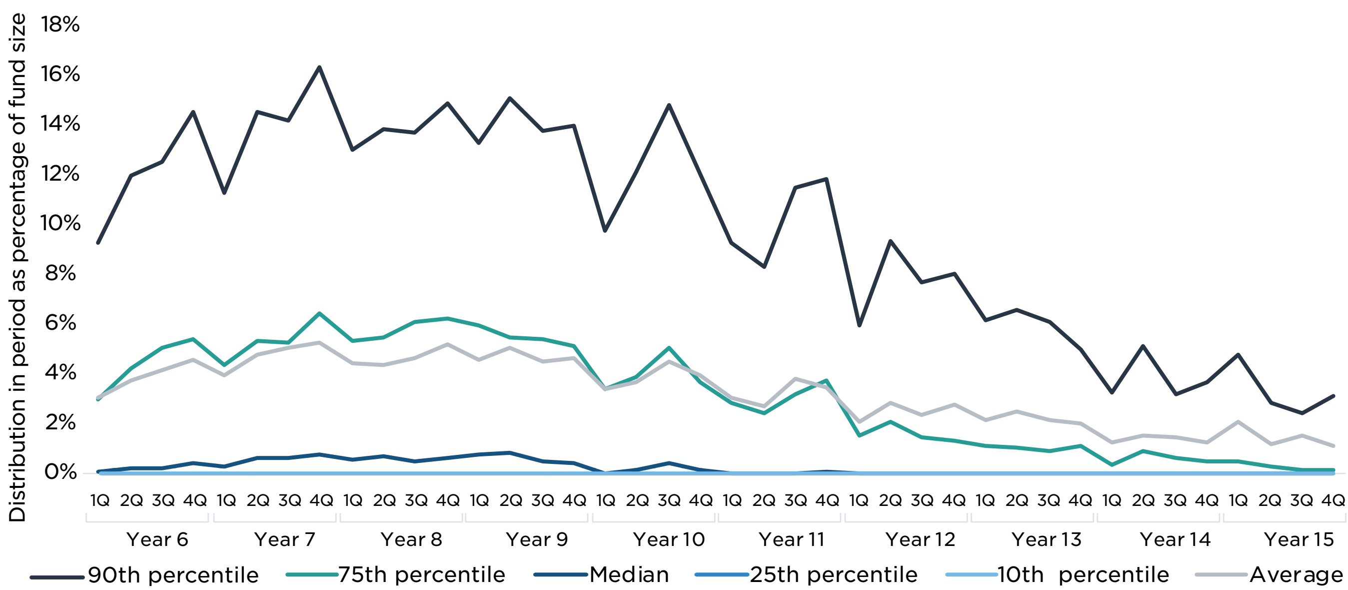
Source: PitchBook | Geography: Global
*As of December 31, 2018

first distribution by the 1.5-year mark; however, about 25% of funds will go nearly 2.5 years before their first distribution, and 10% will go 3.5 years. This occurs for a variety of reasons, and LPs should be prepared for how they will reallocate that capital—whether they recycle it into the same vehicle, hold it in reserve to be deployed into a new fund or funnel it into a different asset class.

Understanding the GP's strategy can also provide insight into the likely frequency and size of distributions. We find that distributions are most common during a fund's sixth and seventh year, with distributions occurring during roughly 60% of quarters in that period, but this can vary greatly for individual funds. If the GP plans to utilize dividend payouts, for

Outlier events drive distribution activity

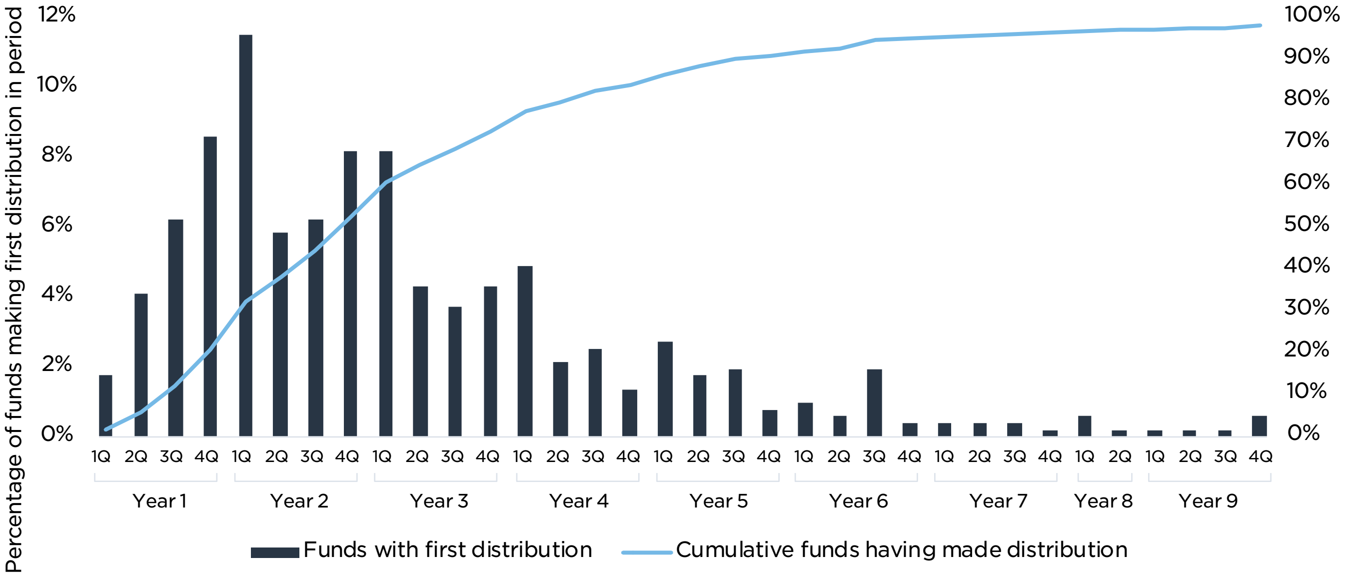
Range of distribution sizes for PE funds since inception (includes periods with no distributions)*



Source: PitchBook | Geography: Global
*As of December 31, 2018

Half of funds make a distribution by 1.5-year mark, but many take much longer

Percentage of PE funds making first distribution by time since inception*



Source: PitchBook | Geography: Global
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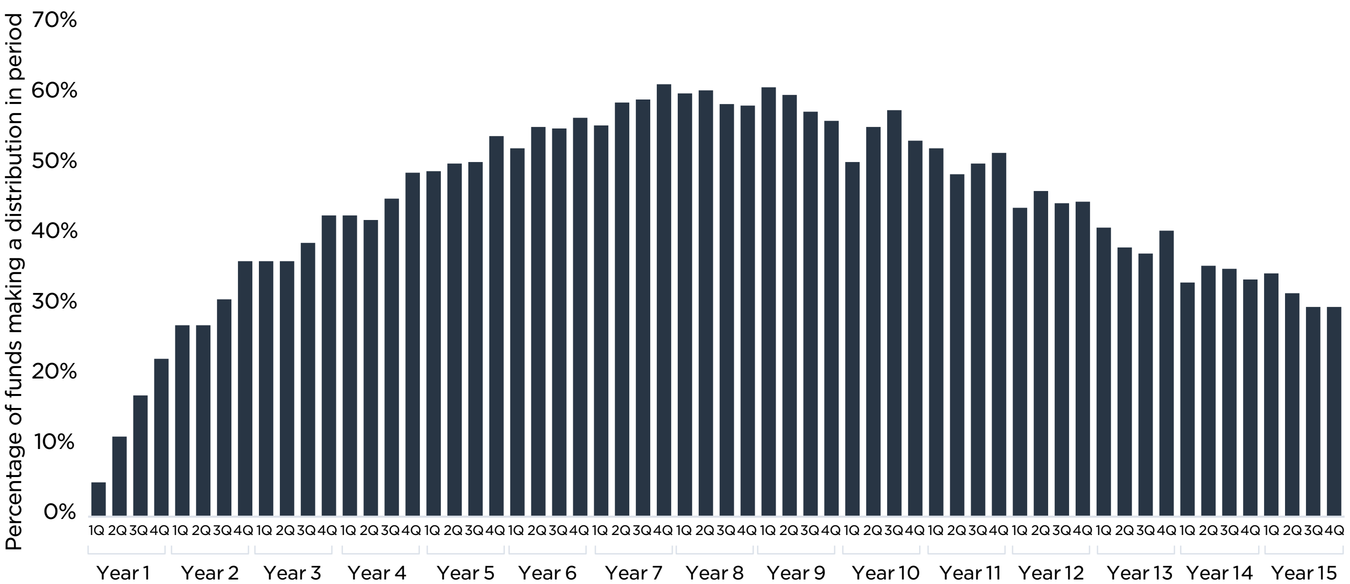
example, the LP can expect distributions to be initiated relatively early and occur more frequently throughout the fund's life. Furthermore, an outsized distribution is less likely than it would be if that capital was reinvested into the business, as dividends in effect extract value from the investment. Conversely, a small GP with a concentrated portfolio is likely to deliver chunky distributions as the result of full liquidity events relatively large in relation to the total fund size.

The bigger picture

In addition to reading tealeaves and relying on prognostications from GPs, historical data provides some broad tendencies that can help to calibrate expectations for future distributions. The overall performance of the fund is naturally the biggest variable when it comes to modeling distributions. We find that the TVPI at the five-year mark serves

Distributions are most common through fund's sixth and seventh year

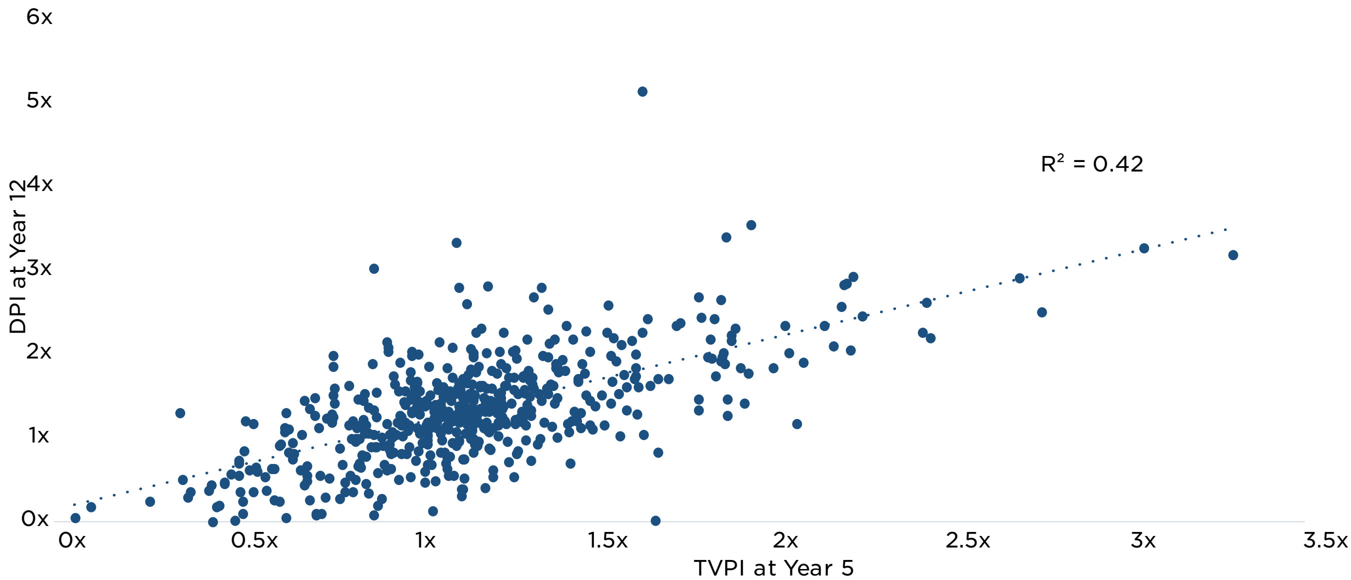
Percentage of PE funds making a distribution by time since inception*



Source: PitchBook | Geography: Global
*As of December 31, 2018

TVPI early in fund's life a strong predictor of future distributions

Plot of PE funds' TVPI at Year 5 and DPI at Year 12*



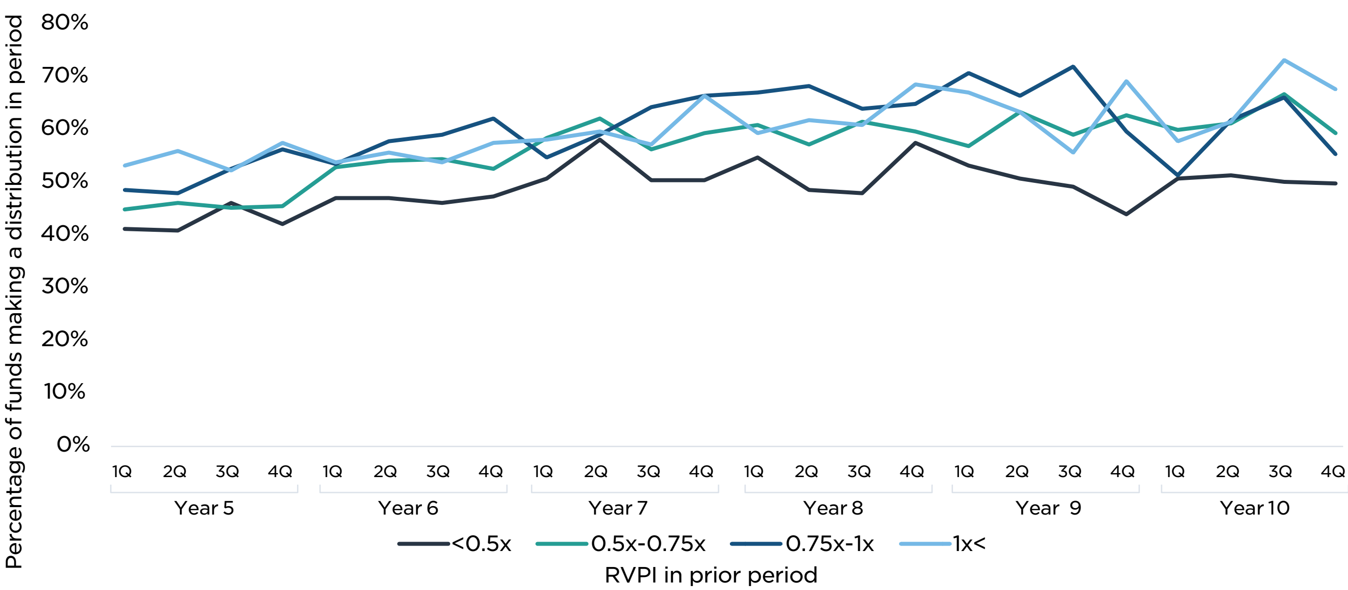
Source: PitchBook | Geography: Global
*As of December 31, 2018

as a helpful data point in predicting the ultimate level of distributions for a fund, with an R-squared value of 0.42 when regressed against DPI at Year 12. Conducting the same analysis with IRR instead of TVPI yields an R-squared value of just 0.20, underscoring the limited value of IRR early in the fund's life.

