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Private Market PlayBook

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A letter from the Editor

Some of our recent cover stories have concerned topics such as Amazon's growing reach, the question of how $1 trillion of dry powder will be spent and how the private markets are reshaping the urban landscape to build smarter cities. For this issue of the magazine, we went a slightly different route.

At PitchBook, our writers and research analysts pride themselves on providing relevant, insightful and actionable content to our readers, leveraging our proprietary data and research capabilities. But data and research by themselves don't always tell the entire story. Our teams also keep an ongoing dialogue with dealmakers who are active in the markets we serve, with specific areas of expertise within various segments of the industry. It's our way of keeping a complete pulse on the market and making sure we are painting a holistic picture with our analysis.

The value we find in these conversations with dealmakers is undoubtedly shared by our readers. So for this issue's cover story, we interviewed Alex Darden, the president of EQT Partners Inc. and head of US infrastructure, to get his take on today's private equity environment, how EQT's business model works and what the future of infrastructure, particularly in the US and North America, might look like. It's the type of cover story we're excited to include more of in future issues.

The magazine is packed with a variety of other content, including depictions of VC, PE and M&A data and trends synthesized from our most recent flagship reports, perspective pieces on the fall of The Abraaj Group and the uncertain future of blockchain technology, and insights from our analysts on how add-ons affect fund performance, the evolution of club deals, GP stakes investing and more.

George Gaprindashvili
Editorial Director

Perspectives

Inside the crypto comedy club

By Kevin Dowd

On a surprisingly warm Tuesday morning in October, several dozen devotees of a technology they believe will change the world gathered in a comedy club on the third floor of a shopping mall to discuss the future of blockchain.

It was an unusual place to plan the revolution. A 10-foot-tall inflatable ghost greeted conferencegoers at the front door. A maze of dim hallways wound past an empty bar and deserted pool tables toward a back room, where photos of past performers like Joe Rogan and Kevin Hart looked down from the walls. Inside, pockets of professionally dressed men and women sat at rows of tables arranged in front of a stage. There were scattered conversations, and one sandy-haired kid who looked like he was skipping school. There were waitresses circling. There was only one man in a fedora.

They were here at the BlockchainNW Summit, this mix of true believers and opportunists, at the tail end of a year marked by several cryptocurrency busts and not nearly enough booms. It was just last winter that the price of a bitcoin spiked to nearly $20,000, minting a string of new million- and billionaires and turning mom-and-pop investors across the globe into crypto speculators. But the past 11 months have seen prices plummet, not just for bitcoin but for most of the hundreds of other blockchain-based currencies and tokens that have sprung up out of the ether—including the one actually known as "ether."

And that has caused something of an existential crisis for the cottage industry of professionals trying to turn blockchain technologies into big business. Is this the beginning of the end, or a bump in the road? Are believers of the blockchain gospel crazy, or is the rest of the world? Is there something real behind all those ones and zeros? Is it all a joke? Is that why this conference was at a comedy club? I had so many questions.

Maybe Justin Wu would have the answers.

This was his show. Justin is a co-founder of BlockchainNW and a half-dozen other companies, a self-described "blockchain nomad" who spent the past six months traveling Asia and Europe to gain an international perspective on the space. He's in his late 20s, and on the day of the summit he wore a black T-shirt, a black jacket and black jeans, which is how I imagined all blockchain nomads must dress. Things got off to a rough start. Justin took the stage at 9 a.m., the scheduled start time, to sheepishly inform the crowd

of technical difficulties. When we got underway a half-hour later, there was more bad news: The scheduled keynote speaker was a no-show. But not to fear: Justin would give us his take on the State of Blockchain instead.

I was confused within 10 minutes, which probably says more about me than it does Justin. If he's a blockchain nomad, then I'm a blockchain know-nothing. I was fascinated by last year's boom from afar, but the way it all works is still painfully obscure. I'm used to writing sentences, not code. What is a blockchain? I might describe it as a way to permanently and transparently keep track of transactions and other data, whether those deals involve cryptocurrencies or other assets. But what's a Merkle tree? What are fiat on-ramps? That's when I start scratching my head.

No matter your expertise, it was easy enough to glean from Justin's talk that it's been a difficult 2018 for the crypto community, filled with ICO scams and crashing prices and vanishing optimism—or, "an infrastructure year," as Justin politely described it. Another note from our host's nomadism is that the tiny Mediterranean nation of Malta has been "a very welcoming environment" for the crypto community—which can't be said for most countries.

At least not yet. That was part of the topic for the day's first panel, which followed Justin onto the stage to talk about ways to use blockchain technology to securitize assets. For Maggie Hsu of Fluidity, that means tokenizing the debt and equity of real estate to offer more liquidity than typical real estate deals and open the market to a new group of investors. For Mike Monohan of BAZAAR.market, it means doing the same for high-priced collectibles like classic cars, again offering entry to a typically opaque market that can be difficult for everyday investors to access.

For Bill McGraw of Northstar Venture Technologies, a Canadian blockchain firm, it means working with Canadian regulators to develop a legal framework for such tokenized transactions. He wants to make Canada the next Malta, a place founders and investors turn for all their cryptocurrency needs.

"We believe the regulated side is where the opportunity is," he said.

This was one vision of blockchain's future, attempts to graft the new technology onto existing systems. To see the other side of the virtual coin, I had to meet my second Justin of the day.

Justin Renken is the communications specialist at ARK.io, and he wanted us all to know he used to do stand-up, so he felt right at home on stage. What is ARK.io? “We want to link all the blockchains,” Second Justin said at one point. There was a slide devoted to the company’s logo: “It’s a pretty nice one. Red and pointy.” Midway through reading the standard regulatory warning about how his presentation is not investment advice, he offered 20 ARK (the company’s own cryptocurrency) to the first person who downloaded the company’s app, which seems to be missing at least part of the point?

Perhaps ARK.io is going to change the world. But by the end of a 20-minute infomercial about the company’s desire to be “doers, not watchers” and create an “inspiration feedback loop,” I had the distinct feeling of having just sat through a pitch to buy a timeshare on Mars. I don’t understand how this works, and even if I did, I wouldn’t want it.

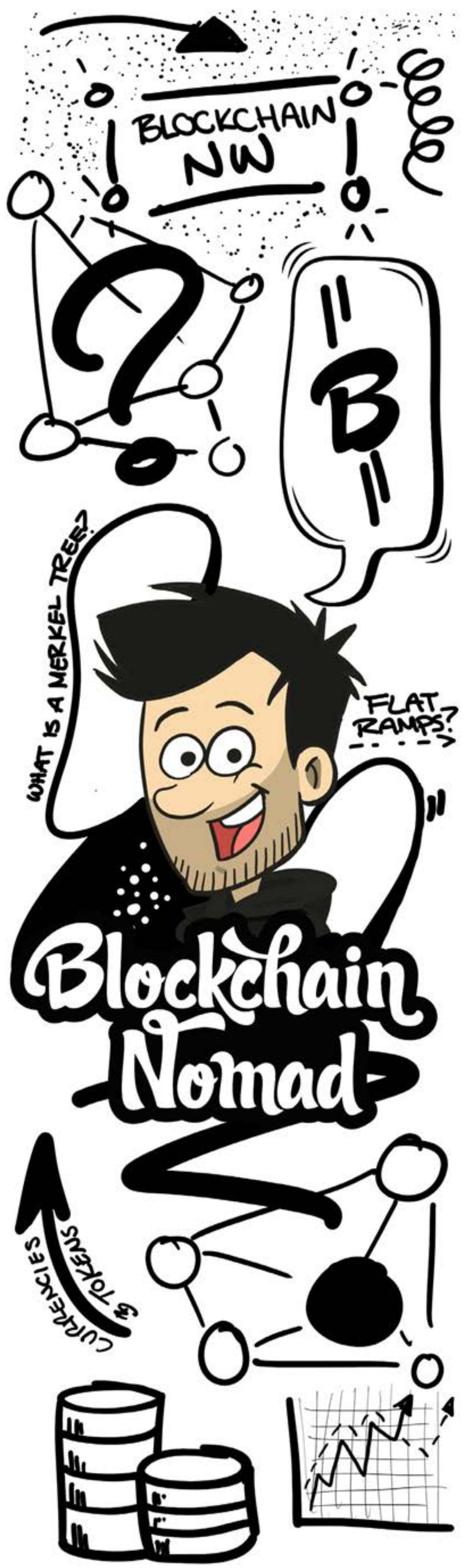
“I have a website called ARKStickers.com,” Second Justin told us near the end of his session. “I send ARK stickers all over the world. It’s pretty cool.”

So at least there’s that.

Next up was Rizwan Patel of Caesars Entertainment to discuss how the gaming giant could use blockchains to part more people from their cash. He was followed by QuarkChain founder Qi Zhou, who’s developing ways to increase the transaction volume that blockchains can support—apparently a major obstacle to widespread adoption. I learned the company’s “classic master-slave design” is not nearly as nefarious as it sounds.

When you think blockchain, you’re usually concerned more with the health of your pocketbook than your physical body. But another branch of the community is dedicated to using blockchain to improve both—including Davis Aites of Change Healthcare, who believes the technology could help eliminate as much as $1 trillion in waste and fraud in America’s healthcare industry.

“You could start radically saving money in the US healthcare system and improving care,” he said.



What does that look like, exactly? During a panel with Aites and two other blockchain-focused healthcare pros, Rajan Patel of GE Healthcare highlighted one possibility: using the technology as a supply-chain tool to track the lifespan of a drug from creation to consumption. Rich Bloch, the founder of Digitalhealthcare.io, offered the example of using a blockchain to maintain standardized patient medical forms, so doctors across cities and states could all access the same unimpeachable record of a person's care.

These ideas reminded me much more of Maggie Hsu's plan to use blockchain to facilitate real estate investments than of Second Justin's mission of creating an uber-blockchain and making ARK coins the currency of the future. For me, at least, the potential uses that are unrelated to cryptocurrencies continue to sound more interesting.

We were now well into our fifth hour of blockchain, and the crowd was beginning to thin. But the next speaker certainly caught my attention: the sandy-haired kid from the start of the day who looked like he was skipping school. As it turned out, that's exactly what Justin Ehrenhofer was doing. He's a senior at the University of Minnesota who rescheduled an exam to be here. He also proudly said he's a senior moderator on the cryptocurrency subreddit, which is both legitimate cachet in this room and perhaps an indictment of what counts for legitimate cachet.

"I'm the third Justin to talk to you today," he offered as an introduction. "I apologize for that."

Third Justin was here to talk about a privacy-focused coin called Monero. He might have been the smartest person who spoke all day, and the Monero idea of enabling anonymous transactions certainly has its appeals. But before long, just like during First Justin's rundown on the State of Blockchain, I was lost. It might be a cool idea, but I don't understand it. If I can't understand it, I'm not going to use it. And in terms of blockchain's widespread adoption, that's a problem. If the technology is going to catch on, it will need to reach a critical mass of users large enough to create a network effect. For the internet, it was email that showed the technology's landscape-altering potential. What will make everyday people want to use a blockchain?

In other words, I'm on the same page as Greg Zinone. He took the stage for a panel on e-sports wearing a black T-shirt stretched over muscular, tattooed arms that read "Injustice vs. Everybody." He wore a black hat with the bill pulled down nearly over his eyes—all in all, a bit of a different look than most of the crypto crowd.

And he also had some different ideas. After introducing himself and what he does—Zinone is the CEO of 514 eSports and Pro vs. GI Joe, two companies focused on bringing athletes and other celebrities into e-sports—he swiftly launched into a plea for the blockchain community to broaden its horizons.

"The people who are here are intimidating," he said. "I don't feel included in this group. You need something different."

This is perhaps blockchain's primary Catch 22. It gets exponentially more useful the more people use it, but the barrier for entry is incredibly high. Smart people can make a good-faith effort to understand what a blockchain is and fail completely. And it's not fun to not get it.

"When it comes to the normal person, you've gotta make things fun," Zinone said. "I mean, who wants to come to this conference? Justin, no offense."

I think he was talking to First Justin. But at that point, I couldn't be positive. It had been a long day, and it was dark in the comedy club, and the sun was still shining outside. I still didn't understand fiat on-ramps. As I left the conference, the rest of the bar outside the comedy club was beginning to fill up. The pool tables were no longer deserted. The blockchain true believers had been their first, but the rest of the crowd was beginning to trickle in.

How a private equity powerhouse went bust

By Adam Lewis

While PE has expanded over the past decade to include new firms, more strategies and different deal types, the industry has yet to see widespread adoption of impact investing. By definition, PE firms have a fiduciary obligation to their LPs to maximize returns, but that often leaves little wiggle room in sourcing opportunities that can make both a tangible social good and substantial profit.

That hasn't kept giants like Bain Capital, TPG Capital, KKR and others from launching impact investing funds in recent years. But one firm, in particular, has long had a reputation in the PE world for social impact deals: The Abraaj Group.

In early 2017, news broke that Abraaj planned to raise as much as $8 billion for its latest flagship fund. The vehicle was, in essence, a game-changer for a Dubai-based investor that specialized in making deals in higher-risk regions such as Asia, Africa and Latin America. Founded in 2002 by Pakistani businessman Arif Naqvi, Abraaj went where many other firms dare not, including locales where government corruption and other unforeseen factors could derail investments. Now, with its newest vehicle, Abraaj would get to expand its niche strategy on an even larger scale.

A year later, the fund collapsed. Abraaj was pressured into returning the $3 billion it had collected from LPs, telling Reuters that it no longer intended to proceed with the vehicle "in its current form." More than anything, the news signaled that investors had lost confidence in Abraaj, which had built its AUM to nearly $14 billion. In the ensuing months, Abraaj has unraveled completely, with Naqvi leaving day-to-day operations and the firm unable to pay its debts. Now, liquidators are trying to sell off Abraaj's funds one by one—all while the future of its portfolio companies remain in limbo.

What started the downfall?

The drama began in early February, when reports emerged that investors including the Bill & Melinda Gates Foundation and the World Bank suspected Abraaj had misused capital from a $1 billion healthcare fund that invested in hospitals and clinics across Africa and Asia. Abraaj maintained no wrongdoing and had already returned more than half of the $200 million that was unspent, per The New York Times. Naqvi, who just months earlier served on a panel with Bill Gates at the World Economic Forum in Davos, Switzerland, stepped down from running the firm's fund management arm in late February and investment activities stopped.

There was now suspicion that Abraaj used investor money for its own corporate purposes, a practice known as commingling. It isn't necessarily illegal, but in a PE context could be viewed as unethical and a violation of fiduciary duty. So, an LP group of the BMGF, the World Bank's IFC, the UK's CDC and France's Proparco hired Ankura Consulting to look at the firm's financial statements.

In May, it was revealed that Ankura found irregularities that indicated some portions of the $1 billion healthcare fund went elsewhere. The damage was irreversible. Key Abraaj executives resigned. There were multiple rounds of layoffs. The firm had reportedly racked up $1 billion in debt it could not pay.

By that point, Abraaj seemed all but doomed. And in June, the firm's holding company filed for provisional liquidation in the Cayman Islands, similar to a Chapter 11 bankruptcy filing for a company headquartered in the US. PwC and Deloitte were appointed as provisional liquidators.

So far, no deals have been reached for Abraaj's assets. Cerberus Capital Management and Colony Capital had expressed interest in acquiring the fund management business, with the Financial Times reporting in July that Cerberus was in "pole position" to buy it after liquidators rejected Colony's bid. But a week later, Cerberus withdrew a reported $25 million offer that Abraaj investors reportedly didn't want. In September, TPG Capital reportedly entered exclusive talks to buy the embattled healthcare fund and merge it with the Rise Fund, TPG's $2 billion vehicle focused on social impact investing.

Actis, a fellow emerging markets investor, bid $1 for the firm's North Africa and Middle East PE operations in September, an offer reportedly favored by backers that don't want to see the business crumble altogether. And according to a Bloomberg report that month, Brookfield had offered to buy Abraaj's Turkey-based PE funds and Colony Capital had emerged as a favorite to buy Abraaj's Latin America PE funds.

Over the past couple months, Abraaj has mostly stayed out of headlines as the attempted selloff continues. In a November interview on CNBC, Naqvi's lawyer, Habib Al Mulla, continued to deny any wrongdoing by Naqvi or Abraaj, instead placing blame on regulators like the Dubai International Financial Centre and the media for the firm's collapse.

So, while the final chapters of Abraaj's story remain to be written, the end already seems clear.

2002
ABRAAJ FOUNDED
Pakistani businessman Arif Naqvi starts The Abraaj Group with $3M.

2003
RAISES FIRST FUND
Abraaj closes debut fund on $118M.

2007
CLOSES ON $2B
Abraaj Infrastructure and Growth Capital Fund closes on $2B.

2008
FIRM'S BIGGEST PE FUND
Abraaj exceeds $4B in AUM.

2015
INVESTING IN AFRICA
The firm raises nearly $1.4 billion to invest into Africa.

2017
FIRST SIGNS OF TROUBLE
LPs including the Bill & Melinda Gates Foundation complain about Abraaj not returning unused cash for its $1B healthcare fund.

GATES FOUNDATION AND OTHER LPs HIRE AUDITORS

2018

FEBRUARY
NAQVI STEPS BACK
Naqvi steps down from running Abraaj's fund management business and the firm halts investment activities.

MARCH
LAYOFFS
Abraaj cuts 15% of workforce and releases LPs from $6B flagship fund.

JUNE
CAYMAN ISLANDS
The firm files for provisional liquidation in the Cayman Islands with $1B in debt.

Later that month, a court in the UAE issues an arrest warrant for Naqvi over a bounced check.

JULY
CERBERUS OUT
Cerberus Capital Management withdraws a $25M bid that would have seen it take over the firm's asset management platform.

Meanwhile, Naqvi settles a bounced check case out of court.

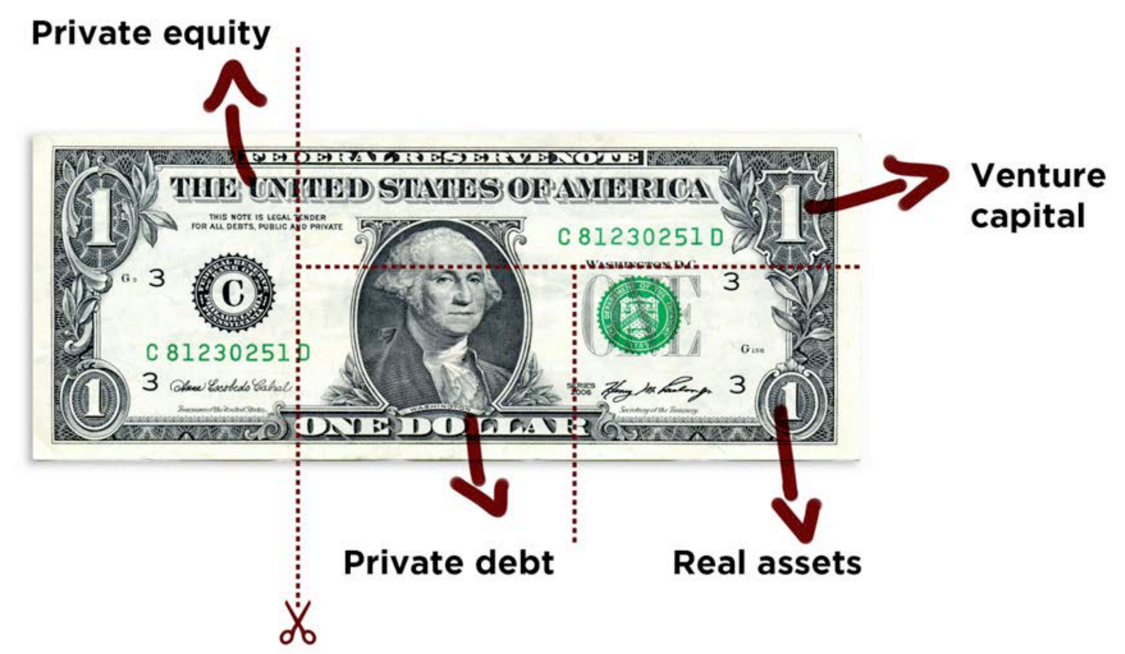
AUGUST
NAQVI AVOIDS JAIL
Naqvi settles a second bounced check case out of court.

SEPTEMBER
TPG CAPITAL
TPG is in talks to acquire Abraaj's $1B healthcare fund.

OCTOBER
ART SALE
Abraaj sells Middle Eastern and Asian art collection for more than $6M at auction.

How you could invest in every single private fund strategy

By Garrett James Black



Should you have been able to invest in Uber? What about a lower-middle-market buyout fund? What about getting exposure to the burgeoning universe of alternative investments in general with the same ease of buying into an S&P 500 index?

A few hundred dollars invested in Uber's seed funding would now be worth millions. Such a ludicrous return being off-limits to all but those deemed eligible for such funding seems quite unfair. On the other hand, how many investors would have lost that money completely by backing early competitors to Uber that have since flamed out?

There are significant pros and cons to being able to invest in private markets. But especially as they become more institutionalized while the public market universe consolidates, I contend that retail investors should be able to gain exposure to the full gamut of alternative investments.

What would that look like? This piece explores precisely that. First, a little background:

Balancing risk and reward

The question of whether a typical investor—accredited or no—should be allowed to buy any type of security has been contentious for decades. In the wake of the 1929 market crash, the US Securities and Exchange Commission's decision in 1933 to allow only accredited investors to purchase shares of private companies made plenty of sense. After all, not every person with money to buy stock in a private company, or a piece of a pool of securities, is sophisticated enough to understand the risks or even actual returns inherent in ownership of any stock. Protecting people from their own overly impulsive decisions was the paramount concern. The Investment Company Act of 1940 fleshed out this essential belief, requiring disclosure of material details about each investment company and restricting short-selling by mutual funds. (Hence the eventual construction of liquid alternatives that could comply with these restrictions yet offer at least some exposure to alternative assets to ordinary investors.)

On that foundation, far more complicated systems of reporting for companies that wished to float stock on public exchanges were gradually erected. In fact, they've grown to such a daunting height that although one can find out quite a lot about the most detailed minutiae of Amazon's business, such levels of oversight often discourage all but the largest private companies from going public.

But clearly there is a conundrum of sorts here. On the one hand, retail investors can access public markets via ETFs or mutual funds, and benefit from passive index products flourishing, but they can't access the true outliers of growth within private markets. This asymmetry is due primarily to opportunities for significant gain being increasingly concentrated in private markets, as the exclusive information that alpha is derived from continues to dissipate within public markets. But, asymmetry of information comes with a consequential price: Anyone or any firm willing to back private companies at the early stage must accept higher risk and surrender their money for potentially a very long time. It could be argued that certain arenas of private markets, say, Blackstone's flagship fund, are approaching levels of risk comparable to safer public equities. But other risks still exist for much of the PE fund universe—e.g. leverage and agency.

Is there a happy medium?

The entire industries of VC and PE thrive on the gap in efficiency and information flow between public and private markets, as such sophisticated investment firms exist to enable private companies' growth while exacting a hefty fee in exchange for such risk. But as few, if any, retail investors can still get exposure to such businesses, even PE and VC's success and growing institutionalization doesn't really assuage matters of access.

Title III of the JOBS Act, the crowdfunding legislation that finally lifted some of the curb on retail investors backing startups, hasn't led to any significant changes. Granted, it did lead to some tentative openings to private investment opportunities, such as alternative lending options that enable retail investors to pledge small amounts, say as small as $10. Whether that has been due to consumers' reluctance to back unproven startups, or the legislation didn't address regulatory burden to a sufficient degree, still is unproven. In other venues, entrepreneurs have sought to establish trading exchanges for fast-growing unicorns in the US, for example Lagniappe Labs, which has created an index on which 100+ unicorns are listed. What is clear is that, thus far, there isn't much you can do to gain broad exposure to not only fast-growing private companies but also other private companies that are more mature and, consequently, less risky.

This argument resembles an initiative some industry professionals and pundits have suggested—namely, national retirement savings plans that should be able to access alternative assets and could be a potential solution to the looming pension crisis in the US (and elsewhere). The counterpoints are not insignificant: unacceptable levels of risk and complexity, moral hazard, and the fact public markets by now offer enough venues for anyone to invest to match their needs, plus they're starting to close the gap on private funds' higher performance.

Private markets still offer outperformance

There's growing evidence that the gap between PE returns and public market equivalents is shrinking. VC has always been, by and large, a sucker's game for all but the top decile of funds. Similarly, risky, publicly available value stocks are now gaining in popularity, and rightfully so.

The unprecedented bull run in public equities observed since the depths of the financial crisis was an outlier largely due to one major factor, the elephant in the room—a never-before-seen experiment in quantitative easing and subsequent inflation of all financial assets. There's a reason that in every bout of market volatility that has occurred during that run, experienced investors proclaim to the rooftops that the dip must finally be nigh. Everyone has been waiting for the other shoe to drop for years.

Shoes do eventually tend to drop after being held long enough. And although the long lockdown periods of private funds are one of their biggest drawbacks, they can also be the source of attractively risk-adjusted returns, unaffected by quarterly drawdowns or broader market volatility to a large degree. Fund managers have greater ability to plan for optimal liquidation and manage portfolios away from the harsh spotlights of quarterly earnings. As for the promise of small, public, value stocks, they can play a useful role in private portfolios, as well—more on that later.