While we expected a fund's RVPI to be a strong predictor of distributions, we found the R-squared value to be only 0.28 when regressing RVPI in the prior period with distributions from the next, examining each reporting period from Year 5 through the end of the fund's life. The correlation rises slightly in subsequent years, but the R-squared value never rises above 0.35. Where we do find some predictive power in RVPI is at the tails of the sample range. First, the frequency of distributions begins to fall once RVPI dips below 0.5x, as does the relative size of

Distributions become less frequent when RVPI dips below 0.5x

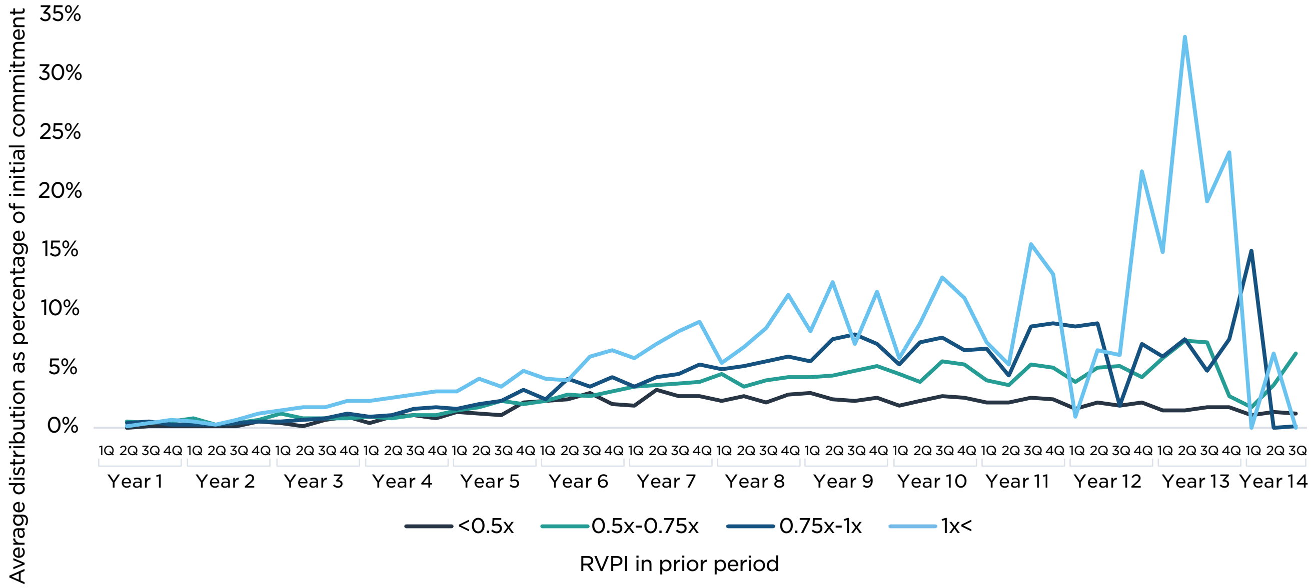
Percentage of PE funds with distribution in the quarter by prior period RVPI*



Source: PitchBook | Geography: Global
*As of December 31, 2018

Distribution sizes highly correlated with RVPI

Average distribution size for PE funds in the quarter by prior period RVPI*



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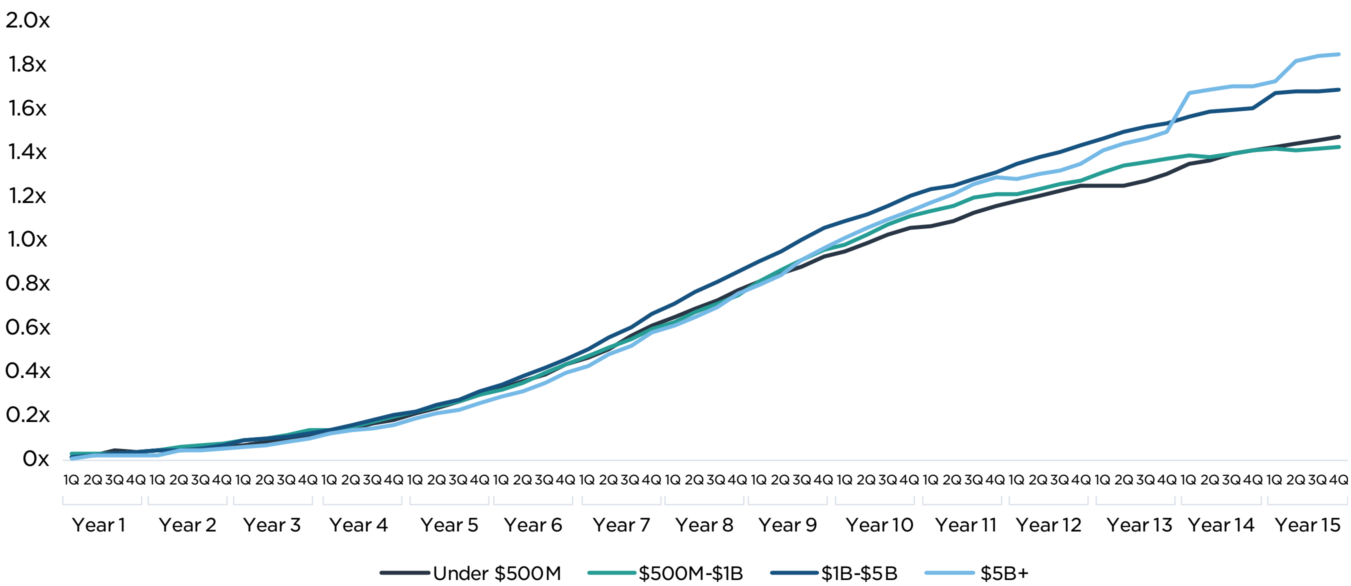
distributions. Conversely, funds with an RVPI above 1.0x tend to provide larger distributions, particularly later in the fund's life.

Fund size also appears to play a role in the distribution profile. The pace of distributions for smaller funds begins to taper at Year 10 but sustains well past that point for larger funds, partly because they often have extended timelines and are frequently expected to persist for 15 years or more. This difference in timelines is important to keep in mind when comparing cash multiples, such as TVPI and DPI. To that end, a fund may post a superior TVPI or DPI metric compared to some of its peers, but how long it took that fund

Larger funds more likely to have distributions beyond the Year 12 mark

Average DPI for PE funds by fund size since inception*



Source: PitchBook | Geography: Global
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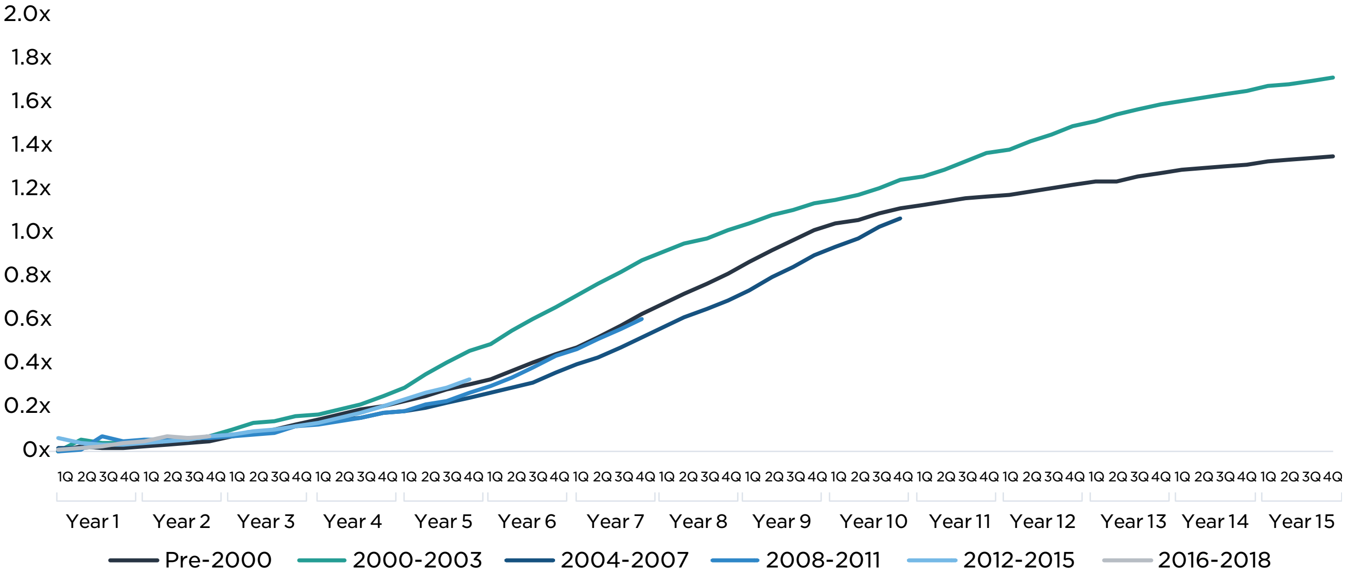
Distribution profiles early in funds' lives exhibit little structural change

Average DPI for PE funds by vintage year since inception*



Source: PitchBook | Geography: Global
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to return capital must be considered. Therefore, we recommend juxtaposing multiple metrics during analyses to get a complete picture of performance.

In addition to fund-specific data points, investors should understand and appreciate the broader market forces at play. To start, the PE industry has undergone significant changes that have fundamentally changed the absolute return profile. Put bluntly, PE returns simply aren't as stellar as they were in the early days of the industry. This was naturally bound to occur as more competition entered the space, but this is also part of a global recalibration of long-term return assumptions as the global financial crisis (GFC) has led many investors to accept new market realities. In PE specifically, the average TVPI has slipped from roughly 2.0x in the early 2000s to around 1.6x for vintages in the early 2010s.[2] However, we find little evidence of structural changes in distribution profiles.

Rather, we find PE fund distributions exhibit a high level of counter-cyclicality, with funds raised in the depths of economic downturns returning capital the most quickly. This is particularly interesting given our finding in Part I of this series that capital calls are highly cyclical. In other words, funds raised in the aftermath of an economic recession deploy capital more slowly but return it more quickly. Funds initiated during an expansion, on the other hand, invest rapidly but are slower to return capital. From a portfolio management perspective, this suggests that LPs are well advised to maintain diversity across vintage years and to not simply commit to new funds opportunistically when distributions are strong—which tends to come at the end of the market cycle.

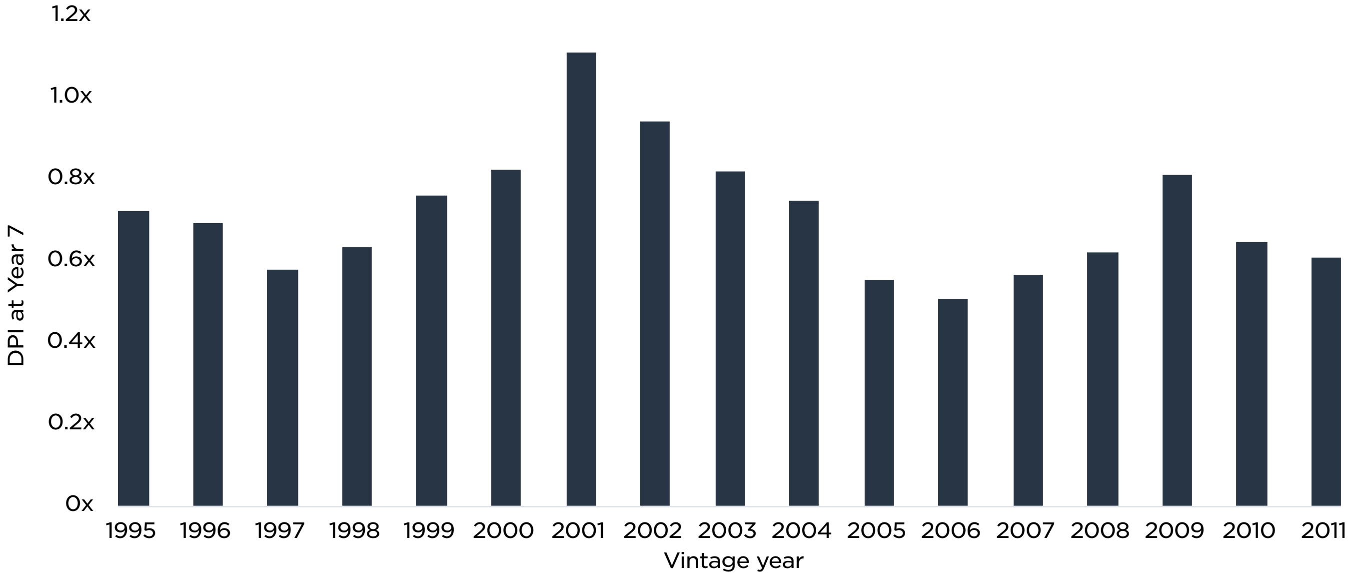
That can be difficult to achieve, however, as net cash flows to LPs tend to decline and often turn negative during economic downturns. Furthermore, as we saw during the GFC, drawdowns in public portfolios can lead the illiquid allocation to seemingly increase via the so-called denominator effect, which can hamper the LP from making new fund commitments.

This is a particularly salient point in the current environment, in which LPs have enjoyed positive net cash flows for nearly a decade, providing a steady stream of capital to be reallocated to new vehicles. While we are not predicting the next recession, there will inevitably be one at some point. When it happens, history suggests that it will be an opportune time for LPs to commit to new funds. But with distributions likely to dry up, LPs with a long-term view and a diversified PE portfolio will be best positioned to capitalize. In the next edition, we'll examine how a PE portfolio can be constructed to enable effective cash flow management while affording the flexibility to opportunistically allocate to new funds.

2: The most recent vintages (i.e. less than seven years old) exhibit low TVPIs due to the nascent nature of the funds and tend to be less meaningful.

Distributions oscillate with business cycle

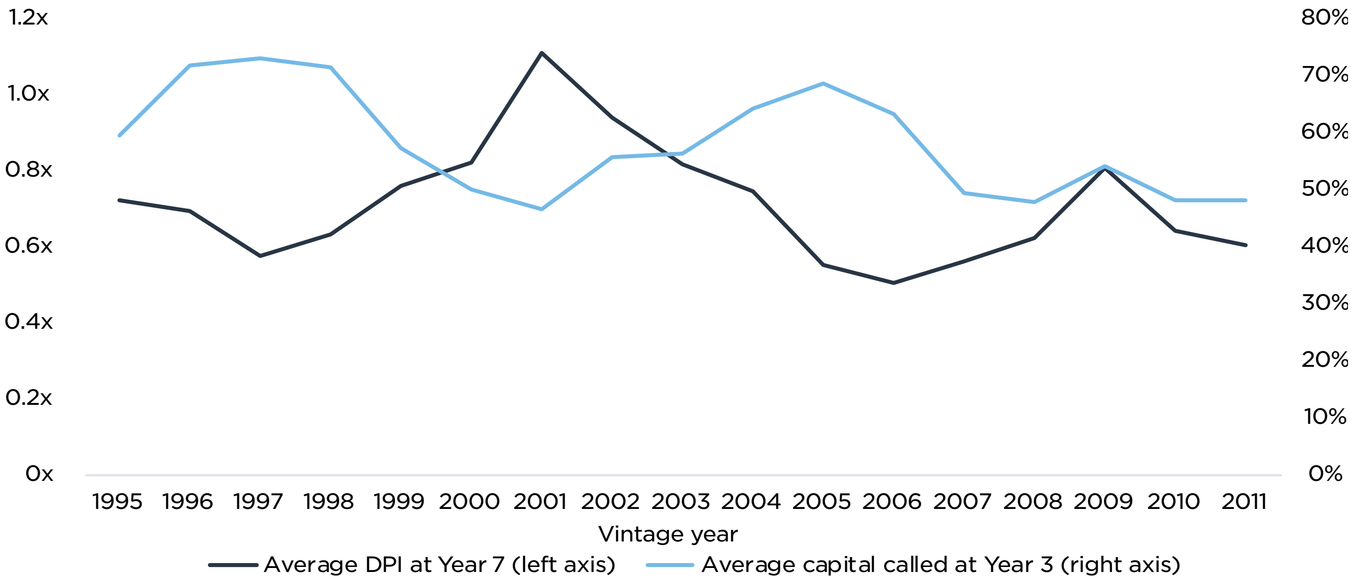
Average DPI for PE funds at Year-7 mark by vintage*



Source: PitchBook | Geography: Global
*As of December 31, 2018

Pace of contributions negatively correlated with future distributions

Average DPI for PE funds at Year 7 and capital called at Year 3 by vintage*



Source: PitchBook | Geography: Global
*As of December 31, 2018

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PRIVATE EQUITY

IRRs by Vintage

	POOLED IRRS			IRR HURDLE RATES						
Vintage Year	Pooled IRR	Equal-Weighted Pooled IRR	Number of Funds	Top Decile	Top Quartile	Median IRR	Bottom Quartile	Bottom Decile	Standard Deviation	Number of Funds
Pre-2001	11.23%	9.57%	174	22.94%	15.80%	9.92%	2.73%	-6.20%	12.53%	170
2001	23.06%	18.93%	29	39.24%	24.66%	16.10%	10.83%	5.24%	20.00%	29
2002	17.59%	16.17%	33	34.56%	26.10%	16.98%	6.50%	2.74%	18.14%	33
2003	22.66%	15.76%	22	37.66%	24.48%	12.80%	8.43%	-2.11%	28.45%	22
2004	11.57%	10.56%	50	28.52%	16.75%	9.46%	4.10%	-7.39%	17.58%	49
2005	10.25%	9.89%	74	21.10%	13.21%	8.42%	3.90%	0.26%	10.66%	71
2006	7.47%	7.21%	104	14.85%	11.67%	8.00%	3.79%	-3.02%	9.82%	99
2007	9.69%	9.43%	108	19.36%	15.00%	9.40%	5.00%	-1.34%	9.57%	105
2008	12.70%	10.43%	112	22.23%	16.01%	10.50%	4.78%	-2.09%	10.51%	108
2009	13.77%	13.85%	53	25.73%	20.63%	12.80%	8.77%	4.52%	10.08%	48
2010	11.33%	11.87%	62	21.09%	14.15%	10.50%	6.85%	-1.30%	11.58%	51
2011	15.59%	14.91%	72	33.10%	19.74%	12.46%	9.00%	3.36%	21.21%	63
2012	15.48%	13.65%	113	26.26%	18.85%	12.50%	8.05%	2.61%	16.23%	95
2013	15.02%	11.59%	96	30.30%	18.28%	12.00%	6.86%	-0.19%	14.42%	73
2014	14.86%	13.90%	92	28.85%	20.05%	11.15%	7.16%	-5.08%	19.00%	66
2015	13.43%	10.86%	123	33.97%	15.78%	8.65%	-1.49%	-10.33%	18.12%	70

Source: PitchBook. Data as of September 30, 2017

PitchBook Benchmarks: Private Markets

PG 15

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Stephen Schwarzman doesn't stop

By Eliza Haverstock

It took a few mistakes before Stephen A. Schwarzman skyrocketed.

Once, a single miscalculation rippled its way through an entire deal book. Decades later, he invested $330.0 million in a company that collapsed within months—which resulted in a 100% loss.

These career-defining moments now bedeck the pages of Schwarzman's memoir "What It Takes: Lessons in the Pursuit of Excellence," published by Simon & Schuster in September 2019. It traces the story of his meteoric rise from mowing lawns in a Philadelphia suburb to becoming king of a global alternative investment empire worth $554 billion. Among his many titles: CEO, entrepreneur, philanthropist, presidential adviser and multi-billionaire.

Yet with all this success, Schwarzman still sees Blackstone—the firm he created in 1985—as a "work in progress," his job much the same as it ever was. And at 72, he says he has no plans of slowing down.

PitchBook spoke with Schwarzman about his perspectives on the changing private equity landscape, what he describes as Blackstone's "revolution" in the industry and what's next for the legendary dealmaker (hint: it's not retirement). The following interview was edited and condensed for clarity.

PitchBook: You talked a lot in your book about creating Blackstone and the defining inflection points in that journey. What was the moment when you and co-founder Pete Peterson realized you were creating something big?

Stephen Schwarzman: I guess it was the moment when we got our circle, or commitment, from Prudential Insurance. We were basically fundraising and getting close to failing. We had $75 million from two commitments, but they were contingent upon us getting to $500 million—and we were trying to raise a billion. We were about out of names. We got to Prudential, and we're having a lunch, and I did the exact same presentation I gave to everybody else, which had resulted in only those two commitments.

The chief investment officer was listening, and he said, "Sounds great. I'll give you $100 million." At that point, Prudential was the No. 1 investor in terms of size and reputation in the world of private equity. I knew that if we had their prestige and knowledge base as our lead investor, the rest of the world would follow. So, that was the moment.

PB: What emotions did you have at that moment?

SS: I think it was something approximating stunned amazement.

PB: You rose very quickly in the ranks at Lehman Brothers, becoming a managing director at 31. How did your expertise in M&A inform your transition to private equity entrepreneurship?

SS: I was used to the concept of buying or selling something. Lehman, at that point, was the most active in mergers and acquisitions of any firm. Goldman Sachs had accumulated more in terms of aggregate principal deal value—they did bigger deals across the board—but Lehman did more total deals. It was an enormous amount of activity. So, you could learn how deals were put together, what valuations were. Negotiating wasn't a periodic activity—it was almost an everyday activity.

Getting business was something you had to do. So, being out and about and able to convince people to trust you with something of enormous consequence to them were skills similar to what you would need in private equity.

PB: Blackstone has evolved a lot since its creation. How have you and the firm changed your perspectives on producing returns, from financial engineering in the beginning to a focus more on operational improvements and growth initiatives today?

"Every day is a new day, and there are two things that could happen: You could do something that's really terrific, or you can stop something from becoming a mess."

SS: From the 1980s to now, it's been sort of a revolution. Nowadays, you would never buy anything without developing a significant transformation plan beforehand, so owning large-scale assets isn't the type of adventure that it was in the 1980s and 90s. Now we're quite sure in terms of what needs to happen and be done at every different phase of the company's management. We own now about 200 businesses, and this is just in private equity. Private equity is only 25% of Blackstone. Real estate represents a bigger proportion of our business. We also have a huge credit business and a very good-sized hedge fund business.

When you have responsibility for hundreds of billions of dollars in assets, you have to have systems. You have to have in-house experts. It's not like a small partnership of 10 or 15 people trying to make its way. We do group buying, and because of the total scale of the firm, I'm sure we're one of the 10 largest purchasers of supplies of all types.

So, when you combine your companies doing something like that, you get enormous cost advantages. We did the same thing with healthcare costs here at the firm. It's a different type of approach than a medium size or small private equity business has.

PB: You talked a little bit about the different strategies that Blackstone has pursued, such as credit and real estate. What strategy are you most excited about looking forward?

SS: We're the largest owner of real estate in the world. I've been excited since 1991 about that area, and it's proven to be a really great thing. We now are so broad in terms of our presence around the world. Today, we like warehouses, because the digital economy needs warehouses for delivery of their products to customers. Digital sales are going up faster than brick-and-mortar retailing, so warehouses turned out to be a terrific focus.

Certain kinds of residential real estate have turned out to be very good, such as apartment buildings and single-family homes. We sold almost all of our shopping malls, so we didn't get hurt like many other real estate investors did. We used to be the biggest hotel owner in the world, and that turned out to be an extremely good focus, but as the economy was peaking, we sold those assets. We

> ***"From the 1980s to now, it's been sort of a revolution."***

go in and out of asset classes and different parts of the world. It's always interesting.

PB: One aspect of leveraged buyouts that you didn't delve into in your memoir is the cost-cutting layoffs that often ensue after a financial sponsor takes the reins. A new report from economists including Josh Lerner and Steve Davis found average job losses of 4.4% in the two years after a company is bought by PE firms. How do you respond to criticism about this?

SS: I'd say the flaw in that analysis was that it was looking at only two years. The cycle in private equity, depending on what kind of company you buy, is a function of what happens with the jobs. If you're buying a very healthy company that's expanding nicely, I think the study showed that those companies grow employees 10% to 13% in their first two years. Something like that.

On the other hand, say you're buying a carveout of a company, in other words, a part of a very big company. Or say you're buying a company that's done quite poorly—because people don't always sell wonderful companies—and that company needs to be restructured. But the seller, for whatever their reasons, doesn't want to do that. To make those companies healthy, there needs to be some changes of various types. You know that when you buy that business.

The personnel cuts for those companies are larger. And they were using a control group—I have no idea what control group they were using. What happens with those companies is once you start getting them in shape, you put them in a growth mode. In growth mode, you end up hiring more people.

The average life of a private equity deal isn't just two years. In two years, you haven't established enough growth because just reducing people count does not add a lot of value.

My experience has been that there's always situations in which you get a company that has more jobs at the end of five years than you started with after the first year or two. Because that's how you make money. You should be matching the life of the investment, not cutting off the whole improvement, which is why you buy the company in the first place.

I think the methodology that was chosen is unfortunate... I don't think, at the end of the day, private equity net fires anybody. Because if you have a holding period of three years, and they're growing in years three, four and five, you didn't net fire anyone in a given year.

> ***"I want to make sure Blackstone's lifespan is a lot longer than my own personal lifespan, because I'm getting a bit older apparently, and the firm is just getting better and better."***

PB: After many public private equity firms converted to C-Corps, we've seen their market caps skyrocket. Are the public markets finally valuing Blackstone and its competitors correctly?

SS: It's certainly been modified. I saw no reason why those historic valuations of 11x earnings made any sense. I was pretty straightforward about indicating that. Now we're being valued on a much more sensible basis.

The way you value companies is, what do you think the growth rate is? What's the yield? We were always significantly undervalued in part because the structure we were using, a master limited partnership, basically eliminated two-thirds of the typically eligible buyers from owning us.

By changing to a corporate form, a much, much bigger group of potential owners could buy us. We used to visit these people, and they'd say, "Geez, you've got this marvelous company, but we can't buy you." So, if we went to a mutual fund company, usually there was one manager that could buy us and seven that wouldn't. But now all seven can. In a way, it's the law of supply and demand—that's how we've made ourselves available to a much larger group. And that's working out with a much higher valuation.

PB: I'd also like to hear your thoughts on longer holding times for portfolio companies. We've seen a lot of firms including Blackstone raise long-dated or permanent capital funds. Do you think this will become a larger part of the industry?