A brief caveat must be noted: Currently, private investment arenas are crowded and overly competitive, largely due to institutional investors flooding the environment with capital in search of higher returns, plus the entrance of nontraditional investors*. Thus, returns are likely to compress overall and PitchBook data already indicates that the level of outperformance for even top PE funds is in decline; the top-decile PME level for PE funds topped 2x in the late 1990s and early 2000s and has since averaged 1.34x for 2006-2015 vintages, not surpassing 1.5x since 2005. Yet this market condition will in turn change, as the number of active fund managers in PE, for one, is decreasing slowly but surely. Venture and private debt are likely to follow thereafter—the latter not so much due to culling of managers via competition, per se, but rather due to market reversals impacting incautious managers more than anticipated.

> An argument that has become fairly common is that, taking leverage into account, PE fund returns don't actually outperform, as they are much more correlated to public equities than many think. Although this contention has some merit, it also often fails to consider the distorted financial market of the quantitative easing era, in which the rising tide of cheap money lifted all boats. It's not so much that PE outperformed, but that it still matched nigh-unprecedented equity bull markets. Longer-term historical views must be taken into account—accordingly, it seems likelier that top performers in private strategies still provide useful diversification at the least, and, if fees aren't exorbitant, risk-adjusted outperformance.

In short, both markets will evolve and revert to longer-run trendlines, as cycles tend to do in the long run. And in that long run, private investment strategies are likely to outperform even if many classic strategies become more institutionalized, due to information asymmetry. The return spread will just be narrower than in the past.

But a narrower return spread does bring up a critical point. For best results, retail investors will need access to not just PE, or VC, but rather as wide a spectrum of private investment strategies as possible, especially across company lifecycles. The reason is simple: mitigating risk across private strategies' varying levels. Buyout funds do not have the same risk characteristics as VC, as VC doesn't have similar risks to mezzanine debt, for example. There are overlaps, to be sure, but a lack of correlation and the potential for hedging provide sufficient justification for portfolio construction.

A pool for all private markets

So how, precisely, would investors access private market strategies? What is required is something akin to a fund-of-funds, wherein a single administrator operates a vast pool of securities in perpetuity spanning the entirety of the private market, with the securities corresponding to shares within respective funds as well as potentially private company shares—e.g. a model similar to private exchanges operated by Nasdaq or SharesPost. Complex-but-not-incalculable valuation models would have to be used to accurately value these securitizations of buyout, venture, debt and other types of assets. Potential duration, liquidity and forecast value will all play into said models. The composition of the portfolio will have to be at a sufficient scale to allow liquidity and volume, plus diversity of strategies required. Target dates could serve as a useful organizing principle. Should funds fall short of performance for a prespecified period, then customary clawbacks would kick in to avoid performance drag and incur replacement, just on a potentially shorter timeline that would be modified accordingly to be fair to both fund manager and the pool operator. Here's where a balance of small, publicly traded value stocks could serve as a diversifier and tracking portion for a typical portfolio mix. Retail investors would have the option to select their levels of risk, amounts, etc., much like in normal investment platforms nowadays.

> Quantitative models, even within private markets, are making leaps and bounds in efficacy and reliability. Take, for example, CircleUp, a fintech company that operates a machine learning platform called Helios that helps identify relevant factors for evaluating consumer goods startups. In a recent podcast interview, founder Ryan Caldbeck also relayed how investors can utilize that platform to help screen potential investment opportunities. The technology is applicable to funds to some degree.

At a basic level, the process would look something like this. A seed-stage venture fund manager would have the option of receiving capital from this pool, in exchange for pledging a portion of fund shares, with typical terms except one: the return of capital after a prespecified period, potentially earlier than the fund's lifecycle, should it operate at a loss long enough. Reporting would only be as onerous as typical LPs require. The overlying pool of securities could be thought of acting as a sidecar LP to hundreds of private funds, providing a pocket of capital for the entire fund duration plus any prespecified period.

Why should fund managers buy into this pool of capital? Any pocket of sidecar capital that has as long of planned duration as this pool of securities would have that you can get on typical terms is advantageous. It's already clear why ordinary investors should buy into this pool, even if it would be riskier on a liquidity-adjusted basis than the S&P 500.

The key challenges and consequent reasons such a vehicle doesn't exist are scale, level of risk, liquidity and moral hazard. (Frankly, liquidity may be the predominant challenge, which is why a large base of capital is required and one of the bigger difficulties in this plan.) To match the full spectrum of risk and return in private markets, the scale would have to span the innumerable strategies from angel syndicates to mega-buyout funds. The level of risk, given leverage and lock-up periods, would dwarf mere equities, as investors could easily see their portions wiped out unless some money was guaranteed (and passing on clawed-back capital at that scale would dissuade fund managers from buying in). Liquidity only works if cash collateral at sufficient size exists to redeem up to a guaranteed level. And moral hazard is definite because the final key point of this pool of capital would be its lack of disclosure. Private investors jealously guard proprietary deal flow and portfolio company information. To persuade them to enter a common pool, the constituent corresponding securities would have to be blind and representative; only the pool administrator would know the actual components of the pool. As mentioned previously, information is alpha, and it's why private markets are more secure in the long run in potential outperformance than public equities.

These seem to present insurmountable obstacles, but I'm not so sure. In closing, here's my multipronged proposition to each of those challenges.

A sovereign solution

A key consideration is the amount of collateral necessary to not only meet a certain hurdle of redemptions to retail investors but also to act as a sidecar LP to potentially thousands of private funds. Few institutions command balance sheets that can handle such levels of capital. But certain firms that are well-suited to handling gargantuan sums while fixated solely on the long term already exist: sovereign wealth funds. One major twist to the traditional SWF model would be required, that of overseeing others' capital. Yet that isn't too untoward. Recruiting talented managers in a fashion similar to Norway's Global Pension Fund is one potential avenue forward.

Whether through privatization, natural resources allocation or the like, a sovereign wealth reserve fund could command a large pool of capital that could guarantee retail investors at least their money back, plus an initial, even larger pool of capital that could act as the sidecar LP across thousands of fund manager relationships. This could negate much of the risk, if not all, while portfolio risk could be diversified away somewhat already.

Next comes scale. How to build relationships with thousands of fund managers of all strategies? One method could be SEC guidance that private funds can raise, on generous terms, at least a percentage of capital from this reserve fund that is proportional to their overall fund size. Scale would then be solved from the fund managers' perspective, while from the reserve fund's perspective, as each commitment per specific fund grows proportionately per size and type, the challenge becomes mustering sufficient funds to meet what's required. Presuming at least 10% of current dry powder in private investment strategies would be necessary to construct a sufficiently diversified, wholly private markets portfolio, approximately $180 billion is the prospective size of this fund. It's a big number—if each member of the adult middle class in the US invested $1,500 in the fund via an exchange operated by this sovereign wealth fund, you'd hit that mark. Ambitious, to say the least, but is that impossible?

> As much as we like to think we are rational and sober-minded, at a certain point, we outsource much of our thinking and trust to hopefully reliable investment brands.

The last argument is perhaps my most cynical. If you could get even a small percentage of your money back, and could invest as much as you like, with the only caveat being that this percentage of your money will be locked up but could outperform public equities by a decent margin, would you do it? Bear in mind that you'd know you were investing entirely in private markets securities but would have to trust completely in the administration of an independent reserve fund. That fund would never reveal the constituents of its portfolio options but would proffer risk and return metrics for each conceivable asset mix (though said metrics would have to be taken with the tablespoonful of salt that private markets' metrics require).

In these odd times, characterized by income inequality and a schizoid mix of economic confidence and concern, it's difficult to say that most would invest up to $3,000. And the reason why is because most retail investors, or even sophisticated ones, simply don't have the time or don't wish to conduct rigorous examinations of all their holdings. So, if the skin in the game isn't that significant, relatively speaking, for those fortunate enough to be able to invest say $3,000, I'm willing to bet many would opt to buy into that pool. As much as we like to think we are rational and sober-minded, at a certain point, we outsource much of our thinking and trust to hopefully reliable investment brands. A sovereign reserve fund that is collateralized by government-enabled means such as natural resources or the sale of nationalized enterprises to private hands—one that offers exposure to the entire gamut of private investment strategies—isn't too far from reliability.

Photography: Conor Hamill

Q&A: Alex Darden

The state of PE, a differentiated business model and the future of infrastructure in North America.

By George Gaprindashvili

EQT is a Stockholm-based investment firm that was established in 1994 by now-chairman Conni Jonsson together with Investor AB, Swedish corporate bank SEB and US-based PE firm AEA Investors. The firm launched its debut fund, focused on buyout investments in the Nordics, the next year. Since then, EQT has opened 14 additional offices around the world, launched 27 funds and raised €50 billion across three overall investment strategies that include private capital, real assets and credit.

In 2008, EQT opened its first US office in New York and launched its first infrastructure fund. Enter Alex Darden. With a background in structured debt and equity investment within the energy industry, Darden joined EQT Partners in April 2008 and serves as president of EQT Partners Inc. and head of US infrastructure. >

PITCHBOOK: Aggregate US PE deal flow has increased nearly each year since 2009, deal multiples have stayed elevated and US inventory of currently PE-backed companies is at an all-time high. With that said, how do you feel about the general state of private equity today?
ALEX DARDEN: It's an interesting question. Multiples are elevated relative to historic norms, and some of that probably stems from the favorable financing markets that we have right now and obviously an influx of capital. Generally, I feel pretty good about the market. There remain quite a few opportunities due to there still being growth in certain sectors of the market and opportunities to create value within those companies. I would say generally PE has become an accepted buyer, owner and partner for companies and assets over the past 20 years or so. It's really become an asset class where PE investors are accepted as partners, and I think that's important. It's also become a valuable part of EQT's investors' portfolio construction, and they are our ultimate customers. They expect us to find good opportunities in every environment, so regardless of how we think about this environment, as always, we are actively spending a lot of time trying to find the right opportunities. And the business model and approach become very important, particularly having a focus on creating long-term value versus financial engineering. Valuations may be high right now, but for EQT, with our strategies and our business model, I actually think it's a pretty good environment.

PB: How do you think about sourcing? With everyone looking at similar assets and more money available than ever before, how do you differentiate where you find pockets of opportunity relative to other firms?
AD: I think it comes down to a few things. EQT is a thematic investor and focuses very much on buying good companies across all of our strategies with the goal of making those good companies great. That's really the basis of the approach. From a sourcing standpoint, we spend a lot of time looking at sectors and developing strategies for how we're going to create value within those sectors, and at specific target companies. We end up differentiating through our preparation, approach and business model. The business model itself is just as important as the approach because sourcing and buying a company well is only a part of what we need to do. As owners, EQT also must create value during the ownership period, so the business model itself is critical—not only straightforward things like governance and aligning interests, but also actions that drive how you identify critical drivers of value, how you execute on things like full-potential plans and getting everybody in the company aligned on creating the optimal outcome versus just business as usual. So approach is a big part of the sourcing, but that's only half the game.
PB: How have elevated prices affected your investment strategy? Are you being more selective?
AD: We're certainly being selective with respect to where we're actually executing on strategies within sectors and this environment. As a thematic investor, EQT has a very specific target set of opportunities we're pursuing at any one time, regardless of whether it's this environment or 2008. That very much drives the way we think about sourcing, the people we're going to work with and how we're going to identify the right opportunities. I think what has changed a bit is that there's a premium on diligence and strategy much more so than ever in the past. Those partially go hand in hand because in order to be comfortable with today's values, you have to have the strategy and execute post-acquisition. There are a few things you want to do well: one is buying a company well, one is developing a company well, and one is exiting a company well. You can't just focus on the front end of it. It's really important to develop the strategy up front in terms of what you're going to be able to achieve with a company once you own it. And you have to have the discipline to be able to walk away. When we're looking at a sector or target company, we have an idea of what we want to do there, how we want to develop it and strategically position it, and as a result, we have a perception on risk-reward. If things get beyond what we're comfortable with, you really do have to have the discipline to walk away.

“To put it delicately, the state of US infrastructure is not great.”

PB: What potential challenges do you see on the horizon in terms of deal execution?
AD: The biggest challenges right now are the rules of the road. The regulatory environment and how the rule of law is implemented in the various markets in which EQT operates is where we have to be the most thoughtful. Markets are going to go through various cycles, and you can analyze that and think about the risk profile relative to any investment thesis that you're pursuing, but you really want the rules of the road to stay the same. There are various rules and regulatory regimes that you have to keep in mind and be thoughtful about, and it makes it difficult when those aren't consistently applied.
PB: How does EQT view the risk-reward profile across different regions?
AD: The business model and approach are consistent across different regions, but the individual geographic strategies can vary. Europe is clearly in a period of lower growth compared to North America, but there are also different pockets within Europe, so it's hard to just think about Europe as one entity. There are different countries and different economic realities within each of those countries. So we adapt and have varying thematic strategies by geography, but the underlying business model for sourcing and execution remain the same.
PB: You are head of US infrastructure at EQT Partners. How would you describe the current state of infrastructure in the US, and what are some key areas of investment from your perspective?
AD: To put it delicately, the state of US infrastructure is not great. The American Society of Civil Engineers does an assessment every four years and most recently gave us a D+ last year. For our position in the world, and our resources, engineering and what we want to do to lead the global economy going forward, our infrastructure is woefully underinvested. And that's across the board, whether you're talking transport, telecom, energy, basically everywhere. As an infrastructure investor, that's actually quite exciting. As a consumer of transportation multiple times per day in the New York area, it's a little frustrating, but as an investor, it's exciting. EQT is focused on several core infrastructure sectors: energy, transport & logistics, environmental services and telecom. From our standpoint, it's a super exciting time because not only is North America significantly underinvested, but there are also some really interesting things going on in each of those sectors. You can look at energy on either side of the equation. On the power side, the way that power and electrons are going to be delivered in the future is going to be different than the classic utility model, whether that's because of distributed generation, storage capability or any of those various trends. There's a complete change in the business model, which is exciting. And if you look on the oil & gas side, the whole US is being re-plumbed, and the way that those commodities are being developed now is completely different than it was even 15 years ago. It's much more of a manufacturing process now, and I think that's going to lead to the US becoming a supplier of the base building blocks for a lot of products to the world. You look at transport & logistics—the supply chain for goods going to our homes and business is changing dramatically, whether that's because of where things are being sourced, how they're being delivered or what timeframe they're being delivered in. You look at environmental services and ESG, an area EQT spends a lot of time thinking about, and you

can see the transition to a closed loop cycle. You look at telecom—I'm pretty sure my kids are going to consume more data no matter what happens to the economy. I'm going to continue to consume more data. Enterprises are going to consume more data, and they're also going to fundamentally change the way they operate; moving to the cloud, for example. When you think about how much change has occurred in these industries over 100 years, and you think about how much change has occurred in the past 15 years, and then you think about the change that's going to occur in the next 10, it's really significant on the infrastructure side.

PB: What role do you see private equity playing in the development and modernization of US infrastructure?

AD: It's a two-tiered answer, I think. The first tier is that PE is going to have a huge role in the development of infrastructure in North America and around the world. It depends on how you bifurcate that in terms of the level of impact it will have. In North America, we have a huge component of privately-owned infrastructure. Power plants, midstream assets and many of the transport and telecom assets are developed largely with private capital. On the other side of the equation, there's a lot of infrastructure in the US that is public, where I think private investors will have a much more difficult time making an impact, largely because of politics. It's difficult on the public side to see how private capital is going to come in and aid in infrastructure development.

> “*Top-quartile or -decile performance is really just a hygiene factor. It's a requirement, not the end of the story.*”

PB: Which economic factors do you feel have the most impact on your fund's strategy?

AD: That's always a difficult question. EQT focuses on creating strategic and operational value. The problem with the economic factors is that we can't control them. I haven't figured out yet how to control any of them. So we really spend most of our time focused on the factors that we can control, which are the businesses themselves and the mitigation we can implement for any of those macroeconomic characteristics, whether it's interest rates, sluggish GDP growth or inflation. One thing that's starting to meaningfully impact a lot of businesses is the available human capital. That's becoming more difficult, especially on the infrastructure side, because a lot of the people who do things that are necessary for our daily lives are exiting the workforce and the skillset is becoming more difficult to find.

PB: How do you feel about EQT's ability to protect capital when there's a downturn in the market?

AD: The idea at the heart of EQT's model is really buying good companies and trying to make them great. We're usually not going to be buying the cheapest companies, and that's by design. It really is about trying to find very sound companies that have resiliency and long-term strategic value that we can enhance.

PB: As you talk to LPs today, what are some things they are excited about as they look to place capital with private equity investors?

AD: One thing that's become consistent is that investors want to consolidate their relationships into broader platforms. “Do more with fewer” is something that we've heard quite a bit. Now it's more of a partnership type of relationship. EQT is selling IRR at the end of the day, but top quartile or decile performance is really just a hygiene factor. It's a requirement, not the end of the story. Managers really have to have a service-oriented platform where you are focused on how you report to your investors, how you think about them, how you communicate with them and how you're transparent with them. In addition, you have to think about things like compliance. I mentioned ESG earlier—at EQT, we have several people whose full-time job is ESG and managing the portfolio companies' footprint, whether it's water usage, carbon footprint or human capital relations. And another thing is how the processes and setup of the broader platform work. Having more of a cohesive platform that is a support and a complement to each individual investment strategy, versus just having asset aggregation as the goal, is important. For example, EQT has a venture capital fund, and that fund's portfolio companies and management very much help to advise what we do in infrastructure. We seek their advice and knowledge regularly because they're investing in different types of companies that are looking to disrupt different industries, and as an infrastructure investor, we want to make sure we have their insights and views. That's been a big change in the way EQT is approaching things.

> “*Everything can be improved, everywhere, at all times.*”

PB: How is your operating model differentiated from other private equity firms?

AD: Our chairman, Conni Jonsson, has a favorite saying that everything can be improved, everywhere, at all times. That's the concept that has to be embedded in your DNA to work at EQT. The passion for developing companies has to exist, because that's really what the business model is set up to do. It's essentially built from having a governance model that has clear roles and responsibilities between owner, board and management. It's set up so that we have the right people that are working on different cases with us. We have what we call industrial advisors, which is a differentiated model from others in the industry who deploy operating partners, for example. It's also alignment of interests and making sure everyone is aligned from a capital and engagement standpoint in developing a company to its full potential. That's really the basis of the business model.

PB: What industries outside of infrastructure are you excited about?

AD: Technology is a huge one. It is just everywhere. Whether you think about IoT and how that can impact management of our companies' assets, about digitization and how that impacts operations, or about how portfolio companies can connect customers and help manage their customers' businesses ... just the number of customers you can reach. Technology is changing and is going to change every single facet of our lives, so it's an incredibly interesting sector to me.

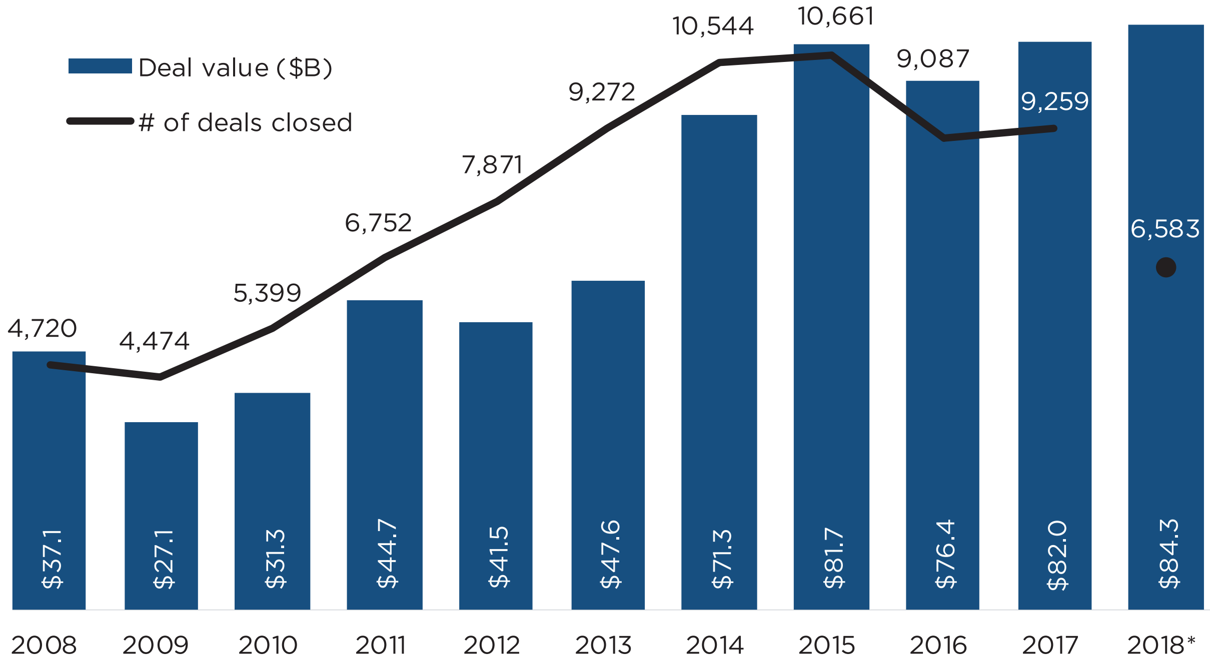
Market Trends

Drawn from our flagship industry reports covering private equity, venture capital and M&A, this section of the PlayBook contains analysis and datasets summarizing the primary trends shaping each market.

Overview

2018 deal value has already reached a decade high

US VC deal activity



PitchBook-NVCA Venture Monitor
*As of September 30, 2018

The US VC asset class saw another quarter of strong activity as capital invested trended toward a new high. 3Q capital investment topped $27.9 billion, pushing YTD 2018 deal value to $84.3 billion—a record amount of capital raised with a quarter remaining.

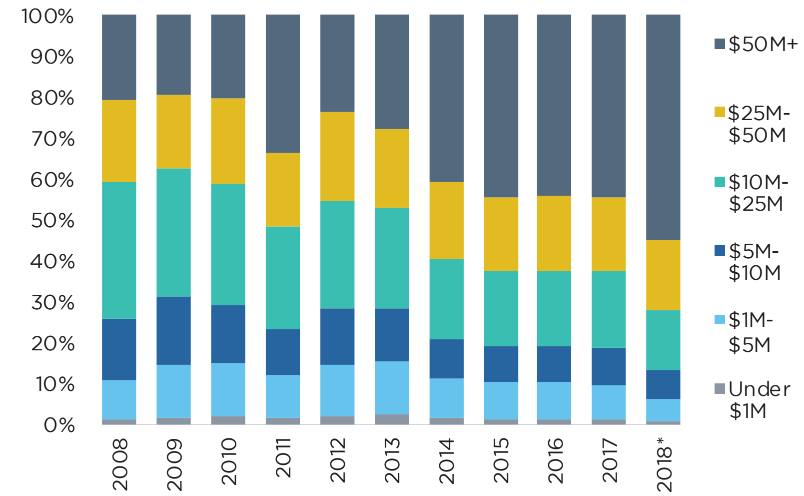
Regarding deal count, the early stage saw a double-digit percentage decline this quarter, but the slowdown was even more pronounced for angel & seed deals, where activity fell 26.5% from 2Q. Annually, deal count currently stands 28.9% shy of the 2017 EOY total, putting 2018 on pace to be about equal with last year.

As of 3Q, median VC deal sizes have experienced double-digit percentage growth over 2017. Early-stage deals have seen the greatest increase, rising 25.0% to a median deal size of $7 million. Median pre-money valuations are also climbing across stages. Series B deals saw the greatest growth compared to 2017 at 37.5%. The inflation of valuation figures can be attributed in part to the trend of increasing fund sizes, with investors now viewing large capital reserves as a competitive advantage. In some instances, investors have reportedly pressured firms to accept an investment by threatening to invest in rivals instead. Seeking to compete with large VCs and nontraditional investors, smaller VCs may see capital efficiency put under pressure with more expensive investments and larger absolute returns necessary to satisfy LPs.

Nontraditional investors, such as hedge funds, mutual funds and sovereign wealth funds, made big moves in the first three quarters of 2018, investing in a total of 1,347 deals, on pace to match 2017. Although it's difficult to ascertain capital invested by a specific group, nontraditional investors participated in deals totaling $50.3 billion over the first three quarters of 2018, reaching a new annual high. Tourist investor participation in deals $50 million or greater increased 43.8% YTD compared to 2017, as these investors tend to back larger, more mature businesses. These deep-pocketed investors are helping to fuel the capital availability that is allowing firms to stay private longer. We expect these firms to continue

Majority of capital flowing into $50M+ deals

US VC deals ($B) by size



PitchBook-NVCA Venture Monitor
*As of September 30, 2018

playing an increasingly active role within VC as companies continue to delay exits and seek capital for further growth.

Average time to exit has climbed steadily over the past decade, settling at 6.4 years in 2018. This is due in part to the aforementioned rise in capital availability, especially at the late stage. Median company age has also risen in 2018 for companies raising angel through Series C rounds. Median age rose the most at the angel & seed stage (up 22.8% in 2018 versus last year) in part because investor composition is changing, and firms are investing in more mature companies with lower-risk profiles.