SS: I think the longer holds will slowly grow as a percentage of the industry. The compensation structure now in the industry, from the perspective of the investors, is based in part on high rates of return. Longer holds typically have somewhat lower rates of return, which makes it harder to attract that capital. It may be smarter to invest on that kind of basis, but it's harder if the people who are giving you the money are incented in a slightly different direction. We pioneered this type of investment. It's increasing in popularity.

It's a smart type of investing to do, and we're optimistic about it. But it won't challenge, in terms of aggregate scale, the more traditional private equity structure.

> ***I don't feel that Blackstone is some kind of success. I view it as a work in progress that can always go wrong.***

PB: In your memoir, you wrote that your mother had what it took to become the CEO of a major corporation, if only she had lived in another time. Private equity still has very few female executives, even compared with other segments in finance. What do you think needs to change in the private equity industry to encourage more female leaders?

SS: Well, that's a good question. What it was, interestingly, was you had very few women who ever applied to go into private equity. For some reason, they thought this industry was a difficult place to work. It's hard to hire people when they don't apply. So, what we did about three or four years ago, is we said, OK, let's find out why women aren't applying. Let's go to campuses and explain what we do. Let's start an intern program, where women can apply and just get an introduction into what we do. In our entry-level classes now, we've gone from 15% women to 40%. And we still have women applying at disproportionately low rates.

I think we've made some very forward-looking approaches to trying to rebalance Blackstone's next set of employees, and we've been unbelievably successful doing that.

PB: What was the worst investment you've ever made, and what did you learn from it?

SS: The worst investment we ever made was called Edgecomb Steel, a steel distribution business, and it's in the book. We lost 100% of our money. It was our third deal. It resulted in changing everything we did, in terms of how we looked at a potential investment, the kind of processes that we had, the focus on downside risk and how to construct an investment committee process where everybody participates. We get the virtue of everybody's thoughts. That was a seminal moment in the firm's history.

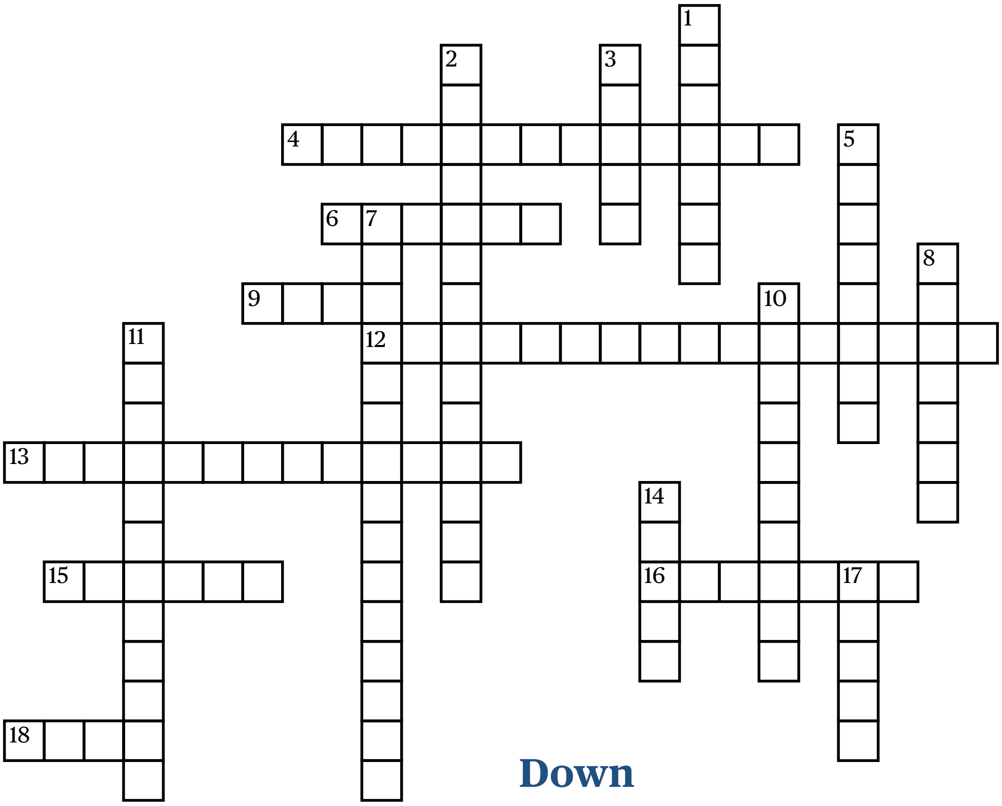
PB: You've found incredible success in your career. What more would you like to accomplish?

SS: Well, I don't approach the world that way. For me, every day is a new day, and there are two things that could happen: You could do something that's really terrific, or you can stop something from becoming a mess. Both of those require enormous immediacy and focus. I don't look backward. I don't feel that Blackstone is some kind of success. I view it as a work in progress that can always go wrong.

The job of myself and the other senior people here at the firm is to make sure that things don't go wrong and that things go right for our investors and the people who work here, as well as for society. There are always going to be wonderful things that happen in the future, and our job is to help figure them out and make sure we have the resources to execute that.

So, I don't know. I think my job sort of is the same as it ever was. I want to make sure Blackstone's lifespan is a lot longer than my own personal lifespan, because I'm getting a bit older apparently, and the firm is just getting better and better.

Crossword



Across

4. No animals were hurt in the making of this metaphor describing a rally in share prices following a substantial decline.

6. Use of a third party that holds an asset or funds before they are transferred from one party to another.

9. The rate at which a company spends the capital it received from investors. Also a song title shared by Usher, Ellie Goulding and The Cure.

12. Accounting framework with three parts: social, environmental and financial.

13. This subsector within mobility tech focuses on "last mile"transportation.

15. A single company that returns an entire VC fund. One of many mythical creatures referenced in private markets.

16. A specific slice of a loan. Rhymes with a Golden Girl's name.

18. When a private investor purchases stock in a public company. The term is also featured in a painting by René Magritte.

__Across:__ 4. dead cat bounce, 6. escrow, 9. burn, 12. triple bottom line, 13. micromobility, 15. dragon, 16. tranche, 18. PIPE
__Down:__ 1. spin-off, 2. Securitization, 3. C-Corp, 5. Power Law, 7. Santa Claus rally, 8. January, 10. bookrunner, 11. shark watcher, 14. datum, 17. hedge

Down

1. Divestiture that creates an independent company through the sale or distribution of new shares of an existing business or division of a company.

2. A financial practice that David Bowie used to sell future royalties for $55 million.

3. Corporation taxed separately from its owners. Named for its subchapter in the Internal Revenue Code.

5. Dynamic in which lion's share of returns is earned from a small number of investments.

7. Calendar effect in which stock prices rise during the last five trading days in December and the first two trading days that January.

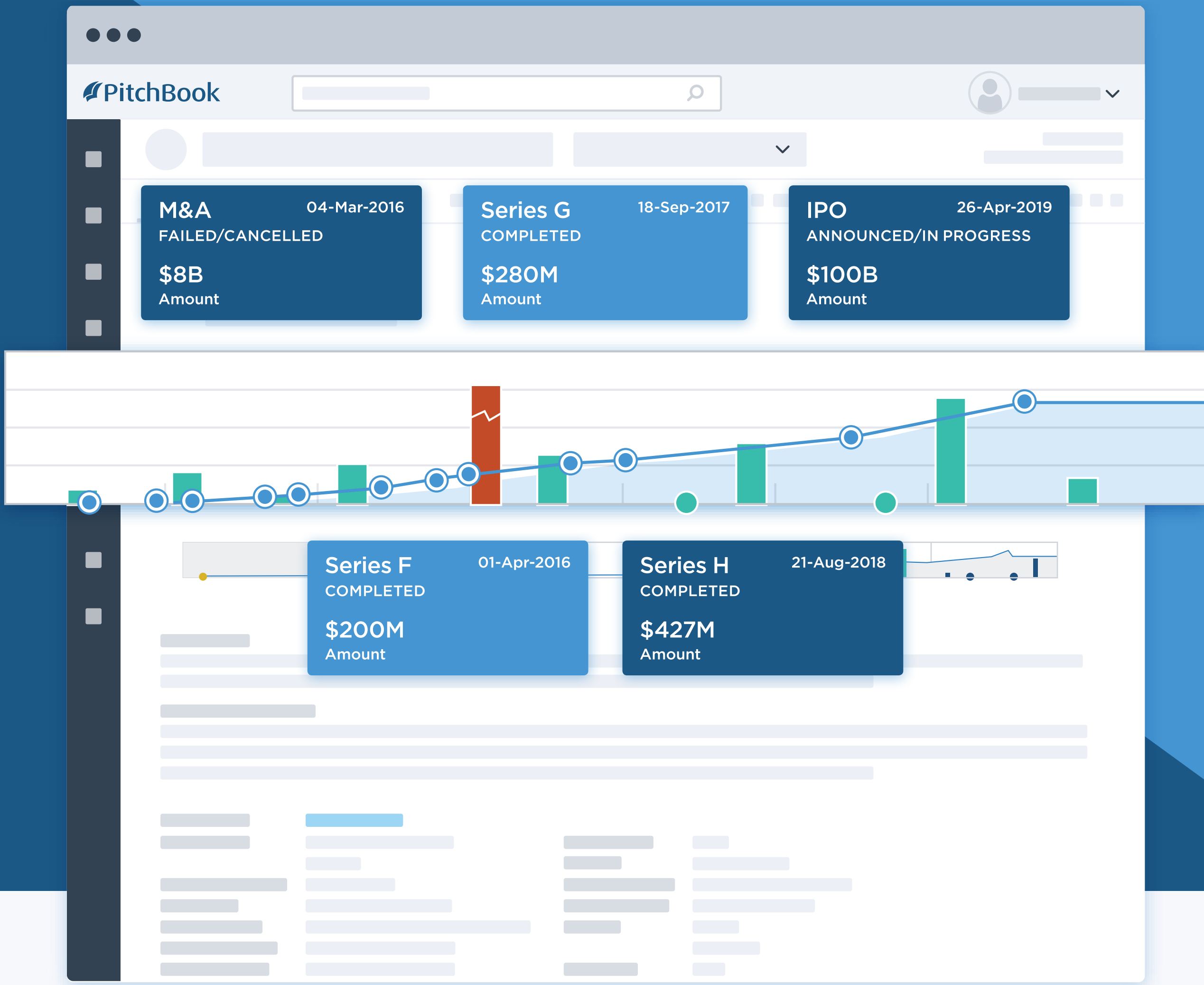
8. Calendar effect in which securities' prices seem to increase in this month more than any other. Also cheapest month to fly. Supposedly.

10. The main underwriter in equity, debt or hybrid securities issuance. Each one of them wants to be in lead left.

11. A firm that specializes in the early detection of takeover opportunities. Or someone who enjoys a particular summer TV event about a certain elasmobranch fish.

14. The singular form of data. If you believe data is plural. (Many do not, including the Editor of this magazine.)

17. Fund structure created in 1949 by Alfred Winslow Jones, a sociologist turned investment manager.


PitchBook
M&A 04-Mar-2016
FAILED/CANCELLED
$8B
Amount
Series G 18-Sep-2017
COMPLETED
$280M
Amount
IPO 26-Apr-2019
ANNOUNCED/IN PROGRESS
$100B
Amount
Series F 01-Apr-2016
COMPLETED
$200M
Amount
Series H 21-Aug-2018
COMPLETED
$427M
Amount

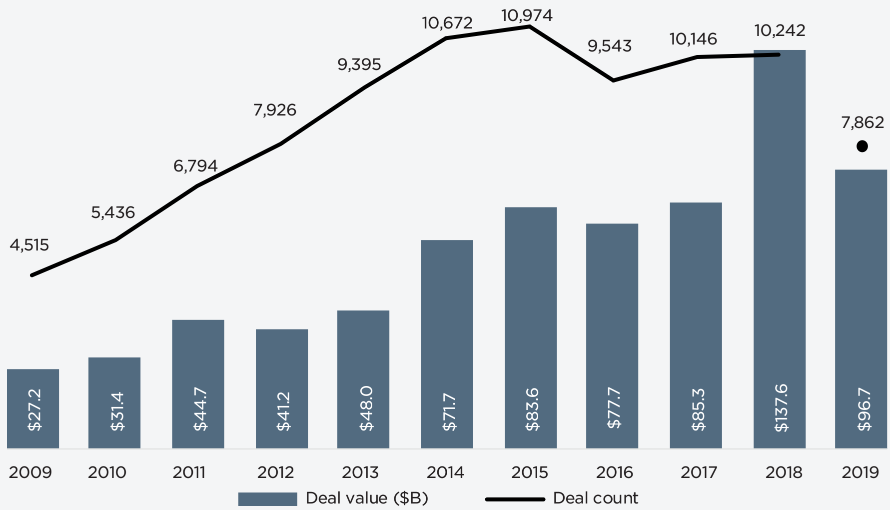
Market Trends

US venture capital

All charts sourced from PitchBook
Data for all charts as of September 30, 2019

Deal value is set to surpass $100 billion for the second year straight. 185 mega-deals ($100 million+) have already closed so far this year, nearly reaching 2018's full-year total. These outsized transactions comprise 43% of total 2019 deal value, which has continued to climb unabated to a total of $96.7 billion in 3Q 2019.

VC deal activity

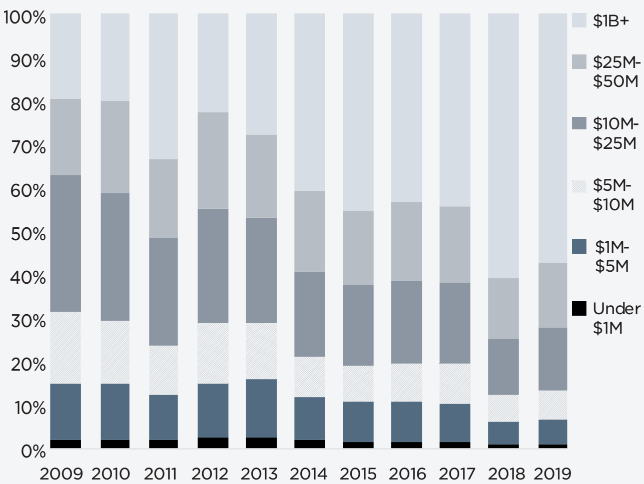


$227.4B
in VC exit value in 2019 to date

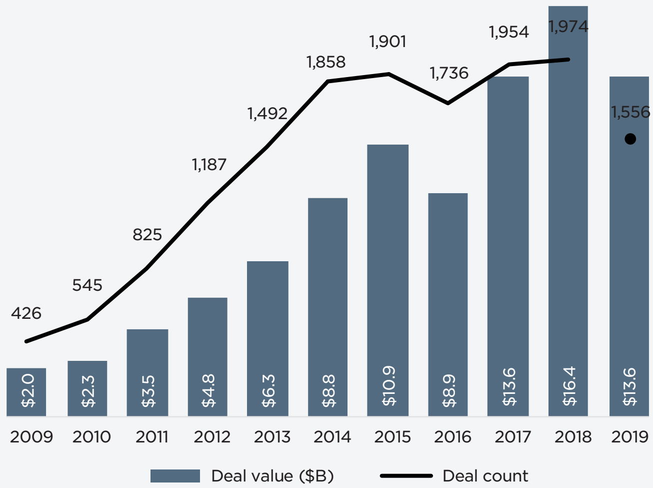
$13.6B
in deal value for female-founded companies in 2019 to date

82.0%
of overall exit value represented by IPOs in 2019 to date

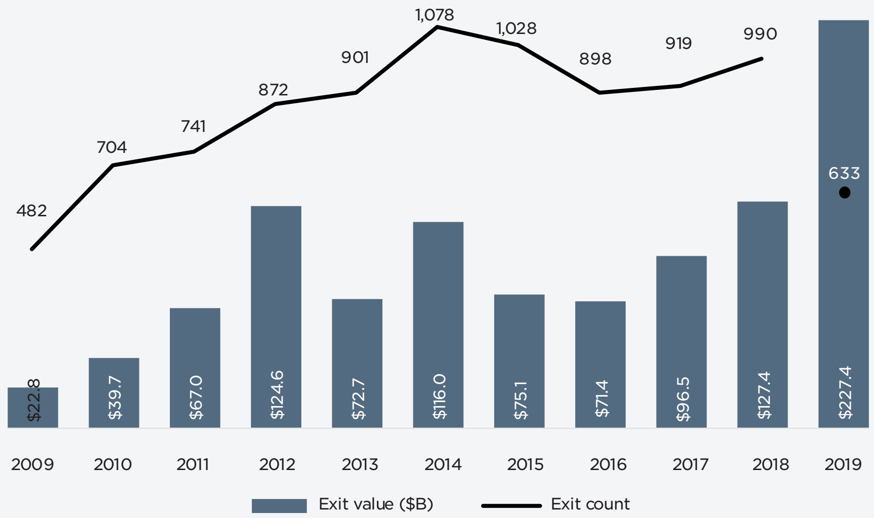
VC deals ($) by size



VC deal activity for female-founded companies

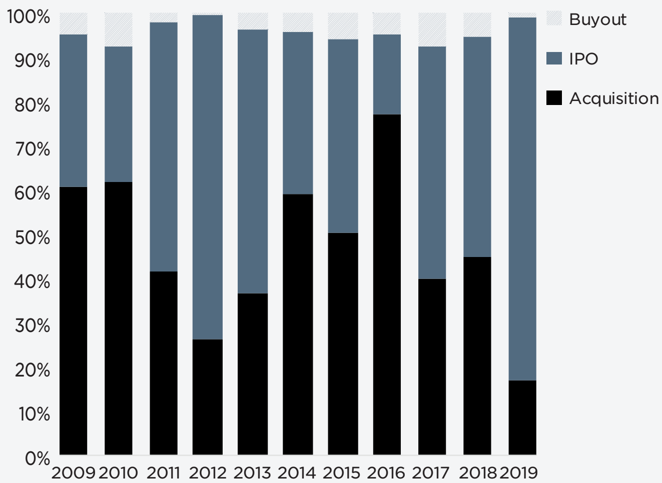


VC exit activity

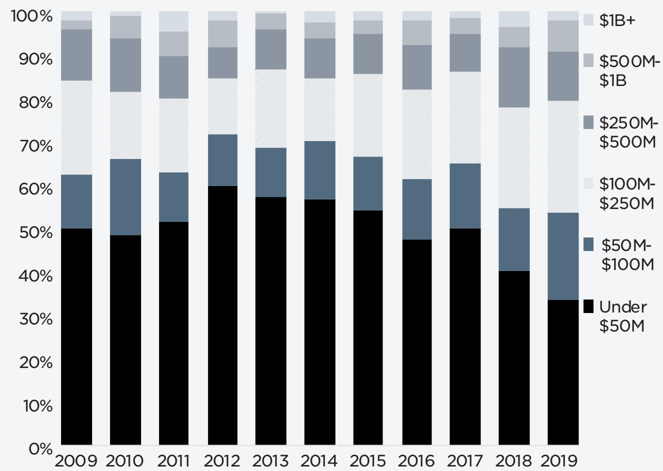


VC fundraising focus has shifted toward increasingly larger vehicles since 2012, with 15 mega-funds closed YTD. Nearly half of all funds were sized $100 million or above, up from roughly 30% in 2014, and 9.3% of all funds were sized $500 million or above, up from 5.2% in 2017. Conversely, micro-funds (sub-$50 million) have dropped to 33.3% of the total fund count YTD, down from roughly 60% of all funds in 2012.

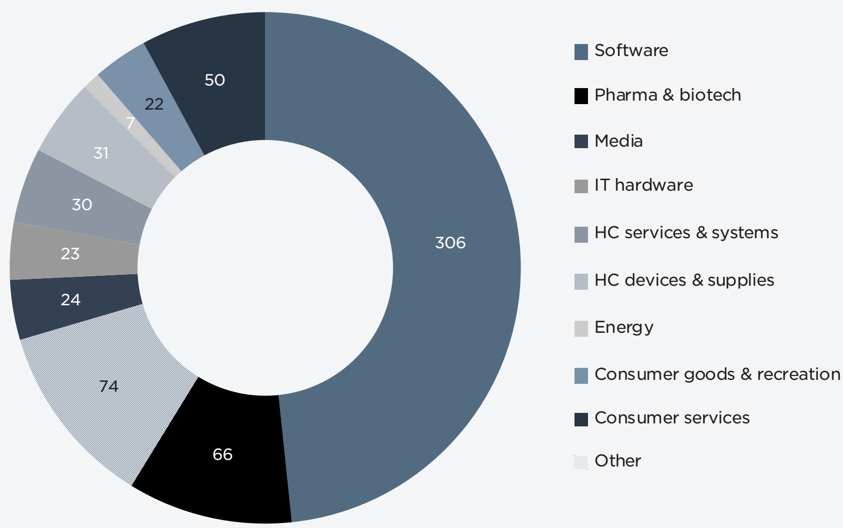
VC exits ($) by type



VC funds (#) by size



VC exits (#) by sector (2019 YTD)



Outsized liquidity events are a dominating trend, with exits over $100 million making up 98.7% of value YTD. Multibillion-dollar IPOs continue to grab headlines in the VC exit market, and 3Q was no exception with six such deals closing in the quarter. This stacks up against only one acquisition of more than $1 billion closing in 3Q 2019. IPOs have constituted 82% of overall exit value YTD, a decade record.

US private equity

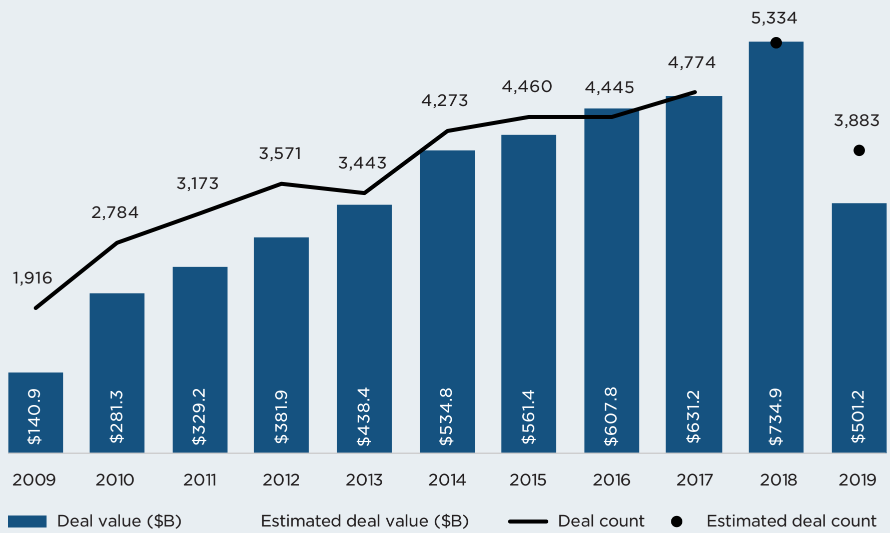
All charts sourced from PitchBook
Data for all charts as of September 30, 2019

$501.2B
in PE deal value across 3,883 deals in 2019 to date

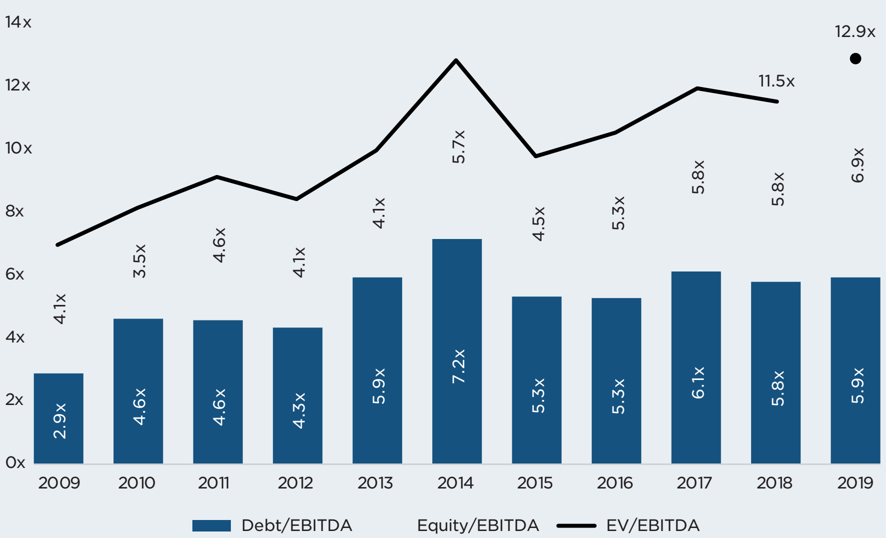
$191.0B
in fundraising value through 3Q 2019

12.9x
median PE buyout EV/EBITDA multiple through 3Q 2019

PE deal activity



Median PE buyout EV/EBITDA multiples

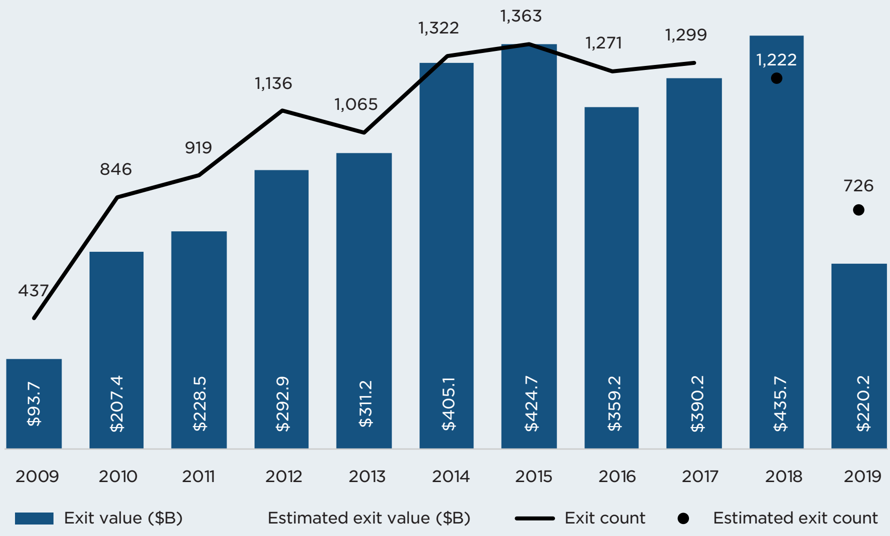


US PE dealmaking activity remained fervent, with 2019's figures approximately matching 2018's pace. Although GPs are closing on deals at a near record rate, the US economic backdrop is somewhat perilous with the Federal Reserve cutting short-term rates again and inversions occurring at key spots in the yield curve during 3Q. However, several factors should still propel dealmaking through the next few quarters. GPs are on a fundraising tear and will be zealous to invest their newly secured capital. Additionally, sovereign wealth funds and other institutional investors are upping their participation in deals by co-investing as well as directly sourcing deals. With all this cash keeping deal flow elevated, multiples, too, have remained aloft, prompting GPs to refocus on downside protection when sourcing deals.