Another contributing factor is the rise of unicorns and the increased frequency with which those $1 billion+ valuation firms raise additional capital. At 39 deals and $7.96 billion raised by unicorn firms in 3Q, 2018 is pacing for a new high on both fronts. As the number of unicorns grows, so do the growth of paper gains and unrealized value held illiquid by investors. The unicorn phenomenon has been fueled by the upsurge in mega-rounds. These rounds of at least $100 million are becoming increasingly prevalent in venture deals. 2018 has already reached new records in terms of mega-fund deal count, a 38.8% increase over 2017 with 143 deals closed. Peloton, an at-home fitness equipment manufacturer, raised the largest deal in 3Q: $550.0 million at a $3.6 billion pre-money valuation. Investors have not been shy to invest in consumer businesses, as consumer-focused companies captured 21.7% of the mega-deal capital in 3Q.

While companies are taking longer to find the exit, the number of exits in 2018 is expected to meet or exceed 2017 totals. Capital exited is 13.0% shy of 2017 full-year activity, with $20.8 billion exited in 3Q. We expect capital exited to easily surpass 2017 by year end. This rise in capital exited is due, in part, to a greater percentage of companies being exited at larger sizes. 20.4% of exits were at least $100 million versus 16.3% of companies for the entirety of 2017. Median exit size sits at $100.0 million, and average exit has climbed to $244.2 million, a 7.9% increase over 2017 entire year activity. Average post-money valuation also continues to rise, currently settling at $474.16 million, a 43.0% increase on the post-money valuation two years prior. Even though the number of exited companies is flat, capital is being returned to investors at compelling levels.

Fundraising, which has been operating at elevated levels since 2014, has already exceeded $30 billion in commitments for the fifth consecutive year. 15 funds have closed on at least $500 million, five of which were over $1 billion. These larger fundraises provide a level of flexibility that allows for a longer fund lifecycle if necessary. This enables investors to commit to companies that may require more patient capital to achieve optimal financial outcomes. Investors are also increasingly raising larger funds to support existing portfolio companies. Lightspeed Venture Partners raised the second largest fund in 3Q, closing on $1.05 billion in commitments with a focus on late-stage VC follow-on rounds in existing Lightspeed portfolio firms. Overall fund count has been remarkably low, with only 57 US VC funds closed in the third quarter. 2018 is pacing to see the lowest fund count since 2014. The trend playing out in fundraising mirrors the overall asset class: Larger sums are being raised across fewer vehicles, and elevated levels of capital are available to startups.

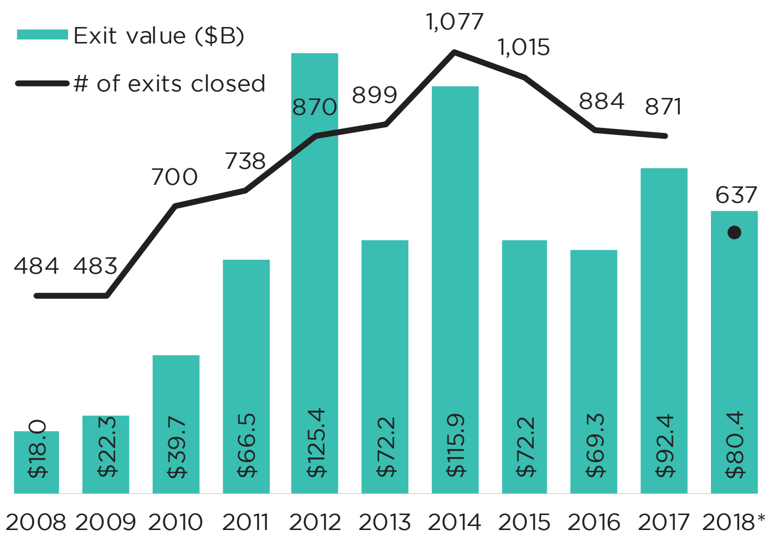
Exits

The exit environment continues to show signs of strength, as exit value YTD through 3Q sets the stage for the eclipse of full-year 2017 data. With $80.4 billion of value exited across 637 companies, activity this year illustrates the proliferation of large exits and VCs capitalizing on a strong late-cycle market. We see this as a significantly positive development for the overall health of the future of VC, as liquidity in the market has been a concern for investors in recent years. Since we haven't seen a propagation of valuation cuts at exit, the returns from these exits enable attractive distributions back to LPs that encourage reallocation to the VC asset class and continued investment in growing companies.

Capital exited in 3Q was supported by a few large exits, including the acquisition of AppNexus for about $2.0 billion and the announcement of a $7.5 billion deal for GitHub. The latter deal isn't yet included in our exit value data because it hasn't closed as of the end of the quarter, but it illustrates the transition of VC further into the later stages of the company's life, likely making the average VC exits larger for the duration of this market cycle. These two deals also broadcast positive signals about strategic interest in staying competitive in the shifting technology landscape. As Microsoft reversed its longstanding aversion to open-source software, and AT&T purchased more digital capabilities through AppNexus, the acquisition-for-innovation model still seems alive and well.

2018 on pace for robust exit activity

US VC exit activity



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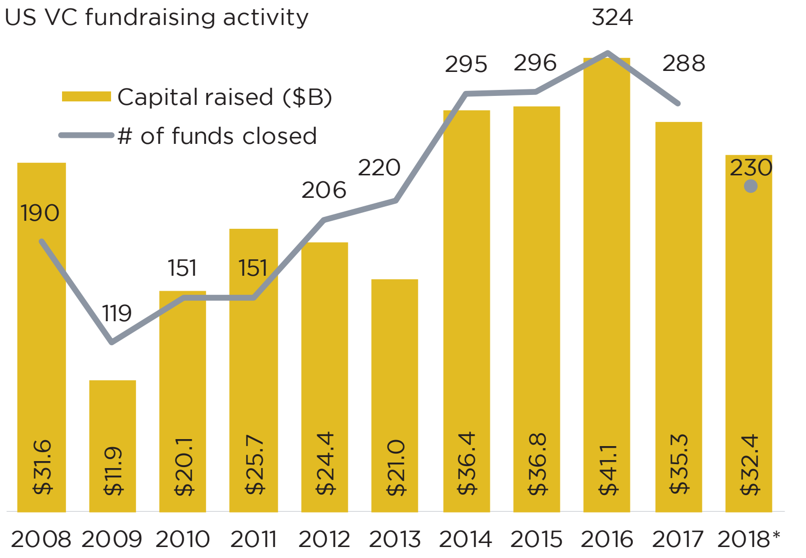
While the late-stage and growth financing abilities of the private markets have been cited as a cause for the longer-term drop-off in IPO counts, 2018 has shown that the liquidity function is operating smoothly. IPOs have continued their strong run in 2018—another dataset passing the full-year 2017 data through YTD 3Q—as myriad VC-backed life sciences companies transitioned to public markets. To illustrate, 17 out of 23 VC-backed IPOs in 3Q came from the life sciences sector, as well as 45 out of 68 YTD 2018. VCs have shown some willingness to fund late-stage, pre-revenue biotech businesses, but the popularity of IPOs has been cemented by public investors' wealth of experience and familiarity with this business model. The capital intensity and regulatory considerations inherent in biotech business models also play a role, as the time and capital required to bring a pharmaceutical to market are well beyond the scope of the normal VC structure. While current public market conditions remain favorable, we expect to see healthy life sciences IPO activity.

As the driver of the return in the VC cycle, liquidity for VC-backed businesses through the exit market is so critical to the asset class as a whole. A diverse exit market with options to cater to individual companies while enabling attractive investor returns is a welcome development for venture investors. With the current environment characterized by an open IPO window, increased PE interest in VC and a recent cash windfall from tax reform for strategic acquirers, it is little surprise that VC exit data has been such a bright spot in 2018.

Fundraising

Venture funds secure $32.4B in commitments through 3Q

US VC fundraising activity



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*As of September 30, 2018

Venture fundraising in 2018 is on track for another healthy showing, currently pacing to reach over $30 billion in commitments for the fifth consecutive year. While historically VCs have favored smaller funds, recent years have seen an increasing focus on larger vehicles. The number of micro-funds closed has steadily decreased in the last three years and, of the 230 funds closed so far this year, 41.7% are larger than $100 million (compared to 33.5% in 2015).

With venture rounds growing ever-larger and increased competition among investors, some venture fund managers have gradually adjusted their strategy to target larger vehicles. Median and average fund sizes have trended to 10- and eight-year highs of $68.0 million and $151.3 million, respectively. So far in 2018, VCs have raised five vehicles of $1 billion or greater, surpassing 2017's final count of three.

Large capital infusions can be a crucial differentiator for both investors and startups. With high competition among venture investors, those with larger funds and the ability to write bigger checks have a significant advantage when looking to close deals with leading late-stage startups. For startups, these sums are vital for grabbing market share, achieving scale, and facilitating talent acquisition, especially for consumer-focused startups with high customer-acquisition costs.

At the same time, critics argue that deep-pocketed investors run the risk of overlooking inherent flaws in startups such as capital inefficiency and a lack of a long-term path to profitability. The multitude of mega-funds raised recently will keep startups well capitalized for the foreseeable future, which in turn will keep valuations and round sizes elevated barring a significant economic downturn.

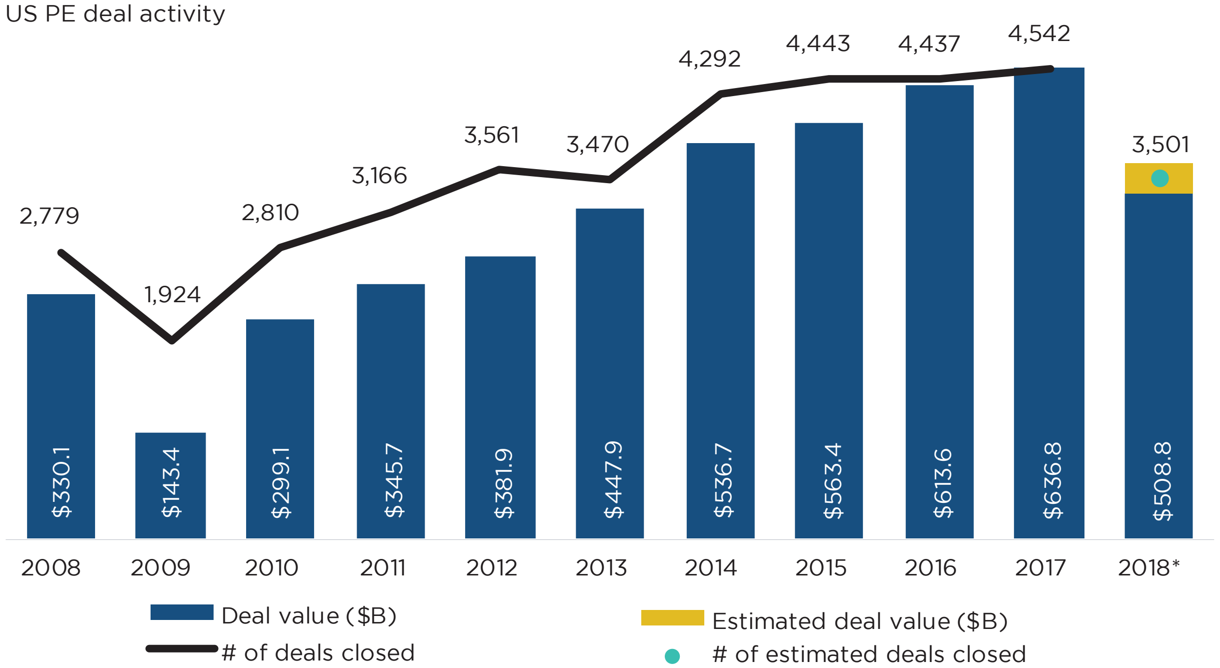
Some additional factors driving larger funds come from the LP side. First, while larger institutional investors have looked toward VC to drive returns and diversification, their minimum check size is far above the typical venture fund size, facilitating cash flows to larger vehicles. Second, the administrative and management costs associated with manager selection have induced some LPs to consolidate their allocations in larger sums to fewer managers. Finally, our recent research on fund performance suggests larger venture funds have outperformed smaller vehicles, and that net cash flows to LPs remain positive.

While larger funds are pervasive in developed venture hubs, smaller fundraises throughout the rest of the country highlight growing and emerging venture hubs that are slowly aggregating more local resources. These vehicles tend to be smaller given the startups in these emerging ecosystems are often in earlier stages of development and the relatively smaller pool of LPs interested in such vehicles. Additionally, the costs of living and running a business tend to be lower in these regions, decreasing the need for outsized funding rounds. As more VCs look to opportunities outside Silicon Valley, early movers will play a vital role in the capitalization and maturation of startups in these emerging ecosystems.

Overview

A flurry of $1B+ deals puts 2018 on pace for record year

US PE deal activity



Source: PitchBook
*As of September 30, 2018

US PE experienced robust deal activity through 3Q of 2018. 3,501 deals closed for a total of $508.8 billion—YTD increases of 2.1% and 3.4%, respectively. 3Q saw a notable bump in deal value with JAB Holding and BDT Capital Partners' $21.0 billion buyout of Dr Pepper Snapple Group.

Buyout multiples remain elevated as fierce competition for prime assets persists. GPs, trying to spend down dry powder, face increased competition from already cash-rich strategics that received an additional windfall from the recent reduction to corporate taxes. Median EV/EBITDA multiples remained in double-digit territory at 11.9x YTD—a slight drop compared to 2017's figure of 12.1x. Larger buyouts, many of which are take-privates that command a premium price, tended to record higher multiples; for example, Cannae Holdings, CC Capital and Thomas H. Lee Partners' yet-to-close $6.9 billion take-private of Dun & Bradstreet, a financial services data provider, values the company at 12.4x EV/EBITDA.

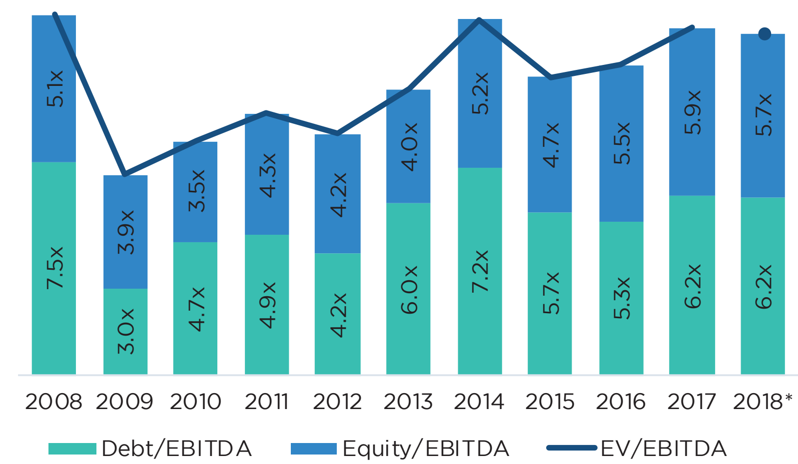
With multiples elevated, myriad dealmakers have looked to add-ons—which are generally acquired at a lower multiple—to average down the blended purchase-price multiple. The buy-and-build strategy, which we have shown to be associated with better fund performance, has proliferated. In fact, add-ons now represent nearly two-thirds of buyouts—a sizable lift from the 56% they represented in 2010. Add-ons have been growing in size, too. Getronics' $815 million add-on of Pomeroy—which closed in 3Q—is a recent example of the swelling add-on sizes.

In contrast to the fervent add-on action, SBO activity slackened in 2018. Between 2014 and 2017, SBOs comprised between 30.3% and 30.7% of non-add-on buyouts; SBOs' share has dipped to 27.4% so far in 2018. Though 2018 has experienced a proportional dip in SBO activity, the longer-term trend is that SBOs continue to play a larger role in deal sourcing. This ongoing development is worth watching at a time when these deals are becoming more heavily scrutinized, as seen in a recent FT article, "Private equity plays risky game of musical chairs,"which casts doubt on the practice.[1]

The trend of PE firms buying insurance assets accelerated during 3Q. Apollo announced it will buy Aspen Insurance for $2.6 billion, and The Carlyle Group agreed to purchase 19.9% of DSA Reinsurance. Many of these deals are executed with capital from the GP's balance sheet rather than out of a fund structure, meaning they don't show up in our deal flow numbers. PE firms and insurance companies may form a mutually beneficial relationship, whereby PE allows insurance companies to invest float more aggressively, boosting profits and improving their financial position. PE firms also gain access to permanent capital without having to fundraise from LPs. This bourgeoning trend bears watching.

Multiples remain elevated as debt/EBITDA stays above 6x

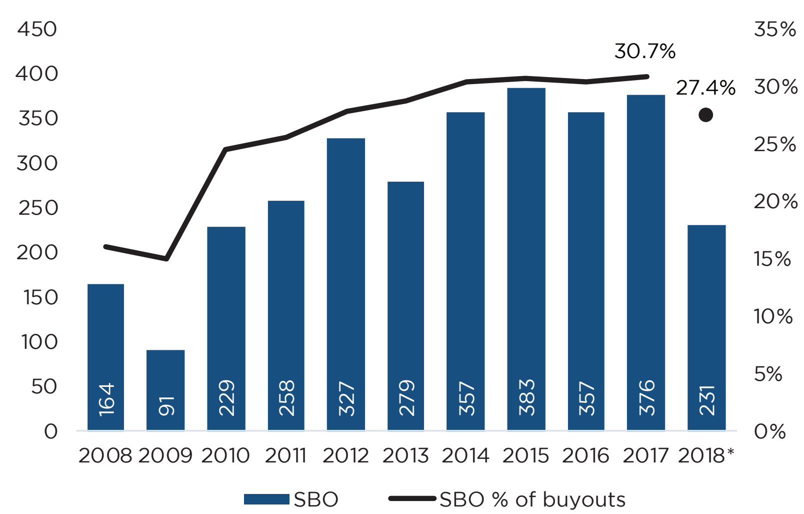
US PE buyout multiples



Source: PitchBook
*As of September 30, 2018

SBOs see largest proportional drop since the financial crisis

SBO deals (#) as proportion of all US PE buyouts



Source: PitchBook
*As of September 30, 2018

$508.8B

total deal value across 3,501 deals through 3Q 2018

1: "Private equity plays risky game of musical chairs," Financial Times, Javier Espinoza, September 24, 2018

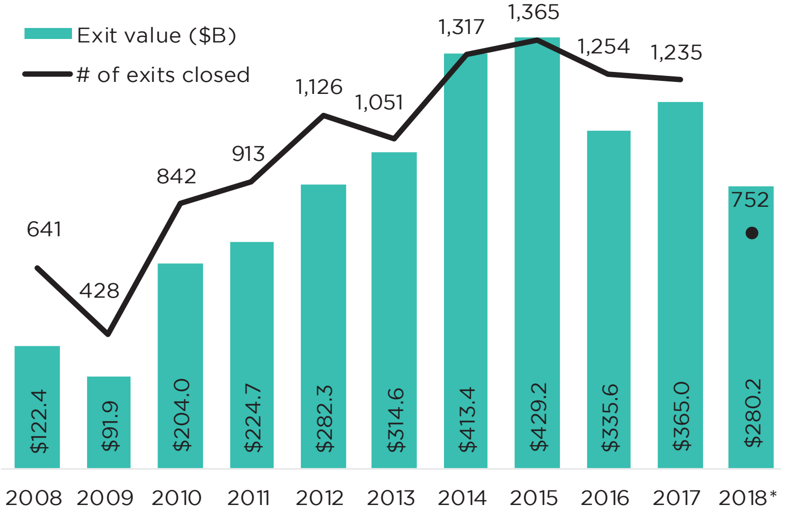
Exits

After a busy first half of the year, exit activity in 3Q 2018 continued apace. The first three quarters of 2018 totaled 752 exits valued at $280.2 billion. While exit count slid, total exit value remained on pace with prior quarters as median exit size expanded to $354.5 million, an all-time high. In total, the quarter saw 207 exits valued at $94.2 billion. Several $1 billion+ exits closed in the quarter, including Carlyle and Stockwell Capital's $7.1 billion exit of HCR ManorCare as well as Charlesbank Capital Partners and Partners Group's $2.5 billion exit of Varsity Brands. These numbers put 2018 squarely on pace to approximate 2017's $365.0 billion total. With deals looking to close before year end, such as KKR's $8.3 billion buyout of BMC Software from a consortium including Bain, Elliott Management Corporation, Golden Gate Capital and others, we expect the 4Q exit environment to remain healthy.

In a year bustling with exit activity, some sectors have disproportionately utilized certain exit types. B2B investments have favored SBO as an exit type, emerging as the most likely sector to exit to another GP-led buyout. In fact, GPs exited B2B platform companies to another financial sponsor 56.6% of the time. In contrast, financial services and energy companies are the most likely to exit via IPO, choosing to go public 19.4% and 14.3% of the time, respectively. Portfolio companies within IT, the next most probable sector to exit via IPO, exited by going public just 3.8% of the time. Within energy, many GPs use the rollup strategy with the intent of

Exit count lags while exit value looks to match 2017

US PE exit activity



Source: PitchBook
*As of September 30, 2018

going public. Notably, even with WTI hovering around $75 per barrel, most companies in the hydraulic fracturing industry are still not cash flow positive,[2] something public markets seem to be more amenable toward as companies may be valued based on acreage as opposed to profits.[3]

The IPO market—following a nearly decade-long bull market in stocks—is gaining in popularity for PE exits, running counter to the longer-term trend of proportionally fewer IPOs. 12 companies went public in the quarter, placing the 2018 figure at 39 IPOs. The IPO's 10.8% of exit value is the highest since 2014 came in at 15.6%. Even though public equity markets have been performing well, PE exits via IPO can be a double-edged sword. These partial exits often allow an exiting firm to potentially exit at a higher multiple while remaining partially invested and continuing to participate in market upside. On the flip side, IPOs take longer to fully exit and gyrations in the stock market can dampen gains substantially—much to the chagrin of LPs allocating to PE to avoid such volatility.

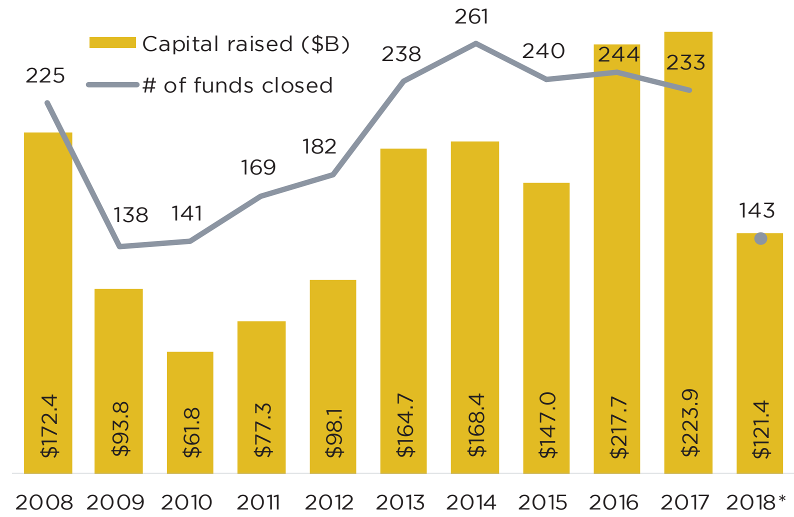
Several high-profile PE-backed companies have gone public in 2018. The largest offering came via Cushman & Wakefield—an exit for a consortium including TPG Capital, Ontario Teachers' Pension Plan and others—which raised $765.0 million with a pre-money valuation of $2.8 billion. However, even though the S&P 500 has tripled in the past decade, the median IPO pre-money size has remained remarkably steady. In fact, in 2009—the low point in the stock market—the median pre-money valuation for PE-backed companies at IPO was $549.6 million. 2018's numbers are just 13.8% higher at $625.2 million. Nevertheless, the median PE-backed IPO pre-money value in 2018 is still 76.4% larger than the overall 2018 median exit value of $354.5 million.

2: "Oil Is Above $70, but Frackers Still Struggle to Make Money," The Wall Street Journal, Christopher M. Matthews & Bradley Olson, May 17, 2018
3: "Saudi America: The Truth About Fracking and How It's Changing the World," Columbia Global Reports, Bethany McLean, 2018

Fundraising

2018 sees a slowdown in fundraising

US PE fundraising activity



Source: PitchBook
*As of September 30, 2018

Fundraising activity in 2018 is retreating from the exceptional numbers seen in 2017—a post-recession high. 3Q 2018 counted 51 fund closes totaling $57.4 billion with a pair of mega-funds accounting for 43.2% of all funds raised in the quarter. Fewer funds have closed while the average size is dipping. In fact, the average fund size is $855.2 million YTD, down from $973.5 million in 2017—the first drop since 2015. Overall, fundraising numbers for 2018 look to come in well below 2017, in part due to the dearth of mega-funds to close.

With frequent coverage surrounding the mounting levels of dry powder and industry stalwarts raising mega-funds, it may be surprising that fundraising activity has been slowing for several quarters now. However, with Carlyle holding a final close on its $18.5 billion flagship buyout fund—Carlyle Partners VII—and Blackstone beginning to fundraise for a $20.0 billion buyout fund, we see the longer-term positive fundraising trends remaining intact.

Diving deeper into the fundraising picture, we see that growth equity—which bridges the gap between late-stage VC and PE investing—is having a stellar year. In fact, Insight Venture Partners X held its final close in 3Q 2018 having raised $6.3 billion, which represents the largest ever PE growth fund close. Within growth equity, the bourgeoning area of GP stakes investing—buying a minority stake in the GP's operating entity—continues to experience healthy activity. Goldman Sachs' Petershill unit held a final close on their $2.5 billion Petershill Private Equity fund and Blackstone is seeking to raise $3.3 billion for its next GP stakes fund.

While overall fundraising and mega-funds may be facing a lull, activity in the $1 billion-$5 billion size bucket has been abundant. Through 3Q 2018, 30 funds in this size bucket have held a final close, already matching the full-year total for 2017. In fact, funds between $1 billion and $5 billion experienced the highest proportion of total capital raised (51.5%) since 2011 (58.9%)—the only year devoid of a mega-fund close in the past decade. However, with three months remaining in 2018, one mega-fund close could alter these numbers markedly. To note, the duo of Vista Equity Partners and TPG are currently attempting to raise $10 billion buyout funds.

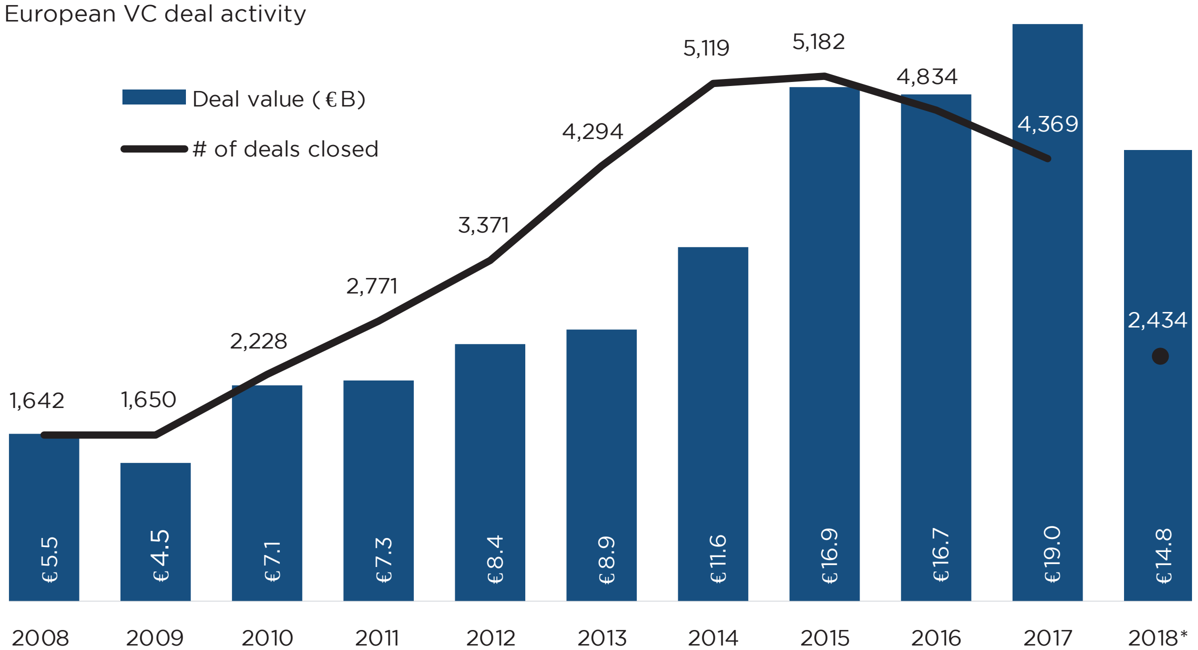
At a time when fewer mega-funds have closed, first-time funds continued their resurgence in 2018, making up 13.3% of all funds to close YTD—a rise above the 10.7% totaled in 2017. These figures remain well below their pre-recession highs, though. Through 3Q 2018, first-time managers held a final close on 19 funds totaling $6.5 billion. Average fund size has been gradually climbing, mirroring trends seen in the broader PE fundraising milieu.

LPs have been doling out capital to one-stop-shop managers, able to allocate across PE, growth, mezzanine, real estate and more, to limit the number of GP relationships and associated diligence costs. However, first-time managers offer LPs the ability to invest in the next industry stalwart early on and secure preferential terms. Additionally, these nascent managers' funds have performed better than follow-on funds for recent vintages—likely the result of several factors. Even though proven GPs are raising larger and larger funds across a growing number of categories, emerging managers still hold a place in today's PE fundraising environment.

Overview

VCs continue to deploy capital at a record pace

European VC deal activity



Source: PitchBook
*As of September 30, 2018

European VC deal activity in 3Q came in slightly below the levels we saw through the first half of 2018, breaking a three-quarter streak of at least €5 billion invested. VCs completed 584 deals during 3Q, placing €4.5 billion into European startups. At the current pace, we expect to see 2018 deal value match or top 2017 in terms of capital invested, albeit likely across fewer deals.

Median deal sizes advanced across the board, with significant jumps over 2017's value at the early (85.4%) and late (64.2%) stages. Investors continue to seek out and invest into growing companies, which is one factor pushing valuations and deal sizes higher. Competition remains fierce too, as startups currently enjoy access to a diverse set of funding options, especially with investment interest from corporations.

The downturn of angel & seed financings endured in 3Q, with double-digit percentage declines in value and count. This trend began at the start of 2016, and while it looked like we recently had found a stable level of deal value, activity continued to grind lower in 3Q. We've also seen more investors choosing to raise larger funds, the sizes of which can make it more difficult to efficiently allocate capital to angel & seed deals. Due to this phenomenon, much of the slack has been picked up by early-stage deals, as companies find more support from investors at that stage of the lifecycle.

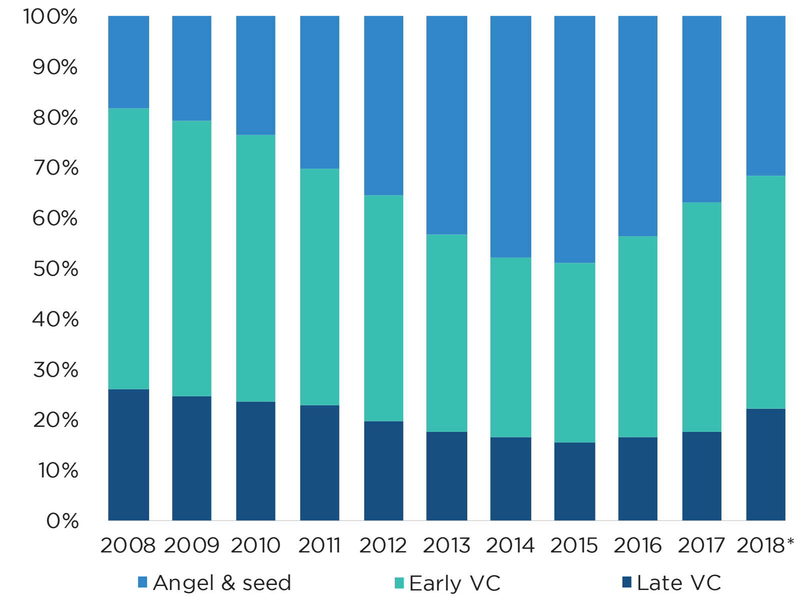
Capital invested into the early stage in 3Q was the highest of any stage as larger deals become the norm regardless of company age. Early-stage companies received €2.3 billion across 295 deals during the quarter, marking back-to-back quarters of over €2.0 billion invested into the early stage. Early-stage deals have remained the category with the highest deal counts after surpassing angel & seed counts in 2017.

Interestingly, late-stage investment was relatively subdued in the third quarter, resulting in nearly €2.0 billion invested across 152 deals. This deal count was relatively in line with what we've seen over the past two years but lacked the grouping of outsized deals to drive deal value growth. This relationship between the early and late stages sits in stark contrast with what we see in the US VC ecosystem where late-stage deal value is regularly more than three times the early stage. From our perspective, the major difference is a current lack of widespread VC support or ability to do €100 million+ deals. This has become a staple of the US VC playbook but is still relatively rare in Europe.

3Q's early-stage deals were headlined by the €257 million fundraise by German ecommerce company About You, as well as a pair of blockchain companies based in Zug, Switzerland that each raised more than €85 million. Dfinity, which attracted investment from major Silicon Valley blockchain investors, including Andreesen Horowitz and Polychain Capital, is seeking to provide a decentralized cloud computing resource. SEBA Crypto is a blockchain application that builds banking-type services for cryptocurrency, including ICO advisory and more corporate financing support. Although cryptocurrency prices have experienced a marked decline during 2018, investors are still seeing value in the technology underlying these financial advancements. As blockchain technology is quite nascent, it will be interesting to witness the continued development of the technology along with VC investors interest in backing these projects inside and outside of Europe.

Late-stage deals account for a growing share of activity

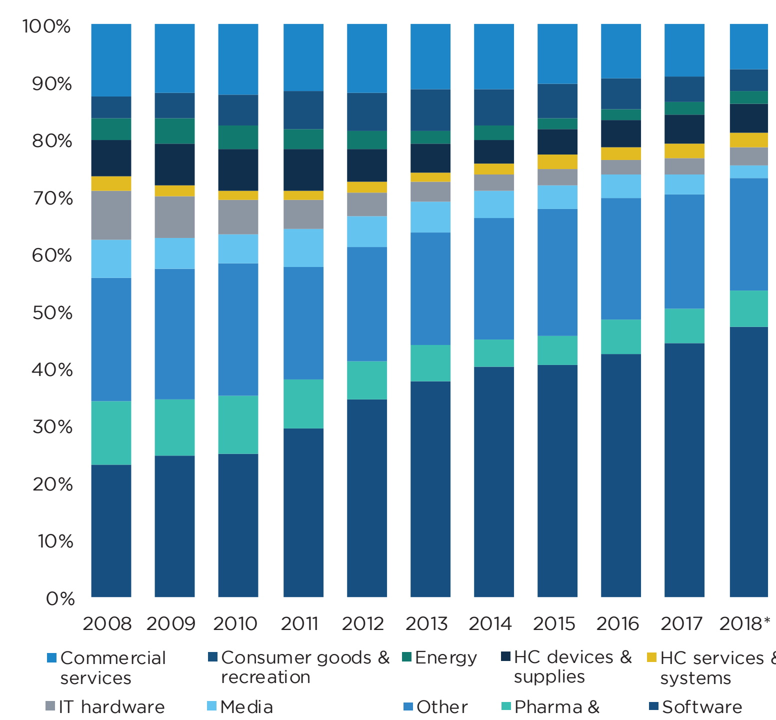
European VC deals (#) by stage



Source: PitchBook
*As of September 30, 2018

Software is the bedrock of VC investment

European VC deals (#) by sector



Source: PitchBook
*As of September 30, 2018

Exits

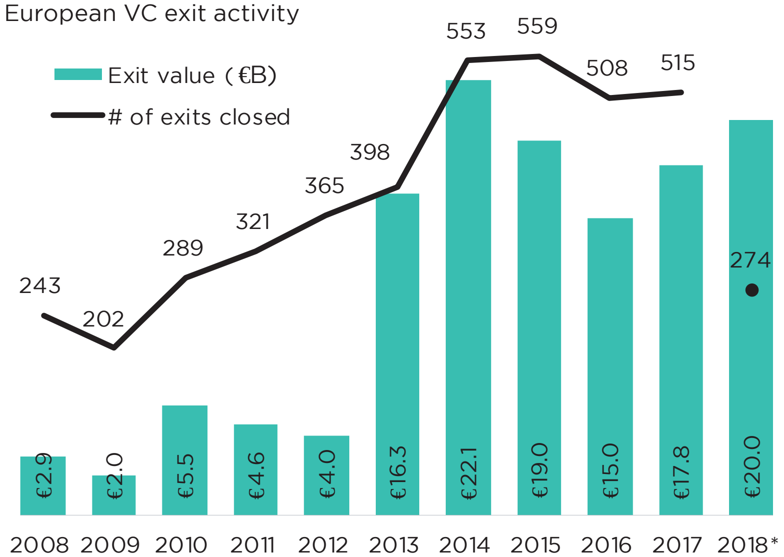
Exit activity has been a bright spot in 2018, easily topping 2017's annual value through three quarters. 3Q saw €7.2 billion exited through 67 deals, moving YTD value exited to €44 billion, already the highest total this decade. This trend is assisted by the increasing commonality of larger exits driving the VC ecosystem. VC has always had a focus on few "home-run" exits driving a majority of the return for a given fund. This trend has become only more apparent over the last few years, with exits more than €100 million accounting for anywhere between 75% and 96% of total exit value over the last six years, with 2018 representing the most extreme data point.

Much of the current year's strength has been through the open IPO window and several billion-euro businesses that chose to list on the public markets throughout the year. It is also worth noting that we have updated our methodology to include the pre-money valuation of the listing company as the exit value rather than the amount raised in the IPO, which accounts for the value of the entire business and makes the figure more comparable to the value of acquired companies. While this change has increased exit values across every year, 2014 and 2018 saw the most improvement due to the timing of outsized IPOs.

Illustrating this point, the two largest exits of 3Q were both IPOs of London-based companies valued at more than €1 billion:

Exit value already at a four-year high

European VC exit activity



Source: PitchBook

*As of September 30, 2018

67

exit count
in 3Q 2018

€7.2B

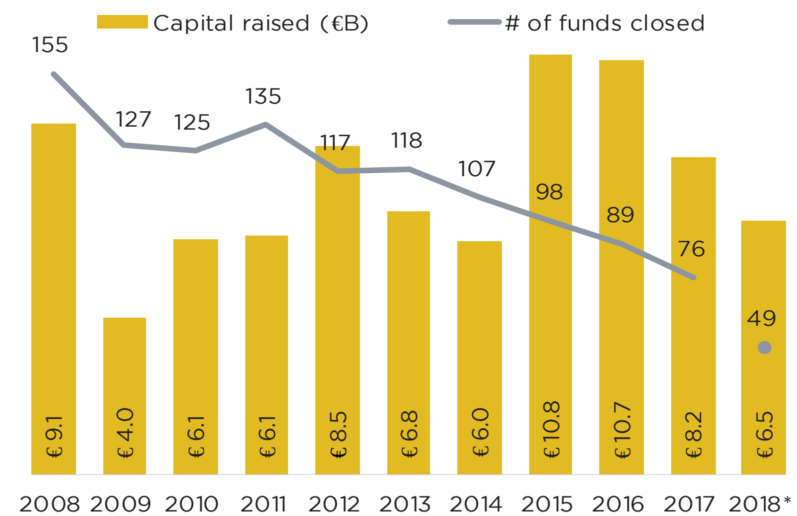
exit value
in 3Q 2018

Farfetch and Funding Circle. Both firms priced positively against their last private valuation, although the first few weeks of public trading have seen some ups and downs. We expect IPOs to sustain the momentum we've seen since the beginning of 2017, especially for companies nearing or over the €1 billion mark. We still see public investors inside and outside of Europe choosing to back large growing businesses, especially businesses with a technology focus. We expect this favorable IPO environment for VC-backed businesses to track the performance of global equity markets, with the potential of market weakness or larger sentiment changes about the risk with technology firms to reduce demand for new listings.

Fundraising

Capital raised stays strong while fund count slides

European VC fundraising activity



Source: PitchBook

*As of September 30, 2018

Fundraising was down in the third quarter, with €2.0 billion raised, just shy of the €2.1 billion raised in 2Q. Through 3Q, VCs closed on €6.5 billion, putting 2018 on pace to surpass 2017 figures. Using a four-quarter rolling average to account for the inherent lumpiness of fundraising data, we see that capital raised has leveled out over the past six quarters, averaging about €2 billion per quarter. Fund count was depressed for a second straight quarter and the annual fund count is expected to fall YoY, but elevated levels of capital raised indicates that LPs continue their enthusiasm for the asset class. The fewer, larger funds in recent quarters may signal consolidation of LPs' commitments toward select managers with unique strategies or proven success as venture investors.

Median fund size rose more than 50%, from €79.7 million in 2017 to €123.2 million in 2018. While startups across Europe previously cited access to late-stage capital as a barrier to development, investors raising larger funds are poised to distribute capital across funding stages. Funds closed in the €100 million to €500 million range now make up 58.1% of funds closed by count, up from 13.2% just six years ago. This is in comparison to a decade ago when 75.9% percent of funds were micro-funds (vehicles smaller than €50 million. Many venture investors are raising larger funds to keep up with the market dynamics of elevated investor competition and a trend toward larger deal sizes. Additionally, recent PitchBook analysis has shown that larger funds have outperformed in the most recent period.

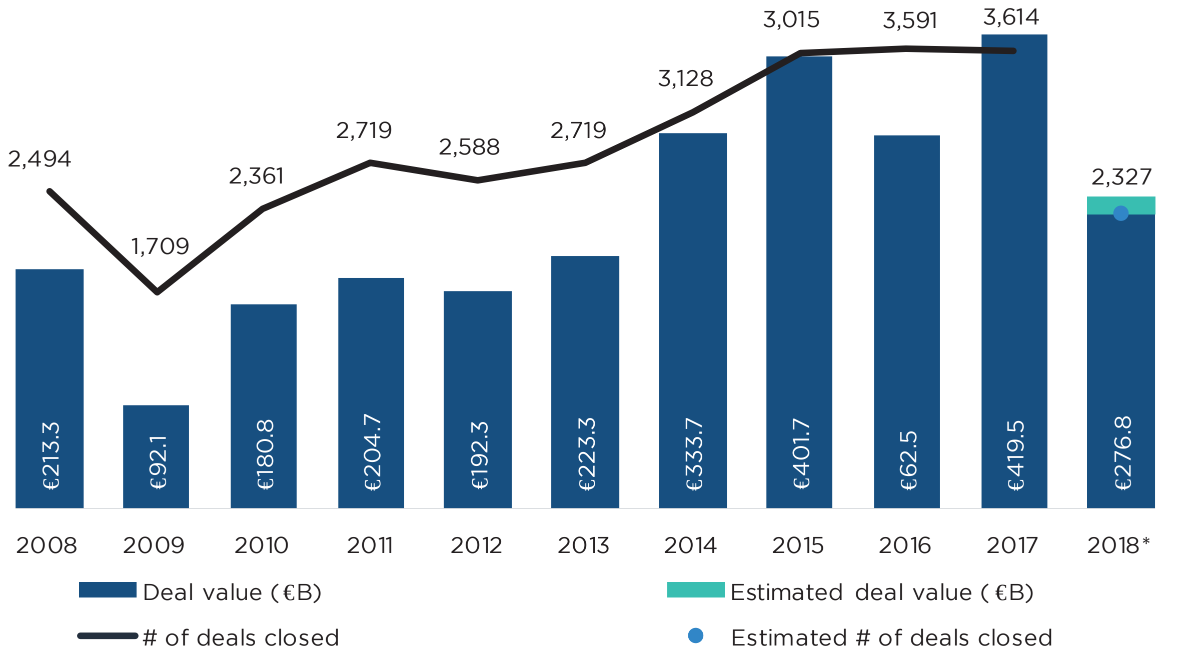
Capital continues to be concentrated in regions with already-developed venture ecosystems. VCs in the UK & Ireland region have attracted the most commitments this year, with €2.4 billion raised across 16 funds. German funds, however, closed on the greatest amount of capital in the third quarter, raising €700.0 million total. The largest fund of the quarter was the inaugural fund of Munich-based Digital+ Partners, which closed on €350.0 million to invest in technology firms in the industrial and finance sectors. The sizable first-time fund boasts backing from the European Investment Fund and KfW Group, Germany's development bank. In October, KfW announced the launch of KfW Capital, a €200.0 million state-backed initiative to back VC and venture debt funds targeting startups in the local ecosystem.

The France & Benelux region has seen the greatest decline in fund count, from a high of 71 funds closed in 2011 to a low of 16 funds in 2017. Despite the comedown, this region continues to attract a significant amount of new funds and capital raised. French VCs closed four funds in 3Q, the most of any European country. The largest French fund closed in 3Q was the €200.0 million Build-up International Fund, managed by Bpifrance, a state-backed investment bank. The fund targeting French companies is looking to expand internationally via buy-and-build strategies and signals momentum from government capital to mobilize local businesses for global growth.

Overview

Healthy dealmaking activity puts 2018 on pace for third-best year on record

European PE deal activity



Source: PitchBook
*As of September 30, 2018

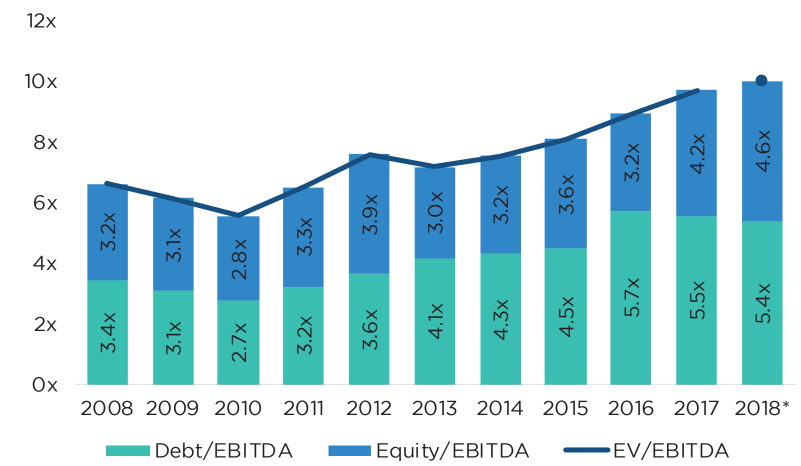
European PE dealmaking in 3Q registered the weakest quarterly results thus far in 2018, with 731 completed deals totaling €82.6 billion. This brings the YTD totals to 2,327 deals worth a combined €276.8 billion—14.8% and 15.3% decreases, respectively, compared to the first three quarters of 2017. A dearth of deals closed above €2.5 billion has dragged down deal value, with only eight such deals closing YTD while 14 closed in the same period in 2017. One of only two €2.5 billion+ buyouts to close in the quarter was Silver Lake's €2.5 billion (£2.2 billion) buyout of ZPG PLC, owner of the digital property search company Zoopla. Much of ZPG's growth came from bolting on smaller companies—taking a page out of the PE playbook—boosting cross-selling capabilities, a tactic the company is expected to continue under Silver Lake's ownership. Interestingly, the lack of deals at the top end of the market has not stunted the median deal size, which rose 22.1% to €24.4 million, suggesting the broader trend toward larger deal sizes remains intact.

2018's slowdown in dealmaking—compared to 2017's record-setting 3,614 deals worth a combined €419.5 billion—has not had a dampening effect on buyout multiples. In fact, the opposite has occurred as EV/EBITDA multiples will have swelled to the highest annual level on record (10.0x) if current figures are to hold. However, median buyout multiples were above 10.0x through the first three quarters of 2017 before declining in 4Q, though this is not to suggest that there is a 4Q discount in valuations. Multiples have risen each year since the 7.2x seen in 2013.

One factor pushing up multiples is the ease with which GPs can finance deals. Leveraged loans are becoming the go-to financing option for many of the larger buyouts, replacing some financing that would traditionally have been done by high-yield bonds. Leveraged loans offer several advantages for borrowers, including lower initial interest payments. Investors are willing to accept lower initial interest payments because

Multiples surge into double-digit territory

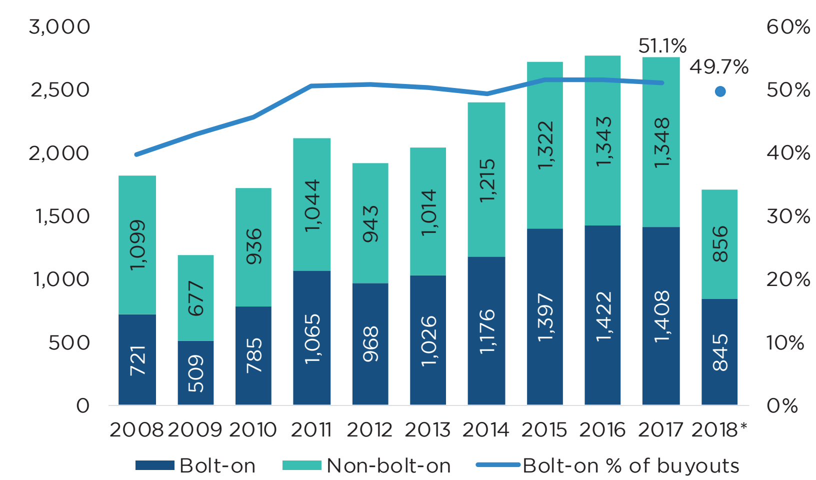
European PE buyout EV/EBITDA multiples



Source: PitchBook
*As of September 30, 2018

Bolt-on transactions hold steady around 50% of deal flow

Bolt-ons (#) as proportion of European PE buyouts



Source: PitchBook
*As of September 30, 2018

these loans generally sit higher on the capital stack—meaning they ought to recover more than equivalent high-yield bonds in the case of a bankruptcy—and the payments are floating rate, which benefits buyers if interest rates rise. Borrowers are also generally able to call loans from day one, allowing them to refinance at lower rates at any point compared with bonds, which typically are not callable for several years.