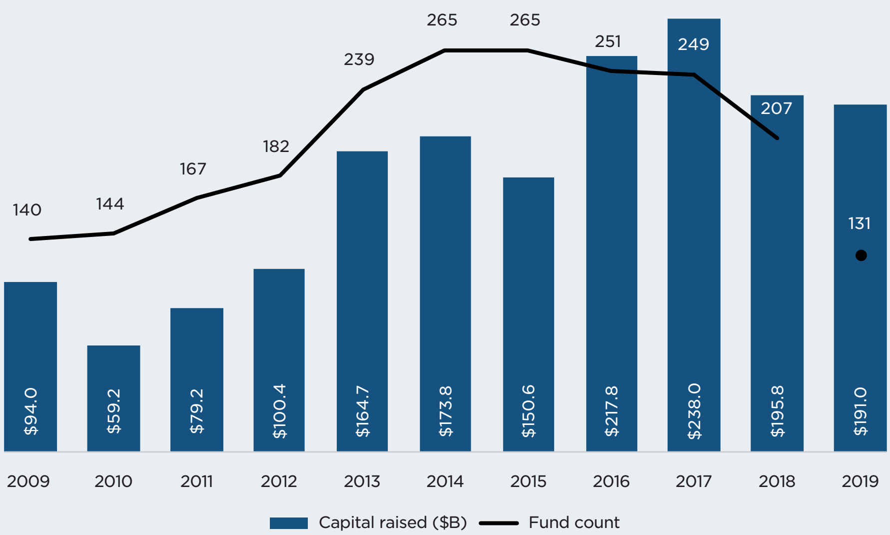
$40B+
closed in fund value between the largest-ever buyout fund and tech-focused buyout fund

Exits have fared worse than deals, with count and value down markedly compared to this point last year. The PE-backed IPO market once again looks untenable with many high-profile companies either falling after listing or pulling their offering altogether. Corporates, too, seem less willing to pay elevated prices in today's uncertain environment and continue to represent a diminishing proportion of PE exits. With continually rising dry powder levels, GPs may have the opportunity to step in and take additional share of the exit market; otherwise, they may choose to extend holding periods until more certain days.

PE exit activity

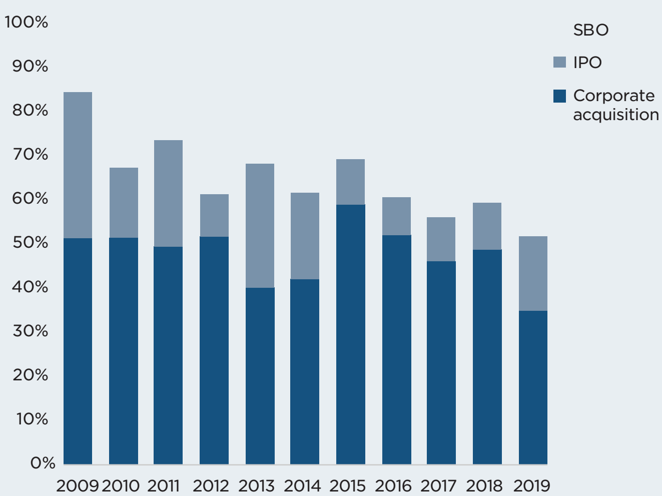


PE fundraising activity

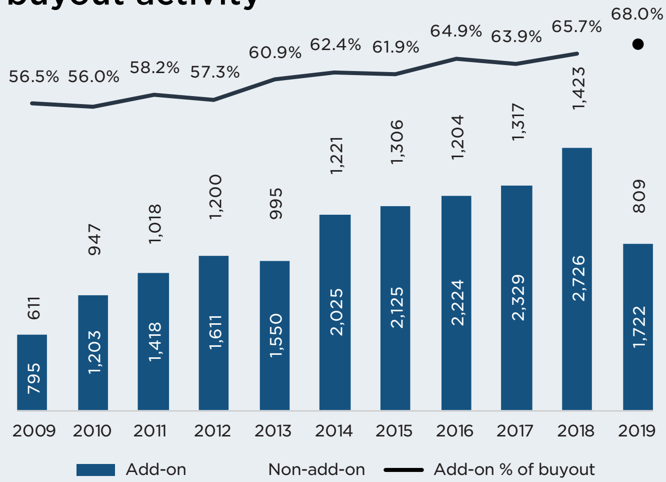


Cumulative fundraising value has almost eclipsed 2018's full-year figures with nearly $200 billion raised through 3Q 2019. The largest-ever buyout fund and tech-focused buyout fund closed in 3Q, racking up more than $40 billion between them. A general shift toward such colossal funds has allowed some of the largest LPs to cull the number of GP relationships and write nine-figure checks to a select few managers. LPs are also indicating higher demand for alternative fund structures, and the demand for long-dated and permanent capital vehicles is swelling.

PE exits ($) by type



Add-ons as proportion of PE buyout activity

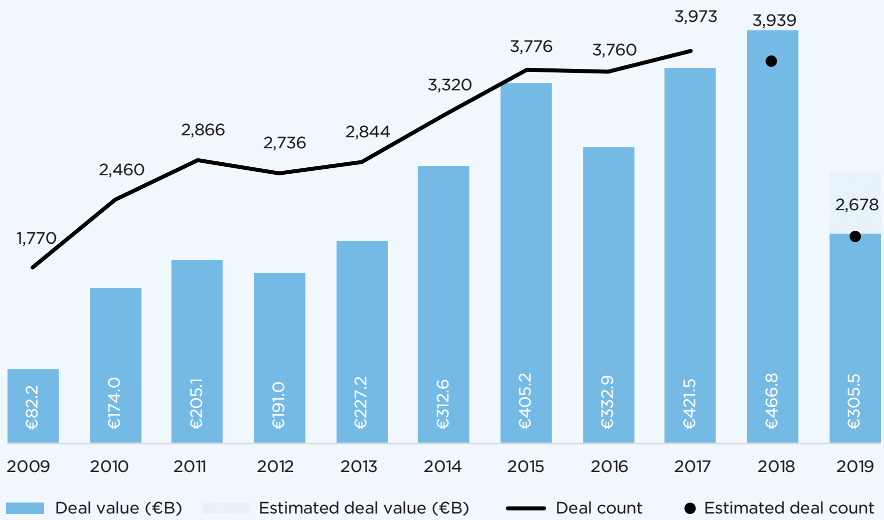


European private equity

All charts sourced from PitchBook
Data for all charts as of September 30, 2019

European PE deal value soared in 3Q 2019 to €122.7 billion, a 24.8% uptick QoQ. On an annual basis, volume has continued its downward trend but has remained broadly static QoQ. Deal volume in the UK & Ireland region has remained surprisingly resilient in the face of strong macroeconomic headwinds. Healthcare posted a stellar deal value figure in 3Q, pushing up dealmaking numbers in the DACH region, which recorded its second-highest quarterly transaction value ever. Corporate carveouts are gaining significant traction, while deals with cross-border participation are on track for a record year in terms of their share of overall value and count.

PE deal activity

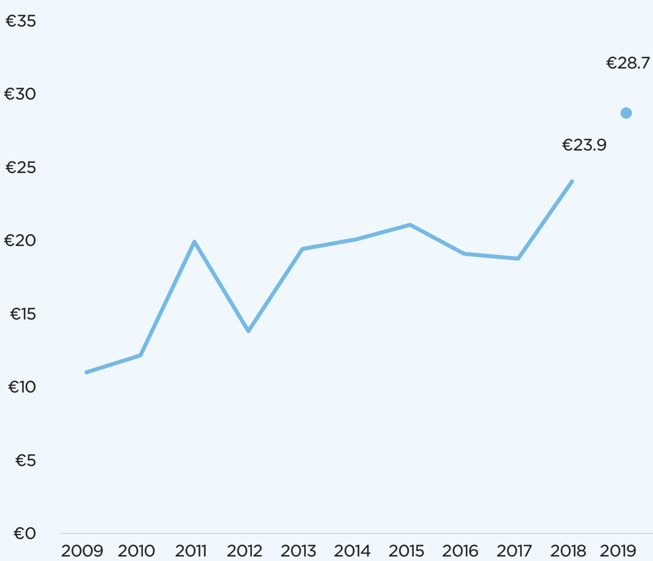


€28.7
median PE deal size through 3Q 2019

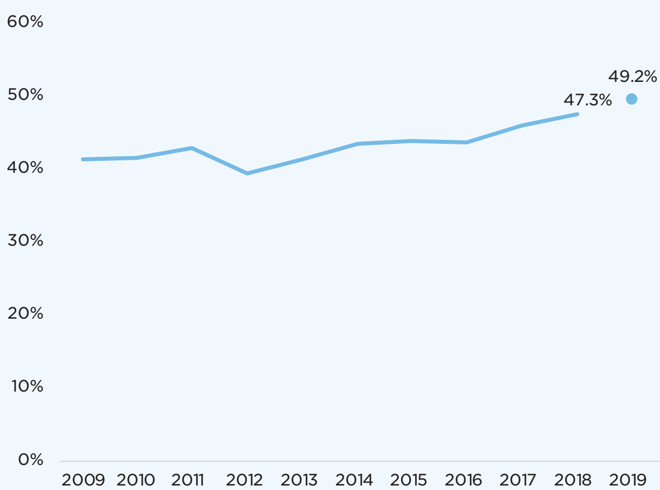
49.2%
of overall PE deals involved a cross-border investor through 3Q 2019

€305.5B
in PE deal value across 2,678 deals in 2019 to date

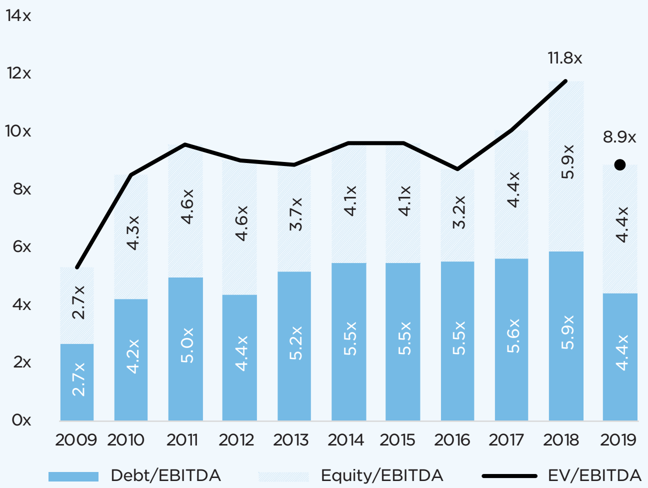
Median PE deal size (€M)



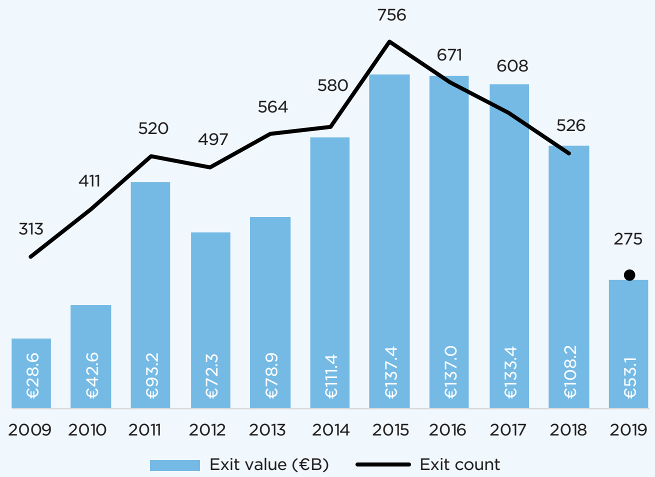
Deals with cross-border investor participation as proportion of overall PE deals (#)



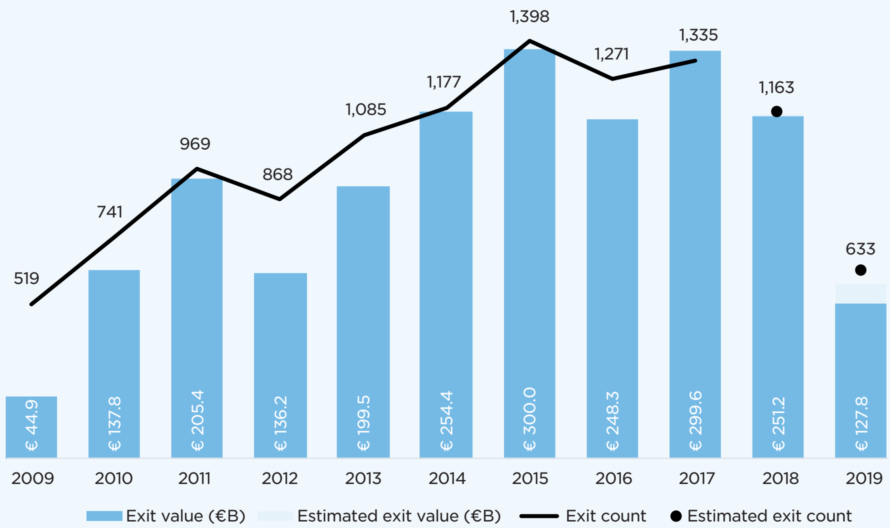
Median PE EV/EBITDA buyout multiples



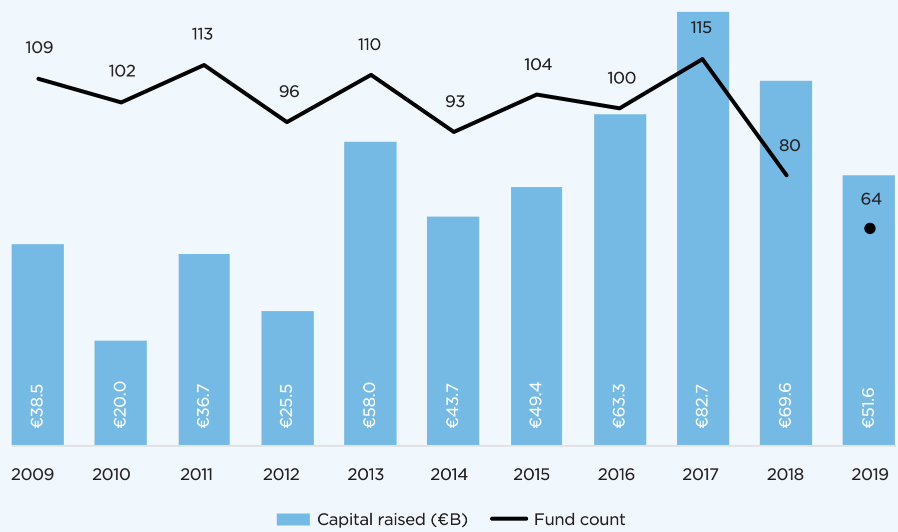
Corporate acquisition activity



PE exit activity



PE fundraising activity



The beleaguered European PE exit environment continued in 3Q, with only €42.8 billion closed across 221 liquidity events. On an annual basis, exit value will likely not surpass the €200.0 billion mark for the first time since 2013. Across all regions and exit types, exit values are well short of 2018 annual figures. While increasing their proportion of the total this year, corporate acquisitions have continued to slide in terms of absolute value compared to recent years.