Bolt-ons have continued to account for approximately half of all PE buyouts, as they have since 2011. In that time, they have never strayed outside of 49% to 51% of buyouts. The lack of any discernible upward trend is understandable because many companies use cross-border bolt-ons in Europe to expand into different countries, which can pose its own set of unique challenges, even within the European Single Market. Conversely, bolt-ons represent a much higher percentage of buyouts in North America where completing transactions across state lines introduces relatively fewer frictions. Going forward, bolt-ons may become even more prevalent as GPs, seeking to boost performance, see that funds with platform companies that undergo higher-than-average levels of bolt-on activity have been associated with superior performance.

Exits

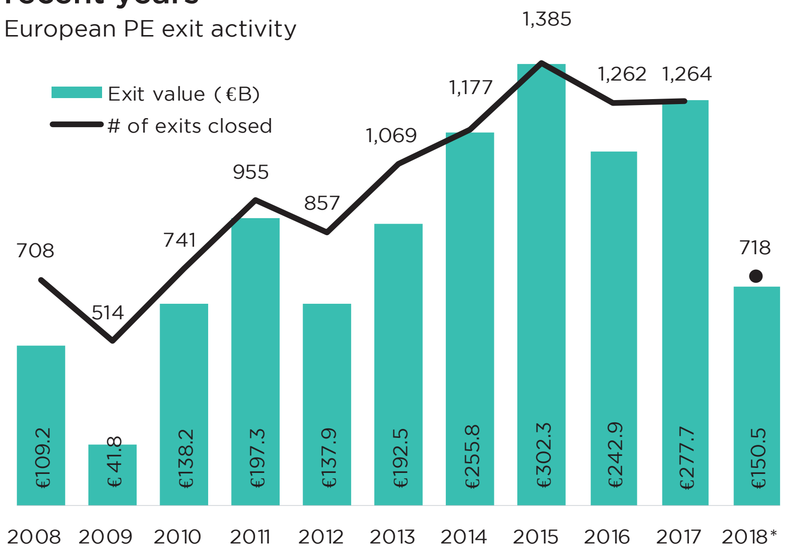
European PE exit activity is experiencing a lull. Buyout multiples have risen to the highest figures on record while GPs and LPs regularly quip about "too much money chasing too few deals," leading many to call this a seller's market. However, perhaps sellers are asking too much, even in this market, and agreements on pricing are not occurring. Through 3Q, GPs have exited just 718 companies for a combined €150.5 billion, putting this year on pace to fall well short of last year's 1,264 exits totaling €277.7 billion. Although, with the buyout binge between 2014 and 2017—the four-year timeframe with the highest deal count and total value—exit activity ought to pick up in future years as GPs seek to profit from their investments.

Exit value in the largest size bucket (€2.5 billion+) has been lacking, with YTD figures showing the lowest proportional activity since 2009. Sizable exits in the quarter—such as Sky PLC and CVC Capital Partners' €4.1 billion ($4.7 billion) sale of Sky Betting and Gaming—were a rarity. Exits in the €1 billion-€2.5 billion size bucket have been far more prevalent, accounting for a plurality of exit value for the first time since 2014.

At the sector level, exit activity largely reflects dealmaking activity. IT is growing share while other sectors have more variability from one year to the next. The pickup in oil prices from the recent 2016 low have led to the sector accounting for 7.9% of exit value YTD, well above the 5.2% averaged between 2008 and 2017. Energy's largest exit in the quarter was ArcLight

Total exit count and value on pace to fall short of recent years

European PE exit activity



Source: PitchBook
*As of September 30, 2018

Capital Partners' €1.5 billion ($1.7 billion) sale of North Sea Midstream Partners to Wren House Infrastructure—a Kuwait Investment Authority unit.

The third quarter—which was already lacking in total exit activity—saw the fewest number of PE-backed IPOs since 3Q 2012, which also saw five initial offerings. 3Q's IPO activity is far below the preceding two quarters; 2Q saw 19 PE-backed IPOs while 1Q saw 15. The lack of IPOs may be a significant factor in the overall decline in exit value because IPOs tend to be the largest exit type, on average. The SIG Combibloc Group's massive IPO, in which it raised €1.6 billion (CHF 1.4 billion), is not atypical in terms of size for this exit type. In fact, €1 billion+ exits are more common among IPOs than any other exit type.

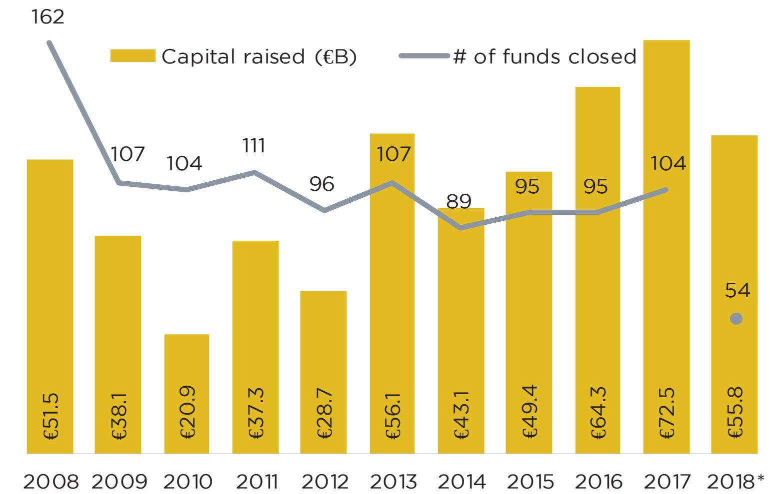
GPs have shown a tendency to sell portfolio companies to each other, a process known as a SBO. YTD, PE firms completed 375 SBOs worth a combined €82.7 billion. Current year figures are on pace to fall well short of 2017, when 621 SBOs totaled €142.0 billion. However, 2018's SBO figures are on a record-setting pace, proportionally. Through 3Q, SBOs have accounted for 55.0% of total exit value and 52.2% of total exit count. This is the first year in which SBOs accounted for the majority of total exit value and count, though the remaining three months may shift the data.

Several large SBOs closed in the quarter, including aforementioned sale of North Sea Midstream Partners as well as the €1.3 billion sale of Exclusive Networks by a consortium to Permira. Large SBOs such as those help keep the median exit size among SBOs elevated. 2018's median of €154.4 million is a slight decrease from the €168.9 achieved in 2017—an all-time high.

Fundraising

Fundraising has already hit the third-highest annual level in the past decade

European PE fundraising activity



Source: PitchBook
*As of September 30, 2018

Healthy fundraising activity through the first three quarters of 2018 has totaled €55.8 billion across 54 funds; however, more than half of the capital raised stemmed from 1Q fund closes. Activity in 2Q and 3Q has slowed dramatically. Overall, the industry is on pace to approximate last year's record-setting total in terms of capital commitments. Four funds seeking above €1 billion have held an initial (but not final) close in 2018. If these funds were to close in 4Q, it could propel this year to a record-setting fundraising figure. The quarter saw 19 funds hold a final close, raising €9.4 billion. The largest close in the quarter was Intermediate Capital Group PLC's (ICG) €3.7 billion ICG Europe VII mezzanine fund. The fund, a successor to the 2015 vintage €3.0 billion ICG Europe VI fund, will invest in companies worth between €100 million and €1.5 billion. The only other fund to close above €1 billion, Capvis Equity Partners V which raised €1.2 billion, is a more traditional buyout fund.

On a regional basis, UK & Ireland continues to be the preeminent region for fundraising, though the 44.2% proportion of total fundraising registered in 2018 is a significant dip from the 66.4% seen in 2016 and the 57.6% in 2017. Though this drop is substantial, it is likely too early to know whether Brexit is the main driver because fundraising is a multi-year process. The Nordic region remains a standout. The 33.7% proportion of total fundraising is more than twice the 16.0% achieved in 2008, the second highest figure in the past 10 years.

Fund sizes continue to swell in tandem with deal and exit sizes as well as buyout multiples. In today's ultra-competitive environment, GPs are seeking large cash piles to ensure they have the requisite firepower to compete in and win bidding auctions. 41.0% of the total capital raised in 2018 has been in €5 billion+ funds, essentially unchanged from full-year 2017. The proportional value for funds above €1 billion, however, has been record-setting. To date, 77.9% of all capital raised was in funds above €1 billion, outpacing 73.5% in 2013. Since a trio of mega-funds closed in the first quarter, 2018 has been devoid of another. With the only two Europe-focused mega-funds currently fundraising—Bridgepoint Europe VI and Permira VII—yet to hold an initial close, it is unlikely 2018 will see another mega-fund close.

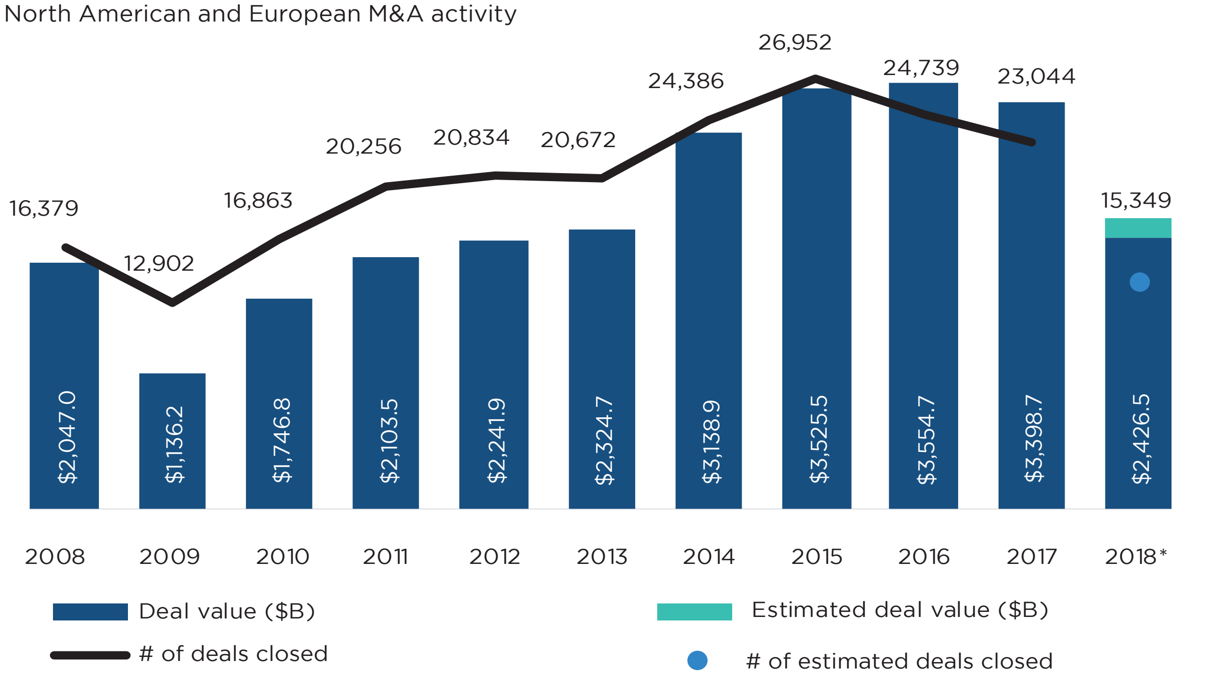
Buyout funds continue to lift their share of overall PE fundraising. 85.6% of all PE funds raised have been buyouts YTD. This is a substantial shift from the 57.7% buyout represented in 2010. Just eight years ago, PE growth funds accounted for 30.8% of all PE funds raised, falling precipitously to the current 6.1%. Interestingly, growth funds are having a banner year in terms of absolute and proportional value in North America.

Even as the composition of fund types and average fund sizes have changed over the past decade, time to close has remained remarkably constant. However, this year the average time to close has fallen as competition to access top managers across PE has heated up. The average time to close of 13.5 months for European funds is the lowest since 2007 (11.1 months). With LPs becoming more comfortable with the asset class and slowly lifting target allocations, fundraising activity ought to remain healthy and funds will continue to close quickly.

Overview

Deal value on pace to hold steady on lower transaction volume

North American and European M&A activity



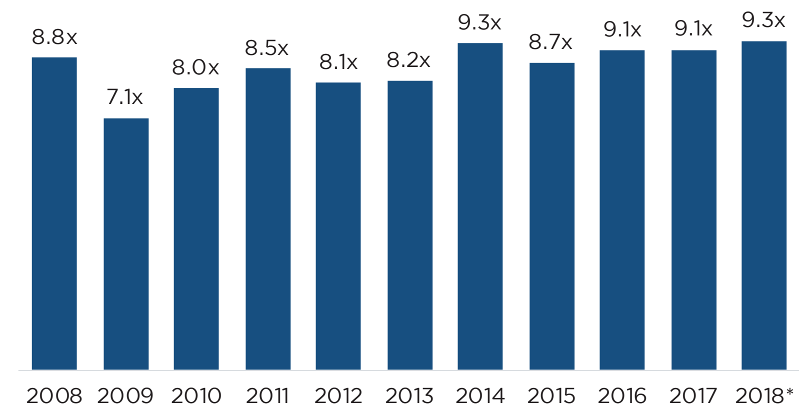
Source: PitchBook
*As of September 30, 2018

M&A activity remained robust in 3Q 2018 with 5,063 transactions closing and dozens of high-profile deals announced. For the quarter, M&A activity totaled $822.7 billion, marking the second consecutive quarter with more than $800 billion in value, following the slowdown through the end of 2017 and into 2018. The quarter also saw a pair of $20.0 billion+ deals close: Atlantia's $21.3 billion (€18.2 billion) acquisition of Spanish toll road and telecom infrastructure operator Abertis, and the $21.0 billion buyout of Dr Pepper Snapple Group by Keurig Green Mountain via its financial sponsors BDT Capital Partners and JAB Holdings. This "year of the mega-deal" as some industry watchers have called it, has seen 45 such deals ($5 billion+) close through 3Q. Furthermore, with mega-deals including CVS Health's $69.0 billion acquisition of Aetna and Comcast's $50.6 billion (£38.8 billion) purchase of 95.3% of Sky UK to close in 4Q, the total number of these deals and their total value is on pace to rise through the end of the year. As private market participants post record-setting fundraising figures, corporations show an increased willingness to spend on M&A and access to credit remains relatively cheap, competition within the broader M&A space looks to remain fierce, and activity shows no signs of slowing.

In a year of converging multiples across regions, North American and European median M&A EV/EBITDA multiples grew from 9.1x in 2017 to 9.3x YTD. Although European M&A activity is decelerating, EV/EBITDA multiples in the region rose YTD from 8.7x to 9.3x. Multiples in the region are expanding for the third consecutive year, surpassing the post-crisis peak of 9.2x seen in 2014. A competitive bidding market has led to many deals in recent years closing at double-digit EV/EBITDA multiples. While multiples look to sustain current levels, these figures are not unprecedented, as 2008 recorded heightened multiples as well. A similarly competitive environment is observed in North America, though M&A multiples dropped out of double-digit territory, shrinking from 10.2x to 9.2x. The slight drop stands in contrast to the more vigorous North American M&A activity.

Multiples rise slightly, remaining above 9.0x

Median North American and European M&A EV/EBITDA multiples



Source: PitchBook
*As of September 30, 2018

While both regions are experiencing historically elevated purchase-price multiples, the perpetual valuation gap between Europe and North America has disappeared. In fact, the median EV/EBITDA multiple for European deals in 2018 is actually slightly higher than it is in North America. Part of this is a result of investors in North America finding discounts outside the US, where the median EV/EBITDA multiple remains relatively high at 9.7x.

Regional activity is diverging, as European M&A is slackening while North American M&A looks to continue apace. Through 3Q 2018, European M&A has seen a cumulative 5,646 transactions valued at $809.1 billion close—a marked slowdown compared to the 7,973 deals totaling $1.0 trillion recorded through 3Q 2017. Various headwinds—from Brexit to trade tensions—have weighed on dealmaking. To that end, several economic institutions have lowered their 2018 European growth forecasts in recent months. Business sentiment— which hit the highest figures on record— also crested in early 2018, meaning companies are more hesitant to invest for the long-term.[4]

In contrast to the significant lull in European M&A, North American activity is faring much better. YTD, 8,683 transactions valued at $1.5 trillion have been closed, representing YoY decreases of 9.0% and 8.2%, respectively. Additionally, with nine of the 10 largest M&A transactions announced or in progress are targeting North America-based companies, this divergence is likely to continue.

Private market participants—namely PE firms—have accounted for a growing share of M&A in Europe and North America. Within the broader M&A sphere, acquisitions of public companies often generate the largest transaction sizes and the most headlines. Looking at the buyers behind these transactions reveals some interesting trends; acquisitions of public companies were done by PE firms 29.4% of the time YTD in 2018. While this is an increase over the 21.9% registered in 2016, it is far below the post-crisis peak of 48.1% in 2011.

Another area in which PE firms have exhibited interest is sourcing deals via divestments. Many of the high-profile LBOs in 2018 have been divestitures—including the Blackstone-led buyout of 55% of Refinitiv (formerly Reuters' Financial & Risk business) and the Bain-led buyout of Toshiba Memory. The rise in the number of shareholder activists—whereby "activist" funds take a position in a target company and press for change, often by restructuring the company and/or divesting business units—means healthy carveout activity ought to continue.

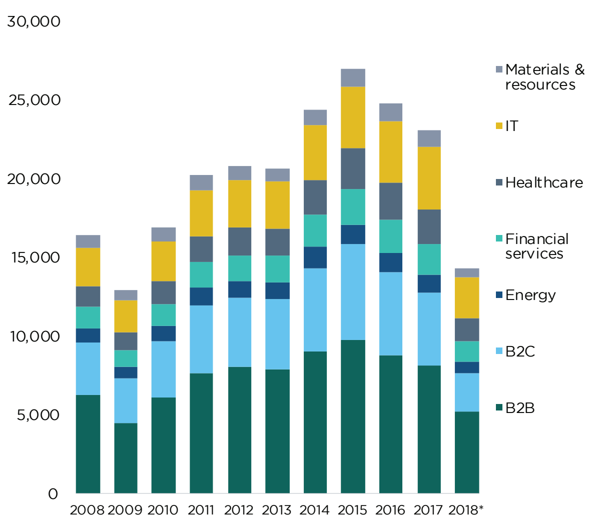
Pushback against public markets' burdensome reporting standards and perceived shorter-term focus have helped spark companies' and investors' interest in PE, leading to the unabated growth of PE-backed companies and industry-wide AUM are approaching $2 trillion. Additionally, the surge in private lending funds and a boom in leveraged loan issuance—which slowed during 3Q but remains on the upswing—have provided easy financing for the industry's standard transaction, the LBO.

4: "Optimism on European Growth Reverses as Headwinds Mount," The Wall Street Journal, Paul Hannon, August 12, 2018

Deals by sector

IT on pace to complete more deals than B2C for the first time

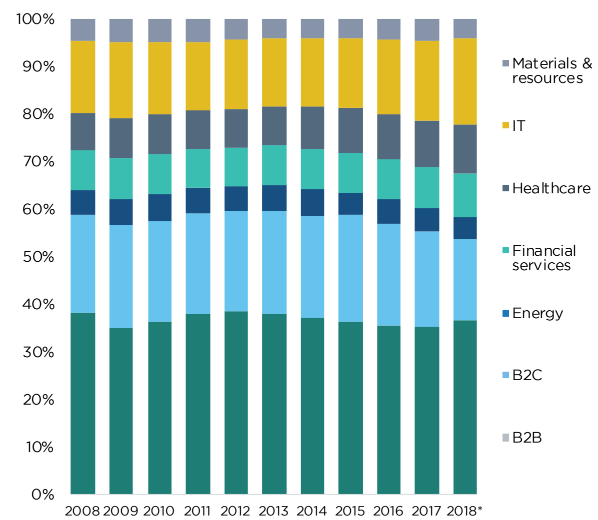
North American and European M&A (#) by sector



Source: PitchBook
*As of September 30, 2018

Healthcare grows dealmaking share quicker than all other sectors

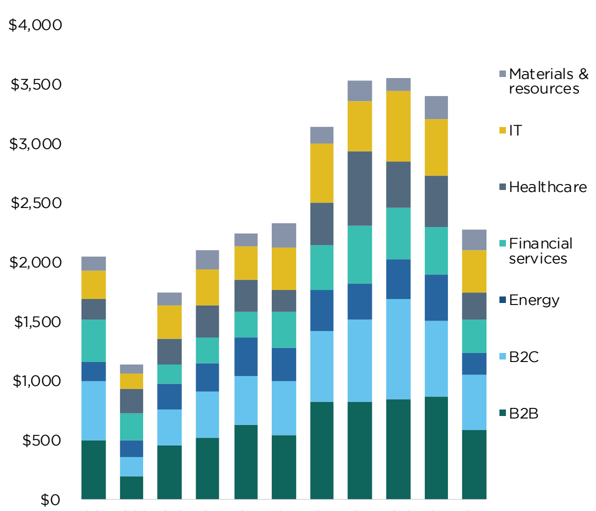
North American and European M&A (#) by sector



Source: PitchBook
*As of September 30, 2018

B2B and B2C remain marquee sectors

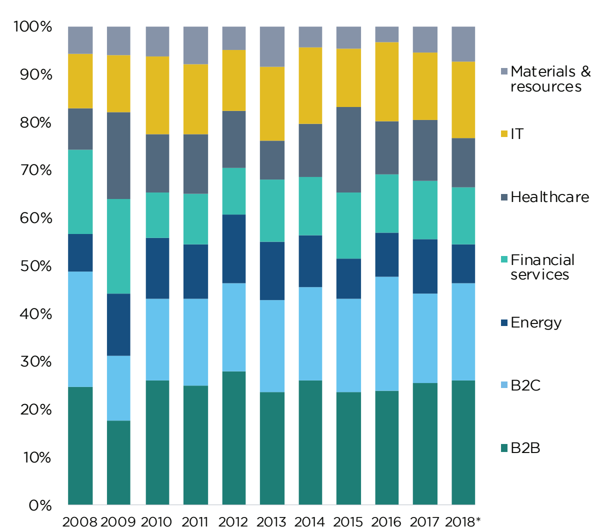
North American and European M&A ($) by sector



Source: PitchBook
*As of September 30, 2018

Energy M&A hits lowest relative level in over a decade

North American and European M&A ($) by sector



Source: PitchBook
*As of September 30, 2018

TwinBrook
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Senior or unitranche: It's PE firms' pick

A Q&A with Twin Brook Capital Partners

Richard Christensen
Partner, Middle-Market
Direct Lending
Twin Brook Capital Partners

Richard Christensen joined Twin Brook in 2015 as a Partner in the firm's mid-market direct lending loan business. Prior to joining Twin Brook, Christensen had been with Madison Capital Funding, which is part of New York Life Investments, since its initial founding in 2001. Christensen's primary responsibilities at Madison Capital included client relationship management and new business development, where he focused on originating and structuring transactions with mid-market private equity sponsors. Prior to joining Madison Capital, Christensen held various positions in loan underwriting and portfolio management at Bank of America's Commercial Finance Group (formerly NationsCredit Commercial Corporation) and First Source Financial.

If a dozen private equity firms are vying for a given widget maker in an auction process, chances are there are a dozen different opinions about what an optimal capital structure and financing package might look like. Given that backdrop, direct lenders have a better shot at winning deals with a suite of debt products, says Twin Brook Capital Partners partner Rich Christensen.

What are the most common financing structures in today's lower middle market?

For the most part, they're either unitranche or senior-subordinated debt structures. Keep in mind, we're predominantly focused on borrowers with $25 million EBITDA and below. We see first lien/second lien structures as more prevalent in the broadly syndicated market—$40 million+ EBITDA companies. The unitranche structure has gained popularity in recent years as compressed closing timelines have placed a premium on the certainty and ease of dealing with a single lending party.

There was a point where unitranche loans seemed to replace the first lien/second lien deal structure. Is this still the case?

Today, for deals that are rated and broadly syndicated, it is generally less expensive to issue first lien/second lien loans versus unitranches. In addition, there are fewer lender protections (financial covenants) in upper-middle-market structures, which adds to the appeal for issuers choosing first lien/second lien arrangements over the unitranche. The syndicated market is also accustomed to repricing activity, which the unitranche market is not as receptive to, so we see unitranche products losing to syndicated (rated) deals in this sector of the market. In the sub-$40 million EBITDA market where covenants still exist, unitranche products are a competitive offering to a first lien/second lien tranche, and we see sponsors/issuers making their decision based on a number of factors, including leverage (oftentimes a first lien/second lien deal can get higher leverage than a unitranche), interest in the second lien tranche (can be harder to place this debt), and the need for speed and certainty to close. Sub-$20 million EBITDA businesses would generally utilize mezzanine debt instead of second lien.

How do senior-mezzanine and first lien/second lien financing arrangements differ?

Second lien debt is secured with a lien on the assets—although behind in priority to the senior lenders. Subordinated debt is unsecured, so, from the senior lender perspective, this form of junior capital is more favorable because of the payment subordination rights and the absence of any lien in favor of the junior lender (versus second lien debt holders who maintain a priority over the trade and other unsecured creditors). Second lien debt will be priced at a discount to mezzanine or subordinated debt and at a spread over LIBOR versus a fixed rate coupon in the mezzanine market. Generally, a first lien/second lien structure carries more risk to the senior lenders and is more favorable to the junior debt holders over a senior-mezzanine deal structure.

How do senior-stretch loans and unitranches differ?

Senior stretch deals are defined as "in between senior and unitranche leverage," oftentimes a half-turn or three-quarters of a turn below where a total debt multiple would be on a unitranche. In terms of an overall cost of capital, senior stretch loans have a lower interest rate spread than unitranche structures and would typically lack any call protection. Outside of the pricing and total leverage considerations, there are largely no differences in structure or documentation between a senior-stretch and unitranche facility, and we think both structures have very similar advantages to our clients.

What could make those more attractive than a unitranche?

Senior-stretch loans are certainly priced at a discount to a unitranche, with the interest rate spread somewhere between the more traditional senior and unitranche rate. Interest rate pricing really depends on the leverage and how much of a discount the final structure represents to the unitranche. We see them used in lieu of unitranches when the sponsor is not looking to put maximum leverage on a transaction or maybe the sponsor has more capital to put to work, so they want to over-equitize the company on the front end. This structure can also work well as part of a buy-and-build strategy, where the sponsor wants a more conservative capital structure up front and would look to lever the company up over time. In other cases, we have sponsors who want to put their own mezzanine debt in as part of their equity structure, so that might be part of a senior-stretch as well.

Does the competitiveness of the deal market dictate one preferred financing structure over another?

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In a market that demands speed from buyers who need to minimize lender processes on their side, unitranches have become a popular alternative to more traditional two-party debt structures. However, sponsors will often opt for senior-subordinated debt structures because they have good relationships across both senior and junior debt providers and are comfortable coordinating multiple tranches in the debt structure. These days, sponsors will ask lenders for term sheets highlighting both options. Ultimately, it comes down to certainty, speed, flexibility and price.

Do more competitive credit managers have unitranche capabilities?

Absolutely. Being able to offer a range of debt solutions, whether it is senior with subordinated debt, senior-stretch or unitranche, makes you more competitive across a range of clients and credit opportunities. You can tailor what you're doing to both the sponsor and the credit. I think credit managers who cannot offer a unitranche, are competitively disadvantaged in this market.

We see lenders that cannot offer what Twin Brook provides. These can be either commercial banks that prefer to be at lower leverage levels or finance companies that cannot provide revolvers or need to partner with another lender to provide the first out component due to their higher yield requirements. All those things make you less competitive.

Recently, the unitranche has been winning favor with some private equity firms over the traditional senior-subordinated debt structure. Is that still the case?

At the end of the day, more traditional two-party senior-subordinated debt structures and unitranches are largely interchangeable from a total leverage and weighted average cost of capital. As the LBO market has continued to become more competitive, speed and certainty to close have become significant competitive differentiators favoring the unitranche over a two-party debt structure. Closing timelines have compressed significantly, so the ease of dealing with one lending party makes a unitranche debt structure compelling. If you have two or three weeks to close a deal, working with one party is a big advantage rather than trying to bring multiple debt parties together—both in terms of lender due diligence and legal documentation requirements. A single unitranche lender can provide commitment papers for the entire transaction—oftentimes with little to no market flex. The sponsor, facing a compressed timeframe by the seller, has this "complete" commitment in hand as opposed to getting commitments from two separate lenders (senior and mezzanine). A unitranche obviates the need for negotiation between multiple lending parties, so from an ease of documentation it has significant advantages as well. You just have fewer parties, so legal documentation of transactions can be streamlined.

Do private equity firms come to direct lenders with a specific capital structure in mind, or do the two parties work together to determine the optimal debt arrangement?

For any particular auction process, it's very common for us to provide multiple structuring options for our clients. We will very often propose on both a unitranche and senior-subordinated structure depending on what feels most competitive with our clients. We may have a sponsor who is looking for senior with third-party mezzanine for particular reasons—that's a structure they traditionally like or they have relationships in the subordinated debt community that they like to work with. Then we have clients that really like the unitranche structure for reasons we've talked about.

How are add-on acquisitions financed?

Virtually all of our credit facilities include provisions for permitted acquisitions, and in numerous cases we'll provide a committed unfunded acquisition line at closing to finance future acquisitions. Acquisitions are almost always an important component of a sponsor's growth strategy, so regardless of whether the facility includes a committed financing line at closing, the majority of our facilities will end up being upsized after closing as part of an add-on acquisition financing. If the original LBO has a unitranche structure, the financing package going forward for add-ons will be incremental fundings under the same unitranche structure. If it's a more traditional senior-subordinated debt structure, the add-ons could be financed entirely under the senior credit facility or with some combination of senior and subordinated debt.

This interview appeared first in the April 2018 issue of "Private Debt Investor."

About Twin Brook Capital Partners

Twin Brook Capital Partners is a finance company focused on providing cash flow-based financing solutions for the middle market private equity community. The firm is managed by highly experienced, dedicated professionals who have successfully worked together throughout their careers at leading middle market lending institutions. Twin Brook's flexible product suite allows for tailored financing solutions for leveraged buyouts, recapitalizations, add-on acquisitions, growth capital and other situations.

Twin Brook focuses on loans to private equity-owned companies with EBITDA between $3 million and $50 million, with an emphasis on companies with $25 million of EBITDA and below. Since inception in the fourth quarter of 2014, Twin Brook has acted as Lead/Co-Lead Arranger on 90% of deals funded (2015-2018), acquired $6.5 billion of committed capital, and closed 220 transactions.

For more information, visit twincp.com

Analyst Insights

How GP stakes investing is becoming less rare

Exploring trends in the newest investment strategy

By James Gelfer

Disclosure: James Gelfer was formerly an Associate with Goldman Sachs' AIMS group.

Key takeaways

- **GP stakes dealmaking in 2018 has already matched the annual record.** As of August 2018, investors have already completed 14 GP stakes deals. Transactions are increasingly targeted toward GPs with closed-end fund strategies, with 10 such deals so far in 2018.
- **Managers receiving GP stakes investments boast industry-leading performance.** Of the more than 250 closed-end funds raised by managers with GP stakes-backing analyzed in this note, 35% were in the top quartile of their peer group in PitchBook Benchmarks. Furthermore, only 19% of those funds were in the bottom quartile.
- **GP stakes investors target managers with above-average fund size step-ups.** However, we have yet to see evidence that managers alter their fundraising tendencies in response to a GP stakes investment.

Overview of recent deal activity

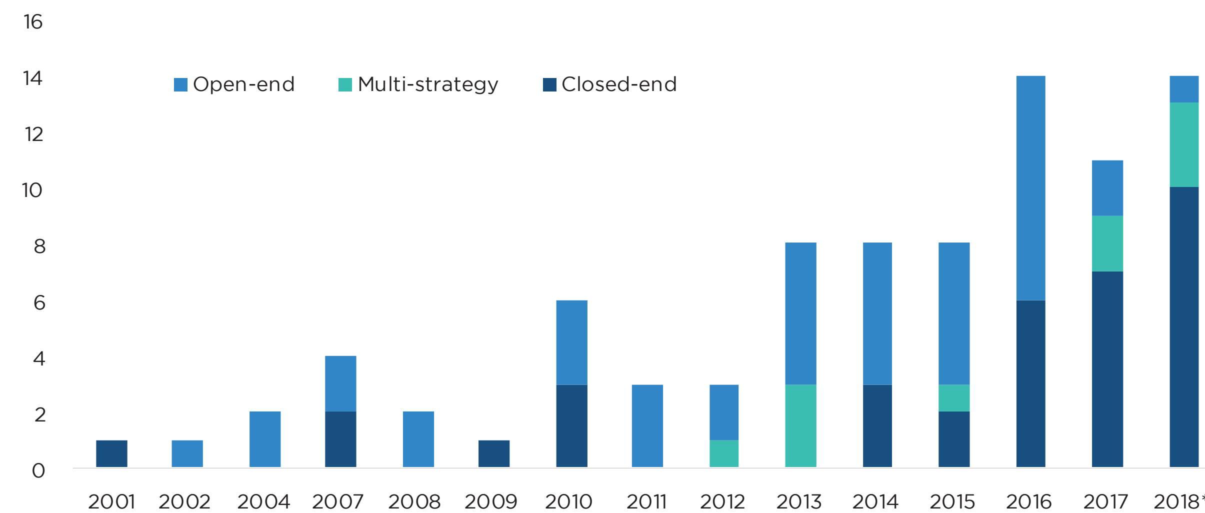
The building wave of GP stakes deals shows no signs of cresting, with deal activity through mid-August already surpassing the full-year total from 2017 and matching the all-time record set in 2016. Dealmakers continue to gravitate toward GPs focused on closed-end fund strategies and away from GPs (namely hedge funds) that are susceptible to LP redemptions (see "Lines in the sand"). Investments continue to be concentrated in name-brand firms, most of which have been explicit in how they plan to use the capital. Indeed, the rationale for raising outside capital has not changed since we published our first note on the space, with a trio of deals in 2018 highlighting the three primary reasons cited by GPs.

Round Hill Capital, a real estate-focused GP, will use the money from an investment by Dyal Capital earlier this year to launch initiatives in new sectors and geographies. The tech-focused buyout firm Francisco Partners is utilizing its GP stakes investment to increase the firm's capital commitments to its own funds. And Clearlake Capital, which closed on $3.6 billion for its latest buyout fund, will use the proceeds from its GP stakes investment to seed a new senior credit strategy.

All else being equal, GP stakes investors are likely to pursue managers that will use the investment for endeavors accretive to the value of the underlying

2018 GP stakes activity already at record levels

GP stakes deals by target firm's fund strategy



Source: PitchBook
*As of August 11, 2018
Note: Years without GP stakes deals closed are not included.

management company. Through that lens, GPs seeking capital primarily to facilitate succession planning or to fulfill commitments to their own funds will also need to identify plans to create value for investors by growing fee-generating AUM, entering new businesses or implementing plans to improve operational efficiency.

Lines in the sand

In our initial GP stakes note, we used the terms "private equity" and "hedge fund" to demarcate the firms being targeted in GP stakes transactions. While these fairly broad terms were adequate in the early days of GP stakes investing, the strategy has expanded into more niche areas as additional capital has flooded into the space. Indeed, managers focused on the full gamut of strategies—from energy and real estate, to credit and secondaries—have received GP stakes investments. This underscores the fact that the purpose of the delineation between "private equity" and "hedge fund" is really a matter of distinguishing between whether a GP is primarily oriented toward closed-end or open-end fund strategies. For our purposes, closed-end funds refer to investment vehicles that are not subject to investor redemptions (e.g. buyout, VC, private credit, etc.), while open-end refers to strategies in which periodic redemptions are possible (namely hedge funds and long-only equity strategies).

The two most-established GP stakes investors—Dyal and AIMS—began their strategies by investing almost exclusively in open-end managers. But both firms have steadily shifted their strategies toward GPs focused on closed-end funds, while virtually eliminating their investment activity in open-end fund managers. Since 2016, more than 80% of Dyal's deals have been for closed-end GPs, while AIMS hasn't invested in an open-end GP since 2015. Blackstone, whose GP stakes strategy has a smaller track record, has followed a similar path. Going forward, we expect GP stakes deals to be highly concentrated in closed-end managers. But not every investor is following the same playbook. Rosemont Investment Partners was one of the earliest investors to acquire stakes in asset managers—although the firm also engages in full acquisitions—and has remained focused almost exclusively on managers with open-end fund strategies. In June, Rosemont announced a new partnership with insurer Market Corp., under which it will transition into a permanent capital structure.

Friend or foe?

The GP stakes investment strategy has rapidly become one of the most-discussed topics in private capital markets. The most intriguing development of 2018 has been the willingness of prominent GP stakes investors to partner with one another in dealmaking. In July 2018, Goldman Sachs' AIMS group and Blackstone (which runs its GP stakes business through Blackstone Alternative Asset Management) combined to inject Francisco Partners with balance-sheet capital to sustain the firm's momentum after it closed on nearly $4 billion in 2017 for its latest buyout fund.

While this club deal could easily be dismissed as a one-off, it was preceded by a similar transaction in which Dyal and AIMS partnered for the first time to make an investment in Clearlake Capital, a buyout manager that will use the funding to launch a senior credit strategy. With many in the industry already raising questions about potential conflicts of interest arising from the presence of external investors, introducing additional stakeholders to the equation only seems to muddy the picture further. Additionally, with the limited number of investors pursuing GP stakes, the fact that the three biggest players have invested alongside one another raises questions about the competitiveness of the market and a potential lack of opportunities.

To that end, the scope for deal sourcing is beginning to widen. Dyal recently announced an investment in Golub Capital, a publicly traded middle-market lender, in a deal that epitomizes how GP stakes investing is in many ways serving as a nontraditional capital source for firms that may have previously tapped public markets. We think GP management companies represent attractive investment opportunities, but publicly traded PE firms have been consistently undervalued, which has deterred new listings.

Indeed, a consistent gripe among publicly traded PE firms is that traditional equity investors do not know how to properly value their business, leading to persistent undervaluation. (This has been one impetus for the recent enthusiasm for public PE firms to evolve their business model from a partnership to a corporation.) Since GP stakes investors generally have decades of private-market experience, they presumably have a better understanding of the PE business model than a public equity analyst who may cover the space only as a subset of broader financial services coverage. Furthermore, GP stakes investors have the latitude to structure deals in a variety of ways, often creating hybrid debt-equity instruments that allow them to tailor the risk/return profile to their preference. As a result, the GP stakes strategy is likely to lead to a better alignment of incentives and more agreement on valuation between the GPs and outside investors. We expect this to lead to significantly more GP stakes deals in the future and currently view the strategy as the best means of achieving diversified exposure to the underlying businesses of alternative asset managers.

Newcomers

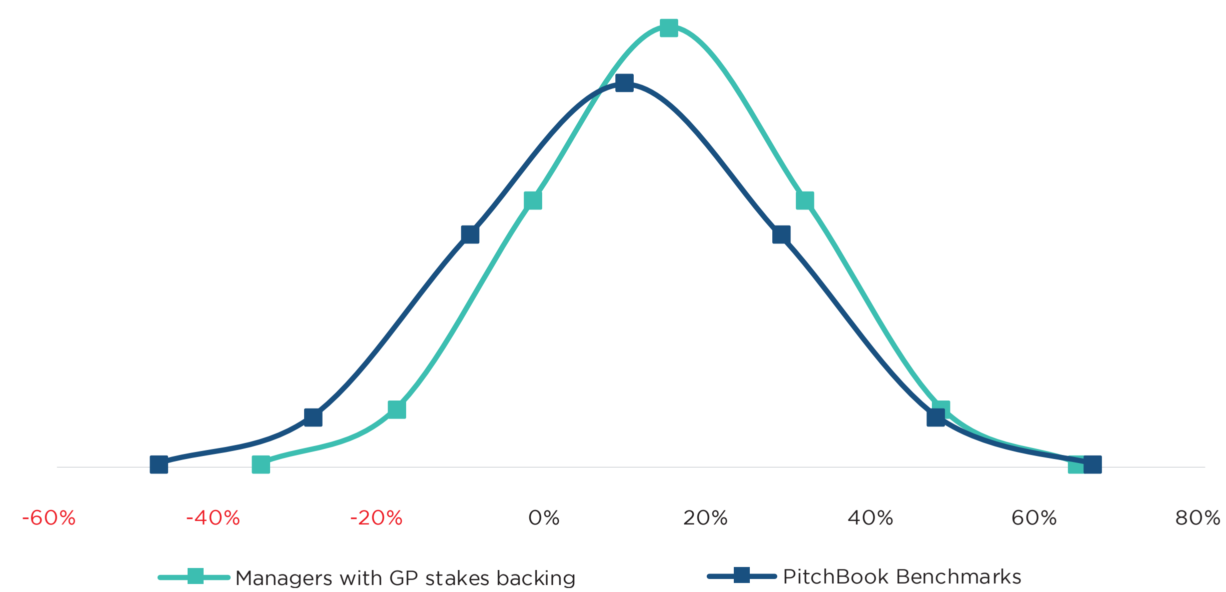
Recent GP stakes deal activity has been dominated by well-known incumbents, but the next wave of GP stakes investors is in development. AlpInvest—an arm of the Carlyle Group—has become a key player in the secondary market and is targeting $500 million for an initial GP stakes vehicle. But it has taken awhile for the effort to get off the ground after the strategy's leader left AlpInvest in mid-2017. Prior to his departure, the Wall Street Journal initially announced the launch of the strategy back in 2016 with a more ambitious target of $1.5 billion.

The LP secondaries strategy seems to be a gateway to making GP stake investments. In the aforementioned investment in Clearlake, Dyal and AIMS invested alongside the prominent LP secondaries investor Landmark Partners, marking the first time we've seen the firm execute a GP stakes investment. It will be interesting to see if this foray marks the initiation of a more formal effort by Landmark. Aberdeen Asset Management is also getting into the GP stakes game. After hiring a team from Guggenheim Partners, Aberdeen created a group called Bonaccord Capital Partners that is currently targeting $1 billion for a debut fund. And Magnetar Capital, which received a GP stakes investment of its own in 2015 from Blackstone, is launching a GP stakes strategy itself after hiring Tom Morgan away from Hycroft.

We're also seeing more traditional PE firms exploring the GP stakes strategy. TPG, whose Sixth Street Partners credit business received a GP stakes

GP stakes investors target firms with superior returns

Distribution of fund IRRs (all vintages through 2015)



Source: PitchBook
*As of December 31, 2017

investment of its own from Dyal in 2017, recently nixed its plans to go public and will instead seek additional outside capital. But, more interestingly, TPG made its own minority investment in NewQuest Capital, an Asia-based secondaries firm. This deal also illustrates how GP stakes deals are expanding to managers with strategies outside of traditional buyouts (see "Lines in the sand"). Leaders of many investment firms have unabashedly expressed their desire to grow their businesses in new areas, and we think the GP stakes strategy is an obvious area for expansion.

Big-game hunting

With a relatively small but well-capitalized universe of GP stakes investors, many of the deals executed up to this point have been confined to brand name GPs with well-established businesses and stellar track records. While the economic outcomes for GP stakes investors are less dependent on the manager's fund performance than an LP, fund performance is a useful tool to assess how the targets of GP stakes deals stack up against their peers.

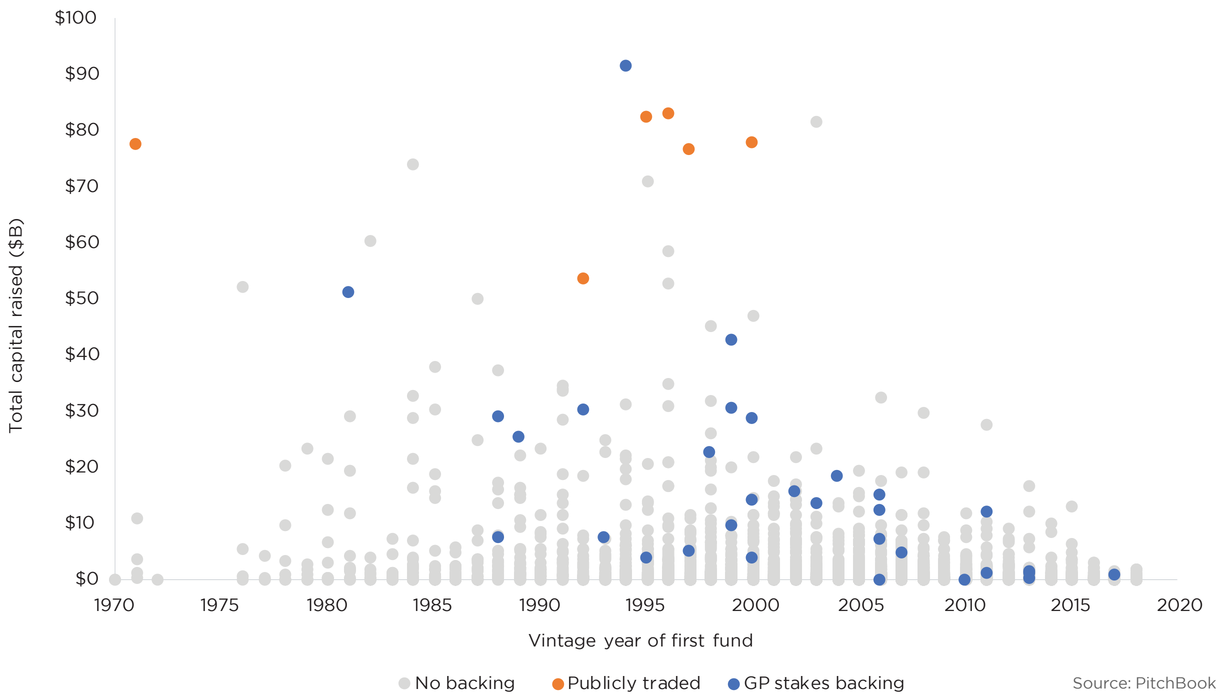
The PitchBook Platform currently has performance data for more than 250 funds raised by managers who have received a GP stakes investment, with 35% of those vehicles posting top-quartile performance. These GPs also appear adept at mitigating downside risk, with only 19% of funds falling into the bottom quartile. With the GP stakes strategy still in its infancy and only 45 closed-end or multi-strategy managers having received an investment, we expected dealmaking to be highly concentrated in top-performing firms—and that is indeed what these data points suggest.

For these firms, the question is whether the influence of an outside investor will alter the trajectory of historical performance. So far, it's too early to tell—but this will be a topic we will actively investigate as the GP stakes strategy matures.

Knowing the performance profile of these firms, it follows that they would also lead the pack when it comes to fundraising. Indeed, the average closed-end firm that has received a GP stakes investment launched its first fund in 2001 and has raised more than $23 billion; this compares to an average first fund vintage of 2005 and $1 billion raised for PE firms that have not received a GP stakes investment and are not publicly traded.

Firms receiving GP stakes investment tend to be older and larger

GP comparison by backing status



Source: PitchBook
*As of August 11, 2018

As the accompanying charts illustrate, numerous managers fit the prototypical GP stakes target profile but have yet to receive an outside investment into their management company. So, despite the large sums being raised and the quickness with which Goldman Sachs AIMS and Dyal are returning to the fundraising trail, we think there is a sufficient supply of suitable targets to sustain the strategy for the foreseeable future. Furthermore, as GP stakes investors like AlpInvest and GP Interests—an aptly named newcomer—target smaller fund sizes, we see investment activity moving toward unexplored areas of the market, including smaller and less-established managers.

Course change?

GP stakes investing requires dealmakers to evaluate the economics of the managers underlying business, as opposed to how an LP assesses the performance potential of a specific fund. This means examining the business through the full gamut of viewpoints—from analyzing the LP-GP relationships and alignment of incentives, to understanding the nuances of how the GP management company generates revenue. Industry professionals active in the GP stakes space suggest that most deals are analyzed similarly to how a traditional equity investor would value a publicly traded firm, using standard metrics such as economic net income (ENI) and running standard DCFs. But perhaps the most important consideration is how the manager generates revenue, specifically the breakdown of management fees versus performance fees. As such, GP stakes investors tend to focus on the sustainability of the managers' revenue streams (i.e. how much capital is locked up, and for how long?) and the prospects for future fund offerings, specifically the anticipated time between funds and the expected step-up in fund size.

But what is good for a GP stakes investor may not necessarily benefit the LPs who are committing capital to the underlying funds. To that end, a common concern for LPs is that the manager receiving a GP stakes investment will subsequently evolve his or her strategy in a way that focuses on maximizing income for the management company perhaps at the detriment of underlying investments. One straightforward way to assess if a manager may be at risk of these inclinations is to look at fundraising activity, specifically any significant drop in the time between funds, significant step-ups in fund size or the initiation of new fund strategies outside of the GP's traditional purview.

To our surprise, we did not find evidence that GPs unduly increase their fund sizes following a GP stakes investment. But while GPs do not seem to aggressively alter their fund size targets as a result of a GP stakes investment, we do find that the historical step-up in fund size is larger for firms that have received a GP stakes investment (47%) compared to those that have not (38%). This is one data point that suggests GP stakes investors are actively targeting firms already exhibiting the characteristics desired by outside investors (e.g. growing AUM), as opposed to altering their strategy post-investment.

In addition to fund size, the cadence of fundraises is a factor considered by all stakeholders in a GP stakes transaction. Outside investments can raise concerns amongst LPs; when making a recent commitment to Vista Equity Partners' latest flagship fund, the Oregon Investment Council expressed concern that the Vista team may be disincentivized after the firm sold a GP stake in 2015. Another common worry among LPs is that the presence of an outside investor will encourage the manager to become an asset-gatherer more concerned with raising capital and collecting management fees than maximizing the value of investments. However, we found that the time between fundraises hovered around three years for both GPs that received outside investment and those that did not.