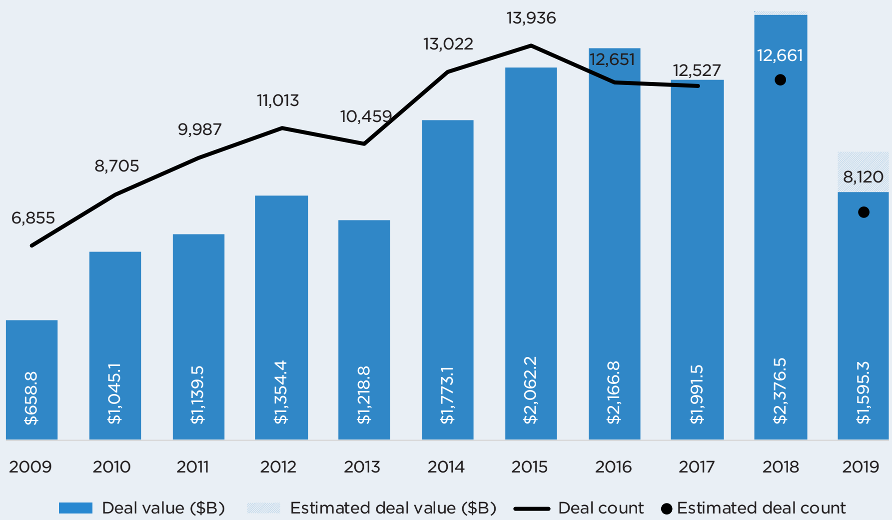
European PE fundraising activity is on track to hit the third-highest annual level on record with €51.6 billion raised across 64 funds. That said, the fundraising environment has significantly slowed from 1H 2019 and is likely to record the lowest total for annual capital raised in three years. LP commitments to PE growth funds precipitously increased this year, accounting for €9.3 billion, eclipsing all full-year figures apart from 2011. Further, we expect long-term PE funds and ESG funds to continue to proliferate in the marketplace. Activity in the French & Benelux region has cooled from its blistering start to the year, while an increasingly bifurcated fundraising market in the UK & Ireland is evident.

North American M&A

All charts sourced from PitchBook
Data for all charts as of September 30, 2019

North American M&A activity continues apace. Numbers through 3Q 2019 indicate that we are progressing toward another $2 trillion-plus year, with the media sector playing an outsized role recently. However, economic uncertainty is affecting the overall market and fewer massive deals were announced in 3Q than in prior quarters. The US/China trade war rages on and has led to a precipitous decline in cross-border activity, with far fewer China-based companies willing or able to acquire US-based companies. Without a firm resolution to the dispute, M&A activity between these two economic powerhouses may wane going forward.

M&A activity

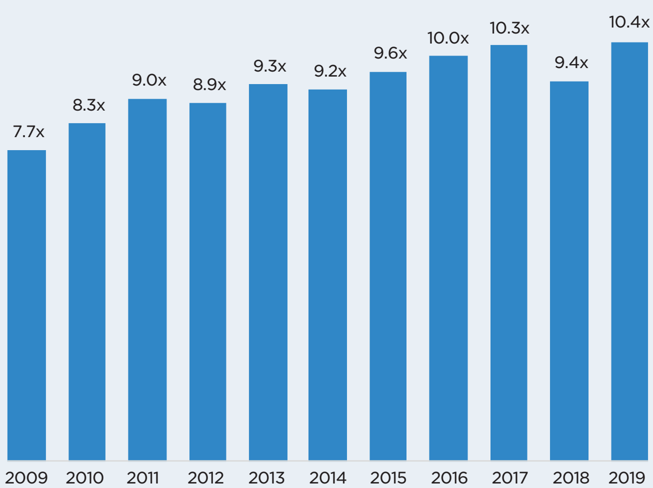


10.4x
median EV/EBITDA multiple through 3Q 2019

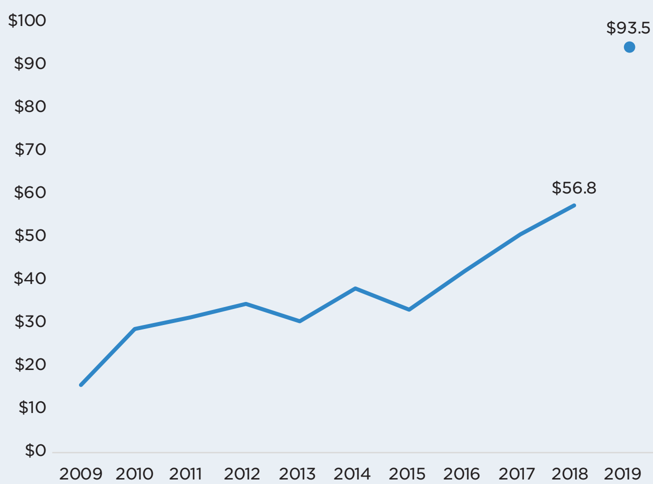
$20.0B
in M&A value from Chinese acquirers in 2019 to date, down from $179.5B in 2018

$197.0B
in financial services M&A value in 2019 to date

Median M&A EV/EBITDA multiples

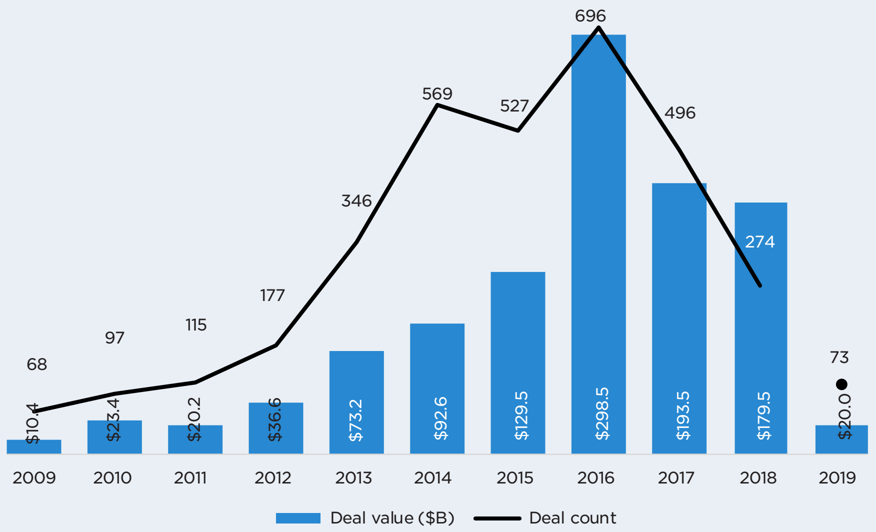


Median M&A size ($M)

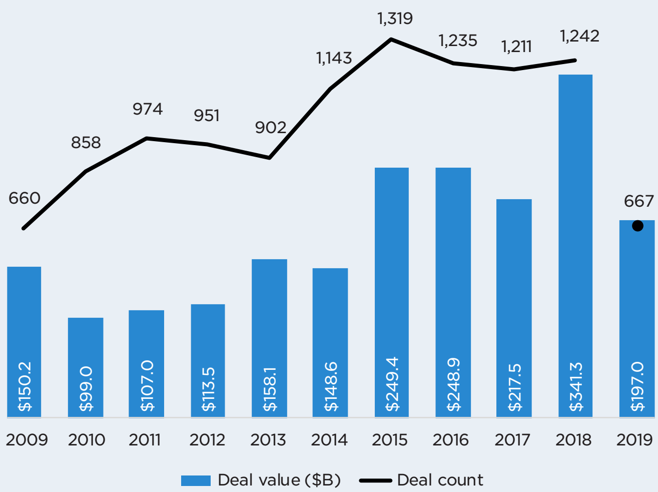


Multiples and deal sizes remain elevated. M&A transactions continue to close at double-digit EV/EBITDA multiples as companies bid up prices. Headline prices are rising as well, with companies pursuing heftier acquisitions that will move the needle. Technology is playing an outsized role in that trend, especially as acquirers target high-growth companies, many of which are still VC-backed. With tens of billions of dollars pouring back into the VC ecosystem, startup volume continues to climb, and these companies will keep making up a growing proportion of M&A targets.

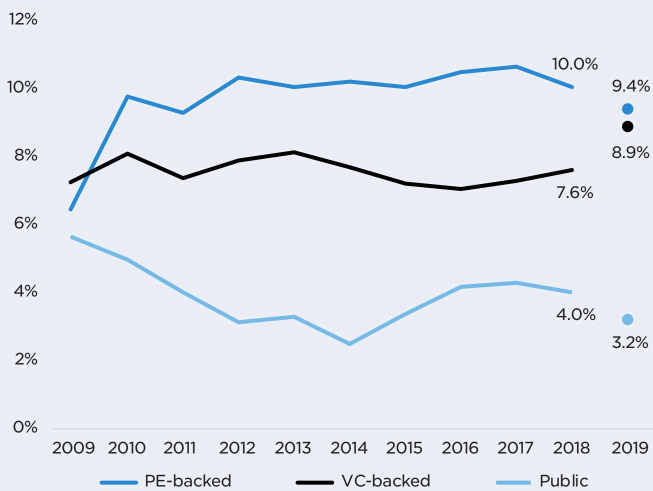
M&A activity with Chinese acquirers



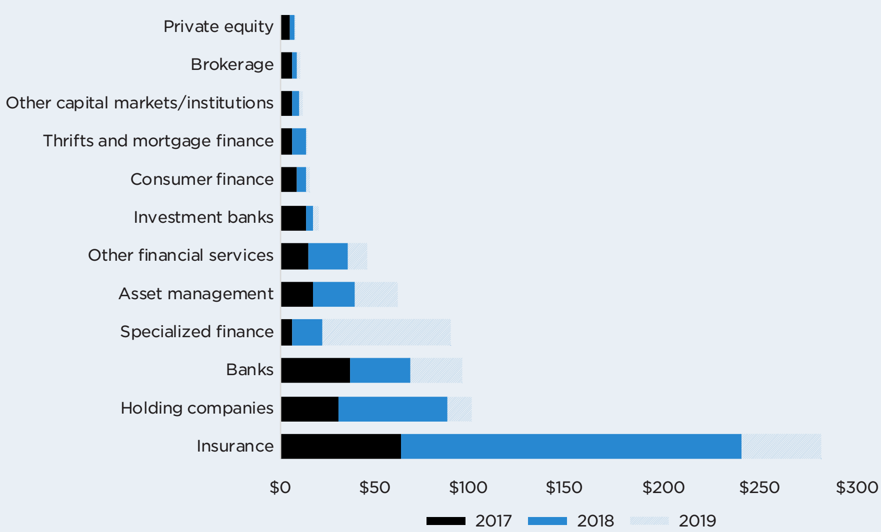
Financial services M&A activity



M&A (#) by backing status



Financial services M&A ($B) by segment

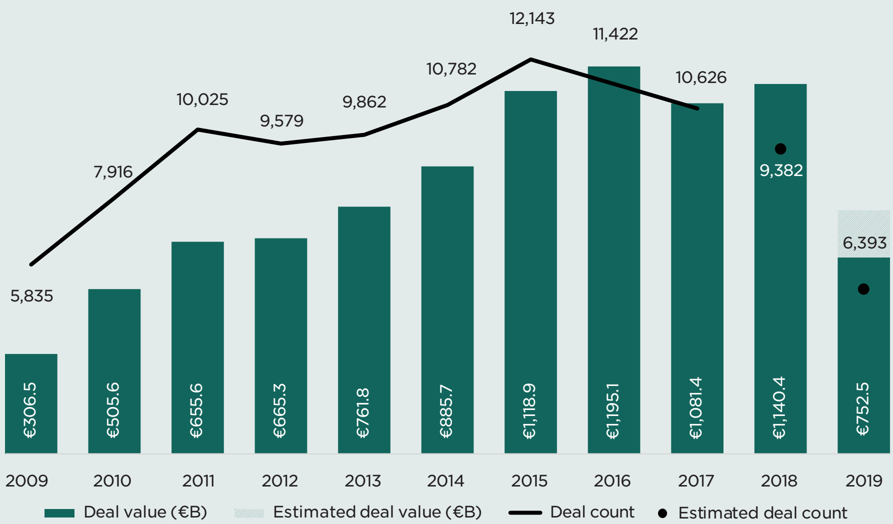


North American M&A activity in the financial services sector continues to proliferate. Insurance has been a popular sector as PE firms use premiums as a source of permanent capital. The face of banking is changing in the wake of the user migration to technological disrupters with increased mobile and internet accessibility. This has led to a continuation of the long-standing trend of bank consolidation as smaller regional and national banks attempt to scale.