Perhaps more importantly, we did not observe an uptick in fundraising activity in the year following a GP stakes investment. Interestingly, however, we found that many recent GP stakes deals have come on the heels of fund closes. Francisco Partners, which received a capital infusion from a consortium of GP stakes investors in July, closed on a nearly $4 billion in 2017—a substantial increase from its $2.9 billion predecessor. It was a similar story for Clearlake Capital, which sold a 20% stake in May just a few months after closing on a $3.6 billion buyout fund—more than double the prior vehicle raised in 2015.

Looking forward

So far, GP stakes investors have been able to strategically place capital with premier firms that already exhibit favorable characteristics, including a strong track record and sufficient LP appetite showcased by large step-ups in fund sizes and the ability to successfully launch new strategies. We think investment prospects remain strong for GP stakes investors, but competition is primed to intensify as more inaugural GP stakes funds begin to deploy capital. As this happens, there will come a point when GP stakes investors move on to less attractive targets that may feel compelled to change their business model to attract and retain outside investment. This is the scenario of which all stakeholders need to be wary.

Average capital raised diverges significantly between backings

GP comparison metrics by backing status

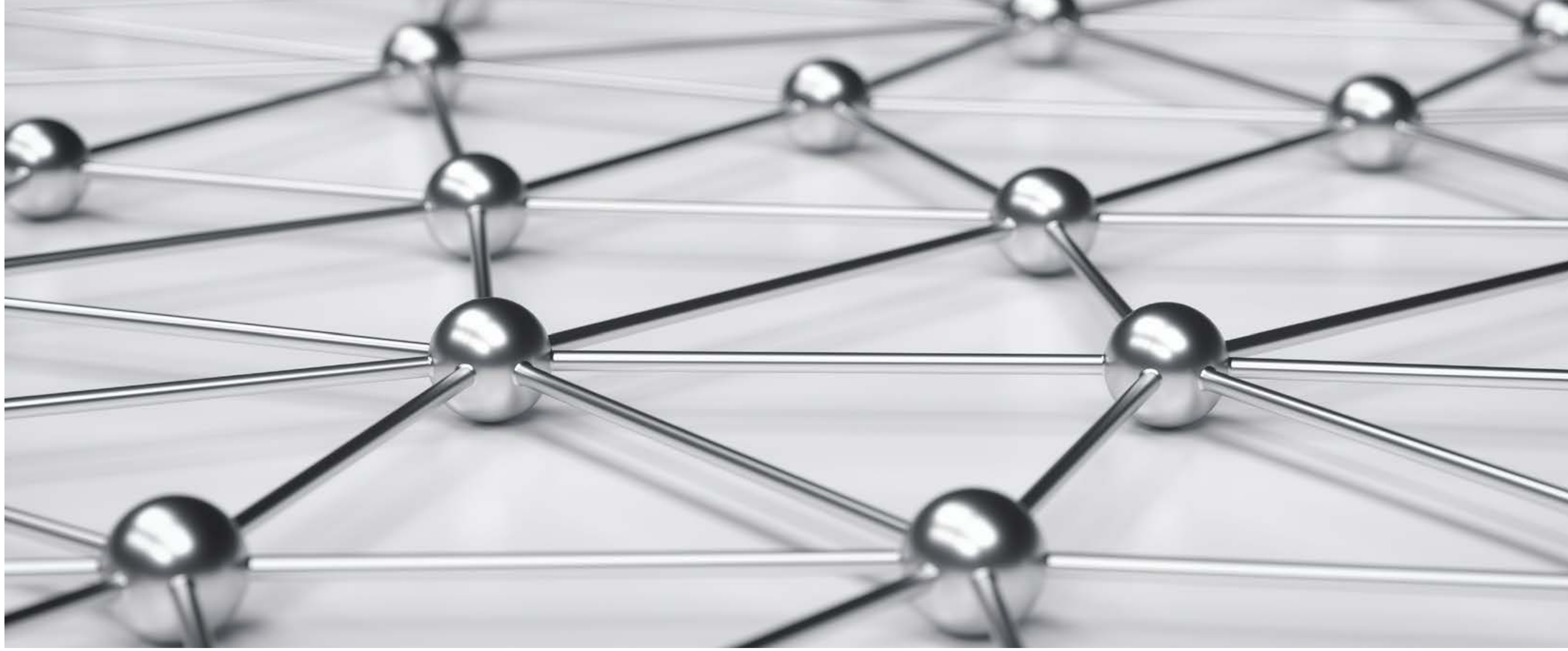
Backing	Average capital raised ($B)	Average vintage of first fund
GP stakes	$23.4	2001
Non-GP stakes	$1.0	2005

Source: PitchBook

Taking a fresh look at club deals

The evolution of multi-sponsor buyouts

By Wylie Fernyhough



Key takeaways

- **Club deals are becoming less frequent.** Thus far in 2018, they represent 20.1% of all non-add-on LBOs in the US and 16.9% in Europe compared to the 39.8% and 29.7%—respectively—seen in 2001-2004.

- **Despite several highly publicized failures, club deals are approximately 50% less likely to go out of business or bankrupt than sole-sponsor buyouts.** Portfolio companies go out of business or file for bankruptcy in 7.2% of club deals compared to 14.5% of sole-sponsor buyouts.

- **$1 billion+ club deals have outperformed sole-sponsor buyouts over the past eight years.** These buyouts tend to see a larger increase in enterprise value, are more likely to undergo recapitalizations (recaps) and utilize significantly more add-ons.

Overview

Club deals have received recurrent negative attention from the media and LPs.[1] In 2006, the US Department of Justice began investigating the industry's practice of forming consortiums to limit the number of potential buyers for a deal, thereby mitigating the competitive bidding process and driving down prices; in the end, The Carlyle Group, Blackstone and TPG Capital paid over $300 million jointly in fines without admitting guilt.[2] In addition, LPs are apprehensive about overconcentration risk because an LP may have ownership of one company across multiple funds. There have also been several high-profile bankruptcies, including Energy Future Holdings (formerly TXU)—which is perhaps the PE industry's most infamous failure—and Toys "R" Us, causing massive financial and job loss. Moreover, critics suggest club deals have too many decision makers—which can be especially troublesome when things go poorly—with no party assuming complete control. Finally, incentives can differ if GPs are on different exit timelines due to the specific vintage and investment timeline of their fund. Despite these concerns, we believe club deals are worth another look from a performance perspective. To that end, a 2016 review by Ward Blokker found that not only is performance better for club deals, but the portfolio companies experience higher levels of growth and profitability.[3]

1: Club deals will be defined as a buyout with more than one sponsor. This can include non-PE firms such as corporations, sovereign wealth funds and family offices.
2: "Private equity funds find strength in numbers?," Financial Times, Javier Espinoza, November 27, 2017
3: "A study on the economic impact of private equity club deals in leveraged buyouts," Ward A. Blokker, July 2016

State of the market

In the early 2000s, club deals were done simply to pool capital and buy out larger companies than any single PE firm could target on its own. This simplistic model has matured over time, just as the PE industry has. The club deals of today—which have consistently decreased in prevalence—are focused on multiple GPs bringing expertise to the deal and having a more targeted approach, though pooling of capital is still an underlying reason. Between 2001 and 2004, club deals accounted for 39.8% of non-add-on buyouts in the US and 29.7% in Europe. By 2018, those figures dropped to 20.1% in the US and 16.9% in Europe.

It is unsurprising that GPs have increasingly opted to do buyouts sans other investors; buyout fund sizes have swollen to the point that many GPs now have the financial firepower to do a sole-sponsor LBO of a size that probably would have required a consortium in the past. Moreover, many LPs are seeking to boost co-investments to get more direct access to deals and lower fees, which can provide additional capital in place of a co-GP. David Rubenstein nicely sums up how LPs are looking to invest: "They want to go into a fund, but co-invest additional capital—no fee, no carry—and since so many large investors have that interest, they are now going to GPs like us and saying 'If you have a big deal, don't call up one of your brethren in the private equity world. Call us up.'"[4] However, a study published on the performance of co-invested capital found that these sidecar vehicles had underperformed—on average—the GP's main fund.[5]

For GPs contemplating a buyout with a consortium, they often must consider the numerous drawbacks as perceived by LPs. However, club deals offer some compelling benefits, including allowing GPs the ability to bid on larger companies than they could before. Club deals also permit buyers with differing expertise to partner on deals, driving additional operational capabilities. Furthermore, debt financing is typically less expensive when lenders see multiple GPs involved. With several prominent club deals recently announced—including the $18 billion Bain-led group's buyout of the Toshiba memory unit and the $20 billion Blackstone-led buyout of Thomson Reuters' Financial & Risk business—it is evident that club deals still hold a place in today's PE dealmaking environment.

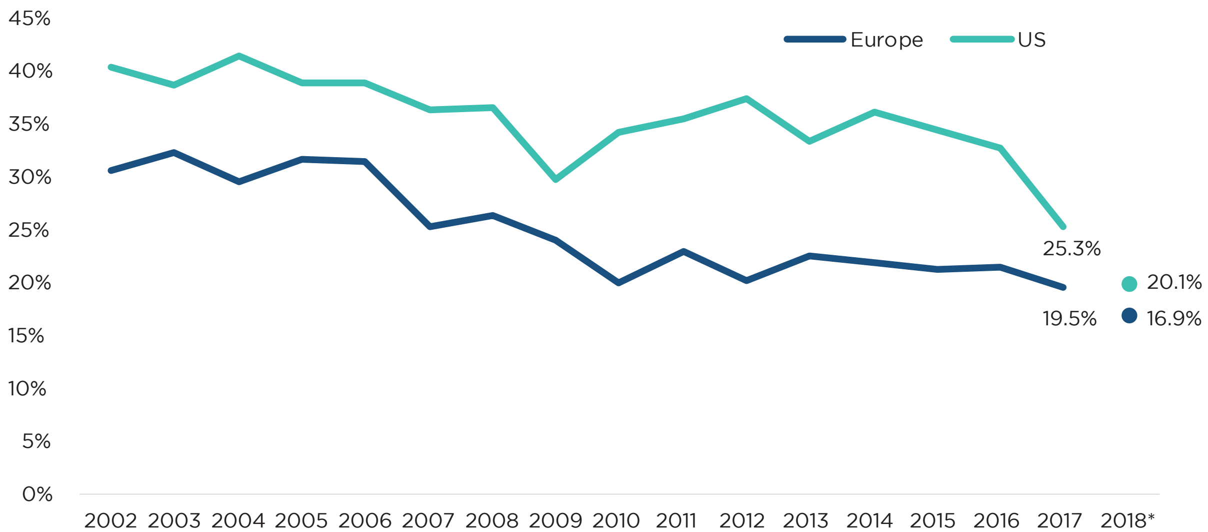
The more, the merrier

As buyout fund sizes have ballooned, so too have club deal sizes. In fact, club deal sizes since 2000 have risen

4: Thomson Reuters conference, David Rubenstein, April 4, 2013
5: "Investing Outside the Box: Evidence from Alternative Vehicles in Private Capital," Josh Lerner, Jason Mao, Antoinette Schoar & Nan R. Zhang, August 15, 2018

Club deals are slowly declining as a proportion of large buyouts

Club deals (#) as proportion of non-add-on LBOs by region



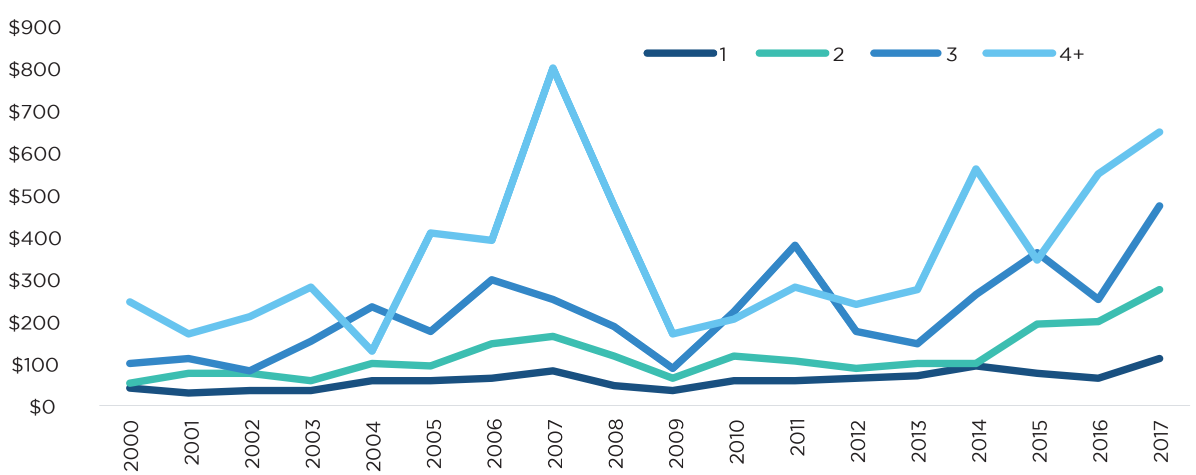
Source: PitchBook
*As of August 20, 2018

more rapidly than sole-sponsor buyouts—growing at a CAGR of 8.9% compared to 6.6% for sole-sponsor buyouts. PE firms want to write substantial equity checks to spend down dry powder, meaning the more investors involved in a deal, the larger one may expect the deal to be. On average, there is a clear step-up in size for each additional sponsor.

The frequency of buyouts with three or more sponsors is declining, mirroring the relative drop we see for club deals in general. In 2000, 38.5% of club deals involved three or more sponsors; by 2018, that figure has fallen to 27.1%. The expansion of buyout fund sizes means it takes fewer financial sponsors to bid for companies than in the past. For example, JAB Holding and BDT Capital Partners' $7.2 billion buyout of Panera Bread

Buyouts with additional sponsors complete larger deals

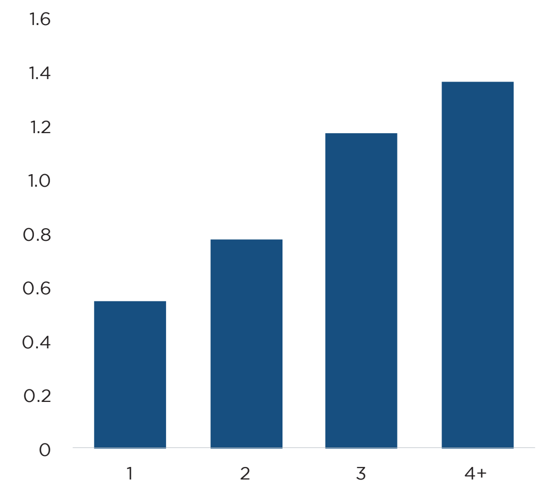
Median global deal size ($M) by investor count



Source: PitchBook
*As of August 20, 2018

Buyouts with additional sponsors complete more add-ons

Average global add-ons (#) by investor count (2000-2012)

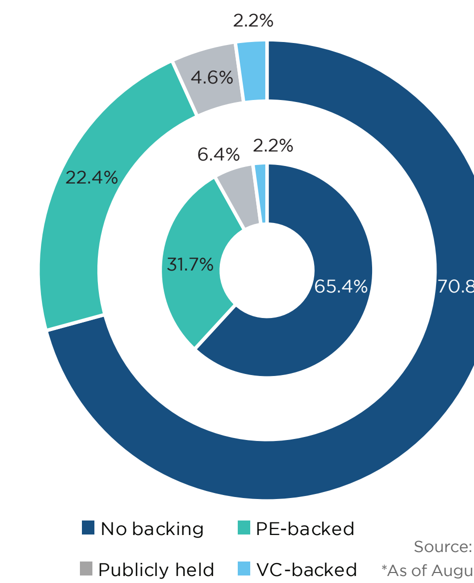


Source: PitchBook
*As of August 20, 2018

Club deals show a proclivity toward institutionally-backed companies

Target company backing status (2008-2017)

Outside: Sole-sponsor Inside: Club deal



Source: PitchBook
*As of August 20, 2018

in 2017 would have likely required additional sponsors a decade ago. Blackstone and Carlyle are looking to launch a joint bid for Arconic—the current bid would give Arconic an enterprise value of $18.3 billion—which would be the fifth largest two-sponsor buyout in history. Furthermore, the largest club deal of 2018 was able to go through with only three sponsors, a far cry from the 16 investors in the $17.6 billion Freescale Semiconductor buyout in 2006.

Add-on activity

Add-ons continue to proliferate within the PE industry. Across the board, platform companies are undergoing more add-ons than ever before as financial sponsors use the buy-and-build strategy to augment top-line expansion in this low-growth environment. With additional financial sponsors comes the ability to undergo and incorporate additional add-ons, because additional investors allow for more rigorous investment monitoring and plan implementation. The data confirms this showing that club deals have exhibited a penchant for add-ons, completing 0.95 per platform buyout from 2000 to 2012, compared with 0.54 for sole-sponsor buyouts.

Coming and going

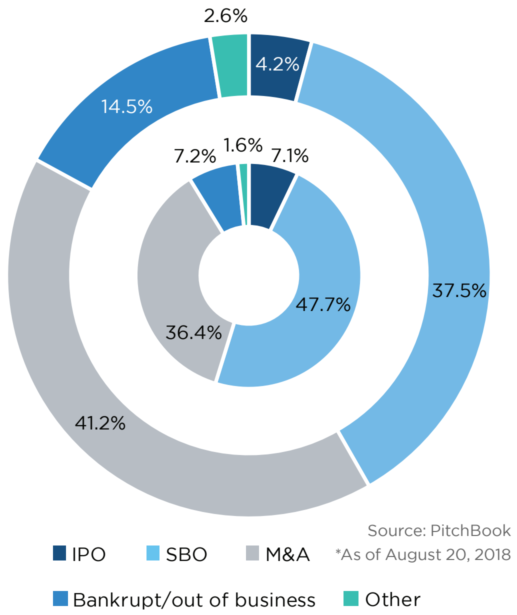
Many of the high-profile club deals have been take-privates, including those of Freescale Semiconductor, Kinder Morgan and TXU. Despite the attention generated around a select few transactions, publicly held companies have made up just 6.4% of club deals between 2008 and 2017, though this number is well above the 4.6% for sole-sponsor buyouts. Club deals also source buyouts from PE-backed companies more often than sole-sponsor buyouts, with PE-backed companies representing 31.7% of club deals and 22.4% of sole-sponsor buyouts. Interestingly, the difference in deal sourcing for club deals and sole-sponsor buyouts in these areas is nearly proportionate, with club deals 39.1% more probable to undertake a take-private and 41.5% more likely to target a PE-backed company.

Club deals have also shown a propensity to invest in technology firms, a trend that has become significantly more pronounced over the past five years. In fact, 18.1% of capital invested by club deals was in the technology sector compared with 11.7% for sole-sponsor deals. Larger club deals, such as the $18 billion Toshiba Memory buyout, show the expanding interest in the sector by PE firms and non-financial sponsors, such as Apple and Dell, which also invested in the buyout.

Club deals are less likely to go bankrupt than sole-sponsor buyouts

Global exits (#) by type (2008-2017)

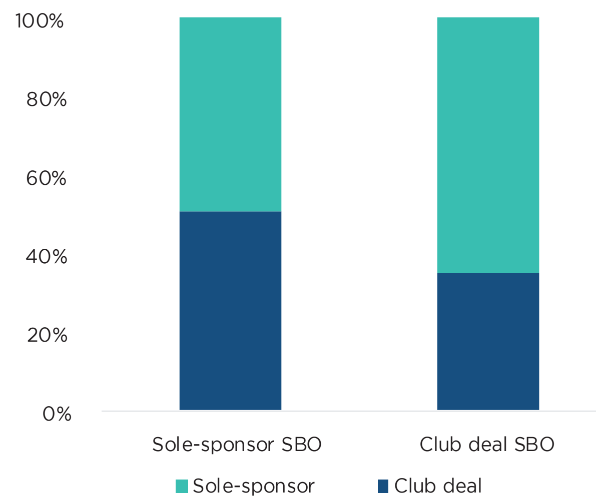
Outside: Sole-sponsor   Inside: Club deal



Source: PitchBook
*As of August 20, 2018

Club deal SBOs are more often sold to another consortium

Global SBOs (#) by seller type (2008-2017)



Source: PitchBook
*As of August 20, 2018

Notorious failures, such as TXU and Toys "R" Us, have sullied opinions on club deals. While these cases garnered inordinate media attention, sole-sponsor buyouts are actually twice as likely to go out of business or bankrupt than club deal buyouts, with this outcome occurring in 7.2% of all club deals and 14.5% of all sole-sponsor buyouts. Another point worth considering is how much more frequently club deals exit via an IPO. Many club deals are enormous, often limiting the potential buyers to another consortium, a strategic buyer or an IPO. To that end, 4.2% of sole-sponsor buyouts exit through an IPO, compared with 7.1% of all club deals.

SBOs are more prevalent among club deals than sole-sponsor buyouts, which is interesting given that most club deals are done because one financial sponsor cannot write a large enough equity check. 47.7% of club deals exit via SBO versus 37.5% for sole-sponsor buyouts. Diving one level deeper, we see how much more frequently club deals are sold to another consortium. 50.8% of club deal exits via SBOs are sold to another consortium versus 35.2% of sole-sponsor buyout exits via SBOs.

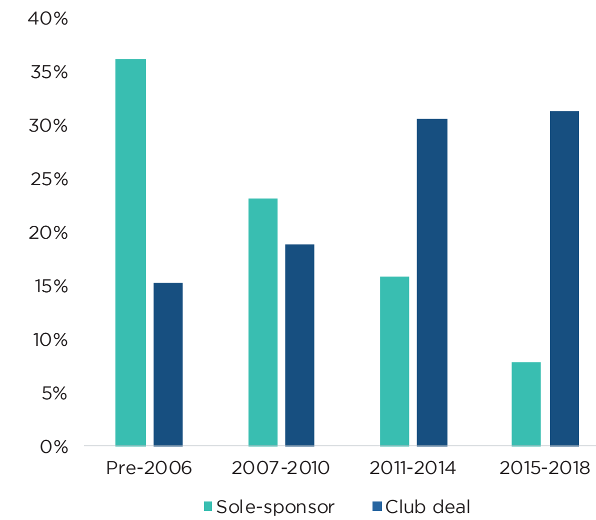
Show me the money

As important as the previous topics are, performance is what matters. To approximate change in EV—which we use as a proxy for performance—we assessed portfolio companies' change in deal size during PE ownership. Additionally, we use the IPO post-valuation as our exit value. To get a more nuanced performance picture, we broke out the results into two buckets of deal sizes: deals less than $1 billion and $1 billion+ deals. The rationale for this is that club deals tend to skew larger, and we aimed to keep the results consistent and to not compare smaller average sole-sponsor deals to larger club deals. The results for buyouts less than $1 billion show a common theme; with the exception of the 2011-2014 group, performance between the two buyout types is approximately even. True, club deals did marginally outperform in three of four periods, though perhaps the more important trend is performance steadily declining over time for both groups.

On the other side are the $1 billion+ buyouts. The data here shows an interesting story with opposing trends for club deals and sole-sponsor buyouts. Our data shows that $1 billion+ club deals have handedly outperformed sole-

Club deals match sole-sponsor buyouts as performance trends lower

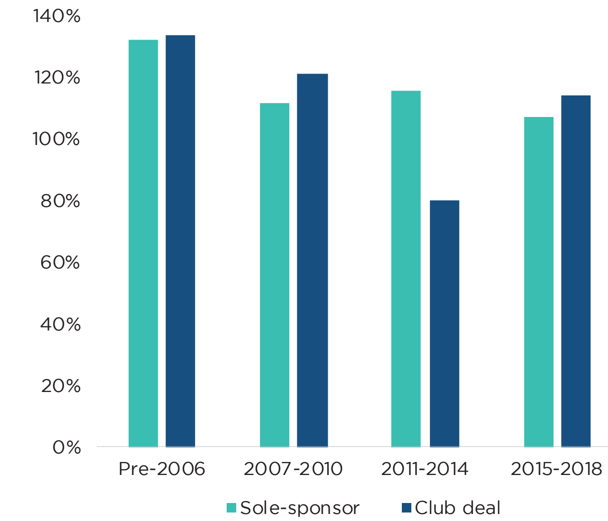
Median global % change in EV (less than $1B) by exit year



Source: PitchBook
*As of August 20, 2018

Club deals go from underperforming to outperforming sole-sponsor buyouts

Median global % change in EV ($1B+) by exit year



Source: PitchBook
*As of August 20, 2018

sponsor buyouts over the past eight years. However, sole-sponsor buyouts outperformed club deals for buyouts with an exit year of 2010 or prior. In addition, performance for club deals improved in each successive time period, while it sank for sole-sponsor buyouts.

Getty Images is a fitting example of the recent outperformance of club deals; in 2008, Hellman & Friedman and Farallon Capital Management acquired Getty via a $2.1 billion LBO. In 2012, Carlyle bought Getty Images via a $3.3 billion sole-sponsor buyout, netting the sellers a hefty gain in addition to the multiple dividend recaps Getty Images underwent along the way. Just last month, Carlyle announced it was selling the majority of Getty Images back to the Getty family for $2.6 billion ($250 million in equity sale and $2.35 billion in debt rolled over)—lowering the company's enterprise value to approximately $3 billion. The performance difference cannot be fully attributed to club deal versus sole-sponsor—timing, debt load, industry shifts and more contributed. However, additional sponsors may have assisted in the superior performance.

GPs can extract value from portfolio companies beyond simply increasing the enterprise value. Recaps, and subsequent distributions, have become a popular method for boosting performance. To that end, we find club deals now undergo twice as many recaps as sole-sponsor buyouts, meaning club deals experience additional performance that is not fully captured by change in deal size. Recently, club deals exhibit superior performance compared to similarly sized sole-sponsor buyouts and are more likely to squeeze out additional performance via a recap.

Implications for LPs and GPs

We believe it is time for LPs and GPs to go beyond the stigma and utilize data to reassess their thoughts on club deals. These multi-sponsor buyouts offer some advantages over sole-sponsor buyouts, notably a lower chance of bankruptcy or going out of business. Performance has favored larger club deals in recent years, though the benefits of smaller club deals are not so clear. In general, dealmakers should take a nuanced approach to this long-maligned strategy and increasingly infrequent type of deal.

Additive dealmaking

How add-ons affect fund performance

By Dylan Cox

Key takeaways

- **PE funds that complete more add-on transactions generate better cash-on-cash returns across most vintages.** For vintages 2000-2003, two samples of add-on-heavy funds posted median TVPIs of 2.06x and 1.89x—both outperforming the PitchBook Benchmarks' median TVPI of 1.79x over the same timeframe. We find similar outperformance for vintages 2004-2007 and 2008-2011.

- **Portfolio companies with add-ons are held longer than those without, providing more time for the GP to increase the TVPI multiple; however, add-on funds also outperform on an IRR basis.** 36.3% of add-on funds beat the top-quartile hurdle rate, while just 10.0% of funds fell into the bottom-quartile, indicating that funds that employ the buy-and-build strategy generate superior returns.

How we got here

Add-on transactions have become a ubiquitous part of the PE industry. In a prior analyst note, we dissected the growing trend, establishing a few key points:

- Nearly 30.0% of PE-backed companies now undertake at least one add-on acquisition, compared to less than 20.0% that did so in the early 2000s.

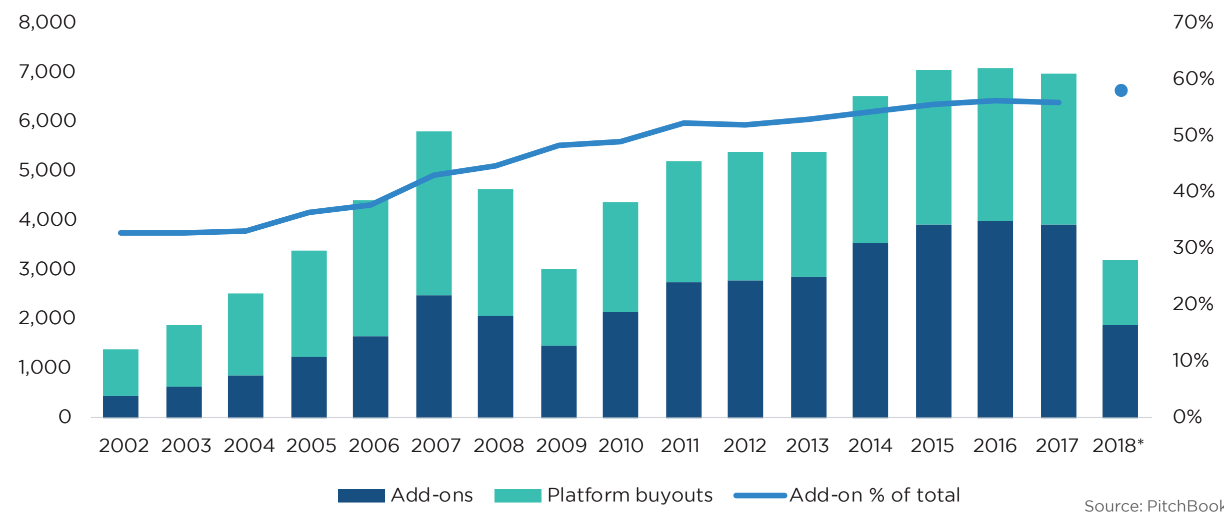
- Prolific buyers that pursue numerous add-ons per platform have been driving heightened add-on activity in recent years. More than 25.0% of add-ons are now being acquired by platforms with at least five total add-on deals.

- It takes time to execute deals and integrate businesses; as such, the median time to exit tends to be about a year longer for companies that undergo at least one add-on.

There are many reasons for the growing prevalence of add-ons. Namely, they can provide opportunities for PE firms to acquire companies at lower multiples. Often smaller than a typical platform company, add-ons allow the sponsor to "blend down" the aggregate acquisition multiple, enhancing the potential to benefit from multiple expansion once the combined, now larger entity is sold or taken public. Add-ons also allow managers to flex their operational muscles and create unique business combinations. It is now commonplace for PE firms to employ operations specialists, either in-house or through a third-party advisor, to aid in the integration of subsequent acquisitions. Similarly, operating partners, who tend to have equity stakes in the investments, often have experience at the helm of similar companies and can provide specific expertise, or at least a second opinion, throughout the course of the holding period, including the due diligence and disposition phases.

Add-ons now account for more than half of all buyouts

Add-ons (#) as proportion of global platform buyouts



Source: PitchBook
*As of June 30, 2018

GPs often tout their buy-and-build strategies as setting them apart from other buyout shops. Soundcore Capital Partners completed 20 add-ons across just two platforms as a fundless sponsor before holding a final close on a debut fund of $350.0 million. The company's third platform, a street sweeping company, has already completed five add-ons. In a recent press release, Jarrett Turner, a managing partner at Soundcore, spoke of the firm's "approach of pursuing healthy, need-to-have buy-and-build investments in highly-fragmented, niche markets" and the platform's "unlimited potential to expand into hundreds of smaller, local territories... through multiple add-on acquisitions."[1] Given that add-ons have become so widespread and that GPs will now cite add-ons as a key part of their strategy, we decided to measure how add-ons affect PE fund performance.

Methodology

To identify GPs most engaged in the buy-and-build strategy, we ranked every firm in the PitchBook database by the average number of add-ons per platform company, including only firms that have completed at least 10 deals since 2000 (to include only firms with an established track record of using a buy-and-build strategy). Next, we identified those firms that are most likely to complete add-ons (i.e. add-ons as a proportion of all buyouts). Then, we created a list of all buyout funds associated with those firms, using only the funds for which we have sufficient performance data. Attempting to capture approximately the top decile of the population and create a reasonable threshold for future analysis, we chose the buyout funds of firms that have completed at least 2.5 add-ons per platform company, leaving us with 80 "add-on funds," representing about 10.0% of the 804 total funds. Herein, we'll refer to these 80 funds as "Sample 1."

Select firms from Sample 1

Parthenon Capital Partners
Genstar Capital
KRG Capital Partners
Apax Partners
Kelso Private Equity

1: "Soundcore Capital Partners Simultaneously Closes on Third Platform and its First Bolt-On Acquisition in the Company's First Deals of 2017," PR Newswire, Soundcore Capital Partners, March 2, 2017

In addition to these funds, we created a similar list of add-on funds using slightly different criteria: buyout funds of those investors with at least 65.0% of platform companies completing one or more add-on transactions. Here, we were left with 90 funds, or just over 11.0% of the total distribution. These criteria allow us to assess the impact of add-ons while giving less weight to funds that pursue dozens of add-ons for one platform. We'll refer to these 90 funds as "Sample 2." Using the inclusion criteria in Samples 1 and 2, as well as the benchmarking techniques described in the next section, we attempted to control for potentially misleading factors including the declining absolute performance of PE funds over time and the increasing prevalence of add-ons over the same period.

Select firms from Sample 2

Genstar Capital
KRG Capital Partners
Vista Equity Partners
New Mountain Capital
Hellman & Friedman

Summary of sample inclusion criteria

	Sample 1	Sample 2
Criteria	Firm has completed at least 2.5 add-ons per platform company.	At least 65% of the firm's platform companies have at least one add-on.
Number of funds in sample	80	90

Source: PitchBook

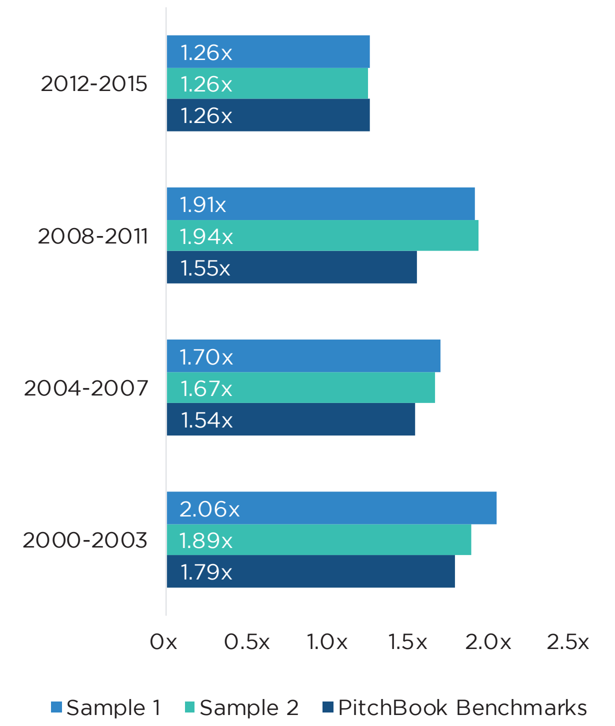
Benchmarking performance

First, it's important to address how the funds in Samples 1 and 2 differ from the greater population of funds (in this case the PitchBook Benchmarks), both in terms of size and vintage. Sample 1 comprises older and larger funds, with a median vintage year of 2008 and a median fund size of $1.7 billion. Sample 2 has a median vintage year of 2010 (the youngest of the groups) and a median fund size of $900.0 million. Meanwhile, the PitchBook Benchmarks have a median vintage of 2009 and median fund size of $810.0 million (the smallest of the groups). To assess how the samples of add-on funds perform against their peers, we first compared cash-on-cash returns, specifically TVPI, to the PitchBook Benchmarks.

Buyout funds in aggregate exhibited higher absolute returns in the early 2000s, so we decided to group vintages into four-year buckets to mitigate any early-vintage bias, while maintaining sufficient sample sizes. Using this method, we find that Samples 1 and 2 produce higher TVPIs across most vintage buckets, indicating that buy-and-build strategies have a positive effect on fund performance. For vintages 2000-2003, Samples 1 and 2 (our add-on-heavy funds) posted median TVPIs of 2.06x and 1.89x—both outperforming the PitchBook Benchmarks' median TVPI of 1.79x over the same timeframe. We find similar outperformance for vintages 2004-2007 and 2008-2011, while all three groups have a median TVPI of 1.26x for vintages 2012-2015. The trend continues across the distribution of returns, with top- and bottom-quartile funds in Samples 1 and 2 generally outperforming their respective peer group in PitchBook Benchmarks. The same is true for the best- and worst-performing funds; Samples 1 and 2 tend to have higher top- and bottom-decile hurdle rates.

Given these comparisons, it's clear that add-on-heavy funds generate better cash-on-cash returns. And while some may assume this is due to longer hold periods, add-on funds also outperform on an IRR basis.

Median TVPI by vintage



Source: PitchBook
*As of December 31, 2017

Distribution of funds by PitchBook Benchmark quartiles

	Sample 1	Sample 2
Quartile 1	36.3%	30.0%
Quartile 2	30.0%	34.4%
Quartile 3	23.8%	21.1%
Quartile 4	10.0%	14.4%
Grand total	100.0%	100.0%

Source: PitchBook
*Sample 1: n=80; Sample 2: n=90; quartiles based on terminal fund IRR as of December 31, 2017

Comparing each fund's IRR to its peer group, controlling now for vintage group and strategy (buyout funds only), we find 36.3% of funds in Sample 1 performed in the top quartile, while just 10.0% ended up in the bottom quartile of their respective peer groups, a further indication that buy-and-build strategies have a positive effect on fund performance. All in all, Sample 1 performed above-median 66.3% of the time.

When we repeat this process using Sample 2 (i.e. using the highest proportion of platform companies that have at least one add-on, instead of the average number of add-ons per platform), we get similar—albeit slightly less compelling—results. Funds from Sample 2 perform in the top quartile of their peer group 30.0% of the time, compared to finishing in the bottom quartile just 14.4% of the time. Sample 2 ended up in the top-half of its peer group 64.4% of the time.

Conclusion

As the PE marketplace becomes more competitive and prices remain elevated, the traditional tools of leverage and multiple expansion are unlikely to be sufficient for producing typical PE returns. Add-ons will be a key part of the growing focus on operational improvements, and managers are therefore likely to use their add-on strategies as a selling point with potential LPs. There are, of course, many factors to consider when making allocation decisions aside from a manager's propensity for completing add-on transactions. However, the above results indicate that LPs may benefit from including the strategy among a broader list of considerations.

Chasing the bull

Have PE and VC managers kept pace with the decade-long equity rally?

By James Gelfer

Note: For consistency, the S&P 500 Total Return Index was used to calculate all KS-PME values in this case study.

Key takeaways

- **PE managers have struggled to keep pace with the bull market in public equities.** For each vintage from 2006 to 2015, the median PE fund has failed to produce a KS-PME higher than 1.00x, indicating underperformance relative to the S&P 500.
- **The level of outperformance for top PE funds is in decline.** While the top-decile PME level crested 2.00x for multiple vintages in late 1990s and early 2000s, it has averaged 1.34x for 2006 to 2015 vintages and hasn't been above 1.50x since 2005.
- **Even top-quartile VC funds rarely beat the market.** In addition to the median PME being above 1.00x for only five vintages from 1997 to 2015, the top-quartile hurdle rate is below 1.00x for six of the 19 vintages.

Overview

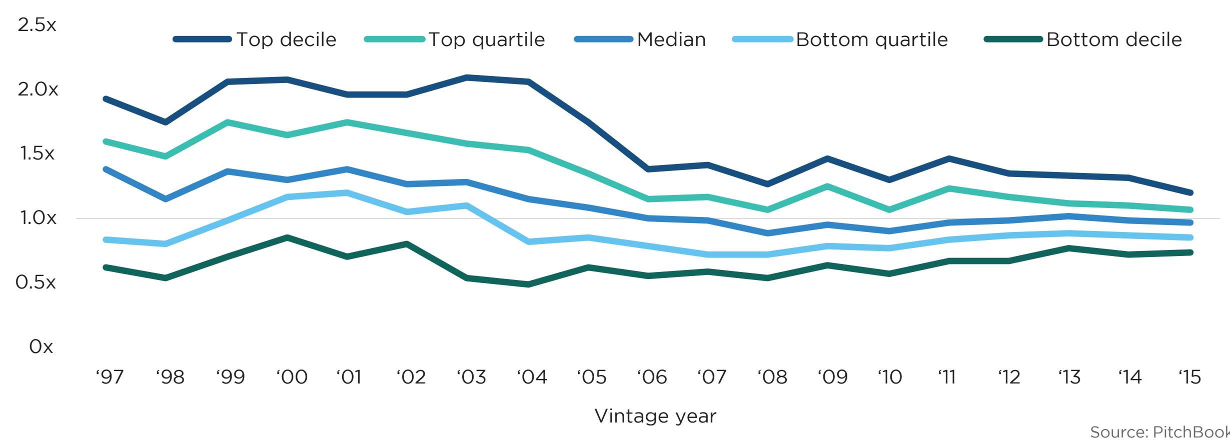
Private market funds are illiquid, charge relatively high fees and require more oversight and effort than many other investments. Therefore, the expectation is straightforward when investors commit capital to a private capital fund: to generate returns superior to less costly investment strategies, namely public equity. But determining whether an investor would be better off investing in a private capital fund or something else is not as straightforward as it may seem.

The primary challenges in measuring private capital performance are illiquidity and unpredictable timing of cash flows. IRR has long been the industry's standard, but it is seldom used to assess other asset classes—making comparisons difficult—not to mention its laundry list of flaws thoroughly documented by academics and industry professionals. Cash multiples are helpful and easy to understand but also prove insufficient for cross-asset comparisons, as they fail to adequately account for sporadic timing of cash flows for private market strategies.

While lesser known outside private capital markets, PMEs have become the preferred method for most academics and many leading industry professionals to assess performance. An ongoing question for allocators of capital is what role manager selection plays in the overall performance of a private markets strategy. For this case study, we've calculated individual PMEs for each fund included in PitchBook Benchmarks to provide a more comprehensive picture of how private capital's performance relative to public equities has evolved.

Relative PE performance has fallen for more recent vintages

Global PE KS-PME percentiles



Source: PitchBook
*As of December 31, 2017

Private equity: Are the good times gone?

Starting with PE, we find that for vintages in the late 1990s and early 2000s, 60%-85% of funds produced a PME of 1.00x or greater, which indicates outperformance. Even the bottom-quartile PME exceeded 1.00x in certain years, underscoring the widespread ability of managers to beat the market. But performance has been less rosy for more recent vintages, which have struggled to keep pace with the incessant rise in public equities.

Whereas an investor in PE two decades ago could essentially pick a GP at random and have a better than 75% chance of "beating the market," for vintages since 2006 those odds are worse than a coinflip. As the average return for PE funds has moved lower, so too has the potential for outsized returns. Indeed, while the top-decile PME level crested 2.00x for multiple vintages in late 1990s and early 2000s, it hasn't been above 1.50x since 2005. So not only are fewer managers beating the market, but their level of outperformance has shrunk too.

This systematic downturn in PME values is being driven by developments on both sides of the equation. On one side is the decade-long bull run in equity markets, with the S&P 500 having posted gains each year since 2009. Another factor is that the average returns on an absolute basis for PE funds have fallen due to a confluence of factors, with the most important being heightened competition that has elevated purchase-price multiples.

The question is whether this sea change will prove cyclical or structural as markets turn. Over the next decade, Morningstar predicts US stocks will post nominal returns of just 1.8% while Vanguard has a slightly more optimistic target of 3%-5%.[1] And while PE returns seem unlikely to revert to the levels seen in the early days of the industry, certain managers have exhibited the ability to consistently outperform both the public equity markets and their peers.

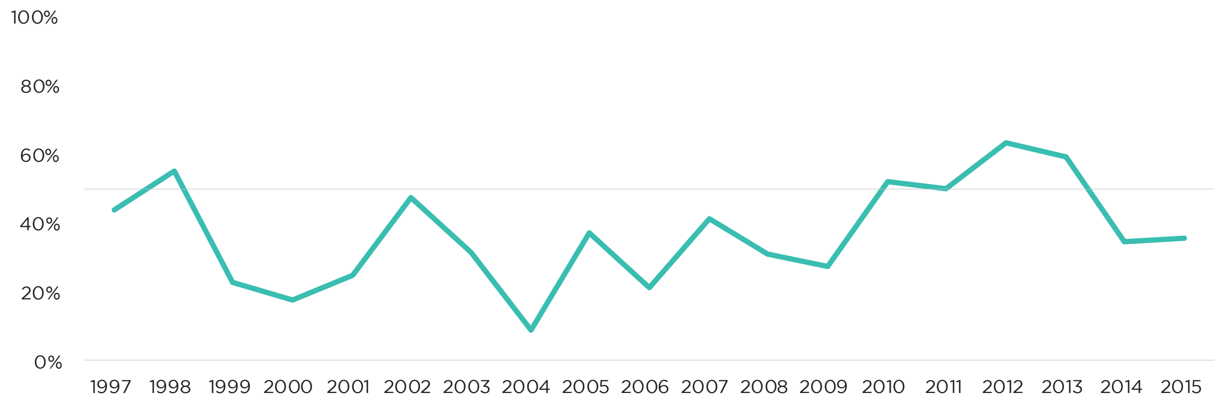
Venture capital: Swinging for the fences

VC investors often use baseball metaphors when discussing performance. Deals are often categorized as strikeouts and homeruns, with VCs expecting outsized successes to carry the performance of the fund.

1: "Experts Forecast Long-Term Stock and Bond Returns: 2018 Edition," Morningstar, Christine Benz, January 8, 2018

In recent vintages, the average PE manager has failed to beat the market

Proportion of global PE funds with a KS-PME > 1



Source: PitchBook
*As of December 31, 2017

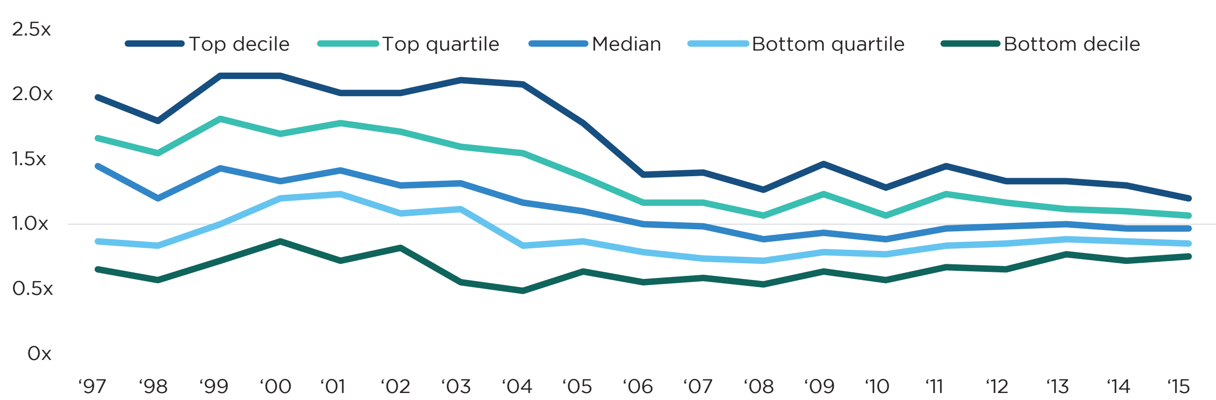
The data suggests that this metaphor holds for LPs committing to VC funds too. The median PME is above 1.00x for only five vintages from 1997 to 2015, four of which occur post-2010 (i.e. vintages with mostly paper gains). This indicates that when LPs are selecting VC funds, it takes a fair amount of skill (and maybe some luck) just to keep pace with public equity markets.

But even choosing a top-quartile fund may not prove a compelling enough proposition to warrant the requisite time and resources associated with VC investing; the top-quartile hurdle rate is below 1.00x for six of the 19 vintages in our sample. The bottom-quartile hurdle rates underscore the significant risk of substantial underperformance. In the PE data, the lowest bottom-quartile PME hurdle rate was 0.72x, while it dipped as low as 0.28x for VC funds. Performance has been better for more recent vintages, but it is important to remember that many of their holdings have yet to be exited and, therefore, we will not know the true performance of these vehicles for many years.

For LPs committing to VC funds, it is important to understand that any particular fund will likely underperform a plain vanilla allocation to public equity markets. But simply beating the market generally isn't the modus operandi for VC investments, and LPs should be seeking not just the top-decile managers, but those at the very top of the distribution. Just as VCs aspire to find the next Google or Facebook, LPs should commit capital with the intent of identifying the next Accel V or Union Square Ventures 2004.

Only the top VC funds tend to outperform

Global VC KS-PME percentiles



Source: PitchBook
*As of December 31, 2017

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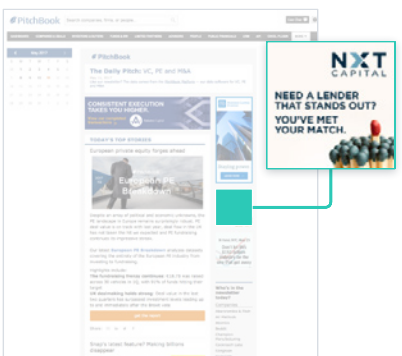

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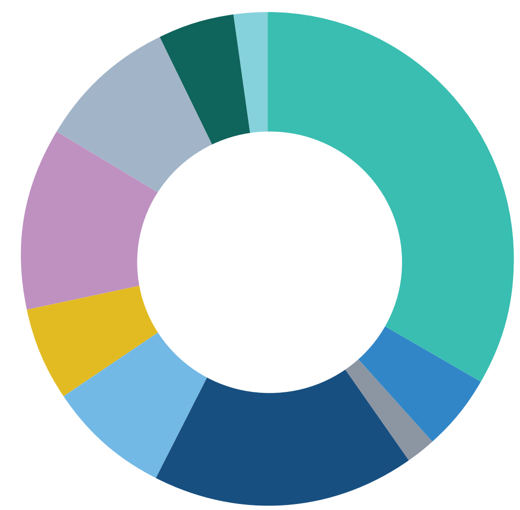

Readership by title/position

- **28%** – C-level/president
- **15%** – VP/SVP/EVP
- **13%** – Partner/principal
- **12%** – Director/executive
- **7%** – Founder
- **6%** – Managing director
- **5%** – Associate/specialist
- **4%** – Manager
- **3%** – Chairman/board member
- **3%** – Analyst
- **2%** – Advisor
- **2%** – Attorney
- **1%** – Owner/shareholder

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