European M&A

All charts sourced from PitchBook
Data for all charts as of September 30, 2019

M&A activity

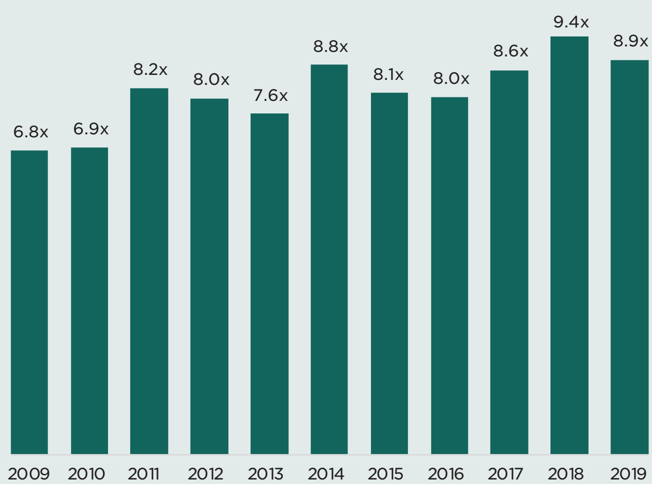


€752.5B
in M&A value across more than 6,000 deals in 2019 to date

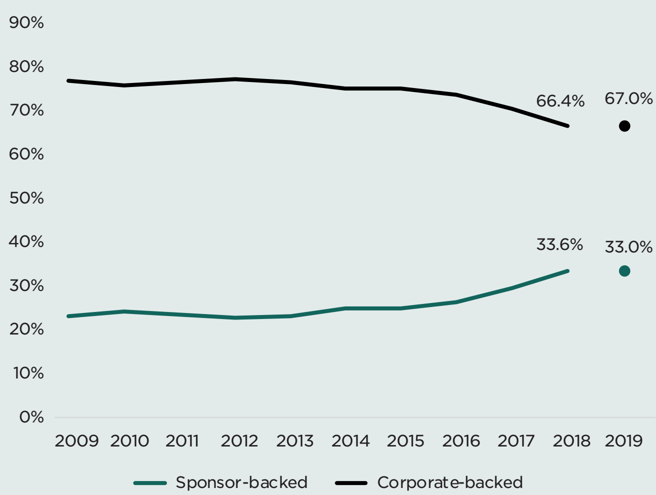
67.0%
of overall M&A was corporate-backed through 3Q 2019

Three quarters through 2019, annual European M&A value and volume are apace to be the lowest readings since 2014 and 2010, respectively. That said, deal value spiked 23.0% QoQ, largely driven by two outlier mega-deals. EQT's acquisition of Nestlé Skin Health and E.ON's acquisition of Innogy for a combined €32.6 billion helped drive the largest quarterly M&A deal value reading of the year. An expanded and diverse set of acquirers are aggressively pursuing a small pool of "A-grade" assets, which has kept valuations historically high, in spite of multiples softening from 2018's peak. The only sectors not to see YoY declines in M&A deal value were healthcare and energy. Financial sponsor volume and value proportions of corporate carveouts are at decade highs, while the UK & Ireland region shows increased M&A volume resilience in the face of palpable geopolitical and macroeconomic headwinds.

Median M&A EV/EBITDA multiples

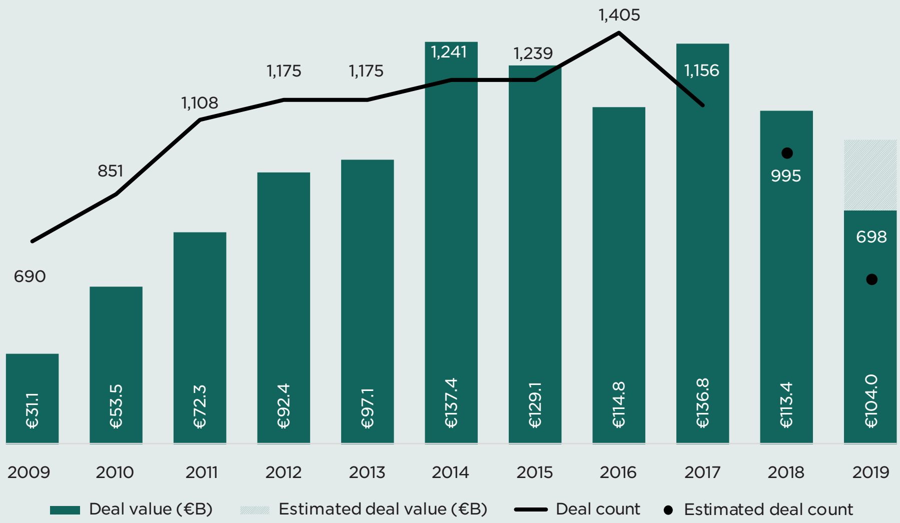


Sponsor- and corporate-backed M&A (#) as proportion of overall M&A

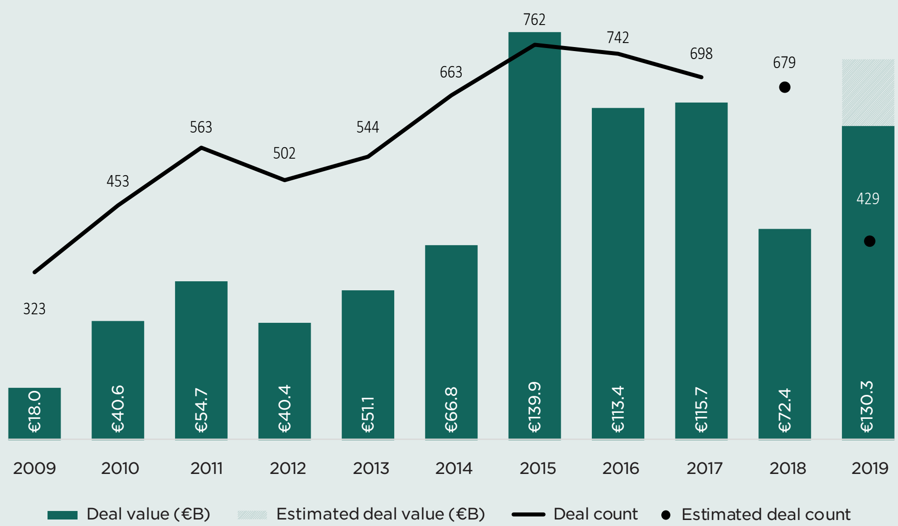


Despite economic confidence languishing across the continent, German M&A in 2019 has been solid. Not surprisingly, considerable automotive and industrial deals have been conducted via carveouts and divestures. IT deals are growing in prominence in the country and may be on track for a record year as emerging sectors seek growth in well-equipped regions. Germany is providing a rising proportion of European cross-border activity despite declining value and volume of such deals in the country.

German M&A activity

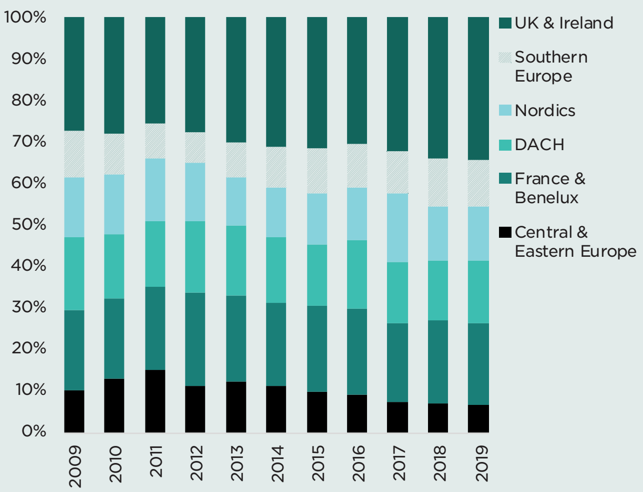


Healthcare M&A activity

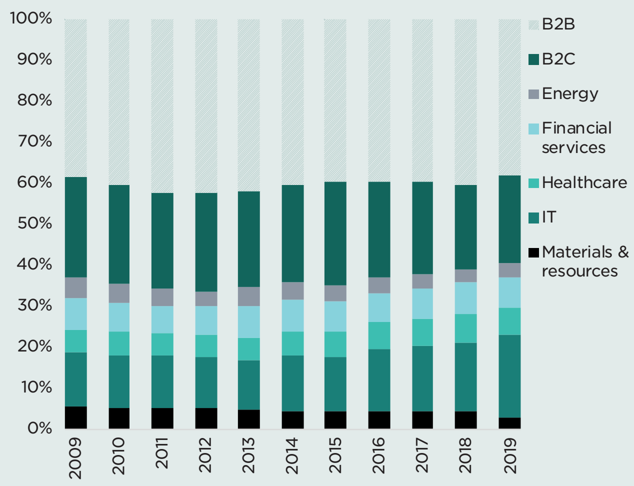


With one quarter remaining in 2019, healthcare deal value has already topped 2018's total and could potentially reach an all-time high. 2019's lofty level was largely driven by an outlier deal in 1Q, but the shifting outlook for healthcare will create opportunities for future sizable deals. Corporate backing remains a popular strategy for companies in this sector that are seeking development. International consolidation appears to be rampant among many US, European and Asian healthcare market leaders as they exchange assets for substantial sums.

M&A (#) by region



M&A (#) by sector



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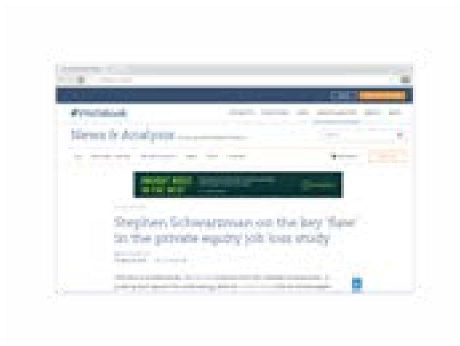

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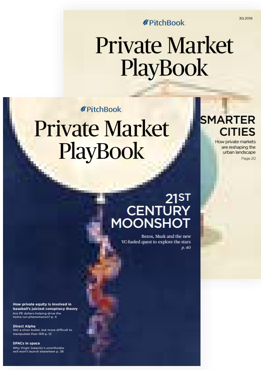

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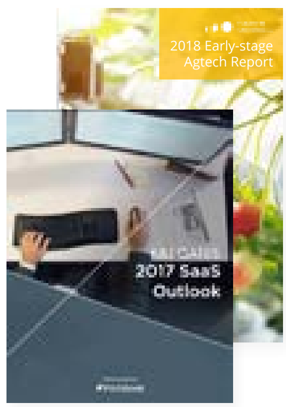

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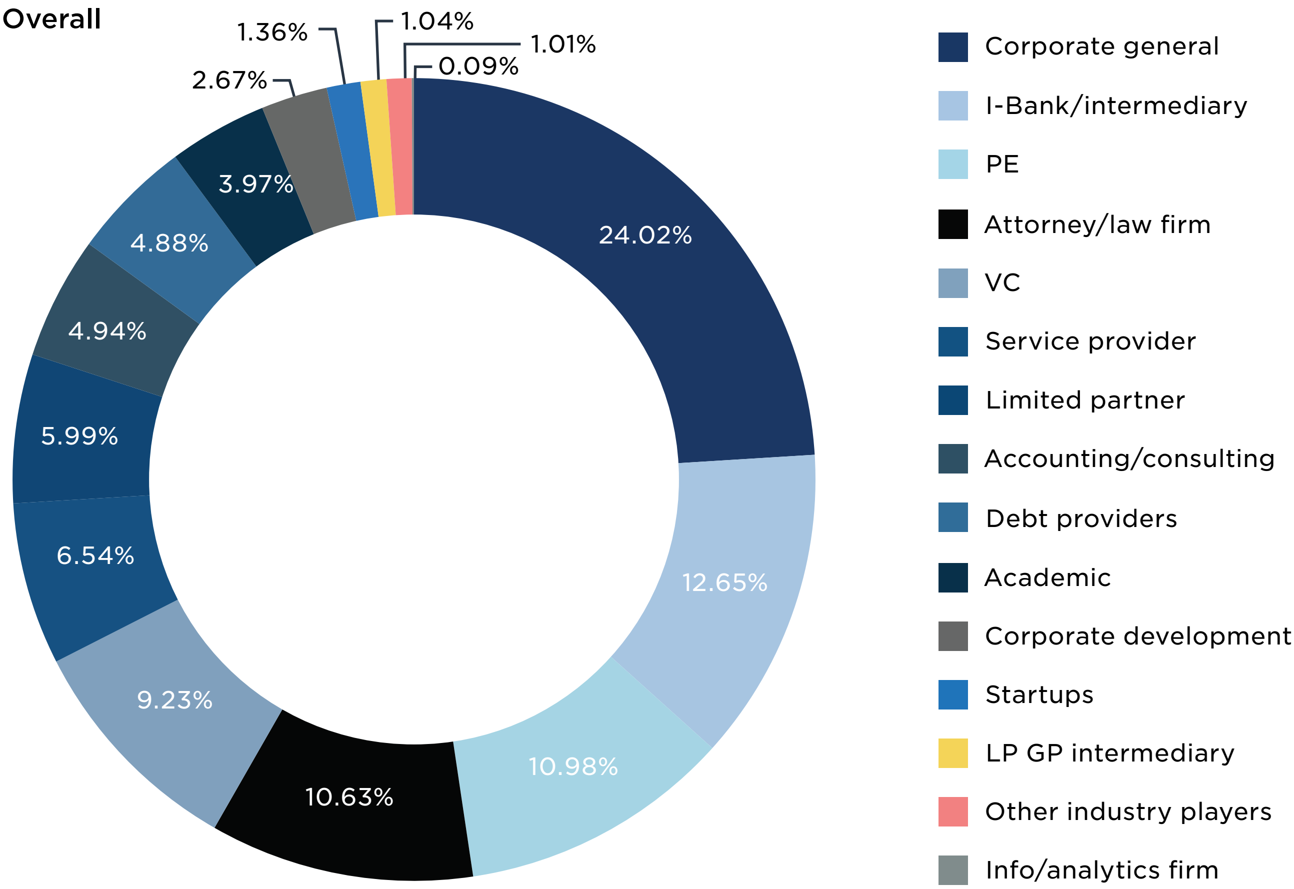

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